# Smut fungi in Africa – a checklist

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**Abstract.** The checklist of the smut fungi of Africa and adjacent islands contains 427 species in 47 genera, arranged alphabetically. A short description of each genus is provided. For each species the author(s), place of publication, type(s), nomenclatural and taxonomic synonyms are given, as well as the host plant family, host plant genus (genera), and general distribution are mentioned. For each species the African host plants and the countries from where they are known are enumerated. A chapter of doubtful, excluded or invalidly published taxa is compiled. A list of selected literature is completing the paper. The checklist reflects the great, but incompletely known biodiversity of Africa.

**Key words:** Africa, biodiversity, smut fungi, taxonomy

## Introduction

The checklist includes 427 species of smut fungi (*Basidiomycota*) of Africa and adjacent islands, e.g., Canary I., Cape Verde I., Madagascar, Madeira, Mauritius, Reunion, Seychelles, Socotra Island, and Zanzibar. The genera, and the species within each genus, are arranged alphabetically. The aim of this list is to give an account of the smut fungi of this continent. The list is based mainly on specimens preserved in Herbarium *Ustilaginales* Vánky (H.U.V.), many of them collected by K. Vánky and his family, but also on specimens held in other herbaria which were accessible for study. Also fragments of innumerable African specimens, many of them types, obtained from the late Prof. Zambettakis (PC), facilitated the preparation of this list. Data from the literature were taken into consideration if there was no or only little doubt about the correctness of both host plant and fungus identification. The aim of this list is also to pave the way towards smut fungus monographs of various African countries.

The smut fungi of Africa are relatively little known. This is evident from the great number of smut fungi collected only once (90 species = 21%). The great number of new smut fungi, which can be found during a 3–4 weeks long collecting trip in regions with good vegetation, towards the end of the rainy period is also an evidence for the fact that the smut fungi of Africa are poorly known. The number of still undescribed species must be very large. Unfortunately, due to the "population explosion", many natural habitats disappear being used for agriculture. With their natural habitats, numerous species of plants and animals becomes extinct. According to the report of the World Conservation Union, at least further 11 167 species of plants and animals face a high risk of extinction soon. In this number no microscopic creatures are included. The "explosion" of human population and increased consumption of food during the 20$^{th}$ century are resulting in an entirely new environmental crisis in the history of humankind and the world.

Numerous botanists and mycologists collected smut fungi in different parts of Africa, often accidentally, but also systematically. To this last group belong, i.a., E.M. Doidge (South Africa), J.C. Hopkins (S Rhodesia, = Zimbabwe), R. Maire (Algeria, Morocco), I.B. Pole-Evans (South Africa), H. Vanderyst (Congo), K. Vánky, C. Vánky & T. Vánky (Cameroon, Ethiopia, Gambia, Kenya, Lesotho, Malawi, Morocco, Reunion, South Africa, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe), and G. Viennot-Bourgin (Guinea, Madagascar, and Madeira).

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New species were described by numerous authors but only few compiling papers have been published about smut fungi from Africa, including short lists. The following authors are mentioned:

- Ainsworth (1941) published 25 smut fungi from Uganda, of which 3 are new species.
- Beeli (1922a, b), published microfungi from Congo, collected mainly by H.J.R. Vanderyst, including smut fungi. He described also several new taxa.
- Castellani and Ciferri (1937) published 35 smut fungi from NE Africa (today Ethiopia and Eritrea).
- Doidge (1950) published a detailed list of 125 South African smut fungi with their host plants, synonyms and collection data.
- Duke (1926) enumerated 9 smut fungi from Kenya, of which one was a new species.
- Foko (1974) mentioned 8 smut fungi from Cameroon.
- Guyot, Malençon, and Massenot (1955, 1958, 1960, 1969) collected and published a great number of smut fungi from the Mediterranean area, including North Africa, between them many new species.
- Hennings, in his papers (1892, 1893a, b, 1895a, b, c, 1898a, b, 1901, 1905, 1907a, b, c, 1908) published smut fungi from Africa, describing several new species.
- Hopkins (1938) listed 19 smut fungi from Rhodesia, together with their host plants and brief collection details.
- Kukkonen and Gjærum (1977), treating the seven "*Cintractia*" (= *Ustanciosporium*) species on *Scleria,* described two new species from Africa.
- Maire (1905, 1906a, b, 1907, 1909, 1914, 1915a, b, c, 1916, 1917a, b, c, 1919a, b, 1921, 1926, 1927, 1929, 1931a, b) published numerous smut fungi from North Africa, between them many new species.
- Maire and Werner (1937), published 57 smut fungi from Morocco, including two new species.
- Piątek and Vánky (2005, 2007), and Piątek *et al.* (2008) published three new species from Africa.
- Rothwell (1983) updated Whiteside (1966), including 3 additional smut fungi from Zimbabwe.
- Vánky (1995a, b, 1996, 1997a, b, c, 1999a, b, 2000a, b, 2001, 2002a, 2003a, b, 2004, 2005a, b, 2006a, b, 2008, 2009, 2010) published a great number of smut fungi from Africa, between them 25 new species.
- Vánky (2005c) published 63 smut fungi from Ethiopia and Eritrea belonging to 19 genera, on 69 host plant species.
- Vánky, K. and C. (2002), in their checklist, published 116 species of smut fungi, belonging to 20 genera from Malawi, Zambia, and Zimbabwe.
- Viennot-Bourgin published smut fungi from Africa, especially from Madeira, Guinea, and Madagascar (1937, 1938, 1939, 1946, 1951, 1952, 1957, 1958, 1959, 1963a, b), describing several new species.
- Whiteside (1966), based on collections held by the "Plant Pathology Section of the Rhodesian Ministry of Agriculture", published a revised list of plant diseases in Rhodesia (Zimbabwe), which included 39 smut fungi on 43 host plants, but without date of collection.
- Zambettakis (1963, 1968, 1970, 1971, 1973, 1977, 1980) published numerous smut fungi from Africa, between them also several new species.
- Zambettakis and Foko (1971) published a new *Mycosyrinx* (= *Geminago*) from Cameroon.
- Zundel (1930, 1931, 1937, 1938, 1939, 1943, 1944, 1953) published a great number of smut fungi from different parts of Africa, between them many new species. He also prepared a monograph of the *Ustilaginales* of South Africa and adjacent territories (Zundel 1938) in which 117 species are treated.

The sole attempt to compile a smut fungus mycota of Africa was made by Zambettakis (1970, reprinted in 1971, and supplemented in 1980). Unfortunately, the richly illustrated papers with beautiful drawings of diseased plants and spores, are of little use. Not only because they abound in inaccuracy and faults, but especially because the descriptions and illustrations in most of the cases cannot be referred to a certain specimen; many times representing another species than the indicated one.

Because of repeated changes in names of administrative territories, and also borders, many specimens are difficult to attribute to a certain country. Therefore, often names of localities of the original publications are retained. For simplicity, for the names of Belgian Congo, Zaire, and Democratic Republic of Congo, we are using the name Congo, or for Union of South Africa and Republic of South Africa, the name South Africa or S Africa.

## Checklist

**I.** ***ANTHEROSPORA*** R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1300, 2008.

**Sori** in the flowers, usually in the anthers, but also on filaments, gynoeceum or in the ovaries of host plants in *Hyacinthaceae* (*Liliaceae* s. lat.), lacking peridium and columella. Spore mass blackish brown, powdery. Infection systemic, all flowers of an inflorescence affected. **Spores** single, pigmented (yellowish brown, without violet tint, orange or rusty colour). **Sterile cells** absent. **Spore germination** results in phragmobasidia.

*Antherospora* has eight known species of which seven occur in Africa.

Type: *A. vaillantii.*

1. ***Antherospora albucae*** (Syd. & P. Syd.) R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1300, 2008. — *Ustilago albucae* Syd. & P. Syd., in Mildbraed, Wissensch. Ergebn. Deutsch. Zentral-Afrika Exped. 1907–1908, Bd. **2**: 95, 1914. — Type on *Albuca* sp., Rwanda, Buganza, S of the

Lake Mohasi, 28.VII.1907, collector unknown, no. 610 (type lost in B).

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Albuca* spp.; Africa.

**AFR:** on *Albuca altissima* Dryand., *A. fastigiata* Dryand., *Albuca* sp.; **Rwanda, S Africa.**

2. ***Antherospora eucomis*** Vánky, Mycotaxon **110**: 293, 2009. — Type on *Eucomis punctata*, South Africa, Cape Prov., Kentani Distr., Kentani, 12.XII.1914, A. Pegler, H.U.V. 18257(!); isotype PREM 8795. Paratype ibidem, 12.XII.1911, A. Pegler, PREM 2001(!); isoparatype BPI 169328(!).

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Eucomis punctata* (Thunb.) L'Hér.; S Africa.

**AFR:** *Eucomis punctata,* **S Africa.**

3. ***Antherospora peglerae*** (Bubák, Syd. & P. Syd.) R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1301, 2008. — *Ustilago peglerae* Bubák, Syd. & P. Syd., in Sydow & Sydow, Ann. Mycol. **12**: 264, 1914. — Type on *Ornithogalum lacteum,* South Africa, Cape Prov., Kentani, 12.XI.1913, A. Pegler, PREM 7101; isotypes BPI 165256–165259, H.U.V. 18240(!).

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Ornithogalum* spp.; Africa.

**AFR:** *Ornithogalum lacteum* Jacq., *O. sordidum* Baker, *O. tenuifolium* F. Delaroche (*O. ecklonii* Fisch. & C.A. Mey.), **S Africa, Uganda.**

4. ***Antherospora scillae*** (Cif.) R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1301, 2008. — *Ustilago scillae* Ciferri, Ann. Mycol. **29**: 24, 1931. — Lectotype on *Scilla bifolia* L., Germany, Baden, Rastatt, "Ottersdorfer Wald", IV–V.1875, J. Schröter (design. by Vánky 1985: 249), H.U.V. 4934(!). Isolectotypes in Rabenhorst, Fgi. eur. no. 2098 (as "*U. vaillantii* forma *scillae-bifoliae*").

*Ustilago vaillantii* Tul. & C. Tul. forma *scillae-bifoliae* J. Schröt., in Rabenhorst, Hedwigia **15**: 109, 1876 (nom. nud.). — Type on *Scilla bifolia* L., Czech Rep., near Brno [olim Brünn].

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Scilla* spp.; Europe, Africa, Asia, N America.

**AFR:** *Scilla* sp., **Egypt, S Africa, Zambia.**

5. ***Antherospora tourneuxii*** (A.A. Fisch. Waldh.) R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1302, 2008. — *Ustilago vaillantii* Tul. & C. Tul. var. *tourneuxii* A.A. Fisch. Waldh., Verh. Bot. Vereins Prov. Brandenburg **22**: 65, 1880. — *U. tourneuxii* (A.A. Fisch. Waldh.) Maire, in Recueil de Traveaux Cryptogamiques dédiés à Louis Mangin: 358, 1931. — *Yenia tourneuxii* (A.A. Fisch. Waldh.) T.N. Liou, Contr. Inst. Bot. Natl. Acad. Peiping **6**: 45, 1949. — Type on *Bellevalia trifoliata,* Egypt, Mariut near Alexandria, 20.II.1880, P. Ascherson.

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Bellevalia* spp.; Europe, Africa, Asia, N America.

**AFR:** *Bellevalia mauritanica* Pomel, *B. trifoliata* (Ten.) Kunth, **Algeria, Egypt, Morocco.**

6. ***Antherospora urgineae*** (Maire) R. Bauer *et al.,* in Bauer *et al.,* Mycol. Res. **112**: 1304, 2008. — *Ustilago urgineae* Maire, in Recueil de Traveaux Cryptogamiques dédiés à Louis Mangin: 359, 1931. — Lectotype on *Urginea maritima* (design. by Vánky 1991: 166), Morocco, Larache, 10.XII.1929, R. Maire, Herb. Maire 9956, MPU(!).

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Urginea maritima* (L.) Baker (*Scilla maritima* L., *U. anthericoides* (Poir.) Steinh., *U. scilla* Steinh.); S & E Mediterranean area.

**AFR:** *Urginea maritima*, **Algeria, Morocco.**

7. ***Antherospora vaillantii*** (Tul. & C. Tul.) R. Bauer *et al.,* **s. lat.,** in Bauer *et al.,* Mycol. Res. **112**: 1304, 2008. — *Ustilago vaillantii* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 90, 1847. — *Yenia vaillantii* (Tul. & C. Tul.) Liou, Contr. Inst. Bot. Natl. Acad. Peiping **6**: 45, 1949. — *Vankya vaillantii* (Tul. & C. Tul.) Ershad, Rostaniha **1**: 69, 2000. — Lectotype (design. by Lindeberg 1959: 141) on *Muscari comosum,* France, coll. S. Vaillant, PC(!).

*Ustilago vaillantii* forma *muscari* Rabenhorst, Hedwigia **15**: 109, 1876 (nom. nud.). — On *Muscari comosum*, Czech Rep., near Brünn [Brno], V–VI.1875, G. Niessl, in Rabenhorst, Fgi. eur. no. 2097, H.U.V. 4900(!).

*Ustilago muscari-botryoidis* Ciferri, Ann. Mycol. **26**: 14, 1928. — Type on *Muscari botryoides* (L.) Mill., Italy, Piemonte, Cuneo Prov., Alba Distr., Moretta, "verso Santa Rosalia", 1921, R. Ciferri (type not found; syn. by Vánky 1985: 249).

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Muscari* spp.; Europe, Africa, Asia, N America.

**AFR:** *Muscari comosum* (L.) Mill., *Muscari* sp., **Algeria, Egypt, Morocco.**

**II.** ***ANTHRACOIDEA*** Bref., Unters. Gesammtgeb. Mykol. **12**: 144, 1895.

**Sori** in and around ovaries of *Cyperaceae,* globose to elongate-ovoid, composed of nutlets surrounded by black, firmly agglutinated spore mass, originally covered by a thin, greyish or silvery fungal membrane. **Spores** single, pigmented (dark brown), globose, ovoid to more or less irregular, subpolyhedral, often flattened, relatively large (average length 13-31 µm). Spore wall usually ornamented with warts, spines or granules, rarely smooth, often with internal swellings or light-refractive areas. **Spore germination** results in two-celled basidium forming one or more basidiospores on each cell. **Anamorph:** *Crotalia* Liro, present in some species.

About one hundred *Anthracoidea* species are known of which two in Africa.

Type: *A. caricis.*

8. ?***Anthracoidea heterospora*** (B. Lindeb.) Kukkonen, Ann. Bot. Soc. Zool.-Bot. Fenn. 'Vanamo' **34**(3): 63, 1963.

*Cintractia caricis* var. *acutarum* Savile, Canad. J. Bot. **30**: 425, 1952.

On *Cyperaceae: Carex* (subgen. *Carex,* sect. *Phacocystis* = *Acutae*) spp.; Europe, Africa, Asia, Australasia, N & S America.

**AFR:** Zambettakis (1978: 69) mentioned this smut on "*Carex sphacelata* (*C. aquatilis*)" from **Nigeria**. According to K.A. Lye (pers. comm.) the only similar plant in tropical Africa is *Carex acutiformis* Ehrh.

9. ***Anthracoidea kukkonenii*** Vánky, Mycotaxon **32**: 245, 1988. — Type on *Carex distachya,* Algeria, Castiglione, 29.III.1925, H. Humbert, Herb. Maire 8646, MPU(!).

On *Cyperaceae: Carex* (subgen. *Indocarex*) *distachya* Desf.; S Europe, N Africa.

**AFR:** *Carex distachya*, **Algeria.**

**III.** ***AURANTIOSPORIUM*** M. Piepenbr., Vánky & Oberw., Pl. Syst. Evol. **199**: 62, 1996.

**Sori** in spikelets of Cyperaceae producing hypertrophy. Spore mass orange-yellow to rusty brown, granular-powdery, composed of loose or permanent spore balls. **Spores** more or less irregular, pigmented (yellow to yellowish red). Spore wall usually of irregular thickness, multilayered. **Spore germination** results in phragmobasidia bearing sessile basidiospores.

Five species of *Aurantiosporium* are known of which three occur in Africa.

Type: *A. subnitens.*

10. ***Aurantiosporium marisci*** Vánky & C. Vánky, in Vánky, Mycotaxon **70**: 17, 1999. — Type on *Mariscus thunbergii,* South Africa, Western Cape Prov., Tsitsikamma National Park, Nature's Valley, alt. c. 2 m, 19.XII.1996, C. & K. Vánky, H.U.V. 18031(!); isotypes in PREM, BPI 806276, Vánky, Ust. exs. no. 1001.

On *Cyperaceae: Mariscus thunbergii* (Vahl) Schrad.; S Africa. Known only from the type collection.

**AFR:** *Mariscus thunbergii,* **S. Africa.**

11. ***Aurantiosporium scleriae*** Vánky, Mycotaxon **81**: 403, 2002. — Type on *Scleria flexuosa,* Malawi, Northern Prov., 98 km NW of Mzuzu, 32 km W of Rumpi, alt. c. 1230 m, 21.IV.2001, C., T. & K. Vánky, H.U.V. 19629(!); isotypes in Vánky, Ust. exs. no. 1132. Paratype: Malawi, Northern Prov., Nyika National Park, 10 km W Chelinda Camp, alt. c. 2400 m, 22.IV.2001, C., T. & K. Vánky, H.U.V. 19630(!).

On *Cyperaceae: Scleria flexuosa* Böckeler; C Africa. Known only from the type collections.

**AFR:** *Scleria flexuosa,* **Malawi.**

12. ***Aurantiosporium subnitens*** (J. Schröt. & Henn.) M. Piepenbr., Vánky & Oberw., Pl. Syst. Evol. **199**: 62, 1996. — *Ustilago subnitens* J. Schröt. & Henn., in Hennings, Hedwigia **35**: 215, 1896. — *Cintractia subnitens* (J. Schröt. & Henn.) Castellani & Cif., Prodromus mycoflorae Africae Orientalis Italicae. Firenze: 29, 1937. — Type on *Scleria pratensis* Lindl. ex Nees (= *S. melaleuca* Reichb. ex Schltdl. & Cham.), Brazil, State Rio de Janeiro, V.1887, E. Ule 1604, HBG(!).

*Aurantiosporium colombianum* M. Piepenbr., Caldasia **24**: 105, 2002. — Type on *Scleria lagoensis* Boeck., Colombia, Magdalena Div., Santa Marta, 1898–1899, Smith 237, COL; isotype BPI 840957(!).

On *Cyperaceae: Scleria* spp.; Africa, C & S America.

**AFR:** *Scleria schimperiana* Boeck., *S. hispidula* Hochst. ex A. Rich., **Ethiopia.**

**IV.** ***BAUERAGO*** Vánky, Mycotaxon **70**: 44, 1999.

**Sori** in seeds of *Commelinaceae, Cyperaceae,* and *Juncaceae,* peridium and columellae absent, spore mass powdery. **Spores** solitary, yellow to rusty brown, lacking violet tint (excepting for *B. boliviana*), sterile cells lacking between the spores. **Spore germination** results in phragmobasidia with sessile basidiospores. **Anamorph** may be present.

Nine species of *Bauerago* are known of which one from Africa.

Type: *B. abstrusa.*

13. ***Bauerago capensis*** (Reess) Vánky, Mycotaxon **70**: 44, 1999. — *Ustilago capensis* Reess, in Buchenau, Abh. Naturwiss. Vereins Bremen **4**: 486, 1875; Sitzungsber. Phys.-Med. Soc. Erlangen **7**: 70, 1875; Hedwigia **14**: 109, 1875. — *Cintractia capensis* (Reess) Cif., Ann. Mycol. **29**: 72, 1931. — Type on *Juncus capensis* var. *longifolius,* South Africa, Cape of Good Hope, mountains at Cape Town, alt. c. 2000 feet, coll. M. Reess.

On *Juncaceae: Juncus* spp.; S Africa.

**AFR:** *Juncus capensis* Thunb., and its var *longifolius* Eckl. & Zeyher, *J. lomatophyllus* Sprengel, **S. Africa.**

**V.** ***CINTRACTIA*** Cornu, Ann. Sci. Nat. Bot., Sér. 6, **15**: 279, 1883.

**Sori** surrounding the floral axis, less often the ovaries of plants in *Cyperaceae,* subglobose to cylindrical, at first covered by a white or brown fungal peridium that flakes away to expose the blackish brown or black, semi-agglutinated spore mass. **Spores** single, dark, formed on a mycelial stroma. **Spore germination** with phragmobasidia, the cells often conjugating.

Eleven species of *Cintractia* are known of which three also from Africa.

Type: *C. axicola.*

14. ***Cintractia axicola*** (Berk.) Cornu, Ann. Sci. Nat. Bot., Sér. 6, **15**: 279, 1883. — *Ustilago axicola* Berk., Ann. Mag. Nat. Hist., Ser. 2, **9**: 200, 1852. — Type on "some scirpoid plant" (= *Fimbristylis dichotoma,* det. K. Vánky), Dominican Republic, Santo Domingo, coll. M.A. Sallé 74, Herb. Berkeley no. 4745, K(!).

*Ustilago fimbristylis* Thüm., Bull. Torrey Bot. Club **6**: 95, 1876. — Type on *Fimbristylis autumnalis* (L.) R. & S., USA, Virginia (sine loco), comm. F. von Müller, H.U.V.

404(!) (syn. by Clinton 1902: 129, and by Ling 1950: 646).

*Ustilago peribebuyensis* Speg., Anales Soc. Ci. Argent. **17**: 89, 1884. — *Cintractia peribebuyensis* (Speg.) Speg., Anales Soc. Ci. Argent. **26**: 11, 1888. — *C. peribebuyensis* (Speg.) Sawada, Rep. Dept. Agric. Gov. Res. Inst. Formosa **2**: 80, 1922 (comb. superfl.). — *C. axicola* f. *peribebuyensis* (Speg.) Zambett., Bull. Soc. Mycol. France **95**: 414, 1980. — Type on "*Cyperus* sp." (= *Fimbristylis diphylla;* = *F. dichotoma,* det. Ling 1950: 647), Paraguay, Mts. Cordillera de Peribebuy, 25.III.1883, B. Balansa 3775, LPS 3190 (syn. by Ling 1948: 255, 1950: 646).

*Cintractia suedae* Sawada ex S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 91, 1935. — *Anthracoidea suedae* (Sawada ex S. Ito) Vánky, in Vánky & Guo, Acta Mycol. Sinica, Suppl. **I**: 233, 1987. — Type on *Fimbristylis tikushiensis* Hayata, and *F. diphylla* (Retz.) Vahl, Taiwan, Taipeh, 12.IX.1920, H. Sueda. Paratype TNS; isoparatype H.U.V. 13591(!) (syn. by Ling 1949: 264 & 1950: 647).

*Cintractia fimbristylis-kagiensis* Sawada ex S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 91, 1935. — Type on *Fimbristylis kagiensis* Hayata, Taiwan, Taichung, 11.X.1913, Y. Fujikuro, TNS; isotypes BPI 171549, 171550, H.U.V. 16629(!) (syn. by Ling 1949: 264, 1950: 647).

*Cintractia fimbristylis-kagiensis* var. *fukienensis* Y. Ling & T.L. Chen, Res. Bull. Inst. Zool. Bot. Fukien Acad. **1**: 17, 1945. — Type on *Fimbristylis schoenoides* Vahl, China, Fukien, Yungan, Moping, 10.IX.1942, T.L. Chen 292 (syn. by Ling 1949: 264).

*Cintractia pilulifera* Y. Ling & T.L. Chen, Res. Bull. Inst. Zool. Bot. Fukien Acad. **1**: 17, 1945. — Type on *Fimbristylis diphylla* var. *pluricostata* Clarke, China, Fukien [= Fujian] Prov., Yungan, Moping, 10.IX.1942, T.L. Chen 292. (Obs. Site, data and number of collection identical with those of *C. fimbristylidis-kagiensis* var. *fukienensis*).

*Cintractia peribebuyensis* (Speg.) Speg. var. *major* Pavgi & Mundk., Indian Phytopathol. **1**: 109, 1948(1949). — Type on *Cyperus* sp. (= *Fimbristylis* sp., Ling 1950: 648), India, Madras, Cocanada, XII.1906, S. Sundararaman 78, HCIO; isotype H.U.V. 15466(!) (syn. by Ling 1950: 647).

*Cintractia mundkurii* Chowdhury, Indian J. Agric. Sci. **14**: 231, 1944. — Type on *Fimbristylis diphylla* (= *F. dichotoma*), India, Assam, Habiganj, 7.III.1942, S. Chowdhury, HCIO (syn. by Ling 1950: 647).

On *Cyperaceae: Fimbristylis* spp.; in the tropics and subtropics, cosmopolitan.

**AFR:** *Fimbristylis annua* (All.) R. & Sch., *F. dichotoma* (L.) Vahl (*F. diphylla* (Retz.) Vahl), *F. glomerata* Nees, **Cameroon, Congo, Ethiopia, Gabon, Ivory Coast, Madagascar, Malawi, Sierra Leone, Socotra I., S. Africa, Uganda, Zambia.**

Doidge (1950: 377) mention this smut in the inflorescence of *Fimbristylis exilis* (H. B. K.) Roem. & Schult. (= *Bulbostylis hispidula* (Vahl) R. Haines). Most probably it refers to *Ustanciosporium kuwanoanum* (Togashi & Maki) Vánky.

15. ***Cintractia limitata*** G.P. Clinton, Proc. Boston Soc. Nat. Hist. **31**: 399, 1904. — Type on *Cyperus ligularis* L., Puerto Rico, Mayaguez, 23.IV.1904, G.P. Clinton, NHES.

*Cintractia axicola* (Berk.) Cornu var. *minor* G.P. Clinton, J. Mycol. **8**: 143, 1902. — *C. minor* (G.P. Clinton) Jackson, Mycologia **12**: 153, 1920. — Type on *Cyperus grayii,* USA, New Jersey, Sandy Hook, 15.VIII.1889, B.D. Halstead; isotypes in Ellis & Everhart, N. Amer. fgi. no. 2423, BPI 170392, and in Ellis & Everhart, N. Amer. fgi. ser. 2, no. 1423, BPI 157952 (syn. by Ling 1950: 649).

*Cintractia togoensis* Henn., Bot. Jahrb. Syst. **38**: 119, 1905. — Type on *Cyperus* sp. (= *C. macrocarpus* var. *pseudoflavus,* = *C. cyperoides*), West Africa, Cameroon, Togo, Lome, IV.1900, Warnecke 118, NHES; isotypes BPI 172250 & 194443 (syn. by Ling 1950: 649).

*Cintractia congensis* Henn., in Wildeman, Ann. Mus. Congo, Sér. 5, Bot. **2**: 87, 1907. — Type on *Cyperaceae* (= *Cyperus esculentus,* det. Ling 1950: 651), Congo, Kelomila, km 340 on the rail-way from Matadi to Léopoldville, 19.V.1906, H. Vanderyst 105, BR; isotypes BPI 194437, H.U.V. 16381(!) (syn. by Ling 1950: 649).

*Cintractia tangensis* Henn., Bot. Jahrb. Syst. **38**: 103, 1907. — Type on *Cyperus* sp., Tanganyika Territory [Tanzania], Usambara, Tanga, 9.VII.1903, F. Eichelbaum 89, HBG (syn. by Piepenbring 2000: 307).

*Cintractia cyperi-polystachyi* Henn., Hedwigia **47**: 250, 1908; Philipp. J. Sci., Ser. C., Bot. **3**: 41, 1908. — Type on *Cyperus polystachyus* Rottb., Philippine Islands, Manila, VIII.1906, E.D. Merrill 5195, NY (syn. by Ling 1950: 651).

*Cintractia chacoensis* Hirschh., Notas Mus. La Plata, Bot. **6**: 479, 1941. — Type on *Cyperus rotundus,* Argentina, Chaco, Resistencia, V.1940, C. Carrera, LPS 4923; isotype Herb. E. Hirschhorn no. 859 (syn. by Ling 1950: 651).

*Ustilago mariscana* Zundel, Mycologia **35**: 165, 1943. — Type on *Mariscus sieberianus,* South Africa, Natal Prov., Melmoth Distr., Infulazane, 1.XII.1919, A.O.D. Mogg 6096, PREM 33062; isotypes BPI 140941& 163298, H.U.V. 18199 (syn. by Ling 1950: 651).

*Cintractia distans* Mundk., Indian J. Agric. Sci. **14**: 50, 1944 (as "*disvans*"). — Type on *Cyperus distans* Willd. ex Kunth, India, Bengal, Dacca [Bangladesh, Dhaka], VIII.1940, P. Maheshwari, HCIO 7727; isotype H.U.V. 15461(!) (syn. by Ling 1950: 651).

*Cintractia limitata* G.P. Clinton var. *congoensis* Zambett., Bull. Soc. Mycol. France **95**: 410, 1980. Invalid name, no Latin dg. (ICBN 36.1). — On *Cyperus esculentus*, Congo, Kilamita, V.1906.

On *Cyperaceae: Cyperus, Kyllinga,* and *Mariscus* spp.; tropics and subtropics, cosmopolitan.

**AFR:** *Cyperus aromaticus* (Ridley) Matt. f. & Kük. (*Kyllinga polyphylla* Willd. ex Kunth), *C. cyperoides* (L.) Kuntze (*C. macrocarpus* (Kunth) Boeck. var. *pseudoflavus* (K. Schum.) Kük.; *Mariscus alternifolius* Vahl), *C. cyperoides*

subsp. *pseudoflavus* (Kük.) K. Lye (*Mariscus macer* Kunth), *C. dubius* Rottb. (*Mariscus dregeanus* Kunth), *C. erectus* (Schumach.) Mattf. & Kük., *C. esculentus* L., *C. lanceolatus* Poir., *C. longus* L., *C. macrocarpus* (Kunth) Boeck. (*Mariscus macrocarpus* Kunth), *C. rotundus* L., *C. sphacelatus* Rottb., *C. tenuiculmis* Boeck. (*Mariscus flabelliformis* H.B.K.), *Cyperus* sp., *Kyllinga erecta* Schumacher (*Cyperus erectus* (Schumacher) Mattf. & Kük.), *Mariscus macer* Kunth, *M. sieberianus* Nees, *M. umbellatus* Vahl (*M. cylindristachyus* Steud.), **Cameroon, Congo, Ethiopia, Gabon, Ghana, Guinea, Ivory Coast, Malawi, Nigeria, Reunion, Sierra Leone, S. Africa, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.**

16. ***Cintractia majewskii*** M. Piątek & Vánky, Polish Botanical Journal **50**: 1, 2005. — Type on *Fimbristylis* sp., Congo, Gungu, Mukulu, I.1914, leg. H. Vanderyst, BR 121117-61.

On *Cyperaceae: Fimbristylis* sp.; C Africa. Known only from the type collection.

**AFR:** *Fimbristylis* sp., **Congo.**

**VI.** ***CONIDIOSPOROMYCES*** Vánky, in Vánky & Bauer, Mycotaxon **43**: 427, 13.III.1992.

**Sori** in ovaries of *Poaceae,* scattered in the inflorescence, swollen, composed of an apically open, sac-like peridium of host tissue and fungal origin, and a central mass of a semi-powdery mixture of spores, sterile cells and balls of conidia. Columella absent. **Spores** relatively thick-walled, moderately large, pigmented. **Spore germination** results in aseptate basidia bearing an apical cluster of elongate basidiospores. **Sterile cells** pale, almost colourless, ornamented or smooth, often collapsed. **Conidia** thin-walled, mostly Y-shaped, hyaline, arranged in more or less loose balls. Germination of basidiospores and conidia results in hyphae on which both blastic conidia and ballistospores are formed.

Three *Conidiosporomyces* species are known species, all present in Africa.

Type: *C. ayresii.*

17. ***Conidiosporomyces ayresii*** (Berk.) Vánky, in Vánky & Bauer, Mycotaxon **43**: 429, 1992. — *Tilletia ayresii* Berk., in Massee, Bull. Misc. Inform. **1899**: 146, 1899. — Type on *Panicum maximum* (= *Megathyrsus maximus*), Mauritius, hills above Port Louis, coll. P.B. Ayres 4754, K (Herb. Berkeley).

*Ustilago heterospora* Henn., in Engler [ed.], Die Pflanzenwelt Ost-Afrikas und der Nachbargebiete, Teil C, Berlin: 48, 1895 (later homonym, not Niessl, 1872). — *Tilletia heterospora* (Henn.) Zundel, Bothalia **3**: 310, 1938. — On *Panicum maximum* (= *Megathyrsus maximus*), Tanganyika Territory [Tanzania], Sk., Amboni, coll. C.H.E.W. Holst 2765 (no type designated; syn. by Zundel 1953: 282).

*Ustilago evansii* Henn., Bot. Jahrb. Syst. **41**: 270, 1908. — Type on *Setaria aurea,* South Africa, Transvaal, Tzaneen, Zoutpansberg, 9.IV.1906, J.B. Davy, comm. I.B. Pole-Evans, PREM 10(!); isotypes BPI 160415 & 160421(!).

On *Poaceae: Megathyrsus, Panicum,* and *Setaria* species; tropical and subtropical Africa, Asia, C & S America, especially on its principal host, *Megathyrsus maximus*.

**AFR:** *Megathyrsus maximus* (Jacq.) B.K. Simon & S.W.L. Jacobs (*Panicum maximum* Jacq.), *Panicum parvifolium* Lam., *P. schinzii* Hack. (*P. laevifolium* Hack.), *Setaria pumila* (Poir.) Roem. & Schult. (*S. pallide-fusca* (Schumacher) Stapf & C.E. Hubb. ex Moss; *S. glauca* auct. non (L.) P. Beauv.), *S. sphacelata* (Schumach.) Stapf & C.E. Hubb. var. *sphacelata* (*S. flabellata* Stapf subsp. *flabellata*), *S. sphacelata* var. *aurea* (Hochst. ex A. Braun) W.D. Clayton (*S. aurea* Hochst. ex A. Braun), **Botswana, Burundi, Cameroon, Congo, Ethiopia. Ghana, Ivory Coast, Kenya, Madagascar, Malawi, Mauritius, Reunion, S. Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe.**

18. ***Conidiosporomyces echinospermus*** (Ainsw.) Vánky, Mycotaxon **78**: 314, 2001. — *Tilletia echinosperma* Ainsw., Proc. Linn. Soc. London **153**: 95, 1941. — Type on *Setaria sphacelata,* Uganda, West Nile, Kajomoro, VI.1936, A.S. Thomas U1995, IMI 42354(!).

On *Poaceae: Setaria* spp.; Africa.

**AFR:** *Setaria barbata* (Lam.) Kunth, *S. incrassata* (Hochst.) Hack. (*S. mombassana* Herrm.; *S. perberbis* de Wit.), *S. longiseta* P. Beauv., *S. pumila* (Poir.) Roem. & Schult. (*S. pallide-fusca* (Schumacher) Stapf & C.E. Hubb.), *S. sphacelata* (Schumach.) Stapf & C.E. Hubb., *S. sphacelata* var. *aurea* (Hochst. ex A. Braun) W.D. Clayton (*S. aurea* Hochst. ex A. Braun; *S. trinervia* Stapf), *S. sphacelata* var. *splendida* (Stapf) W.D. Clayton (*S. splendida* Stapf), **Cameroon, Ghana, Kenya, Nigeria, Rwanda, S. Africa, Tanzania, Zimbabwe, Uganda.**

19. ***Conidiosporomyces verruculosus*** (Wakef.) Vánky, Mycotaxon **48**: 39, 1993. — *Ustilago verruculosa* Wakef., Bull. Misc. Inform. Kew **1922**: 162. — Type on *Setaria aurea* (= *S. sphacelata* var. *aurea*), Congo, I.1914, H. Vanderyst 5054, K(!).

On *Poaceae: Setaria* spp.; Africa.

**AFR:** *Setaria incrassata* (Hochst.) Hack. (*S. mombassana* Herrm.), *S. pumila* (Poir.) Roem. & Schult. (*S. pallide-fusca* (Schumacher) Stapf & C.E. Hubb. ex Moss), *S. sphacelata* (Schumach.) Stapf & C.E. Hubb., its var. *aurea* (Hochst. ex A. Braun) W.D. Clayton (*S. aurea* Hochst. ex A. Braun), and var. *sericea* (Stapf) W.D. Clayton (*S. tenuispica* Stapf & C.E. Hubb.), **Congo, Malawi, Sierra Leone, S. Africa, Zambia, Zimbabwe.**

**VII.** ***DERMATOSORUS*** K. Sawada ex L. Ling, Mycologia **41**: 267, 1949.

**Sori** in ovaries of *Cyperaceae,* swollen, covered by a peridium that ruptures irregularly, revealing the dark mass of spore balls and a more or less distinct central columella. **Spore balls** composed of a cortex of empty, sterile cells and a central mass of numerous fertile spores separated by small, empty compartments formed by the reticulate spore wall

ornamentation of neighbouring spores. **Spores** pigmented (brown). **Spore germination** results in phragmobasidia with sessile basidiospores.

Six species of *Dermatosorus* are known. Only one found in Africa.

Type: *D. eleocharidis.*

20. ***Dermatosorus schoenoplecti*** Vánky & R.G. Shivas, Fungal Diversity **14**: 244, 2003. — Type on *Schoenoplectus mucronatus,* Australia, Queensland, c. 60 km SSW of Cairns, between Gordonvale and Yungaburra, 5 km turn off to Cathedral Fig Tree, alt. c. 730 m, 28.IX.2001, M.D.E. Shivas & K. Vánky, BRIP 28979; isotype H.U.V. 19750(!).

On *Cyperaceae: Schoenoplectus* spp.; Africa, SE Asia, Australia.

**AFR:** *Schoenoplectus mucronatus* (L.) Palla ex Kerner, **Cameroon.**

**VIII.** ***DOASSANSIA*** Cornu, Ann. Sci. Nat. Bot. **15**: 285, 1883.

**Sori** in leaves, petioles and stems of paludal or aquatic plants, in both mono- and dicotyledonous families, forming pale green, yellowish or brownish areas, with numerous spore balls embedded in the host tissue appearing as minute, brown dots. **Spore balls** persistent, composed of a central mass of spores surrounded by a more or less distinct cortex of sterile cells. **Spore germination** of *Tilletia*-type.

Of the twelve known *Doassansia* species only one was found in Africa.

Type: *D. alismatis.*

21. ***Doassansia alismatis*** (Nees) Cornu, Ann. Sci. Nat. Bot. **15**: 285, 1883. — *Sclerotium alismatis* Nees, in E. Fries, Syst. Myc., etc., Vol. **2** (sect. 1): 257, 1822. — *Perisporium alismatis* (Nees) E. Fries, Syst. Myc., etc. Vol. **3** (sect. 1): 252, 1829. — *Doassansia alismatis* (Nees) C. Fisch, Ber. Deutsch. Bot. Ges. **2**: 415, 1884 (comb. superfl.). — *D. alismatis* (Nees) J. Schröt., in Cohn, Krypt. Fl. Schles. **3**(**1**): 286, 1887 (comb. superfl.). — Type on *Alisma* "*natans*" (= misnamed *A. plantago-aquatica*, det. Liro, 1938: 485), Germany, Nees von Esenbeck, HAL.

*Dothidea alismatis* Lasch, in Rabenhorst, Herb. viv. myc. no. 553, 1844 (nom. nud.); in L. Kirchner, Lotos **6**: 205, 1856 (as "*Dothidea Alismatis* Leach"). — Type on *Alisma plantago-aquatica,* Germany, Dresden, W.G. Lasch, isotypes in Rabenhorst, Herb. viv. myc. no. 553, H.U.V. 9573(!).

On *Alismataceae: Alisma* and *Damasonium* spp.; Europe, N Africa, Asia, N America.

**AFR:** *Alisma plantago-aquatica* L., **Algeria.**

**IX.** ***DOASSANSIOPSIS*** (Setch.) Dietel, in Engler & Prantl, Die Natürl. Pflanzenfam. 1(1)**: 21, 1897.

**Sori** in leaves, petioles, stems or ovaries of aquatic or paludal plants, in both mono- and dicotyledonous families, as spots or swellings. **Spore balls** embedded in the host tissue, persistent, composed of a central mass of sterile, parenchymatous fungal cells surrounded by firmly adhering, colourless spores and an external cortex of sterile cells. **Spore germination** of *Tilletia*-type.

Of the fourteen known *Doassansiopsis* species four are known in Africa.

Lectotype: *D. deformans.*

22. ***Doassansiopsis caldesiae*** M. Piątek & Vánky, in Piątek *et al.,* Mycologia **100**: 663, 2008. — Type on *Caldesia reniformis,* Cameroon, West Prov., Dept. Noun, c. 45 km NE of Bafoussam, Lakes Paponoun, alt. 1148 m, 6.III.2007, A.L. Njouonkou, J. & M. Piątek, C. & K. Vánky, KRAM-F 56606; isotypes in HUYI, H.U.V. 21450(!).

On *Alismataceae: Caldesia reniformis* (D. Don) Makino; W Africa. Known only from the type collection.

**AFR:** *Caldesia reniformis*, **Cameroon.**

23. ***Doassansiopsis hydrophila*** (A. Dietr.) Lavrov, Sist. Zametki Mater. Gerb. Krylova Tomsk. Gosud. Univ. Kujbyseva **11**: 4, 1937. — *Sphaeria hydrophila* A. Dietr., Arch. Naturk. Liv.-Ehst-Kurlands, Ser. 2, Biol. Naturk. **1**: 512, 1859. — *Doassansia hydrophila* (A. Dietr.) B. Lindeb., Symb. Bot. Upsal. **22**: 23, 1959. — Type on *Potamogeton* sp., Estland; isotypes in Dietr., Crypt. exs. IX, no. 65.

*Protomyces martianoffianus* Thüm., Bull. Soc. Imp. Moskau **53**: 207, 1878. — *Doassansia martianoffiana* (Thüm.) J. Schröt., in Cohn, Krypt. Fl. Schles. **3**: 287, 1887. — *Doassansiopsis martianoffiana* (Thüm.) Dietel, in Engler & Prantl, Die Natürl. Pflanzenfam. **I**: 21, 1897 (as "*D. Martianoffiana* (Thüm.) Setch."). — Type on *Potamogeton natans* L., Russia, Siberia, Krasnojarskij Kraj, Minussinsk, coll. N. Martianoff, H.U.V. 9091(!).

*Doassansia* (*Doassansiopsis*) *domingensis* Cif., Ark. Bot. 23 A (**14**): 24, 1931. — Type on *Potamogeton fluitans* Roth subsp. *americanus* Cham. & Schltdl., Dominican Rep., Llano Costero, Santo Domingo Prov., Jaina River, 14.VIII.1929, E.L. Ekman & R. Ciferri (S!). On the original label Ciferri wrote: "Mixed with another fungus, which sometimes hides the *Doassansia*". However, my repeated attempts to find spore balls in the type specimen gave no result. Later Ciferri (1963: 21) himself considered this species as a synonym of *Doassansia hydrophila.*

On *Potamogetonaceae: Potamogeton* spp.; cosmopolitan.

**AFR:** *Potamogeton polygonifolius* Pourret, **Morocco.**

24. ***Doassansiopsis nymphaeae*** (Syd. & P. Syd.) Thirum., Mycologia **39**: 604, 1947. — *Doassansia nymphaeae* Syd. & P. Syd., Ann. Mycol. **10**: 406, 1912. — Type on *Nymphaea stellata,* India, Bombay Presidency [Maharshtra State], near Bassein, at Nirmal, 18.II.1912, H.M. Chibber, HCIO 7897; isotypes BPI 178465, H.U.V. 15473(!).

On *Nymphaeaceae: Nymphaea* spp.; Africa, S Asia.

**AFR:** *Nymphaea nouchali* Burm. (*N. Caerulea* Savigny; *N. Stellata* Willd.), **Kenya, Zambia.**

25. ***Doassansiopsis nymphoides*** Vánky, Mycotaxon **81**: 401, 2002. — Type on *Nymphoides rautaneni,* Zambia, Southern Prov., 130 km SE of Kafue, 2 km N of "Sandy Beach Camping" near the Lake Kariba, alt. c. 520 m, 28.IV.2001, C. & K. Vánky, H.U.V. 19623(!); isotypes in Vánky, Ust. exs. no. 1126.

On *Menyanthaceae* (*Gentianales*): *Nymphoides rautaneni* (N.E. Br.) A. Raynal; Africa. Known only from the type collection.

**AFR:** *Nymphoides rautaneni*, **Zambia.**

26. ***Doassansiopsis tomasii*** Vánky, Mycotaxon **95**: 46, 2006. — Type on *Nymphaea nouchali,* Ethiopia, Gojam Region, 17 km S of Bahar Dahr, alt. 1712 m, 22.X.2004, T. & K. Vánky, H.U.V. 20840(!); isotypes in S, BPI 863739, BRIP 47145, and in Vánky, Ust. exs. no. 1259.

On *Nymphaeaceae: Nymphaea nouchali* Burm. F. (*N. Caerulea* Savigny; *N. Stellata* Willd.); Africa.

**AFR:** *Nymphaea nouchali*, **Cameroon, Ethiopia, Uganda.**

**X.** ***EBALLISTRA*** R. Bauer, Begerow, A. Nagler & Oberw., Mycol. Res. **105**: 423, 2001.

**Sori** as black spots in leaves and stems of *Poaceae.* **Spores** solitary or in groups but not aggregated in balls, pigmented (olive-brown), embedded in the host tissue, not erumpent, not powdery. **Spore germination** results in holobasidia with gastroid (not ballistic) basidiospores. **Parasitic hyphae** mostly intercellular.

Of the three *Eballistra* species two are known in Africa.

Type: *E. oryzae.*

27. ***Eballistra brachiariae*** (Viégas) R. Bauer, Begerow, A. Nagler & Oberw., Mycol. Res. **105**: 423, 2001. — *Melanotaenium brachiariae* Viégas, Bragantia **4**: 748, 1944. — Type on *Brachiaria plantaginea* (Link) Hitchc., Brazil, Est. De São Paulo, Mogí-Mirim, Faz. Emílio Spina, 27.II.1941, A.P. Viégas, IACM; isotypes HCIO 11662, H.U.V. 15410(!).

*Tolyposporella brachiariae* Mundk. & Thirum., Mycol. Pap. **16**: 5, 1946. — Type on *Brachiaria distachya* (L.) Haines, India, Bangalore, Karnataka, 14.II.1942, M.J. Thirumalachar, HCIO 10339–103341(!) (as "14. XII.1942") (syn. by Vánky 1997: 139).

*Melanotaenium echinochloae* M.S. Patil, Indian Phytopathol. **45**: 180, 1992. — Type on "*Echinochloa* sp." (= misnamed *Brachiaria distachya* (L.) Haines, det. K. Vánky), India, Maharashtra State, Kolhapur, Shivaji University Campus, 8.X.1978, M.S. Patil, HCIO 30109; isotype H.U.V. 15494(!) (syn. by Vánky 1997: 139).

*Melanotaenium urochloae* M.S. Patil, Indian Phytopathol. **45**: 180, 1992. — Type on *Urochloa trichopus* (= misnamed *U. panicoides* P. Beauv., det. K. Vánky), India, Maharashtra State, Kolhapur, 19.XII.1979, A.R. Kulkarni, HCIO 30110; isotype H.U.V. 17509(!) (syn. by Vánky 2004: 86).

On *Poaceae: Brachiaria, Panicum*i, and *Urochloa* spp.; Africa, Asia, Australia, S America.

**AFR:** *Panicum coloratum* L., *Urochloa trichopus* (Hochst.) Stapf, **Zambia, Zimbabwe.**

28. ***Eballistra oryzae*** (Syd. & P. Syd.) R. Bauer, Begerow, A. Nagler & Oberw., Mycol. Res. **105**: 423, 2001. — *Entyloma oryzae* Syd. & P. Syd., Ann. Mycol. **12**: 97, 1914. — Type on *Oryza sativa,* Philippines, Laguna Prov., Los Banos, 20.XII.1913, M.B. Raimundo (C.F. Barker no. 2203).

On *Poaceae: Oryza sativa* L., cultivated rice; tropics and subtropics, cosmopolitan.

**AFR:** *Oryza sativa*, **Ethiopia, Ghana, S. Africa.**

**XI.** ***ENTORRHIZA*** C.A. Weber, Bot. Z. **42**: 378, 1884. — *Schinzia* Nägeli, Linnaea **16**: 281, 1842 (later homonym, not Dennstedt, 1818), sensu Magnus.

**Sori** as galls on roots of *Juncaceae* and *Cyperaceae.* **Spores** formed intracellularly, terminally on the hyphae, usually solitary, thick-walled, embedded in the host tissue. **Spore germination** of *Entorrhiza*-type with a 4-celled basidium that remains within the spores, each basidial cell developing a branch bearing apically and subapically up to four falcate, looped or curved basidiospores.

Of the thirteen known *Entorrhiza* species two are reported from Africa.

Type: *E. cypericola.*

29. ***Entorrhiza casparyana*** (Magnus) Lagerh., Hedwigia **27**: 262, 1888 (Sept.–Oct.). — *Schinzia casparyana* Magnus, Ber. Deutsch. Bot. Ges. **6**: 103, 1888. — *Entorrhiza casparyana* (Magnus) de Toni, in Saccardo, Syll. Fung. **7**: 497, 1888 (Oct. 28; comb. superfl.). — *Melanotaenium casparyanum* (Magnus) Thirum. & M.D. Whitehead, Amer. J. Bot. **55**: 185, 1968. — Lectotype (design. by Fineran, 1978a: 22) on *Juncus tenageia* Ehrh., Germany, Hinterpommern, Pyritz [now Poland, Pyrzyce], 1863, Meyer, HBG. Zundel (1953: 233) selected another collection as type, viz. Preussen, Kreise Schweitz, near Schiroslaw, coll. M. Grütter, but that specimen no longer exists (Fineran 1978a: 22).

*Entorrhiza digitata* Lagerh., Hedwigia **27**: 264, 1888. — *Schinzia digitata* (Lagerh.) Magnus, Jahresber. Naturf. Ges. Graubündens, N.S., **34**: 7, 1891. — *Melanotaenium digitatum* (Lagerh.) Thirum. & M.D. Whitehead, Amer. J. Bot. **55**: 185, 1968. — Lectotype (design. by Zundel 1953: 233) on *Juncus articulatus,* Germany, Baden-Württemberg, Schwarzwald Mt., near Titisee, VIII.1888, G. Lagerheim (syn. by J.M. Fineran 1978: 22).

On *Juncaceae: Juncus* spp.; Europe, S Africa, Australasia, N America.

**AFR:** *Juncus capensis* Thunb., *J. hybridus* Brot., *J. oxycarpus* E. Mey. ex Kunth, **Egypt, S. Africa.**

30. ***Entorrhiza cypericola*** (Magnus) C.A. Weber, Bot. Z. **42**: 378, 1884. — *Schinzia cypericola* Magnus, Verh. Bot. Vereins Prov. Brandenburg **20**: 54, 1878. — *Melanotaenium cypericola* (Magnus) Thirum. & M.D. Whitehead, Amer. J. Bot. **55**: 185, 1968. — Type on *Cyperus flavescens,* Germany, near Berlin, Grunewald, Halensee, VIII.1876, C. Müller, HBG.

*Entorrhiza cyperi* Bref., Unters. Gesammtgeb. Mykol. **15**: 80, 1912, nom. nud. — On *Cyperus flavescens,* Germany.

On *Cyperaceae: Cyperus flavescens* L. (*Pycreus flavescens* (L.) Rchb.); Europe, N Africa.

**AFR:** *Cyperus flavescens,* **Algeria.**

**XII.** ***ENTYLOMA*** de Bary, Bot. Z. **32**: 101, 1874.

**Sori** in vegetative parts of dicotyledonous host plants, mostly in leaves and stems, usually forming spots, sometimes pustules, swellings or galls. **Spores** solitary or adhering in irregular groups, permanently embedded in the host tissue, hyaline, yellow or pale yellowish brown; spore wall usually smooth, often with a hyaline gelatinous sheath. **Spore germination** of *Tilletia*-type. **Anamorph:** *Entylomella* Höhnel, often present as fascicles of short conidiophores protruding through the stomata bearing filiform, curved hyaline conidia.

About 180 species of *Entyloma* are known, of which 33 occur in Africa.

Lectotype: *E. microsporum.*

31. ***Entyloma aeschynomenis*** Vánky, Mycotaxon **81**: 399, 2002. — Type on *Aeschynomene indica,* Nyasaland [Malawi], Limbe Distr., banks of Luchenza River at Gongoti, 18.II.1950, P.O. Wiehe 546, IMI 44448; isotype H.U.V. 17689(!) (not 19509).

On *Fabaceae: Aeschynomene indica* L.; Africa. Known only from the type collection.

**AFR:** *Aeschynomene indica,* **Malawi.**

32. ***Entyloma asterisci-maritimi*** Vánky, Mycotaxon **33**: 366, 1988. — Type on *Asteriscus maritimus,* Algeria, Bejaia (Bougie), Cap Carbon, 5.IV.1912, R. Maire 593, MPU(!); isotype H.U.V. 13468(!). Paratypes on *Asteriscus maritimus,* Algeria, "Rochers des Grandes Falaises pr. Ziama-Mausouria", 29.XII.1911, R. Maire 310, MPU(!); Bouzarés, 31.XII.1914, R. Maire 2963, MPU(!).

On *Asteraceae* (subfam. *Asteroideae*): *Asteriscus maritimus* (L.) Less.; S Europe, N Africa.

**AFR:** *Asteriscus maritimus,* **Algeria.**

33. ***Entyloma atlanticum*** Massenot, in Guyot, Malençon & Massenot, Rev. Pathol. Vég. Entomol. Agric. France **37**: 187, 1958 (as "*atlantica*"). — Type on *Geranium malviflorum,* Morocco, Haut Atlas Mts., near Asif Aït Iren, 1 km outside Oukaïmeden refuge, 2500 m, 29.VI.1956, G. Malençon, Herb. Massenot(!).

*Entyloma geranii* Kuznetzova & Schwarzman, in Schwarzman 1960: 276. — On different *Geranium* species, Kazakhstan (no type designated; syn. by Vánky 1991: 158).

On *Geraniaceae: Geranium* spp.; N Africa, SW Asia.

**AFR:** *Geranium malviflorum* Boiss. & Reuter, **Morocco.**

34. ***Entyloma australe*** Speg., Anales Soc. Ci. Argent. **10**: 5, 1880 (July). — Type on *Physalis hirsuta* Duncan, Argentina, "secus Rio de la Plata cerca de la Recoleta", IV.1880, C. Spegazzini(!).

*Protomyces physalidis* Kalchbr. & Cooke, Grevillea **9**: 22, 1880 (Sept.). — *Entyloma physalidis* (Kalchbr. & Cooke) G. Winter, Hedwigia **22**: 130, 1883. — Type on *Physalis hornemannii,* South Africa.

*Entyloma besseyi* Farl., Bot. Gaz. (Crawfordsville) **8**: 275, 1883. — Type on *Physalis* sp., USA, Iowa, coll. Bessey & Arthur.

On *Solanaceae: Lycopersicon*, *Physalis, Quincula, Solanum, Withania* spp.; cosmopolitan, except Europe.

**AFR:** *Physalis angulata* L., *P. hornemannii* Dunal, *P. minima* L., *P. peruviana* L., *P. pubescens* L. (*P. tubinata* Medic.; *P. hirsuta* Duncan), *P. virginiana* Mill., *Physalis* sp., **Congo, Reunion, S. Africa, Tanzania, Uganda, Zimbabwe.**

35. ***Entyloma bellidis*** K.W. Krieger, Hedwigia Beibl. **35**: (145), 1896. — *E. calendulae* f. *bellidis* (K.W. Krieger) Ainsw. & Sampson, Brit. Smut fgi.: 104, 1950. — Lectotype (design. by Lindeberg 1959: 32) on *Bellis perennis,* Germany, Sachsen, Königstein, Bielathal, 16.IV.1895, K.W. Krieger, UPS(!); isolectotypes in Krieger, Fgi. saxon. no. 1103a, H.U.V. 653(!).

*Entyloma thrinciae* Maire, Bull. Soc. Bot. France **53**: CC, 1906. — Type on *Thrincia tuberosa* (L.) DC. (= misnamed *Bellis sylvestris,* det. Zundel 1953: 270), Algeria, Oran, N slope of Djebel Mourdjadjo, 9.IV.1906, R. Maire, MPU(!) (syn. by Vánky 1988: 367).

On *Asteraceae* (subfam. *Asteroideae*): *Astranthium* and *Bellis* spp.; Europe, N Africa.

**AFR:** *Bellis annua* L., *B. sylvestris* Cyr., **Algeria.**

36. ***Entyloma bidentis*** Henn., in Engler, Die Pflanzenwelt Ost-Afrikas, etc., C: 49, 1895. — Type on *Bidens pilosa,* Tanganyika Territory [Tanzania], Mt. Kilimanjaro, Marangu, alt. c. 1500 m, V.1894, G. Volkens 2283, BR(!).

On *Asteraceae* (subfam. *Asteroideae*): *Bidens* spp.; cosmopolitan, in the tropics and subtropics.

**AFR:** *Bidens bipinnata* L., *B. pilosa* L., **Mauritius, S. Africa, Tanzania, Uganda, Zimbabwe.**

37. ***Entyloma calendulae*** (Oudem.) de Bary, Bot. Z. **32**: 102, 1874. — *Protomyces calendulae* Oudem., Arch. Néerl. Sci. Exact. Nat. **8**: 384, 1873. — Type on *Calendula officinalis,* Netherlands, Utrecht, VII–XI.1873, C.A.J.A. Oudemans.

On *Asteraceae* (subfam. *Asteroideae*): *Calendula* spp.; cosmopolitan.

**AFR:** *Calendula arvensis* L., *C. officinalis* L. (cult.), *C. stellata* Cav. (*C. algeriensis* Boiss. & Reut.), *Calendula* sp., **Algeria, S. Africa, Tunisia.**

38. ***Entyloma catananchis*** Cif. ex Vánky, Mycotaxon **33**: 366, 1988. — *E. calendulae* (Oudem.) de Bary, p.p. (Maire 1917: 252). — *E.* "*catananche* (Maire) Ciferri", Bull. Soc. Bot. Ital. **1924**: 48, 1924 (nom. nud.). — *E.* "*catananchis*" Cif., Ann. Mycol. **26**: 56, 1928 (nom. nud.). — *E.* "*catananches*" Cif., Fl. Ital. Crypt. Pars I. Fungi, Fasc. **17**: 177, 1938 (nom. nud.). — *E. compositarum* Farl. [f.] *catananchis* Cif., Quaderno **27**: 90, 1963 (invalidly published, without a clear indication of the rank and of the nomenclatural type of the taxon; ICBN, Art. 35.1 & 37). — Type on *Catananche caerulea,* Algeria, Djurdjura Mt., in silva Aït-Ouban, 25.V.1915, R. Maire, H.U.V. 10523(!); isotypes in Maire, Mycoth. Bor.-Afric. no. 278 (as *E. Calendulae*).

On *Asteraceae* (subfam. *Cichorioideae*): *Catananche caerulea* L., *C. lutea* L.; Mediterranean region (S Europe, N Africa, Palestine).

**AFR:** *Catananche caerulea,* **Algeria, Morocco.**

39. ***Entyloma cissigenum*** Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., **C**: 49, 1895 (as "*cissigena*"). — Type on *Cissus* sp., Tanganyika Terr. [Tanzania], Marangu, alt. c. 1500 m, V.1894, G. Volkens 2228, BR(!); isotypes HBG, BPI 176119, H.U.V. 16384(!).

On *Vitaceae: Cissus* sp.; Africa. Known only from the type collection.

**AFR:** *Cissus* sp., **Tanzania.**

40. ***Entyloma coreopsis*** Vánky, Mycotaxon **81**: 398, 2002. — Type on *Coreopsis borianiana,* Ethiopia, Nekempt, Airfield, 17.X.1968, J. Kranz 40, IMI 140734; isotype H.U.V. 15940(!).

On *Asteraceae* (subfam. *Asteroideae*): *Coreopsis borianiana* Sch. Bip. ex Schweinf.; Africa. Known only from the type collection.

**AFR:** *Coreopsis borianiana,* **Ethiopia.**

41. ***Entyloma dahliae*** Syd. & P. Syd., Ann. Mycol. **10**: 36, 1912. — Type on *Dahlia variabilis* (cult.), South Africa, Natal, Harden Heights, 11.IV.1911, I.B. Pole-Evans 1392, S(!).

*Entyloma calendulae* (Oudem.) de Bary f. *dahliae* Sternon, Sur une maladie nouvelle du Dahlia, Brüssel, 1918 (n. v.). — *E. dahliae* (Sternon) Cif., Bull. Soc. Bot. Ital. **1924**: 48, 1924 (later homonym). — Type on *Dahlia variabilis,* Belgium.

*Entyloma unamunoi* Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3, **2**: 9, 1925 (nom. nud.). — On *Dahlia variabilis,* Spain, Ovideo Prov., Llanes, VI.1922, P. Unamuno, MA(!).

*Entyloma calendulae* (Oudem.) de Bary f. *dahliae* Viégas, Bragantia **4**: 748, 1944 (later homonym, not Sternon, 1918). — Type on *Dahlia* sp., Brazil, São Paulo, 24.IV.1939.

On *Asteraceae* (subfam. *Asteroideae*): *Dahlia* spp.; cosmopolitan.

**AFR:** *Dahlia coccinea* Cav., *D. pinnata* Cav., *D. variabilis* (Willd.) Desf. (cult.), *Dahlia* sp. (cult.), **Ethiopia, Madagascar, Madeira, Mauritius, S. Africa, Uganda, Zimbabwe.**

42. ***Entyloma erodii*** Vánky, Mycotaxon **40**: 159, 1991. — Type on *Erodium laciniatum,* Tunisia, Sousse, 1927, coll. Burollet 94, MPU, Herb. Maire 8794(!).

On *Geraniaceae: Erodium laciniatum* (Cav.) Willd. (*E. triangulare* (Forssk.) Muschler). Known only from the type collection.

**AFR:** *Erodium laciniatum,* **Tunisia.**

43. ***Entyloma eryngii-dichotomi*** Maire, Bull. Soc. Hist. Nat. Afr. Nord **8**: 146, 1917. — Type on *Eryngium dichotomum,* Mauritania [Algeria], Zéralda near Alger, 1.V.1915, R. Maire; isotypes in Maire, Mycoth. Bor.-Afric. no. 277, H.U.V. 13473(!).

On *Apiaceae: Eryngium dichotomum* Desf.; Mediterranean area.

**AFR:** *Eryngium dichotomum,* **Algeria.**

44. ***Entyloma eryngii-tricuspidati*** Maire, Bull. Soc. Hist. Nat. Afr. Nord **10**: 138, 1919. — Type on *Eryngium tricuspidatum,* Algeria, Miliana, near Aïn-n-Sour, 31.VI.1917, R. Maire; Gorges de la Chiffa, 3.IV.1915, R. Maire (no type designated).

On *Apiaceae: Eryngium tricuspidatum* Desf.; N Africa.

**AFR:** *Eryngium tricuspidatum,* **Algeria, Morocco.**

45. ***Entyloma ficariae*** Thüm. ex A.A. Fisch. Waldh., Bull. Soc. Nat. Moscow **52**: 309, 1877 (after June). — Type on *Ranunculus ficaria,* Germany, Sachsen, Leipzig, V.1874, G. Winter; isotypes in Thümen, Mycoth. univ. no. 219 (as *E. ungerianum* de Bary f. *ficariae* Thüm., 1875; nom. nud.), H.U.V. 912(!).

[*Fusidium ranunculi* (*ficariae*) Bonorden, 1851: 43; anamorph]. — *Entyloma ranunculi* [Bon.] J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**: 370, 1877 (after July). — Lectotype (design. by Lindeberg 1959: 40) on *Ranunculus ficaria,* Germany, Baden, Rastatt, J. Schröter.

*Protomyces ficariae* Cornu & Roze, Bull. Soc. Bot. France **21**: 161, 1874. (nom. nud.). — On *Ficaria ranunculoides* Roth (= *Ranunculus ficaria*), France, Hauts-de-Seine, Meudon, "Bois de Meudon", near Paris, 3.V.1874, M. Cornu & E. Roze.

On *Ranunculaceae: Ranunculus* (*Ficaria*) spp.; Europe, N Africa, W & SW Asia, ?N America.

**AFR:** *Ranunculus ficaria* L., *R. ficaria* subsp. *calthifolius* (Reichenb.) Arcangeli (*Ficaria calthifolia* Reichenb.), **Algeria, Morocco.**

46. ***Entyloma frondosa*** Vánky, Mycotaxon **85**: 6, 2003. — Type on *Bidens frondosa,* Zambia, Southern Prov., 162 km NE of Livingstone, alt. c. 1270 m, 14.IV.2001, C., T. & K. Vánky, H.U.V. 19693(!), isotypes in Vánky, Ust. exs. no. 1142.

On *Asteraceae* (subfam. *Asteroideae*): *Bidens frondosa* L.; C Africa.

**AFR:** *Bidens frondosa,* **Zambia.**

47. ***Entyloma fumariae*** J. Schröt., Jahresber. Schles. Ges. Vaterl. Cult. **61**: 176, 1884. — Type on *Fumaria muralis,* Madeira, São Martinho, 30.I.1880, R. Fritze.

On *Papaveraceae: Fumaria* spp.; Europe, Africa, Asia.

**AFR:** *Fumaria agraria* Lag., *F. muralis* Sonder ex Koch, **Algeria, Madeira.**

48. ***Entyloma fuscum*** J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**: 373, 1877. — Type on *Papaver argemone* L., Germany, Baden, Rastatt, 1877, J. Schröter.

*Entyloma fuscellum* J. Schröt., in Rabenhorst, Fungi europaei exsiccati no. 2495, 1878; Hedwigia **17**: 173, 1878. — Type on *Papaver rhoeas,* Germany, Baden, Rastatt, V–VI.1878, J. Schröter; isotypes in Rabenhorst, Fgi. eur. no. 2495, H.U.V. 996(!).

*Entyloma bicolor* Zopf, in Rabenhorst, Fungi europaei exsiccati no. 2496, 1878 (nom. nud.); Hedwigia **17**: 174, 1878 (nom. nud.). — Type on *Papaver rhoeas,* Germany, around Berlin (Hasenheide, Tempelhof, Schöneberg), 15.IV.1878, W. Zopf, in Rabenhorst, Fgi. eur. no. 2496, H.U.V. 995(!).

*Entyloma glaucii* P.A. Dang., Bull. Soc. Bot. France **38**: 72, 1891. — Type on *Glaucium* sp., France, Calvados Dépt., Caen, Botanic Garden, 1890, P.A. Dangeard.

*Entyloma fragosoi* Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3, **2**: 8, 1925. — Type on *Glaucium corniculatum* (L.) Rudolph, Spain, Oviedo Prov., Llanes, VI.1919, P. Unamuno.

On *Papaveraceae: Glaucium* and *Papaver* spp.; cosmopolitan.

**AFR:** *Papaver rhoeas* L., *P. somniferum* L., **S. Africa.**

49. ***Entyloma guaraniticum*** Speg., Anales Soc. Ci. Argent. **17**: 127, 1884. — Type on "*Araliaceae ?*" (= *Bidens pilosa*), Paraguay, Guarapi, XII.1882, B. Balansa 3731, LPS 3361(!); isotypes in Roumeguère, Fgi. gall. exs. no. 4031, H.U.V. 1030(!).

On *Asteraceae* (subfam. *Asteroideae*): *Bidens* spp.; Africa, Australasia, N, C & S America.

**AFR:** *Bidens bipinnata* L., *B. pilosa* L., **Madagascar, S. Africa, Zambia, Zimbabwe.**

*E. guaraniticum* was often mistaken for the more common *E. bidentis* Henn. However, besides spore wall thickness, the sorus morphology serves as a good differentiating character: sori flat in *E. bidentis*, bullate, cup-shaped in *E. guaraniticum.*

50. ***Entyloma guizotiae*** Vánky, Mycotaxon **89**: 58, 2004. — Type on *Guizotia abyssinica,* Ethiopia, 1970, coll. M.K. Hingotani, IMI 153450; isotype H.U.V. 17476(!).

On *Asteraceae* (subfam. *Asteroideae*): *Guizotia abyssinica* (L. fil.) Cass.; Africa.

**AFR:** *Guizotia abyssinica,* **Ethiopia.**

51. ***Entyloma helosciadii*** Magnus, Hedwigia **21**: 130. — Type on *Helosciadium nodiflorum* (= *Apium nodiflorum*), Germany, near Creuznach [= Bad Kreuznach], at the "Salinen", 18.IX.1881, P. Magnus; isotypes in Rabenhorst, Fgi. eur. no. 2704, H.U.V. 1031 (contains no spores).

*Entyloma oenanthes* Maire, in Maire, Dumée & Lutz, Bull. Soc. Bot. France **48**: CCVIII, 1901(1903). — Type on *Oenanthe apiifolia* Brot. (= *O. crocata* L.), Corsica, Zerubia, 15.VII.1902, R. Maire, MPU(!).

*Entyloma flavum* Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3, **1**: 93, 1924. — Syntypes on *Sium erectum* Hudson (= *Berula erecta* (Hudson) Coville), Germany, Birkenwerder near Berlin, VII.1900, P. Sydow; isosyntypes in Sydow, Ust. no. 281, H.U.V. 982(!), and on *Sium latifolium* L., France, Hérault Dépt., near Lattes, VI.1889, G. Lagerheim; isosyntypes in Sydow, Ust. no. 89, H.U.V. 1034(!).

On *Apiaceae: Apium, Berula, Oenanthe,* and *Sium* spp.; Europe, N Africa.

**AFR:** *Apium nodiflorum* (L.) Lag. (*Helosciadium nodiflorum* (L.) Koch), *A. repens* (Jacq.) Lag. (*H. repens* (Jacq.) Koch), *Sium latifolium* L., **Algeria, Morocco.**

52. ***Entyloma henningsianum*** Syd. & P. Syd., in Vestergren, Bot. Not. **1900**: 32, 1900 (February 15); in Vestergren, Micr. rar. sel. no. 184, 1899 (nom. nud.); Sydow & Sydow, Hedwigia **39**: 123, 1900 (June). — Type on *Samolus valerandi,* Germany, Island Rügen, Zicker-See, 11.VII.1899, P. Sydow; isotypes in Sydow, Ust. no. 231, H.U.V. 9744(!), and Vestergren, Micr. rar. sel. no. 184, H.U.V. 1035(!).

On *Primulaceae: Samolus valerandi* L.; Europe, N Africa.

**AFR:** *Samolus valerandi,* **Algeria, Morocco.**

53. ***Entyloma kundmanniae*** Malençon & Massenot, in Guyot, Malençon & Massenot, Rev. Mycol. (Paris) **34**: 196, 1969. — Type on *Kundmannia sicula*, Morocco, Salé near Rabat, 12.V.1964, G. Malençon, Herb. Massenot(!).

On *Apiaceae: Kundmannia sicula* (L.) DC. (*Brignolia pastinacifolia* Bertol.); N Africa. Known only from the type collection.

**AFR:** *Kundmannia sicula,* **Morocco.**

54. ***Entyloma linariae*** J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**: 371, 1877. — Type on *Linaria vulgaris* Mill., Poland, Lignica [formerly Germany, Lower Silesia, Liegnitz], J. Gerhardt.

On *Scrophulariaceae: Linaria* spp.; Europe, N Africa, Asia, N America.

**AFR:** *Linaria triphylla* Mill., **Tunisia.**

55. ***Entyloma maroccanum*** Maire, in Maire & Werner, Mém. Soc. Sci. Nat. Maroc. **45**: 48, 1937. — Type on *Eryngium maroccanum,* Morocco, Moyen-Atlas, Ras-el-Ma, near Azrou, alt. c. 1600 m, 18.VI.1923, R. Maire, MPU, Herb. Maire; isotype H.U.V. 13205.

On *Apiaceae: Eryngium maroccanum* Pitard; N Africa. Known only from the type collection.

**AFR:** *Eryngium maroccanum,* **Morocco.**

56. ***Entyloma mediterraneum*** Syd. & P. Syd. ex Cif., Bull. Soc. Bot. Ital. **1924**: 51, 1924. — *E. mediterraneum* Syd. & P. Syd., Ann. Mycol. **16**: 244, 1918 (nom. nud.). — Lectotype (design. by Vánky 1994: 99) on *Pallenis spinosa* (L.) Cass., Yugoslavia, Dalmatia, coll. O. Jaap.

On *Asteraceae* (subfam. *Asteroideae*): *Pallenis spinosa* (L.) Cass. (*Asteriscus spinosus* (L.) Schulz Bip.); Mediterranean region (S Europe, N Africa, SW Asia).

**AFR:** *Pallenis spinosa,* **Morocco.**

57. ***Entyloma microsporum*** (Unger) J. Schröt., in Rabenhorst, Fungi europaei exsiccati no. 1872, 1874. — *Protomyces microsporus* Unger, Die Exantheme der Pflanzen: 343, 1833. — *Entyloma ungerianum* de Bary, Bot. Z. **32**: 101, 1874 (nom. nov. superfl. pro *P. microsporus*). — Type on *Ranunculus repens* L., Austria, Tirol, Kitzbühel, F. Unger.

*Caeoma bullosum* Sacc., Nuovo Giorn. Bot. Ital., N.S. **22**: 32, 1915. — Type on *Ranunculus chaerophyllus,* Island of Malta, Uied il Kleigha, III.1914, A. Caruana-Gatto & G. Borg (comp. Sydow 1924: 290).

On *Ranunculaceae: Ranunculus* spp.; cosmopolitan.

**AFR:** *Ranunculus bulbosus* L., *R. chaerophyllus* L., *R. dyris* Maire, *R. macrophyllus* Desf., *R. muricatus* L., *R. paludosus* Poiret (*R. flabellatus* Desf., *R. chaerophyllus* sensu Coste, non L.) *R. trilobus* Desf., **Algeria, Morocco, Tunisia.**

58. ***Entyloma ranunculi-repentis*** Sternon, L'hétérogenité du genre Ramularia, These, Nancy: 34 & 45, 1925. — Type on *Ranunculus repens* L., Belgium, Gembloux, Virton and Rochefort, 1917, F. Sternon (no type designated).

*Entyloma wroblewskii* Kochman, 1934: 291. — Type on *Ranunculus polyanthemos* L., Poland, Anin, near Warszawa, IX.1933, J. Kochman, WA(!). Topotype: 15.IX.1934; isotopotypes in Kochman, Ust. Pol. no. 28, H.U.V. 952(!).

*Entyloma ranunculi-scelerati* Kochman, 1936: 104. — Lectotype (design. by Lindeberg 1959: 41; corrected by Vánky 1985: 66) on *Ranunculus sceleratus* L., Poland, Skierniewice-Glinianki, 2.VII.1927, W. Konopacka; isolectotypes in Kochman, Ust. Pol. no. 29, H.U.V. 974(!).

*Entyloma ranunculacearum* Kochman, 1936: 105. — Lectotype on *Ranunculus acris* L., Poland, (design. by Lindeberg 1959: 41) Mościska Prov., Krukienice, 1935, J. Kochman.

*Entyloma ranunculorum* Liro, 1938: 111 (invalid name, no Latin diagnosis); 1939: 25. — Lectotype (design. by Vánky 1985: 66) on *Ranunculus auricomus* L., Sweden, Härjedalen, Fjellnäs, VII.1897, G. Lagerheim, H.U.V. 894(!); isolectotypes in Sydow, Ust. no. 233 (as *E. ranunculi*).

Similar to *E. ficariae* (with which it was merged by several authors) but has smaller spores thinner spore wall and usually fewer, more dispersed spores in the sori. Anamorph present.

On *Ranunculaceae: Ranunculus* spp.; cosmopolitan.

**AFR:** *Ranunculus macrophyllus* Desf., *R. trilobus* Desf., **Algeria.**

59. ***Entyloma serotinum*** J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**(3): 437, 1877. — Type on *Symphytum officinale* L., Germany, Baden, Rastatt, J. Schröter.

*Entyloma boraginis* Cif., Bull. Soc. Bot. Ital. **1924**: 52, 1924. — Lectotype (design. by Zundel 1953: 239) on *Borago officinalis,* Italy, Sicily, Catania, coll. Scalia.

On *Boraginaceae: Amsinckia, Borago, Lappula, Mertensia, Symphytum* spp.; Europe, Africa, Asia, Australasia, N America.

**AFR:** *Borago officinalis* L., **Algeria.**

60. ***Entyloma spegazzinii*** Sacc. & P. Syd., in Saccardo, Syll. Fung. **16**: 376, 1902. — *E. bidentis* Speg., Anales Mus. Nac. Buenos Aires, Ser. 2, **6**: 211, 1899 (later homonym, non Henn., 1895). — Type on *Bidens bipinnata,* Argentina, Córdoba, XII.1887, C. Spegazzini.

On *Asteraceae* (subfam. *Asteroideae*): *Bidens* spp.; C & S Africa, S America.

**AFR:** *Bidens bipinnata* L., *B. biternata* (Lour.) Merr., *B. pilosa* L., **Ethiopia, Mauritius, S. Africa, Zambia.**

61. ***Entyloma xauense*** Unamuno, Mauritania **15**, no. 181: 368, 1942. — Type on *Leucanthemum* sp., Morocco, Xauen [Chechaoen], 1.III.1941, L.M. Unamuno, MA 11685; isotype H.U.V. 18284(!).

On *Asteraceae* (subfam. *Asteroideae*): *Leucanthemum* sp.; N Africa.

**AFR:** *Leucanthemum* sp., **Morocco.**

62. ***Entyloma zinniae*** Syd., Ann. Mycol. **33**: 233, 1935. — Type on *Zinnia pauciflora*, South Africa, Pretoria, Garden Division of Botany, V.1920, A.M. Bottomley, PRE 14256; isotype H.U.V. 14818(!).

On *Asteraceae* (subfam. *Asteroideae*): *Zinnia elegans* Jacq., *Z. pauciflora* L.; Africa, S America.

**AFR:** *Zinnia elegans*, *Z. pauciflora*, **Kenya, S. Africa, Zimbabwe.**

**XIII. *ERIOCAULAGO*** Vánky, Mycol. Balcan. **2**: 113, 2005.

**Sori** in ovaries of plants in *Eriocaulaceae,* filling the capsules with a dark spore mass, no peridium or columella present. **Spores** single, pigmented (brown), without violet or yellowish red tint. **Sterile cells** lacking. **Spore germination** results in phragmobasidia producing basidiospores

Two species of *Eriocaulago* are known, both represented in Africa.

Type: *E. eriocauli.*

63. ***Eriocaulago eriocauli*** (Massee) Vánky, Mycol. Balcan. **2**: 114, 2005. — *Cintractia eriocauli* Massee, Grevillea **22**:

67, 1894. — *Ustilago eriocauli* (Massee) G.P. Clinton, J. Mycol. **8**: 137, 1902. — *U. eriocauli* (Massee) Cif., Ann. Mycol. **26**: 31, 1928 (comb. superfl.). — Type on *Eriocaulon fenestratum,* Madagascar Central, coll. Baron, bese. W.J. Hooker, K; isotype BPI 160374(!).

*Ustilago eriocauli* G.P. Clinton, Rhodora **3**: 82, 1901. — Type on *Eriocaulon septangulare* With. (= *E. aquaticum* (Hill) Druce), USA, Massachusetts, South Billerica, 17.XI.1900, G.P. Clinton, BPI 160378(!); isotypes BPI 160375, Seymour & Earle, Econ. fgi., Suppl. C. no. 68, H.U.V. 9660(!) (syn. by Clinton 1902: 137).

On *Eriocaulaceae: Eriocaulon* spp.; Africa, N America (USA).

**AFR:** *Eriocaulon fenestratum* Bojer ex Körn., **Madagascar.**

64. ***Eriocaulago jagdishwari*** (Mishra) Vánky, Mycol. Balcan. **2**: 114, 2005. — *Ustilago jagdishwari* Mishra, Mycologia **48**: 408, 1956. — Type on *Eriocaulon* sp., India, Bihar, Dumka, 20.X.1954, J.N. Mishra, RBG; isotypes in IARI, IMI 60497, H.U.V. 17960(!).

On *Eriocaulaceae: Eriocaulon* and *Syngonanthus* spp.; Africa, S & SE Asia (India, Thailand).

**AFR:** *Syngonanthus welwitschii* (Rendle) Ruhl., **Angola.**

**XIV. *ERIOSPORIUM*** Vánky, Mycol. Balcan. **2**: 114, 2005.

**Sori** in ovaries of plants in *Eriocaulaceae,* filling the capsules with spore balls. Fungal peridium, columella and sterile cells lacking. **Spore balls** composed of spores only, sterile cells and cortical layer lacking. **Spores** pigmented (brown), without violet or yellowish red tint.

Two species of *Eriosporium* are known, both from Africa.

Type: *E. mesanthemi.*

65. ***Eriosporium hessii*** (E. Müller) Vánky, Mycol. Balcan. **2**: 117, 2005. — *Tolyposporium hessii* E. Müller, Phytopathol. Z. **23**: 108, 1955. — *Sorosporium hessii* (E. Müller) Thirum. & Neerg., Friesia **11**: 184, 1978('1977'). — Type on *Eriocaulon lanatus,* Angola, Bié Prov., Baixo Cubango, 30 km N of Caiundo, at Rio Cuevi, alt. 1230 m, 6.II.1952, H. Hess 52/640, Z+ZT(!) (extremely poor material).

On *Eriocaulaceae: Eriocaulon lanatus* H. Hess; Africa. Known only from the type collection.

**AFR:** *Eriocaulon lanatus*, **Angola.**

66. ***Eriosporium mesanthemi*** (E. Müller) Vánky, Mycol. Balcan. **2**: 114, 2005. — *Sorosporium mesanthemi* E. Müller, Phytopathol. Z. **23**: 109, 1955. — Lectotype on *Mesanthemum radicans,* Angola, Bié Prov. (design. by Vánky 2005: 114), Baixo Cubango, 176 km NW of Cuangar, alt. 1070 m, 29.I.1952, H. Hess 52/514, Z+ZT(!). Syntype on *M. radicans,* Angola, Bié Prov., 61 km S of Caiundo, alt. 1160 m, 4.II.1952, H. Hess 52/614, Z+ZT(!).

On *Eriocaulaceae: Mesanthemum radicans* Körn.; Africa.

**AFR:** *Mesanthemum radicans,* **Angola.**

**XV. *ERRATOMYCES*** M. Piepenbr. & R. Bauer, Mycologia **89**: 930, 1997.

**Sori** forming dark spots or pustules on leaves of *Fabaceae.* **Spores** solitary, pigmented (brown), embedded in the host tissue, scattered in the intercellular spaces. **Spore germination** of *Tilletia*-type with holobasidia apically carrying needle-shaped basidiospores.

Five species of *Erratomyces* are known of which one was reported from Africa.

Type: *E. patelii.*

67. ***Erratomyces patelii*** (Pavgi & Thirum.) M. Piepenbr. & R. Bauer, Mycologia **89**: 933, 1997. — *Protomycopsis patelii* Pavgi & Thirum., Nature **172**: 315, 1953 (nom. nov. pro *Synchytrium phaseoli* Patel, Y.S. Kulkarni & G.W. Dhande, Curr. Sci. **18**: 171, 1949, a later homonym, not *S. phaseoli* Weston, in Chardón & Toro 1930). — *P. phaseoli* (Patel, Y.S. Kulk. & G.W. Dhande) K. Ramakr. & Subram., in Subramanian & Ramakrishnan, J. Madras Univ., Sect. B, **26**: 367, 1956 (n.v.; comb. illeg.). — Type on *Phaseolus mungo* L. (= *Vigna mungo* (L.) Hepper), India, Bombay State [Maharshtra State], East Khandesh, Jalgaon, government farm, VIII.1948.

*Entyloma vignae* Batista, Bezerra, Ponte & Vasconcelos, Atas Inst. Micol. **3**: 147, 1966. — Type on *Vigna sinensis* (= *V. unguiculata*), Brazil, Ceará State, Fortaleza, 7.VIII.1965, J.J. da Ponte (50694 "IMUFP").

On *Fabaceae: Phaseolus* and *Vigna* spp.; Africa, S Asia, C & S America, Caribbean Is.

**AFR:** *Vigna unguiculata* (L.) Walp. (*Phaseolus unguiculatus* L.; *V. catjang* Walp.; *V. sinensis* (L.) Savi ex Hassk.). Without indication of the country (Vakili 1978: 23).

**XVI. *FARYSIA*** Racib., Bull. Int. Acad. Sci. Cracovie, Cl. Sci. Math. Nat., **1909**(3): 354, 1909.

**Sori** in single flowers of *Cyperaceae* (*Carex, Uncinia*), bursting at maturity and exposing olivaceous brown to blackish brown, dusty or semi-agglutinated spore masses traversed by numerous, conspicuous, capillitium-like fascicles of sterile hyphae which function as elaters. **Spores** produced in chains by division of the sporogenous hyphae, single, small, variable in shape and size, ornamented. **Spore germination** results in a short basidium on which several cylindrical or spindle-shaped basidiospores are formed.

Of the c. 20 recognised species of *Farysia* six are known in Africa.

Type: *F. javanica* (= *F. butleri*).

68. ***Farysia butleri*** (Syd. & P. Syd.) Syd. & P. Syd., Ann. Mycol. **17**: 42, 1919. — *Ustilago butleri* Syd. & P. Syd., in Sydow *et al.,* Ann. Mycol. **4**: 424, 1906. — Type on *Scleria elata* Thw. (= misnamed *Carex filicina* Nees, det. K. Vánky), India, Assam, Thuria, 16.V.1905, E.J. Butler 549, S(!).

*Cintractia merrillii* Henn., Hedwigia **47**: 250, 1908. — *Farysia merrillii* (Henn.) Syd. & P. Syd., Ann. Mycol.

**17**: 41, 1919. — Type on *Carex* sp., Philippines, Luzon, Benguet Prov., Panai, 6800 feets, E.D. Merrill 4915 (syn. by Vánky 1987: 40).

*Farysia javanica* Racib., Bull. Int. Acad. Sci. Cracovie, Cl. Sci. Math. Nat. **1909**: 354, 1909. — Lectotype (design. by Vánky 1987: 40) on *Carex* sp., Java, Preanger near Tjampaka, M. Raciborski, S (syn. by Ling 1950: 79, as *F. merrillii*).

*Farysia backeri* Ciferri, Nuovo Giorn. Bot. Ital. **40**: 256, 1933. — Type on *Carex rafflesiana,* Java, Nirmela, coll. C.A. Backer 11058, BPI 157960(!); isotypes BO 4777, BPI 170199 (syn. by Ling 1950:79, as *F. merrillii*).

*Farysia caricis-filicinae* S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 91, 1935. — Type on *Carex filicina* Nees, Formosa [Taiwan, Rep. China], Nichigetsutan, 17.IX.1919, Y. Kudo & S. Sasaki, SAPA(!) (syn. by Vánky 1987: 40).

*Farysia ugandana* Zundel, Mycologia **36**: 403, 1944. — Type on *Carex spicato-paniculata* (as "*paniculata-spicata*"), Uganda, between Kinanira and Kisola, 3.IV.1927, D.H. Linder, BPI 170312(!); isotype BPI 170313(!) (syn. by Vánky 2004: 112).

On *Cyperaceae: Carex* (subgen. *Indocarex*) spp.; Africa, SE Asia, Indonesia, Philippines, Australasia (PNG).

**AFR:** *Carex echinochloe* Kunze, *C. pyramidalis* Kük., *C. spicato-paniculata* C.B.Clarke, **Cameroon, Ethiopia, Madagascar, Malawi, S. Africa, Uganda, Zimbabwe.**

69. ***Farysia caricis-petitianae*** (Zundel) Vánky, Mycotaxon **73**: 158, 1999. — *Sphacelotheca caricis-petitianae* Zundel, Mycologia **36**: 404, 1944. — Type on *Carex petitiana* (det. H.K. Svenson, 1939), Congo, 1926–1927, coll. Bequaert, BPI 177300(!); isotypes BPI 177300, 177302 & 195095 (ex Phanerogamic Herbarium, Flora of Tropical Africa, Expedition of the Harvard Institute of Tropical Biology and Medicine, 1926–1927).

On *Cyperaceae: Carex petitiana* A. Rich.; C Africa. Known only from the type collection.

**AFR:** *Carex petitiana,* **Congo.**

70. ***Farysia nakanishikii*** (Henn.) Syd. & P. Syd., Ann. Mycol. **17**: 42, 1919. — *Ustilago nakanishikii* Henn., Hedwigia **43**: 150, 1904. — *Cintractia nakanishikii* (Henn.) Henn., Bot. Jahrb. Syst. **34**: 157, 1906. — Type on *Carex brunnea,* Japan, Tosa, Uchinotani, VI.1903, K. Nakanishiki 63; isotype H(!).

On *Cyperaceae: Carex brunnea* Thunb.; S Africa, E Asia.

**AFR:** *Carex brunnea,* **Reunion.**

71. ***Farysia orientalis*** L. Ling, Sydowia **3**: 130, 1949. — Type on *Carex baccans,* India, Tamil Nadu, Ootacamund, 24.X.1911, C.V. Pipers, IMI 27804; isotype H.U.V. 18104(!).

On *Cyperaceae: Carex baccans* Nees; S & E Asia (China, India, Sri Lanka).

**AFR:** *Carex baccans,* **Malawi.**

72. ***Farysia subolivacea*** (Henn.) Cif., Nuovo Giorn. Bot. Ital. **40**: 258, 1933. — *Ustilago subolivacea* Henn., Ann. R. Istit. Bot. Roma **6**: 84, 1896. — Type on *Carex ramosa,* Somalia, Riva 1297; isotype BPI 195253.

On *Cyperaceae: Carex ramosa* Schkuhr; Africa.

**AFR:** *Carex ramosa,* **Somalia.**

73. ***Farysia thuemenii*** (A.A. Fisch. Waldh.) Nannf., **s. lat.**, in Lindeberg, Symb. Bot. Upsal. **16**(2): 51, 1959. — *Ustilago thuemenii* A.A. Fisch. Waldh., Hedwigia **17**: 40, 1878. — Type on *Carex procera* Kunth (= *C. riparia* var. *chilensis* (Brogn.) Kükenth., det. C.G. Alm), Argentina, Conceptión del Uruguay, 8.XI.1875, P.G. Lorentz, H.U.V. 7409(!) (badly damaged by insects).

*Uredo segetum* Pers. ζ *caricis* "Pers.?" DC., Fl. Franç. **2**: 230, 1805. — *U. olivacea* DC., Fl. Franç. **6**: 78, 1815 (non *Uredo caricis* Pers., 1801, q.e. *Anthracoidea caricis*). — *Caeoma olivaceum* (DC.) Schltdl., Flora Berolinensis, Pars 2. Cryptogamia: 130, 1824. — *Erysibe olivacea* (DC.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 215, 1833. — *Ustilago olivacea* (DC.) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 88, 1847. — *Elateromyces olivaceus* (DC.) Bubák, Houby České **2**: 32, 1912. — *Farysia olivacea* (DC.) Syd. & P. Syd., Ann. Mycol. **17**: 41, 1919 (later homonym, not (Jaap) Höhnel 1917). — *F. caricis* (DC.) Liro, Ann. Acad. Sci. Fenn., Ser. A, **42**(1): 49, 1938 (based on *Uredo segetum* Pers. ζ *caricis* DC.). — Type on *Carex riparia* Curtis, France (syn. by Nannfeldt, in Lindeberg 1959: 51).

*Cintractia caricicola* Henn., Hedwigia **34**: 325, 1895. — Type on *Carex spathea,* South Africa, Transvaal, coll. R. Schlechter (syn. In Zundel 1953:43).

*Ustilago caricicola* Tracy & Earle, Bull. Torrey Bot. Club **26**: 493, 1899. — Syntypes on *Carex folliculata* L., USA, Mississippi, Augusta, VI.1897, S.M. Tracy 3343; Mississippi, Beauvoir, V.1898 (syn. by Clinton 1902: 129, as *Ustilago olivacea*; and by Sydow & Sydow 1919: 41, as *Farysia olivacea*).

*Ustilago cariciphila* Speg., Revista Argent. Bot. **1**: 152, 1925. — *Cintractia cariciphila* (Speg.) Cif., Ann. Mycol. **29**: 58, 1931. — Type on *Carex bonariensis* Desf., Argentina, Buenos Aires Prov. (no special collection designated; syn. by Vánky 1990: 476).

*Cintractia caricis* (Pers.) Magnus f. *minor* Camara & Oliveira, Agron. Lusit. **7**: 108, 1945. — Neotype (design. by Vánky 1989: 153) on *Carex pendula* Hudson, Portugal, Estremadura Prov., near Sintra, Parque da Pena, 8.VII.1945, M.L. Borges, LISE 24030(!) (syn. by Vánky 1989: 154).

On *Cyperaceae: Carex* spp.; cosmopolitan.

**AFR:** *Carex aethiopica* Schkuhr, *C. bequaertii* De Wild., *C. clavata* Thunb., *C. cognata* Kunth, *C. fischeri* K. Schum., *C. pendula* Hudson, *C. petitiana* A. Rich., *C. phacota* Spreng., *C. spathea* Thunb., *Carex* sp., **Ethiopia, Kenya, Morocco, S. Africa, Uganda.**

**XVII. *GEMINAGO*** Vánky & R. Bauer, in Vánky, Mycoscience **37**: 182, 1996.

**Sori** in cavities of hypertrophied host tissue of plants in *Sterculiaceae.* Spore mass dark, powdery. **Spores** in pairs, pigmented (brown). **Spore germination** results in phragmobasidia.

*Geminago* is a unispecific, endemic genus to Africa. Its type species, *G. nonveilleri*, is one of the very few smut fungi which parasitise woody plants, namely trees of *Triplochiton*.

Type: *G. nonveilleri.*

74. ***Geminago nonveilleri*** (Zambett. & Foko) Vánky & R. Bauer, in Vánky, Mycoscience **37**: 183, 1996. — *Mycosyrinx nonveilleri* Zambett. & Foko, Rev. Mycol. (Paris) **35**: 304, 1971. — Type on *Triplochiton scleroxylon,* Central Africa, Cameroon, Yaoundé, 1970, G. Nonveiller, PC; isotype H.U.V. 1449(!).

On *Sterculiaceae: Triplochiton scleroxylon* K. Schum.; C Africa.

**AFR:** *Triplochiton scleroxylon,* **Cameroon, Ivory Coast, Nigeria.**

**XVIII. *HETERODOASSANSIA*** Vánky, Mycotaxon **48**: 28, 1993.

**Sori** in leaves, petioles and stems of mono- and dicotyledonous paludal or aquatic plants, forming pale green, yellowish or brownish areas with numerous spore balls embedded in the host tissue appearing as minute, brown dots. **Spore balls** fairly persistent, consisting of a central mass of spores surrounded by a cortex of sterile cells. **Cortex** composed of an external layer of small, smooth, empty sterile cells and an internal layer of larger, empty cells with ornamented inner surface.

Eight species of *Heterodoassansia* are known of which two occur in Africa.

Type: *H. morotiana.*

75. ***Heterodoassansia hygrophilae*** (Thirum.) Vánky, Mycotaxon **95**: 56, 2006. — *Doassansia hygrophilae* Thirum., Lloydia **9**: 29, 1946. — Type on *Hygrophila* sp. (= *H. auriculata*, det. K. Vánky), India, Mysore, Nandi Hills, 5.XI.1944, M.J. Thirumalachar, HCIO 10692; isotypes BPI 178386, 178388, 195045, IMI, H.U.V. 15470(!).

On *Acanthaceae: Hygrophila auriculata* (Schumach.) Heine (*H. spinosa* T. Anderson; *Asteracantha longifolia* (L.) Nees); Africa, Asia (India).

**AFR:** *Hygrophila auriculata,* **Ethiopia.**

76. ***Heterodoassansia morotiana*** (Zundel) Vánky, Mycotaxon **48**: 28, 1993. — *Doassansia morotiana* Zundel, Mycologia **43**: 269, 1951. — Type on *Echinodorus ranunculoides* (= *Baldellia ranunculoides*), France, Maine-et-Loire, Cholet, VIII.1894, C. Morot, PC; isotype H.U.V. 12887(!).

*Doassansia intermedia* Morot, J. Bot. (Morot) **5**: 471, 1895 (later homonym, not Setchell, 1894). — Type on *Echinodorus ranunculoides* (= *Baldellia ranunculoides*), France, Maine-et-Loire, Cholet, VIII.1894, C. Morot, PC(!).

On *Alismataceae: Baldellia ranunculoides* (L.) Parl. (*Alisma ranunculoides* L.; *Echinodorus ranunculoides* (L.) Engelm.); Europe, Africa, N America.

**AFR:** *Baldellia ranunculoides,* **Egypt.**

**XIX. *HETEROTOLYPOSPORIUM*** Vánky, Mycotaxon **63**: 144, 1997.

**Sori** in various organs of plants in *Cyperaceae* and *Juncaceae,* forming naked spore masses consisting of two types of spores: thick-walled, pigmented spores, usually agglutinated in spore balls, and thin-walled, smaller, hyaline, solitary spores, dispersed between the spore balls. **Spore balls** composed of spores only. No peridium, no columella and sterile cells between the spore balls and spores. **Germination** of both types of spores resulting in phragmobasidia.

Of the two known species of *Heterotolyposporium* one occurs in Africa.

Type: *H. lepidospermatis.*

77. ***Heterotolyposporium piluliforme*** (Berk.) Vánky, Mycotaxon **63**: 148, 1997. — *Uredo piluliformis* Berk. (as "*pilulaeformis*"), London J. Bot. **2**: 523 (as "423"), 1843. — *Ustilago piluliformis* (Berk.) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 93, 1847. — *Cintractia piluliformis* (Berk.) Henn., Hedwigia **37**: 293, 1898. — *Sorosporium piluliforme* (Berk.) McAlpine (as "*piluliformis*"), Smuts of Australia: 180, 1910. — *Tolyposporium piluliforme* (Berk.) M. Piepenbr. & Begerow, in Piepenbring, Nova Hedwigia **70**: 329, 2000. — Type on *Juncus* sp., Republic of South Africa, Eastern Cape Prov., Uitenhage, near Port Elisabeth, XII, coll. Zeiher 89.

*Ustilago marmorata* Berk., J. Linnean Soc., Bot. **13**: 174, 1872. — Type on *Isolepis prolifera* (Rottb.) R. Br. (= misnamed *Juncus planifolius* R. Br., det. K. Vánky), Australia, South Australia, Mount Gambier, coll. F. v. Müller 94, MEL 1055117(!) (syn. by McAlpine 1910: 180, confirmed).

*Ustilago muelleriana* Thüm., in Thümen, Mycoth. univ. no. 623, 1877; Flora **61**: 444, 1878. — *Cintractia muelleriana* (Thüm.) Cif., Ann. Mycol. **29**: 72, 1931. — Type on *Juncus planifolius* R. Br., Australia, Victoria, River Loddon, summer 1875, coll. F. v. Müller; isotypes in Thümen, Mycoth. univ. no. 623, H.U.V. 1698(!) (syn. by McAlpine 1910: 180, confirmed).

On *Juncaceae: Juncus* spp.; S Africa, Australasia (AU, NZ).

**AFR:** *Juncus bufonius* L., *J. capensis* Thunb., *J. dregeanus* Kunth, *J. lomatophyllus* Spreng., **S. Africa.**

**XX. *JAMESDICKSONIA*** Thirum., Pavgi & Payak, Mycologia **52**: 478, 1960(1961); emend. Raghunath, Sydowia **23**: 104, 1969; emend. J. Walker & R.G. Shivas, Mycological Research **102**: 1212, 1998; emend. R. Bauer, Begerow, A. Nagler & Oberw., Mycological Research **105**: 422, 2001.

**Sori** in leaves and stems of *Poaceae* and *Cyperaceae* as black spots or crusts. **Spores** solitary or in groups, not agglutinated in balls, olive-brown, embedded in the host tissue or erumpent, but not powdery, or occurring on the surface of the host plants and powdery. **Spore germination** results in holobasidia with ballistic basidiospores or secondary ballistospores.

Eighteen species of *Jamesdicksonia* are recognised of which five occur in Africa.

Type: *J. obesa.*

78. ***Jamesdicksonia brizae*** (Unamuno & Cif.) M. Piątek & Vánky, in Piątek & Pronczuk, Polish Bot. J. **51**: 82, 2006. — *Entyloma brizae* Unamuno & Cif., in Unamuno, Boletín de la Sociedad Española de Historia Natural **31**: 335, 1931. — Type on *Briza maxima,* Spain, Sevilla, El Pedroso, V.1915, R. González Fragoso. Syntype: Spain, Cádiz, Almoraima, 8.V.1929, J. Hernandéz, MA(!).

On *Poaceae: Briza maxima* L., *B. hockelii* (Lindm.) Ekman, *B. minor* L.; Europe, Africa, Australasia (NZ), S America, probably cosmopolitan.

**AFR:** *Briza maxima*, *B. minor*, **Algeria, Egypt, Madeira, Morocco.**

79. ***Jamesdicksonia dactylidis*** (Pass.) R. Bauer, Begerow, A. Nagler & Oberw., **s. lat.**, Mycol. Res. **105**: 422, 2001. — *Thecaphora dactylidis* Pass., Ann. Sci. Nat. Bot., Sér. 6, **4**: 231, 1876(1877); in Fischer von Waldheim, Aperçu Syst. Ustil.: 34, 1877. — *Entyloma dactylidis* (Pass.) Cif., Bull. Soc. Bot. Ital. **1924**: 55, 1924. — *Melanotaenium dactylidis* (Pass.) Denchev, Mycotaxon **55**: 252, 1995. — Type on *Dactylis glomerata* L., Italy, Parma, IX, G. Passerini, H.U.V. 1784(!).

For synonyms as *Entyloma crastophilum* Sacc., *E. crepinianum* Sacc. & Roum., *E. catabrosae* Johanson, *E. camusianum* Hariot, *E. schweinfurthii* Henn., *E. hieroënse* Har. & Pat., *E. phalaridis* Speg., *E. cynosuri* Gonz. Frag. & Cif., *Tuburcinia castellana* Gonz. Frag., *E. korshinskyi* Lavrov, *E. camusianum* Hariot var. *pratense* Lavrov, *E. polypogonis* Viennot-Bourgin, *E. alopecurivorum* Lavrov, *E. holci* Liro, *E. deschampsiae* Liro, *E. lagerheimianum* Liro, *E. nubilum* Liro, *E. espinosae* Unamuno, *E. semenoviana* (Lavrov) Gutner, *E. gaudinae* Viennot-Bourgin, *E. anadelphiae* Viennot-Bourgin, and *E. vulpiae* Massenot, see Vánky (1994: 89–90).

On *Poaceae: Agrostis, Aira, Alopecurus, Catabrosa, Cynosurus, Dactylis, Deschampsia, Festuca, Gaudinia, Glyceria, Holcus, Hordeum, Koeleria, Lamarckia, Lolium, Phleum, Poa, Polypogon, Puccinellia, Trisetum, Vulpia* spp.; cosmopolitan.

**AFR:** *Anadelphia pumila* Jacques-Félix, *Cynosurus cristatus* L., *C. echinatus* L., *C. elegans* Desf. *Koeleria caudata* (Link) Steud., *Lophochloa pubescens* (Lam.) H. Scholz, *Polypogon maritimus* Willd., *P. monspeliensis* (L.) Desf., *Sporobolus indicus* R. Br. var. *laxus* Nees, *Vulpia geniculata* (L.) Link subsp. *breviglumis* (Trab.) Murb., **Egypt, Eritrea, Guinea, Madeira, Morocco, Tunisia.**

80. ***Jamesdicksonia major*** (Har. & Pat.) Vánky, Fungal Diversity **14**: 206, 2003. — *Entyloma majus* Har. & Pat., Bull. Mus. Hist. Nat. (Paris) **15**: 197, 1909. — *Melanotaenium majus* (Har. & Pat.) Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3, **1**: 95, 1924. — Type on *Sporobolus spicatus,* Chad, between Modou and Bérirem, X.1903, A. Chevalier, PC; isotypes BPI 175837, H.U.V. 13671(!).

On *Poaceae: Sporobolus* spp.; Africa, Asia, West Indies.

**AFR:** *Sporobolus cordofanus* (Steud.) Coss., *S. ioclados* (Trin.) Nees, *S. spicatus* (Vahl) Kunth, **Chad, Congo, Kenya, Sudan.**

81. ***Jamesdicksonia melinidis*** (Dennis) Vánky, Mycotaxon **89**: 106, 2004. — *Melanotaenium majus* (Har. & Pat.) Cif. var. *melinidis* Dennis, Trans. Brit. Mycol. Soc. **90**: 471, 1988. — Type on *Melinis macrochaeta,* Nigeria, Vom, 27.XII.1963, R. Wheeler Harris, K.

On *Poaceae: Melinis macrochaeta* Stapf & Hubb.; Africa. Known only from the type locality.

**AFR:** *Melinis macrochaeta,* **Nigeria.**

82. ***Jamesdicksonia sporoboli*** (H.S. Jacks.) Vánky, Fungal Diversity **14**: 209, 2003. — *Tolyposporella sporoboli* H.S. Jacks., in Whetzel & Kern, Mycologia **18**: 122, 1926. — *Melanotaenium sporoboli* (H.S. Jacks.) Thirum., M.D. Whitehead & O'Brien, Mycologia **59**: 394, 1967 (later homonym, not Thirum. & M.C. Sriniv. 1964('1963'). — Type on *Sporobolus indicus* (L.) R. Br. (det. A. Chase), Puerto Rico, El Yunque, 14.IV.1916, H.H. Whetzel & E.W. Olive 450, BPI 178141(!); isotypes BPI 178143 & 178144.

On *Poaceae: Sporobolus* spp.; Africa, West Indies.

**AFR:** *Sporobolus brockmanii* Stapf, **Eritrea.**

**XXI.** ***LEUCOCINTRACTIA*** M. Piepenbr., Begerow & Oberw., Mycologia **91**: 496, 1999.

**Sori** around all the pedunculi of an inflorescence or around internodes of the stem of plants in *Cyperaceae* (*Rhynchospora*), cylindrical, when young covered by a thick, white peridium that ruptures irregularly exposing the black, agglutinated spore mass with a powdery surface. Sori with sterile stroma forming sporogenous pockets. Infection systemic. **Spores** single, flattened, without appendages, covered by irregular, rough warts forming ridges at the sides of the spores

Four species of *Leucocintractia* are known of which two are known in Africa.

Type: *L. scleriae.*

83. ***Leucocintractia leucoderma*** (Berk.) M. Piepenbr., Nova Hedwigia **70**: 313, 2000. — *Ustilago leucoderma* Berk., Ann. Mag. Nat. Hist., Ser. 2, **9**: 200, 1852. — *Cintractia leucoderma* (Berk.) Henn., Hedwigia **34**: 335, 1895. — Type on "some sedge" (= *Rhynchospora* sp.), Dominican Republic, Santo Domingo, coll. M.A. Sallé 76, Herb. Berkeley no. 4735, K(!).

*Cintractia junci* (Schwein.) Trelease forma *cylindrica* G. Winter, Hedwigia **26**: 11, 1887. — Type on "*Carex* sp." (doubtful identification), Uruguay, Montevideo, II.1882, J. Arechavaleta. — *C. cancellata* Liro, Ann. Bot. Soc. Zool.-Bot. Fenn. 'Vanamo' **6**: 6, 1935 (nom. inval., no Latin diagnosis, et nom. nov. pro *C. junci* var. *cylindrica*) (syn. by Ling 1951: 311).

*Cintractia affinis* Peck, New York State Mus. Bull. **67**: 28, 1903. — *Leucocintractia affinis* M. Piepenbr., Nova Hedwigia **70**: 312, 2000. — Type on *Rhynchospora macrostachya,* USA, New York, Long Island, Suffolk Co., Smithtown, 8.VIII.1902, C.H. Peck & F.S. Earle, NY; isotypes BPI 170331(!), 170332(!), 194441(!) (syn. by Clinton 1904: 407, Ling 1951: 311, confirmed).

*Cintractia amicta* Cif., Ark. Bot. 23 A (**14**): 10, 1931. — Type on *Rhynchospora barbata* (Vahl) Kunth, Dominican Rep., Santo Domingo Prov., Sabana de Guerra, 13.VIII.1929, E.L. Ekman 2513 & R. Ciferri; isotypes BPI 170337-42, 194436, and in Ciferri, Mycofl. doming. exs. no. 6, H.U.V. 1949(!) (syn. by Ling 1951: 311).

*Leucocintractia leucodermoides* M. Piepenbr. & Begerow, in Piepenbring, Nova Hedwigia **70**: 315, 2000. — Type on *Rhynchospora holoschoenoides,* Brazil, Copacabana-Rio, XII.1897, E. Ule, M; isotypes in Rabenhorst, Fgi. eur. no. 4401, H.U.V. 422(!) (syn. by Vánky 2006: 61).

On *Cyperaceae: Rhynchospora* spp.; Africa, S Asia, N & S America, West Indies.

**AFR:** *Rhynchospora corymbosa* (L.) Britton (*R. aurea* Vahl), *R. holoschoenoides* (L.C. Rich.) Herter (*R. cyperoides* (Seward) Mart.), *Rhynchospora* sp., **Angola, Congo, Mauritius, Sierra Leone, S. Africa, Tanzania.**

Doidge (1950: 377) mentioned *Cintractia leucoderma* on *Rhynchospora dolichostyla* K. Schum. from South Africa (n.v.), which should be verified.

84. ***Leucocintractia scleriae*** (DC.) M. Piepenbr., Begerow & Oberw., Mycologia **91**: 497, 1999. — *Uredo scleriae* DC., in Poiret, Encycl. Méth. Bot. **8**: 228, 1808. — *Ustilago scleriae* (DC.) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, 7: 89, 1847. — *Cintractia scleriae* (DC.) L. Ling, Mycologia **43**: 314, 1951. — Type on *Scleria* sp. (= *Rhynchospora corymbosa*), French Guiana, Cayenne, Herb. de Candolle, G.

*Cintractia krugiana* Magnus, Bot. Jahrb. Syst. **17**: 490, 1893b. — Type on *Rhynchospora gigantea* Link, Puerto Rico, Manati, on the banks of Laguna Tortugero, 12.V.1887, P. Sintenis 6672, NY (syn. by Ling 1951: 314).

*Cintractia krugiana* var. *usambarensis* Henn., Hedwigia **34**: 336, 1895; in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 48, 1895. — *C. usambarensis* (Henn.) Cif., Ark. Bot. 23 A (14): 7, 1931. — Type on *Rhynchospora aurea* (= *R. corymbosa*), Tanzania, Usambara Mts., Vikindo, coll. Stuhlmann 640, HBG; isotypes BM, FH, K, NY (syn. by Ling 1951: 314).

*Cintractia javanica* Racib., Bull. Int. Acad. Sci. Cracovie, Cl. Sci. Math. Nat., **1909**: 351, 1909. — Type on *Cyperus* sp. (= *Rhynchospora corymbosa*), Indonesia, Java, Preanger, Soekanegara, 1900, M. Raciborski, FH; isotypes H.U.V. 430(!), PC (syn. by Ling 1951: 314).

*Cintractia albida* S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 93, 1935. — Type on *Rhynchospora corymbosa,* Taiwan, Taipeh, Prov. Taihoku, Mt. Shichisei, V.1932, T. Suzuki, SAPA; isotypes BPI 194435, H.U.V. 16632(!) (syn. by Ling 1951: 316).

On *Cyperaceae: Rhynchospora* spp.; cosmopolitan in the tropics.

**AFR:** *Rhynchospora corymbosa* (L.) Britton (*R. aurea* Vahl), *R. spectabilis* Hochst., **Cameroon, Guinea, Namibia, Sierra Leone, S. Africa, Tanzania.**

**XXII.** ***MACALPINOMYCES*** Langdon & Full., Trans. Brit. Mycol. Soc. **68**: 30, 1977, emend. Vánky, Mycotaxon **59**: 119, 1996, and Mycotaxon **62**: 129, 1997.

**Sori** in ovaries, culms and other parts of plants in *Poaceae,* usually causing hypertrophy, covered by a peridium of host tissue permeated by hyphae. True columella lacking. **Spores** pigmented, tightly packed, usually polyangular, filling the sori. **Sterile cells** of variable size and wall thickness, solitary or grouped, hyaline or pale coloured, embedded and scattered in the spore mass. At maturity, spore mass disintegrating into irregular groups of variable size or into single spores. **Spore germination** of *Ustilago*-type.

Forty-five species of *Macalpinomyces* are recognised of which 22 are present in Africa.

Type: *M. eriachnes.*

85. ***Macalpinomyces chloridionis*** (L. Ling) Vánky, Mycotaxon **81**: 416, 2002. — *Ustilago chloridionis* L. Ling, Lloydia **16**: 180, 1953. — Type on *Chloridion cameronii* (= *Stereochlaena cameronii*), Nyasaland [Malawi], Northern Prov., Vipya plateau, X.1950, G. Jackson, IMI 44452; isotypes BPI 159615, H.U.V. 17806(!).

On *Poaceae: Stereochlaena cameronii* (Stapf) Pilger (*Chloridion cameronii* Stapf); Africa.

**AFR:** *Stereochlaena cameronii,* **Malawi, Zambia.**

86. ***Macalpinomyces elionuri-tripsacoidis*** Vánky, Mycotaxon **85**: 43, 2003. — Type on *Elionurus tripsacoides,* Zambia, Southern Prov., 70 km SW of Lusaka, alt. c. 1060 m, 16.IV.2001, T., C. & K. Vánky, H.U.V. 19956(!); isotypes BPI, IMI, K. Paratypes on *Elionurus tripsacoides,* Zambia, Southern Prov., 22 km NE of Pemba, alt. c. 1060 m, 12.IV.2001, C., T. & K. Vánky, H.U.V. 19959(!); isoparatype BPI; Zambia, Southern Prov., 87 km NNE of Livingstone, alt. c. 1210 m, 14.IV.2001, C., T. & K. Vánky, H.U.V. 19958(!).

On *Poaceae: Elionurus tripsacoides* Willd.; Africa.

**AFR:** *Elionurus tripsacoides,* **Zambia.**

87. ***Macalpinomyces elymandrae*** (Vienn.-Bourg.) Vánky, Mycotaxon **85**: 58, 2003. — *Sphacelotheca elymandrae* Vienn.-Bourg., Rev. Pathol. Vég. Entomol. Agric. France

**37**: 170, 1958. — Type on *Elymandra androphila,* Guinea, near Boké, XI.1956, Jacques-Félix, PC (Herb. Viennot-Bourgin); isotype H.U.V. 15801(!).

On *Poaceae: Elymandra androphila* Stapf; Africa. Known only from the type collection.

**AFR:** *Elymandra androphila,* **Guinea.**

88. ***Macalpinomyces leptocarydionis*** Vánky & C. Vánky, in Vánky, Mycotaxon **81**: 407, 2002. — Type on *Leptocarydion vulpiastrum,* Zambia, Southern Prov., 126 km SE of Kafue, 8 km N of Siavonga, alt. c. 670 m, 30.IV.2001, C. & K. Vánky, H.U.V. 19631(!); isotypes in Vánky, Ust. exs. no. 1137.

On *Poaceae: Leptocarydion vulpiastrum* (De Not.) Stapf; C Africa. Known only from the type collection.

**AFR:** *Leptocarydion vulpiastrum,* **Zambia.**

89. ***Macalpinomyces loudetiae*** (Vienn.-Bourg.) Vánky, Mycotaxon **62**: 130, 1997. — *Sorosporium loudetiae* Vienn.-Bourg., Rev. Mycol., Suppl. Colon. **16**: 104, 1951; Ann. Épiphyt. **2**: 468, 1951. — *Endosporisorium loudetiae* (Vienn.-Bourg.) Vánky, Mycotaxon **54**: 235, 1995. — Type on *Loudetia* sp. (= *L. arundinacea,* det. K. Vánky), Cameroon, Ngdéré near Meiganga, VI.1939, Jacques-Félix, PC(!); isotype H.U.V. 13673(!).

On *Poaceae: Loudetia* spp.; Africa.

**AFR:** *Loudetia arundinacea* (Hochst. ex A. Rich.) Steud. (*Trichopteryx arundinacea* (Hochst. ex A. Rich.) Engl.), *L. flavida* (Stapf) C.E. Hubb., *L. simplex* (Nees) C.E. Hubb., *Loudetia* sp., **Cameroon, Congo, Sierra Leone, S. Africa, Zimbabwe.**

*Sorosporium consanguineum* on *Loudetia simplex* from S Africa, mentioned by Zundel (1943: 167) and Doidge (1950: 378) is *Macalpinomyces loudetiae.* Probably the same refers also to *Sorosporium consanguineum* on *Loudetia* spp. in Zimbabwe (Whiteside 1966: 161).

90. ***Macalpinomyces magicus*** Vánky & T. Vánky, in Vánky, Mycotaxon **81**: 412, 2002. — Type on *Loudetia flavida,* Zambia, Lusaka Prov., 124 km ENE of Lusaka, alt. c. 1035 m, 17.IV.2001, T., C. & K. Vánky, H.U.V. 19647; isotypes in Vánky, Ust. exs. no. 1130. Paratype: Southern Prov., 75 km ESE of Kafue, Chirundu Fossil Forest, alt. c. 490 m, 28.IV.2001, C. & K. Vánky, H.U.V. 19648(!); isoparatypes BPI, IMI 386802.

On *Poaceae: Loudetia flavida* (Stapf) C.E. Hubb.; C Africa. Known from several collections in a relatively restricted area.

**AFR:** *Loudetia flavida*, **Zambia.**

91. ***Macalpinomyces neglectus*** (Niessl) Vánky, Mycotaxon **89**: 106, 2004. — *Ustilago neglecta* Niessl, in Rabenhorst, Fgi. eur. no. 1200, 1868. — *Sporisorium neglectum* (Niessl) Vánky, Symb. Bot. Upsal. **24**(2): 119, 1985. — Type on *Setaria glauca* auct., non (L.) P. Beauv. (= *S. pumila* (Poiret) Schultes), Austria, Steiermark, near Graz, coll. G. von Niessl; isotypes in Rabenhorst, Fgi. eur. no. 1200, H.U.V. 4156(!).

*Erysibe panicorum* Wallr. α *panici-glauci* Wallr., Flora Cryptogamica Germaniae, Sect. 2, **4**: 216, 1833. — *Ustilago panici-glauci* (Wallr.) G. Winter, in Rabenhorst, Krypt.-Fl., 2 Aufl., **1**(1): 97, 1881. — Type on *Panicum glaucum* L. (= *Setaria pumila* (Poiret) Schultes), Germany, near Halle.

On *Poaceae: Setaria* spp.; cosmopolitan.

**AFR:** *Setaria ustilata* De Wit, **Zimbabwe.**

92. ***Macalpinomyces nigritanae*** Vánky, Mycotaxon **65**: 143, 1997. — Type on *Vetiveria nigritana,* Sierra Leone, Eastern Prov., Madina, 20.VII.1946, F.C. Deighton, H.U.V. 17970(!). Paratype on *Vetiveria* ?*zizanioides* (L.) Nash, Ghana, Nyankpola, 8.III.1958, McEwen, H.U.V. 17969(!). (In absence of a healthy sample it was not possible to check the host plant identity).

On *Poaceae: Vetiveria* spp.; Africa.

**AFR:** *Vetiveria nigritana* (Benth.) Stapf, *V.* ?*zizanioides* (L.) Nash, **Ghana, Sierra Leone.**

93. ***Macalpinomyces nodiglumis*** Vánky, Mycotaxon **81**: 414, 2002. — Type on *Tristachya nodiglumis,* Zambia, Lusaka Prov., 124 km ENE of Lusaka, alt. c. 1035 m, 17.IV.2001, T., C. & K. Vánky, H.U.V. 19644; isotypes in Vánky, Ust. exs. no. 1139. Paratype: Lusaka Prov., 169 km ENE of Lusaka, alt. c. 960 m, 17.IV.2001, T., C. & K. Vánky, H.U.V. 19645(!).

On *Poaceae: Tristachya nodiglumis* K. Schum.; C Africa. Known from several collections in a relatively restricted area.

**AFR:** *Tristachya nodiglumis*, **Zambia.**

94. ***Macalpinomyces ovariicolopsis*** (Vánky) Vánky, Mycotaxon **81**: 427, 2002. — *Sporisorium ovariicolopsis* Vánky, Mycotaxon **74**: 203, 2000. — Type on *Andropogon gayanus,* Zimbabwe, Matabeleland North Prov., 12 km N of Lusulu, alt. c. 1010 m, 16.III.1999, C. & K. Vánky, H.U.V. 18903(!); isotypes BPI, IMI 380467, S.

On *Poaceae: Andropogon gayanus* Kunth; Africa.

**AFR:** *Andropogon gayanus,* **Malawi, Zambia, Zimbabwe.**

95. ***Macalpinomyces panici*** Vánky, Mycotaxon **91**: 219, 2005. — Type on *Panicum aequinerve,* South Africa, KwaZulu-Natal Prov., Royal Natal National Park, 1.5 km from the visitor centre towards the "amphitheatre", alt. c. 1510 m., 29.XII.1996, C. & K. Vánky, H.U.V. 20616(!); isotypes in Vánky, Ust. exs. no. 1237. Paratype: KwaZulu-Natal Prov., Drakensberg Mts., Loteni Nature Reserve, alt. c. 1610 m., 6.I.1997, C. & K. Vánky, H.U.V. 20617(!); isoparatype PREM.

On *Poaceae: Panicum aequinerve* Nees; S Africa. Known only from the type collections.

**AFR:** *Panicum aequinerve,* **S Africa.**

96. ***Macalpinomyces pogonarthriae*** Vánky & C. Vánky, in Vánky, Mycotaxon **81**: 409, 2002. — Type on *Pogonarthria squarrosa* (Roem. & Schult.) Pilger, Zambia, Southern Prov., 135 km NE of Livingstone, 25 km E of Kalomo, alt. c. 1250 m, 12.IV.2001, C., T. & K. Vánky, H.U.V. 19675(!); isotypes in Vánky, Ust. exs. no. 1131. Paratypes: Zimbabwe, Matabeleland North Prov., 3.5 km E of Binga–Chilala intersection, alt. c. 600 m, 15.III.1999, C. & K. Vánky, H.U.V. 19099(!); Zambia, Southern Prov., 46 km NNE of Livingstone, alt. c. 1040 m, 14.IV.2001, C., T. & K. Vánky, H.U.V. 19676(!); Southern Prov., 23 km SE of Kafue, alt. c. 930 m, 28.IV.2001, C. & K. Vánky, H.U.V. 19677(!).

On *Poaceae: Pogonarthria squarrosa* (Roem. & Schult.) Pilger; C & S Africa. Probably not rare but easily overlooked.

**AFR:** *Pogonarthria squarrosa,* **Zambia, Zimbabwe.**

97. ***Macalpinomyces pretoriensis*** (Pole-Evans) Vánky, Mycotaxon **85**: 57, 2003. — *Ustilago pretoriensis* Pole-Evans, in Sydow & Sydow, Ann. Mycol. **12**: 263, 1914. — *Sphacelotheca pretoriensis* (Pole-Evans) Zundel, Bothalia **3**: 301, 1938. — *Sporisorium pretoriense* (Pole-Evans) Vánky 1998, nom. herb. — Type on *Panicum helopus* var. *glabrescens* (= *Urochloa panicoides*), South Africa, Transvaal, Pretoria, 20.III.1914, A.O.D. Mogg, PREM 7408; isotype H.U.V. 18004(!).

On *Poaceae: Megathyrsus* (*Panicum*) and *Urochloa* spp.; C & S Africa.

**AFR:** *Megathyrsus maximus* (Jacq.) B.K. Simon & S.W.L. Jacobs (*Panicum maximum* Jacq.), *Urochloa brachyurus* (Hack.) Stapf, *U. panicoides* P. Beauv. (*U. helopus* (Trin.) Stapf; *Panicum helopus* Trin. var. *glabrescens* (K. Schum.) Stapf), *U. trichopus* (Hohst.) Stapf, **Malawi, S. Africa, Zambia, Zimbabwe.**

98. ***Macalpinomyces simplex*** Vánky, Mycotaxon **74**: 202, 2000. — Type on *Loudetia simplex,* Zimbabwe, Manicaland Prov., 31 km SSE of Nyanga, "Scenic Route", alt. c. 1750 m, 21.II.1999, C. & K. Vánky, H.U.V. 18901(!); isotypes BPI 746884 and in Vánky, Ust. exs. no. 1064. Paratype on *Loudetia simplex,* Zimbabwe, Manicaland Prov., 85 km N of Mutare, Nyanga National Park, Nyamziwa Falls, alt. c. 1910 m, 22.II.1999, C. & K. Vánky, H.U.V. 18902(!).

On *Poaceae: Loudetia simplex* (Nees) C.E. Hubb.; Africa.

**AFR:** *Loudetia simplex,* **Malawi, S. Africa, Zimbabwe.**

99. ***Macalpinomyces spermophorus*** (Berk. & M.A. Curtis ex de Toni) Vánky, Fungal Diversity **14**: 210, 2003. — *Ustilago spermophora* Berk. & M.A. Curtis, in Curtis, Flowerless plants: 123, 1867 (as "*spermophorus*"; nom. nud.). — *Ustilago spermophora* Berk. & M.A. Curtis ex de Toni, in Saccardo, Syll. Fung., etc., **7**: 466, 1888. — *Sphacelotheca spermophora* (Berk. & M.A. Curtis ex de Toni) Moesz, Bot. Közlem. **19**: 63, 1921. — Type on *Eragrostis poaeoides* P. Beauv. var. *megastachya* Koehler (= *Eragrostis cilianenis* (All.) Janchen), USA, Iowa, Charles City, IX.1882, J.C. Arthur; isotypes in Ellis, N. Amer. fgi. no. 1098 (as *Ustilago spermophorus*), H.U.V. 10545(!).

*Ustilago boutelouae* Kellerman & Swingle, J. Mycol. **5**: 13, 1889. — Type on *Bouteloua oligostachya* Torr. (= *B. gracilis* (H.B.K.) Lag. ex Steud.), USA, Kansas, 20.XII.1888, BPI 158131(!) (syn. by Vánky 2004: 168).

*Ustilago kusanoana* Henn., Hedwigia **43**: 140, 1904. — *Sphacelotheca kusanoana* (Henn.) Henn., Hedwigia **44**: 594, 1905. — *Cintractia kusanoana* (Henn.) Shirai, A list of Japanese fungi hitherto known, Tokyo: 20, 1905. — Type on *Eragrostis ferruginea* P. Beauv., Japan, Tokio, IX.1901, S. Kusano 350, S(!) (syn. by Zundel 1953: 203, confirmed).

*Ustilago ugandensis* Henn. var. *macrospora* Beeli, Bull. Jard. Bot. État **8**: 6, 1922. — Lectotype (design. by Vánky 2004: 115) on *Panicum* sp., Congo, Leopoldville Prov., Kisantu, VII.1914, H. Vanderyst 4657, BR 1318; isolectotypes BPI 194482(!) (syn. by Vánky 2004: 115).

*Ustilago orientalis* Yen, Contr. Inst. Bot. Natl. Acad. Peiping **3**: 7, 1935 (nom. illeg., no Latin diagnosis). — *Ustilago spermophora* Berk. & M.A. Curtis var. *orientalis* (Yen) Yen, Contr. Inst. Bot. Natl. Acad. Peiping **4**: 187, 1937 (comb. illeg.). — On *Eragrostis cilianensis* (All.) Lutati, China, Nanking, near Lingkutze, IX.1930, T.-N. Liou, PC (syn. by Zundel 1953: 204, confirmed).

*Ustilago eragrostidis-japonicana* Zundel, Mycologia **35**: 165, 1943. — Type on *Eragrostis japonica* Trin., South Africa, Cape Prov., Vryburg Distr., Welgelegen, IV.1925, G.A. Pentz, PREM 20621; isotypes BPI 160370 & 188933 (syn. by Vánky 2004: 115).

*Sphacelotheca cheoana* Zundel, Mycologia **35**: 168, 1943. — Type on *Eragrostis cilianensis* (All.) Lutati, China, Anhwei Prov., Chu Hua Shan, Ch'ing Yang Hsien, Sha Kan, 24.X.1932, S.Y. Cheo 1395, BPI 177306(!) (syn. by Vánky 1990: 273).

*Ustilago convertere-sexualis* Durán, Ustil. Mexico: 228, 1987. — Type on *Cathestecum prostratum* Presl, Mexico, Puebla, 3.2 km S of Tehuitzingo, off Hwy. 190, alt. 1371 m, 16.XI.1976, R. Durán & P.M. Gray, WSP 67752(!) (syn. by Vánky 2004: 170).

*Ustilago pueblaensis* Durán, Ustil. Mexico: 243, 1987. — Type on *Cathestecum prostratum* Presl, Mexico, Puebla, 3.2 km S of Tehuitzingo, off Hwy. 190, alt. 1371 m, 16.XI.1976, R. Durán & P.M. Gray, WSP 67755. Paratype on *Cathestecum erectum* Vasey & Hack, Mexico, Puebla, 29.1 km NW of Tehuitzingo, off Hwy. 190, on the road to Oaxaco, alt. 1432 m, 16.XI.1976, R. Durán & P.M. Gray, WSP 68569; isoparatype H.U.V. 14632(!) (syn. by Vánky 2004: 170).

On *Poaceae: Bouteloua, Cathestecum, Eragrostis* (principal host genus), *Hilaria, Panicum,* and *Sporobolus* spp.; cosmopolitan.

**AFR:** *Eragrostis cilianensis* (All.) F.T. Hubb., *E. curvula* (Schrad.) Nees, *E. japonica* (Thunb.) Trin., *E. patens* Oliv., *E. viscosa* (Retz.) Trin., *Eragrostis* sp., *Panicum* sp., **Congo, S. Africa, Sudan, Zambia, Zimbabwe.**

100. ***Macalpinomyces spinulosus*** (L. Ling) Vánky, Fungal Diversity **14**: 212, 2003. — *Ustilago spinulosa* L. Ling, Sydowia **7**: 154, 1953. — Type on *Sporobolus patulus* (= *S. paniculatus*), Sierra Leone, summit of Picket Hill, 18.XI.1951, T.S. Jones, IMI 48887; isotypes BPI 166739, H.U.V. 17398(!).

On *Poaceae: Sporobolus paniculatus* (Trin.) Th. Dur. & Schinz (*S. patulus* Hack.); W Africa. Known only from the type collection.

**AFR:** *Sporobolus paniculatus,* **Sierra Leone.**

101. ***Macalpinomyces tanakae*** (S. Ito) Vánky, Mycotaxon **69**: 112, 1998. — *Ustilago tanakae* S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 87, 1935. — *Sphacelotheca tanakae* (S. Ito) Zundel, Ustil. World: 208, 1953. — Type on *Setaria italica* (L.) P. Beauv. var. *germanica* (Mill.) Schrader, Japan, Hokkaido, Ishikari Prov., Maruyama near Sapporo, 24.IX.1927, coll. I. Tanaka.

On *Poaceae: Setaria* and *Urochloa* spp.; Africa, E Asia.

**AFR:** *Urochloa brizantha* (Hochst. ex A. Rich.) R.D. Webster (*Brachiaria brizantha* (A. Rich.) Stapf), **Zambia.**

102. ***Macalpinomyces tilletioides*** Vánky, Mycol. Balcan. **2**: 91 2005. — Type on *Pennisetum sphacelatum,* Ethiopia, Arsi Region, 11 km S of Asela, alt. 2630 m, 4.XI.2004, T. & K. Vánky, H.U.V. 20828(!); isotypes in S, BPI 863738, and in Vánky, Ust. exs. no. 1253. Paratype: Ethiopia, Gondar Region, 20 km NE of Gondar, alt. 2780 m, 24.X.2004, T. & K. Vánky, H.U.V. 20829(!).

On *Poaceae: Pennisetum sphacelatum* (Nees) Th. Dur. & Schinz; NE Africa. Known only from the type collections.

**AFR:** *Pennisetum sphacelatum,* **Ethiopia.**

103. ***Macalpinomyces trichopterygis*** Vánky & C. Vánky, in Vánky, Mycotaxon **65**: 163, 1997. — Type on *Trichopteryx dregeana,* South Africa, Mpumalanga Prov., Drakensberg Mts., c. 10 km NE of Graskop, alt. c. 1680 m, 21.I.1997, C. & K. Vánky, H.U.V. 18024(!); isotypes PREM, BPI and in Vánky, Ust. exs. no. 1009.

On *Poaceae: Trichopteryx dregeana* Nees; S Africa. Known only from the type collection.

**AFR:** *Trichopteryx dregeana,* **S. Africa.**

104. ***Macalpinomyces tristachyae*** Vánky & C. Vánky, in Vánky, Mycotaxon **65**: 165, 1997. — Type on *Tristachya leucothrix* Nees, South Africa, KwaZulu-Natal Prov., c. 20 km ENE of Underberg, The Swamp Nature Reserve, 2 km N of Pevensey, alt. c. 1550 m, 8.I.1997, C. & K. Vánky, H.U.V. 18040(!); isotypes in PREM, BPI, IMI and in Vánky, Ust. exs. no. 1010. Paratype: Mpumalanga Prov., c. 10 km NE of Graskop, alt. c. 1680 m, 21.I.1997, C. & K. Vánky, H.U.V. 18041(!); isoparatypes in BPI, PREM.

On *Poaceae: Tristachya leucothrix* Nees; S Africa.

**AFR:** *Tristachya leucothrix,* **S. Africa.**

105. ***Macalpinomyces ugandensis*** Vánky, Mycotaxon **85**: 50, 2003. — Type on *Sorghastrum stipoides,* Uganda, Rakai Distr., 40 km SW of Masaka, 6 km NE of Kyotera, alt. c. 1190 m, 27.II.2002, T., C. & K. Vánky, H.U.V. 19992(!), isotypes in MHU, BPI 842306 and in Vánky, Ust. exs. no. 1177. Paratype on *Loudetia phragmitoides* (Peter) C.E. Hubb., the same place, date and collectors as the type, H.U.V. 19993(!) isoparatypes BPI 842307, MHU, K.

On *Poaceae: Sorghastrum stipoides* (Kunth) Nash, *Loudetia phragmitoides* (Peter) C.E. Hubb.; C Africa. Known only from the type collections.

**AFR:** *Sorghastrum stipoides, Loudetia phragmitoides,* **Uganda.**

106. ***Macalpinomyces zonotriches*** Vánky, Mycotaxon **59**: 122, 1996. — Type on *Zonotriche inamoena,* Africa, N Rhodesia [Zambia], 10.V.1957, coll. A. Angus, IMI 70722(!); isotypus in H.U.V. 17388(!). Paratype: Zambia, N of Kafue, Shimabala, 30.IV.1961, coll. A. Angus, IMI 90027(!), H.U.V. 17389(!).

On *Poaceae: Zonotriche inamoena* (K. Schum.) W.D. Clayton (*Tristachya inamoena* K. Schum.); C Africa.

**AFR:** *Zonotriche inamoena,* **Zambia.**

**XXIII.** ***MELANIELLA*** R. Bauer, Vánky, Begerow & Oberw., Mycologia **91**: 482, 1999.

**Sori** in leaves or stems of plants in *Selaginellaceae* (*Selaginella*) forming black, non-erumpent spots. **Spores** single, brown, embedded in the host tissue, not pulverulent. Fungal cells exclusively intercellular, hyphae with clamp connections. **Spore germination** of *Exobasidium*-type, i.e. holobasidia with septate, abaxially curved, ballistosporic basidiospores.

Of the two known species of *Melaniella* one was found also in Africa.

Type: *M. oreophila*.

107. ***Melaniella oreophila*** (Syd.) R. Bauer, Vánky, Begerow & Oberw., Mycologia **91**: 483, 1999. — *Melanotaenium oreophilum* Syd., Ann. Mycol. **33**: 367, 1935. — Neotype (design. by Bauer *et al.* 1999: 483) on *Selaginella delicatula* (Desv.) Alston (det. Karthikeyan, BSI), India, Uttar Pradesh, Mussoorie, Mt. Gun Hill, alt. c. 2120 m, 20.IX.1992, T. & K. Vánky, H.U.V. 15689(!); isoneotypes in Vánky, Ust. exs. no. 912 (as *Melanotaenium oreophilum*).

On *Selaginellaceae: Selaginella* spp.; Africa, S Asia.

**AFR:** *Selaginella abyssinica* Spring, **Zimbabwe.**

**XXIV.** ***MELANOPSICHIUM*** Beck, Ann. K. K. Naturhist. Hofmus. (Wien) **9**: 122, 1894.

**Sori** as conspicuous galls in various parts of plants in the *Polygonaceae* (*Polygonum*), composed of hypertrophied host tissue and mycelia, with numerous chambers filled with many, solitary **spores** embedded in a gelatinous mass. **Spore germination** of *Ustilago*-type.

Two species of *Melanopsichium* are recognised of which one occurs also in Africa.

Type: *M. austroamericanum.*

108. ***Melanopsichium pennsylvanicum*** Hirschh., Notas Mus. La Plata, Bot. **6**: 149, 1941. — Type on *Polygonum pennsylvanicum* L., USA, Kansas, Phillipsburg, 23.VIII.1910, E. Bartholomew, LPS 3138(!). Paratype on *Polygonum lapathifolium,* USA, Illinois, Urbana, 8.IX.1892, G.P. Clinton, LPS 3137(!).

*Melanopsichium pennsylvanicum* var. *besseyanum* Zundel, Mycologia **35**: 183, 1943. — Type on *Polygonum* sp., USA, Iowa, Ames, X.1878, C.E. Bessey, FH, BPI 176946(!) (syn. in Vánky 1985: 85).

*Melanopsichium pennsylvanicum* var. *caulicola* Zundel, Mycologia **35**: 184, 1943. — Type on *Polygonum lapathifolium,* USA, New York, Rockland Co, Congers, 25.X.1934, A.D. Davies, CUP, FH (syn. in Vánky 1985: 85).

*Melanopsichium missouriense* M.D. Whitehead & Thirum., Mycologia **52**: 191, 1960. — Type on "*Glycine max* (L.) Merr." (= misidentified *Polygonum* sp., det. Langdon & Cusack 1978: 43, and Schiller & Sinclair 1979: 605), USA, Missouri, Macon, IX.1954, BPI, FH, NY, UMO, WIS (syn. by Langdon & Cusack 1978: 43, and Schiller & Sinclair 1979: 605).

On *Polygonaceae: Polygonum* (sect. *Persicaria*) spp.; cosmopolitan.

**AFR:** *Polygonum barbatum* L., *P. lapathifolium* L., *P. senegalense* Meisn., *Polygonum* sp., **Congo, Ethiopia, Kenya, S. Africa, Tanzania, Uganda, Zambia, Zimbabwe.**

**XXV.** ***MELANOTAENIUM*** de Bary, Bot. Zeitung (Berlin) **32**: 105, 1874.

**Sori** in leaves, stems or roots of dicotyledonous plants as black or dark lead-coloured spots or swellings. **Spores** embedded in the host tissue, single, often aggregated, not powdery, dark-coloured (reddish brown), thick-walled. **Spore germination** of *Tilletia*-type.

Nine species of *Melanotaenium* are known. Two of them occur also in Africa.

Type: *M. endogenum.*

109. ***Melanotaenium cingens*** (Beck) Magnus, Oesterr. Bot. Z. **42**: 40, 1892. — *Ustilago cingens* Beck, Oesterr. Bot. Z. **31**: 313, 1881. — *Cintractia*? *cingens* (Beck) de Toni, in Saccardo, Syll. Fung. **7**: 481, 1888. — Type on *Linaria genistifolia* (L.) Mill., Austria, Leopoldsberg Mt. near Wien, VI.1880, G. Beck, H.U.V. 1403(!).

*Ustilago*? *caulium* Schneider, 1871 (nom. nud., in litt.). — *Melanotaenium caulium* (Schneider) J. Schröt., in Cohn, Krypt. Fl. Schles. **3**: 285, 1887. — Type on *Linaria vulgaris* Mill., Germany, Silesia, Liegnitz [now Poland, Legnica], "Bruchdamm", VI.1871, G.W. Schneider.

On *Scrophulariaceae: Linaria* spp.; Europe, N Africa, Asia.

**AFR:** *Linaria tristis* (L.) Mill., **Morocco.**

110. ***Melanotaenium endogenum*** (Unger) de Bary, Bot. Zeitung (Berlin) **32**: 106, 1874. — *Protomyces endogenus* Unger, Die Exantheme der Pflanzen, etc.: 342, 1833. — *Physoderma endogenum* (Unger) Cornu, Ann. Sci. Nat. Bot. **15**: 291, 1883. — Type on *Galium mollugo* L., Austria, Tirol, Kitzbühel, coll. F. Unger.

*Protomyces galii* T. Nees & Henry, Das System der Pilze, Abth. **1**: 10, 1837 (nom. nov. superfl. pro *P. endogenus*).

On *Rubiaceae: Asperula* and *Galium* spp.; Europe, N Africa, Asia.

**AFR:** *Asperula hirsuta* Desf., **Algeria.**

**XXVI.** ***MICROBOTRYUM*** Lév., Ann. Sci. Nat. Bot., Sér. 3, **8**: 372, 1847; emend. G. Deml & Oberw., Phytopathol. Z. **104**: 353, 1982; emend. G. Deml & Prillinger, in Prillinger *et al.,* Bot. Acta **104**: 9, 1991; emend. Vánky, Mycotaxon **67**: 39, 1998.*

**Sori** in various organs of the host plants in several dicotyledonous families. Peridium, columella, and capillitium-like threads absent in the sori. Spore mass dusty, light to dark purplish brown. **Spores** solitary, pale to dark violet-brown, surface variously ornamented, often reticulate, also echinulate, verrucose or striate. **Sterile cells** absent between the spores. **Spore germination** results in phragmobasidia with successive production of sessile basidiospores; sterigmata absent.

Type: *M. antherarum* (= *M. violaceum*).

111. ***Microbotryum afromontanum*** Vánky, Mycotaxon **95**: 50, 2006. — Type on *Cerastium afromontanum,* Ethiopia, Gondar Region, 62 km NE of Debart, Simien Mountains, alt. 4060 m, 25.X.2004, T. & K. Vánky, H.U.V. 20888(!); isotypes in S, BPI 863704, and in Vánky, Ust. exs. no. 1265.

On *Caryophyllaceae* (subfam. *Alsinoideae*): *Cerastium afromontanum* T.C.E. Fr. & Weimark; Africa. Known only from the type collection.

**AFR:** *Cerastium afromontanum,* **Ethiopia.**

112. ***Microbotryum cephalariae*** (Vánky) Vánky, Mycotaxon **67**: 42, 1998. — *Ustilago cephalariae* Vánky, Mycotaxon **18**: 334, 1983. — Type on *Cephalaria humilis,* South Africa, Lesotho, Butha-Bute Distr., Oxbow Tourist Lodge, alt. c. 2460 m, 26.I.1982, O. Hedberg, H.U.V. 10980(!).

On *Dipsacaceae: Cephalaria humilis* (Thünb.) Roem. & Schult.; S Africa. Known only from the type locality.

**AFR:** *Cephalaria humilis,* **Lesotho.**

113. ***Microbotryum dianthorum*** (Liro) H. & I. Scholz, Englera **8**: 206, 1988, emend. M. Lutz *et al.,* Mycol. Progr. **4**: 234, 2005. — *Ustilago dianthorum* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 35, 1924. — *Ustilago violacea* (Pers. : Pers.) Rouss. var. *dianthorum* (Liro)

*One of us (Denchev) prefers to treat *Microbotryum* in a narrow sense, i.e. as a genus restricted to the group of the anthericolous species (incl. *M. majus*) on *Caryophyllaceae.*

Durrieu & Zambett., Bull. Soc. Mycol. France **89**: 288, 1973 (invalidly published; ICBN/Vienna, Art. 33.4). — Lectotype on *Dianthus deltoides* (design. by Lindeberg 1959: 142), Finland, Tavastia borealis, Jyväskylä, Ristikivi, 7.VII.1912, J.I. Liro; isolectotypes in Mycoth. fenn. no. 350 (as "*Ustilago dianthorum*"), H.U.V. 7751(!).

On *Caryophyllaceae* (subfam. *Silenoideae*): *Dianthus* spp.; Europe, Africa, Asia.

**AFR:** *Dianthus lusitanus* Brot., *D. micropetalus* Ser., *D. serrulatus* Desf., *D. sylvestris* Wulfen (*D. inodorus* (L.) Gaertn.; *D. virgineus* Gren. & Godron), *D. sylvestris* subsp. *siculus* (C. Presl.) Tutin (*D. longicaulis* Ten.), **Algeria, Morocco, S. Africa.**

114. ***Microbotryum duriaeanum*** (Tul. & C. Tul.) Vánky, Mycotaxon **67**: 43, 1998. — *Ustilago duriaeana* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 105, 1847. — Type on *Cerastium glomeratum,* Algeria, Tlemcen, 30.V.1842, R.C. Durieu de Maisonneuve, PC(!).

*Ustilago ducellieri* Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 140, 1917. — Type on *Arenaria serpyllifolia* L., Algeria, "dunes de Maison-Carrée", 10.III.1912, L. Ducellier, MPU, Herb. Maire 560(!).

*Ustilago lepyrodiclidis* Schwarzman, Golovnevye griby, in Fl. Spor. Rast. Kazakhstana **2**: 150, 1960. — Type on *Lepyrodiclis stellarioides* Schrenk (= *Arenaria stellarioides* Willd. ex Schltdl.), Kazakhstan, Boroldai-tau Mt., at the village Vannovka, 30.V.1947, B.A. Bykov, AA. (for spore measurements comp. Karatygin & Azbukina 1989: 117).

On *Caryophyllaceae* (subfam. *Alsinoideae*): *Arenaria, Cerastium, Moehringia* spp.; Europe, N Africa, Asia, N America.

**AFR:** *Arenaria serpyllifolia* L., *Cerastium arvense* L., *C. brachypetalum* Pers., *C. diffusum* Pers. (*C. tetrandrum* Curtis), *C. glaucum* Gren. var. *octandrum* Gren., *C. glomeratum* Thuill. *C. semidecandrum* L., **Algeria, Morocco.**

115. ***Microbotryum kuehneanum*** (Wolff) Vánky, Mycotaxon **67**: 45, 1998. — *Ustilago kuehneana* Wolff, Bot. Z. **32**: 815, 1874. — Type on *Rumex acetosella,* Germany, Halle A/S., Dölauer Heide, VI.1871, R. Wolff.

*Ustilago utriculosa* Tul. & C. Tul. var. *rumicis* Berk., Grevillea **3**: 59, 1874. — *Ustilago rumicis* (Berk.) G.P. Clinton, Proc. Boston Soc. Nat. Hist. **31**: 380, 1904. — Lectotype (design. by Clinton 1906: 23) on *Rumex acetosella,* USA, South Carolina, Santee Canal, FH.

*Ustilago acetosellae* Maire, Bull. Soc. Hist. Nat. Afrique N. **7**: 79, 1915. — Type on *Rumex acetosella* subsp. *angiocarpus,* Algeria, Fort-National, roadside of Taourirt–Amokhran, 8.IV.1912, R. Maire; isotypes in Maire, Mycoth. Bor.-Afric. 28, H.U.V. 3208(!).

On *Polygonaceae: Rumex* (subgen. *Acetosella*) spp.; Europe, N Africa, N America.

**AFR:** *Rumex acetosella* L. subsp. *angiocarpus* Murb., **Algeria.**

116. ***Microbotryum lychnidis-dioicae*** (DC. ex Liro) G. Deml & Oberw., Phytopathol. Z. **104**: 353, 1982. — *Uredo antherarum* DC. δ *lychnidis-dioicae* DC., Fl. franç., ed. 3, **6**: 79, 1815 (nom. nud.). — *Ustilago lychnidis-dioicae* DC. ex Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 33, 1924 (as "(de Candolle) Liro"). — *U. violacea* (Pers. : Pers.) Rouss. var. *lychnidis-dioicae* [(Liro) Durrieu & Zambett.], Bull. Soc. Mycol. France **89**: 289, 1973 (invalidly published; Art. 33.2 of the ICBN). — Lectotype (design. by Vánky 1985: 252) on *Melandrium album* (= *Silene alba* subsp. *alba*), Germany, Oberlausitz, Muskau, VII.1895, P. Sydow, H.U.V. 9749(!); isolectotypes in Sydow, Ust. 62 (as *U. violacea*).

On *Caryophyllaceae* (subfam. *Silenoideae*): *Silene* spp.; probably cosmopolitan.

**AFR:** *Silene alba* (Mill.) E.H.L. Krause subsp. *alba* (*Melandrium album* (Mill.) Garcke), *S. alba* subsp. *divaricata* (Reichenb.) Walters (*Melandrium boissieri* Schischkin; *M. macrocarpum* (Boiss.) Willk.; *M. latifolium* (Poiret) Maire; *Lychnis vespertina* Boiss.), **Algeria, Morocco.**

117. ***Microbotryum nepalense*** (Liro) Vánky, Mycotaxon **67**: 47, 1998. — *Ustilago nepalensis* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 184, 1924. — *Melanopsichium nepalense* (Liro) Zundel, Ustil. World: 46, 1953 (as "*nepalensis*"). — Type on *Polygonum alatum,* China, Sheni, IX.1897, G. Giraldi, H(!).

*Sphacelotheca nankingensis* Zundel, Mycologia **36**: 406, 1944. — Type on *Polygonum* "*chinense* L." (= misidentified *P. alatum;* det. Ling 1953: 321; and Vánky, in Vánky & Oberwinkler 1994: 57), China, Anhwei [= Anhui] Prov., Chiu Hua Shan, Ching Yang Hsien, Shiang Lu Shih, 20.X.1932, S.Y. Cheo 1327, BPI 195105(!) (syn. by Vánky, in Vánky & Oberwinkler 1994: 57).

On *Polygonaceae: Polygonum* (sect. *Cephalophilon*), *P. alatum* Buch.-Ham. ex D. Don (*P. nepalense* Meissn.); NE Africa, Asia.

**AFR:** *Polygonum alatum,* **Ethiopia.**

118. ***Microbotryum reticulatum*** (Liro) R. Bauer & Oberw., in Bauer, Oberwinkler & Vánky, Canad. J. Bot. **75**: 1311, 1997. — *Ustilago reticulata* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 20, 1924. — Lectotype (design. by Lindeberg 1959: 129) on *Polygonum tomentosum* Schrank (= *P. lapathifolium*), Finland, Nyland, Tikkurila, 25.VIII.1915, E. Kitunen; isotypes in Liro, Mycoth. fenn. no. 340, H.U.V. 7733(!).

*Ustilago utriculosa* sensu Tul. & C. Tul. (1847: 102) et auct. (non *Caeoma utriculosum* Nees von Esenbeck, 1817: 14, q.e. *Sphacelotheca hydropiperis;* Lindeberg 1959: 129) (syn. by Lindeberg 1959: 129).

*Ustilago ravida* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 240, 1924. — Type on *Polygonum senegalense,* East Africa, Rwanda, Nyanza, 1906, coll. Kandt (syn. by Vánky 1985: 231).

*Ustilago controversa* Cif., Ann. Mycol. **29**: 41, 1931. — Lectotype (design. by Vánky 1985: 231) on *Polygonum pennsylvanicum* L., USA, Illinois, Union Co., Pine Hills, 21.IX.1884, F.S. Earle (as *U. utriculosa*), BPI 169063(!). Syntype on *Polygonum pennsylvanicum* L., USA, Indiana, 1901, V.K. Chesnut (as *U. utriculosa*), BPI 169003(!) (syn. by Vánky 1985: 231).

On *Polygonaceae: Polygonum* (sect. *Persicaria*) spp.; cosmopolitan.

**AFR:** *Polygonum lapathifolium* L., *P. senegalense* Meissn., **Congo, Ethiopia, Kenya, Madagascar, Rwanda, Senegal, Uganda, Zimbabwe.**

119. ***Microbotryum scolymi*** (Roum. & Trabut ex Juel) Vánky, Mycotaxon **67**: 50, 1998. — *Ustilago scolymi* Roum. & Trabut, in Roumeguère, Fgi. sel. gall. exs. no. 5129, 1890, nom. nud. (n.v.). — *Ustilago scolymi* Roum. & Trabut ex Juel, Bull. Soc. Mycol. France **17**: 257, 1901. — Type on *Scolymus grandiflorus,* Algeria, at Constantine, 24.II.1901, O. Juel, S; isotype H.U.V. 4460(!).

On *Asteraceae* (*Cichorioideae*): *Scolymus* spp.; Mediterranean region (S Europe, N Africa).

**AFR:** *Scolymus grandiflorus* Desf., *S. hispanicus* L., **Algeria.**

120. ***Microbotryum silenes-dioicae*** Giraud, Denchev & M.E. Hood, in Denchev, Giraud & Hood, Mycol. Balcan. **6**: 80, 2009. — Type on *Silene dioica,* France, Brittany, 2004, M. le Gac, SOMF 27696(!).

On *Caryophyllaceae: Silene dioica* (L.) Clairv.; Europe, Africa.

**AFR:** *Silene dioica* (L.) Clairv., **Morocco.**

Described as a cryptic species based on molecular phylogenetic analysis.

121. ***Microbotryum violaceoverrucosum*** (Brandenb. & Schwinn) Vánky, Mycotaxon **33**: 372, 1988. — *Ustilago violaceo-verrucosa* Brandenb. & Schwinn, Nova Hedwigia **22**: 883, 1974. — Type on *Silene italica* (L.) Pers., Italy, Liguria, Savona Prov., Alassio, parking area near Vegliasco, alt. 350 m, 18.V.1969, W. Brandenburger 2295; isotype H.U.V. 10482(!).

*Ustilago gausseni* Durrieu, Bull. Soc. Hist. Nat. Toulouse **108**: 435, 1972 (invalidly published, no type indicated; Art. 37.1 of the ICBN). — *Microbotryum gausseni* (Durrieu) H. & I. Scholz (comb. invalid.), Englera **8**: 212, 1988.

On *Caryophyllaceae* (subfam. *Silenoideae*): *Silene* spp.; Europe, N Africa.

**AFR:** *Silene mellifera* Boiss. & Reuter, *S. mollissima* (L.) Pers., **Morocco.**

122. ***Microbotryum violaceum*** (Pers. : Pers.) G. Deml & Oberw., **s. lat.,** Phytopathol. Z. **104**: 353, 1982. — *Uredo violacea* Pers., Tent. Disp. fung.: 57, 1797. — *Uredo violacea* Pers. : Pers., Synopsis Methodica Fungorum: 225, 1801. — *Ustilago violacea* (Pers. : Pers.) Roussel, Flore du Calvados, Ed. 2: 47, 1806. — *Caeoma violaceum* (Pers. : Pers.) Nees, Das System der Pilze und Schwämme: 14, 1817. — *Ustilago violacea* (Pers. : Pers.) Fuckel, Jahrb. Vereins Naturk. Herzogth. Nassau **15**: 21, 1860 (comb. superfl.). — Type on *Silene nutans* L. [Central Europe]. (For comments on the type see Nannfeldt, in Lindeberg 1959: 142).

*Uredo antherarum* DC., Fl. franç. **6**: 79, 1815 (nom. nov. illegit. pro *Uredo violacea* Pers. : Pers.). — *Caeoma antherarum* (DC.) Schltdl., Flora Berolinensis, Pars 2. Cryptogamia: 130, 1824 (comb. illeg.). — *Ustilago antherarum* (DC.) Fries, Systema Mycologicum, Vol. 3, sect. 2: 518, 1832 (comb. illeg.). — *Erysibe antherarum* (DC.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 217, 1833 (comb. illeg.). — *Microbotryum antherarum* (DC.) Lév., Ann. Sci. Nat. Bot., Sér. 3, **8**: 372, 1847 (comb. illeg.).

*Uredo antherarum* DC. α *silenes-nutantis* DC., Fl. franç. **6**: 79, 1815 (nom. nud.). — *Ustilago silenes-nutantis* DC. ex Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**(1): 43, 1924 (as "(DC.) Liro"). — *Ustilago violacea* (Pers. : Pers.) Roussel var. *silenes-nutantis* [(Liro) Durrieu & Zambett.)], Bull. Soc. Mycol. France **89**: 289, 1973 (invalidly published; Art. 33.2 of the ICBN). — Lectotype (design. by Vánky 1985: 250) on *Silene nutans* L., Germany, Bayern, Bayreuth, 1874, F. de Thümen, H.U.V. 5094(!); isolectotypes in Thümen, Mycoth. univ. no. 23 (as *U. antherarum*) (syn. by G.W. Fischer 1953: 317, and Lindeberg 1959: 142).

On *Caryophyllaceae* (subfam. *Silenoideae*): *Gypsophila, Petrorhagia* (incl. *Tunica*), *Silene* (incl. *Heliosperma*) spp.; probably cosmopolitan.

**AFR:** *Silene alba* (Mill.) E.H.L. Krause subsp. *divaricata* (Reichenb.) Walters (*Lychnis divaricata* Reichenb.; *Melandrium macrocarpum* (Boiss.) Willk.; *M. boissieri* Schischkin; *M. latifolium* (Poiret) Maire), *S. capensis* Otth., *S. latifolia* Poir. subsp. *alba* (Mill.) Greuter & Burdet (*S. alba* (Mill.) E.H.L. Krause; *Melandrium album* (Mill.) Garcke), *S. rouyana* Batt, *Tunica angustifolia* (Poiret) Briquet (= ?*Petrorhagia* ?), **Algeria, S. Africa.**

XXVII. ***MOESZIOMYCES*** Vánky, Bot. Not. **130**: 133, 1977; emend. Vánky, Nord. J. Bot. **6**: 68, 1986.

**Sori** in ovaries of plants in *Poaceae,* without a columella. **Spores** in many-spored balls, firmly agglutinated and mixed with sterile cells, no cortex of sterile cells. **Sterile cells** thin-walled, rupturing when the spores are separated and appearing as irregular meshes or wings attached to the spore surface. **Spore germination** of *Ustilago*-type.

*Moesziomyces* is a unispecific genus.

Type: *M. bullatus.*

123. ***Moesziomyces bullatus*** (J. Schröt.) Vánky, Bot. Not. **130**: 133, 1977. — *Sorosporium bullatum* J. Schröt., Abh. Schles. Ges. Vaterl. Cult., Abth. Naturwiss. **1869/72**: 6, 1869 (as "*Sorisporium*"). — *Tolyposporium bullatum* (J. Schröt.) J. Schröt., in Cohn, Krypt. Fl. Schles. **3**(1): 276, 1887. — *Tolypoderma bullata* (J. Schröt.) Thirum. & M.J. O'Brien (as "*bullatum*"), in Thirumalachar

& Neergaard, Friesia **11**: 190, 1978, invalid name, *Tolypoderma* being a nom. nud. (Art. 43.1 of the ICBN). — Lectotype on *Panicum crus-galli* L. (= *Echinochloa crus-galli,* Germany, Silesia, near Liegnitz [Poland, Legnica] (design. by Vánky 1977: 133) IX.1869, G.W. Schneider, H.U.V. 2442(!); isolectotypes in Rabenhorst, Fgi. eur. no. 1489.

For synonyms as *Thecaphora globuligera* Berk. & Broome, *Testicularia leersiae* Cornu, *Tolyposporium penicillariae* Bref., *To. minus* J. Schröt., *To. senegalense* Speg., *To. evernium* Syd., and *To. paspali* Langdon, see Vánky (1994: 163).

On *Poaceae: Echinochloa, Leersia, Paspalum, Pennisetum* spp.; cosmopolitan.

**AFR:** *Echinochloa crus-galli* (L.) P. Beauv., *Leersia hexandra* Sw., *Pennisetum glaucum* (L.) R. Br. (*P. americanum* (L.) Leeke; *P. typhoides* (Burm. fil.) Stapf & C.E. Hubb.; *Penicillaria spicata* (L.) Willd.), **Algeria, Congo, Gambia, Ghana, Guinea, Ivory Coast, Kenya, Malawi, Mali, Morocco, Mozambique, Nigeria, S. Africa, Senegal, Sierra Leone, Sudan, Tanzania, Uganda, Zambia, Zimbabwe.**

**XXVIII.** ***MOREAUA*** T.N. Liou & H.C. Cheng, Contr. Inst. Bot. Natl. Acad. Peiping **6**: 209, 1949, emend. Vánky, Mycotaxon **74**: 351, 2000.

**Sori** naked on the surface of inner floral organs of *Cyperaceae,* composed of a black, granular-powdery mass of spore balls. Columella, peridium and sterile cells lacking. **Spore balls** composed of firmly adhering spores. **Spores** usually wedge-shaped, reddish or blackish brown; wall thick on the free surface. **Spore germination** results in 4-celled phragmobasidia with sessile basidiospores.

Thirty-six species of *Moreaua* are known of which six in Africa.

Type: *M. kungii* (= *M. aterrima*).

124. ***Moreaua aterrima*** (Tul. & C. Tul.) Vánky, Mycotaxon **74**: 351, 2000. — *Thecaphora aterrima* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 110, 1847. — *Tolyposporium aterrimum* (Tul. & C. Tul.) Dietel, in Engler & Prantl, Die Natürl. Pflanzenfam. **I**: 14, 1897. — Lectotype (design. by Liro 1938: 310) on *Carex praecox* (= *C. caryophyllea*), France, Vienne Dépt., Pictavia [= Poitiers], leg. S. Delacroix.

*Sorosporium atrum* Peck, Bot. Gaz. (Crawfordsville) **5**: 35, 1880. — Type on *Carex pennsylvanica,* USA, Colorado, alt. c. 1800 m, VI, M.E. Jones (syn. by Clinton 1902: 129).

*Sorosporium flahaultii* Boyer & Jaczewski, Bull. Soc. Bot. France **40**: CCLXXVII, 1894; Ann. Ecole Nat. Agric. Montpellier **1894**: 100, 1894. — Type on *Carex olbiensis,* France, Hérault Dépt., "Bois de Montarnaud" near Montpellier, Ch. Flahault.

*Sorosporium caricis* Ferraris, Ann. Inst. Bot. Roma **9**: 191, 1902. — Type on *Carex praecox,* Italy, Piemonte, Pinerolo, V.1861, A. Carestia.

*Moreaua kungii* T.N. Liou & H.C. Cheng, Contr. Inst. Bot. Natl. Acad. Peiping **6**: 210, 1949. — Type on *Carex* sp., China, Shensi [= Shaanxi] Prov., Chow-chih-hsien, Low-kwan-tai, on river bank, 22.IV.1938, H.W. Kung 55; isotype H.U.V. 11698(!) (syn. by Vánky 1994: 272).

On *Cyperaceae: Carex* spp.; Europe, Africa, Asia, N America.

**AFR:** *Carex distachya* Desf. Zambettakis (1970: 187) mentioned it from N Africa.

125. ***Moreaua capillaceae*** Vánky, Mycotaxon **110**: 297, 2009. — Type on *Tetraria capillacea,* South Africa, Western Cape Province, Cape Peninsula, Good Hope Nature Reserve, alt. 100 m., 14.XII.1996, C. & K. Vánky, H.U.V. 18043(!), isotypes in Vánky, Ust. exs. no. 1318.

On *Cyperaceae: Tetraria capillacea* (Thunb.) C.B. Clarke; South Africa. Known only from the type collection.

**AFR:** *Tetraria capillacea,* **S. Africa.**

126. ***Moreaua epischoeni*** (Vánky) Vánky, Mycotaxon **74**: 352, 2000. — *Tolyposporium epischoeni* Vánky, Mycotaxon **70**: 20, 1999. — Type on *Epischoenus gracilis,* South Africa, Eastern Cape Prov., Bloukrans Pass, 20 km W of Stormsrivier, alt. c. 280 m, 19.XII.1996, C. & K. Vánky, H.U.V. 18035(!); isotypes BPI, PREM.

On *Cyperaceae: Epischoenus gracilis* Levyns; S Africa. Known only from the type collection.

**AFR:** *Epischoenus gracilis,* **S. Africa.**

127. ***Moreaua eximiae*** Vánky, Mycotaxon **110**: 299, 2009. — Type on *Tetraria eximia,* South Africa, Western Cape Province, Cape Peninsula, Mt. Swartkopberge, alt. 100 m., 13.XII.1996, C. & K. Vánky, H.U.V. 18039(!), isotypes in Vánky, Ust. exs. no. 1319.

On *Cyperaceae: Tetraria eximia* C.B. Clarke; South Africa. Known only from the type collection.

**AFR:** *Tetraria eximia,* **S. Africa.**

128. ***Moreaua mauritiana*** (Syd.) Vánky, Mycotaxon **74**: 352, 2000. — *Tolyposporium mauritianumi* Syd., Ann. Mycol. **37**: 201, 1939. — *Thecaphora mauritiana* (Syd.) L. Ling, Sydowia **4**: 80, 1950. — Lectotype (design. by Vánky 1997: 147) on *Fimbristylis* sp. (= *F. ovata,* det. K. Vánky), Mauritius, 1929, E.F.S. Shepherd, H.U.V. 17465(!); isolectotypes BPI 195173, IMI 44786.

*Thecaphora fimbristylidis* Mundk. & Thirum., Mycol. Pap. **16**: 4, 1946. — Type on *Fimbristylis monostachyos* Hassk. (= *F. ovata* (Burm. fil.) Kern), India, Mysore, Wagamangla, Bettahalli, 20.VI.1943, M.J. Thirumalachar, HCIO 10249; isotypes IARI, IMI, H.U.V. 15988(!) (syn. by Ling 1950: 81, confirmed).

On *Cyperaceae: Fimbristylis ovata* (Burm. fil.) Kern (*Abildgaardia ovata* (Burm. fil.) Kral; *F. monostachyos* Hassk.), *Fimbristylis* sp.; S Africa, S & E Asia, Hawaii.

**AFR:** *Fimbristylis ovata, Fimbristylis* sp., **Mauritius, Reunion, S. Africa.**

129. ***Moreaua tothii*** Ványky, Mycotaxon **110**: 299, 2009. — Type on *Tetraria compar,* South Africa, Western Cape Province, Cape Peninsula, Silvermine Nature Reserve, Calc Bay Mt., alt. 300 m., 12.XII.1996, C. & K. Ványky, H.U.V. 18042(!), isotypes in Ványky, Ust. exs. no. 1317.

On *Cyperaceae: Tetraria compar* (L.) T. Lestib.; South Africa. Known only from the type collection.

**AFR:** *Tetraria compar,* **S. Africa.**

**XXIX. *MYCOSYRINX*** Beck, Ann. K. K. Naturhist. Hofmus. (Wien) **9**: 123, 1894 (as "*Mykosyrinx*").

**Sori** forming deformed, branched witches' brooms on host plants in Vitaceae. **Spores** in pairs, dark-coloured (brown), more or less hemispherical, connected on their flattened sides, initially embedded in the host tissue, later powdery. **Spore germination** of *Mycosyrinx*-type, i.e. the basidia are reduced to the spores, basidiospores sigmoid.

Four species of *Mycosyrinx* are known, all present also in Africa.

Type: *M. cissi.*

130. ***Mycosyrinx arabica*** (Henn.) O. Penzig, Malpighia **13**: 530, 1899. — *Schroeteria cissi* (DC.) de Toni var. *arabica* Henn., Malpighia **5**: 89, 1891. — *S. arabica* (Henn.) Henn., Bull. Herb. Boissier **1**: 115, 1893. — Type on *Cissus quadrangularis,* Arabia, Yemen, near Uossil, alt. 1400 m, 1889, G. Schweinfurth.

*Schizonella colemani* Iyengar & Narasimhan, Phytopathology **12**: 436, 1922. — Lectotype on *Vitis quadrangularis* (= *Cissus quadrangularis*), India, near Madras (design. by Ványky 1996: 179), Vandalur, coll. M.O.P. Iyengar & M.N. Narasimhan, BPI 189952(!) (syn. by Ványky 1996: 169).

On *Vitaceae: Cissus quadrangularis* L. (*Vitis quadrangularis* (L.) Wall. ex Wight); N Africa, S Asia.

**AFR:** *Cissus quadrangularis,* **Eritrea.**

131. ***Mycosyrinx cissi*** (DC.) Beck, Ann. K. K. Naturhist. Hofmus. (Wien) **9**: 123, 1894. — *Uredo cissi* DC., in Poiret, Encycl. méth. Bot. **8**: 228, 1808 (as "*cyssi*"). — *Ustilago cissi* (DC.) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 92, 1847. — *Schroeteria cissi* (DC.) de Toni, in Saccardo, Syll. Fung. 7(2): 501, 1888. — *Geminella exotica* J. Scröt.var. *decandollei* A.A. Fisch. Waldh., Aperçu Syst. Ustil.: 43, 1877 (nom. nov. illeg.). — Type on *Cissus sicyoides,* Island of Saint Dominique [Dominican Republic], coll. P.A. Poiteau.

*Puccinia incarcerata* Lév., Ann. Sci. Nat. Bot., Sér., 3, **3**: 69, 1845. — Type on *Cissus* sp., Guyana, coll. P.A. Poiteau.

*Geminella exotica* J. Schröt., Hedwigia **15**: 135, 1876. — Type on *Cissus sicyoides,* Brazil, Parà Prov., collected in September by C.F.Ph. von Martius, M(!).

On *Vitaceae: Cissus* spp.; Africa(?), southern N America, C & S America.

**AFR:** According to Zambettakis (1970: 77) on *Cissus sicyoides* L., *Cyssus* sp., **Congo, Tanzania, Uganda.**

132. ***Mycosyrinx microspora*** Cant., Bull. Soc. Mycol. France **64**: 167, 1948. — Type on *Cissus afzelii* G. & Br., Central African Rep., Oubangui, Yalinga, without date, coll. G.M.P.C. le Testu, Mission scientifique Africaine no. 2977, PC; isotype H.U.V. 14982(!).

*Mycosyrinx globosa* Vienn.-Bourg., Rev. Int. Bot. Appl. Agric. Trop. **33**: 264, 1952 (invalid name, no Latin diagnosis). — On *Cissus* sp., France Congo, 13.IX.1902, A. Chevalier, Mission Chari, Lac Tchad (Lake Chad, Chad), PC(!). (For comments about identity with *M. microspora* see Ványky 1996: 180).

On *Vitaceae: Cissus* spp.; C Africa, S America(?).

**AFR:** *Cissus afzelii* G. & Br., *C. diffusiflora* Planche, *C. producta* Afzel, and *Cissus* sp., **Cameroon, Central African Rep., Chad, Congo, Guinea, Ivory Coast, Uganda.**

133. ***Mycosyrinx usambarensis*** (Henn.) Ványky, Mycotaxon **91**: 260, 2005. — *Schroeteria cissi* (DC.) de Toni var. *usambarensis* Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 49, 1895. — Type on *Cissus* sp., tropical Africa (as "tropical America"), Usambara, Tanzania, coll. C. Holst 2422, BPI 192771(!).

On *Vitaceae: Cissus* sp.; C Africa.

**AFR:** *Cissus* sp., **Tanzania.**

**XXX. *NARASIMHANIA*** Thirum. & Pavgi, Sydowia **6**: 390, XII.1952, emend. Ványky, Sydowia **34**: 174, 1981.

**Sori** in leaves of plants in *Alismataceae,* forming light spots with spore balls embedded in the host tissue. **Spore balls** permanent, often lobed and containing cavities clad by sterile cells. **Spores** in the ball scattered in a parenchymatous tissue of sterile fungal cells. A cortical layer of small sterile cells is present. **Spore germination** of *Tilletia*-type.

*Narasimhania* is a monotypic genus.

Type: *N. alismatis.*

134. ***Narasimhania alismatis*** Pavgi & Thirum., in Thirumalachar & Pavgi, Sydowia **6**: 390, 1952. — Type on "*Alisma* sp." (= *Lophotocarpus guyanensis*, det. K. Ványky), India, Uttar Pradesh, Banaras [= Varanasi], 12.IX.1951, M.S. Pavgi, HCIO 20131; isotypes BPI 178876, IMI 52807, H.U.V. 8637(!).

On *Alismataceae: Lophotocarpus guyanensis* (H.B.K.) J.G. Smith (*Sagittaria guyanensis* H.B.K.); Africa, S Asia (India), S America (Brazil).

**AFR:** *Lophotocarpus guyanensis,* **Mali.**

**XXXI. *PERICLADIUM*** Pass., Nuovo Giorn. Bot. Ital. **7**: 185, 1875, emend. Mundk., Mycologia **36**: 291, 1944.

**Sori** as pustules or galls on stems of plants in *Tiliaceae,* enclosed by a hard, coriaceous peridium of host tissue, rupturing irregularly at maturity and exposing the dark, semi-agglutinated spore masses. **Spores** single, brown, initially agglutinated in groups, separating at maturity. **Spore germination** results in either an ovoid basidium giving rise to septate, ramified hyphae on which secondary sporidia

develop, or from the spores directly septate, ramified hyphae arise.

Three species of *Pericladium* are known, all present in Africa.

**Type:** *P. grewiae*.

135. ***Pericladium grewiae*** Pass., Nuovo Giorn. Bot. Ital. **7**: 185, 1875. — *Ustilago grewiae* (Pass.) Henn., Hedwigia Beibl. **39**: (75), 1900. — Type on *Grewia* cf. *mollis*, Ethiopia, Eritrea, near Sciotel, Zedamba, VI.1870, O. Beccari.

On *Tiliaceae: Grewia* spp.; Africa, S Asia, Australia.

**AFR:** *Grewia carpinifolia* Juss., *G. microcarpa* Schum., *G. mollis* Juss., *G. venusta* Fresen, *Grewia* sp., **Eritrea, Ethiopia, Ivory Coast, Malawi, Tanzania.**

136. ***Pericladium piperi*** (Zundel) Mundk., Mycologia **36**: 293, 1944. — *Xylosorium piperi* Zundel, Mycologia **31**: 576, 1939 (as "*piperii*"). — Type on *Piper* sp. (cf. = *Grewia* sp., K. Vánky), South Africa, Transvaal, XI.1915, A. Rogers, PREM 11806; isotypes BPI 17940, H.U.V. 14716(!).

On *Tiliaceae: Grewia* sp. (as "*Piperaceae, Piper* sp."); S Africa. Known only from the type collection.

**AFR:** *Grewia* sp.(as "*Piper* sp."), **S. Africa.**

137. ***Pericladium tiliacearum*** Mundk. & Thirum., in Thirum., Lloydia **13**: 176, 1950. — Type on *Grewia rotundifolia* Juss., India, Mysore, Channapatna, Hanumantarayanagudi, 23.XI.1943, K.B.A. Kahn, HCIO 10428; isotypes IMI 4946, H.U.V. 15508(!). Paratype on *Grewia tiliaefolia* Vahl, India, Mysore, Santaveri, 24.X.1943, M.J. Thirumalachar.

On *Tiliaceae: Grewia* spp.; S Africa, S Asia.

**AFR:** *Grewia villosa* Willd., *Grewia* sp., **Namibia, S. Africa.**

XXXII. ***PSEUDODERMATOSORUS*** Vánky, Mycotaxon **71**: 213, 1999.

**Sori** in leaves of aquatic or paludal plants (in *Alismataceae*) as yellowish brown spots with spore balls embedded in the host tissue. **Spore balls** permanent, composed of a cortex of sterile cells and a central mass of hyaline spores embedded in a network of sterile fungal cells.

Of the two known species one is known also from Africa.

Type: *P. alismatis-oligococci.*

138. ***Pseudodermatosorus alismatis-oligococci*** (Vánky) Vánky, Mycotaxon **71**: 215, 1999. — *Doassansia alismatis-oligococci* Vánky, Svensk Bot. Tidskr. **69**: 45, 1975. — Type on *Alisma oligococcum* Mueller (*A. glandulosum* Thw.), Sri Lanka, Yala National Park, alt. c. 15 m, 12.III.1974, K. Vánky, S(!); isotypes IMI 190442, UPS, H.U.V. 472(!), and in Vánky, Ust. exs. no. 176 (as *Doassansia alismatis-oligococci*).

On *Alismataceae: Alisma* and *Limnophyton* spp.; S Africa, S Asia.

**AFR:** *Limnophyton obtusifolium* (L.) Miq., **S. Africa, Zimbabwe.**

XXXIII. ***RESTILAGO*** Vánky, Mycol. Balcan. **5**: 70, 2008.

**Sori** around the fruits of *Restionaceae,* composed of a white, basal stroma of host and fungus origin. On the stroma black, hard, firmly agglutinated, non-pulverulent spore masses are produced. Peridium, columella and sterile cells lacking. **Spores** single, dark pigmented (brown), ornamented, agglutinated by the outermost, gelatinous layer of the spore wall. **Spore germination** results in simple or ramified hyphae.

*Restilago* is a monotypic, ascomycetous smut fungus genus.

Type: *R. capensis.*

139. ***Restilago capensis*** Vánky, Mycol. Balcan. **5**: 70, 2008. — Type on *Ischyrolepis capensis,* South Africa, Western Cape Province, Cape Town, Table Mountain, above Kirstenbosch Botanical Garden, Nursery Ravine, alt. c. 700 m, 9.XII.1996, C. & K. Vánky, holotype in H.U.V. 18033, isotype in PREM. Paratype: Western Cape Province, Swartberg Pass, between Oudtshoorn and Prince Albert, alt. c. 1130 m.s.m., 17.XII.1996, coll. C. & K. Vánky; H.U.V.. 18036.

On *Restionaceae: Ischyrolepis capensis* (L.) H.P. Linder; South Africa. Known only from the type collections.

**AFR:** *Ischyrolepis capensis,* **S. Africa.**

XXXIV. ***RHAMPHOSPORA*** D.D. Cunn., Sci. Mem. Off. Med. Dept. Gov. India **3**: 32, 1888.

**Sori** in leaves and stems of aquatic plants in *Nymphaeaceae,* forming spots. **Spores** embedded in the host tissue, solitary, pale, usually lemon-shaped with a papilla at one end and a short hyphal appendage at the opposite end, produced subterminally on branches of sporogenous hyphae. **Spore germination** results in aseptate basidia on which 4-6 apical basidiospores are produced. Basidiospores giving rise to secondary and tertiary, fusiform sporidia, perpendicular to the long axis of the basidiospores.

*Rhamphospora* is a monotypic genus.

Type: *R. nymphaeae.*

140. ***Rhamphospora nymphaeae*** D.D. Cunn., Sci. Mem. Off. Med. Dept. Gov. India **3**: 32, 1888. — *Entyloma nymphaeae* (D.D. Cunn.) Setch., Bot. Gaz. (Crawfordsville) **19**: 189, 1894. — Lectotype (design. by Vánky 1987: 94) on *Nymphaea stellata,* India, Calcutta, Botanical Garden, autumn 1886, D.D. Cunningham.

*Entyloma castaliae* Holway, in J.J. Davis, Trans. Wisconsin Acad. Sci. **11**: 174, 1897(1898), nom. nud. (without description). — On *Nymphaea* species, USA.

*Entyloma dubium* Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3 **1**: 94, 1924 (nom. nov. illeg. pro *E. nymphaeae*). — Type on *Nuphar advena* (Ait.) Ait. (= *Nymphaea advena* Ait.),

USA., Wisconsin, Racine, 19.VII.1909, J.J. Davis; isotypes in Sydow, Ust. no. 277 (as *E. castaliae*), H.U.V. 1483(!).

On *Nymphaeaceae: Castalia* and *Nymphaea* species; cosmopolitan.

**AFR:** *Nymphaea alba* L., *Nymphaea nouchali* Burm. (*N. caerulea* Savigny; *N. stellata* Willd.), **S. Africa, Zimbabwe.**

**XXXV.** ***SPHACELOTHECA*** de Bary, Verg. Morph. Biol. Pilze: 187, 1884; emend. Langdon & Full., Mycotaxon **6**: 421–456, 1978.

**Sori** in ovaries of *Polygonaceae,* covered by a peridium formed of host tissues and hyaline, catenulate, non-sporogenous fungal cells, bursting at maturity. Columella present, formed of non-sporogenous fungal cells. **Spores** dark, violet tinted, developed from hyphae at the base of the sorus, initially catenulate, connected by disjunctors, later solitary, with disjunctors attached, not mixed with hyaline sterile cells. **Spore germination** of *Ustilago*-type.

Five species of *Sphacelotheca* are known of which one is known from Africa.

Type: *S. hydropiperis.*

141. ***Sphacelotheca polygoni-serrulati*** Maire, Bull. Soc. Hist. Nat. Afr. Nord. **8**: 74, 1917. — *Ustilago polygoni-serrulati* (Maire) Cif., in Omagiu lui Traian Săvulescu, Bucureşti: 168, 1959. — Lectotype (design. by Vánky & Oberwinkler, 1994: 28) on *Polygonum serrulatum* (= *P. salicifolium*), Algeria, Réghaia, E of Alger, 15.X.1915, R. Maire, MPU(!); isolectotypes in Maire, Mycoth. Bor.-Afric. no. 229, BPI 194913(!), H.U.V. 13714(!).

*Sphacelotheca doliaris* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**(1): 157, 1924. — Type on *Polygonum barbatum,* Africa, Hohasi?, 30.VII.1907, J.M. 632, H(!) (syn. by Vánky & Oberwinkler 1994: 28).

*Sphacelotheca tropico-africana* Zundel, Mycologia **36**: 407, 1944. — Type on *Polygonum* sp., Congo, Kibati at the foot of Mount Ninagongo, 16.II.1927, D.H. Linder. Flora of Tropical Africa, Expedition of the Harvard Institute of Tropical Biology and Medicine no. 2182, BPI 195062(!) (syn. by Vánky & Oberwinkler 1994: 28).

*Sphacelotheca polygoni-persicariae* G. Deml & Oberw., in Deml *et al.,* Phytopathol. Z. **113**: 241, 1985. — Type on *Polygonum persicaria,* Madeira Island, near the village Marços, levada Machico-Caniçal, alt. c. 220 m, 6.IV.1984, E. & G. Deml & F. Oberwinkler; isotype H.U.V. 12357(!) (syn. by Vánky 1994: 194).

On *Polygonaceae: Polygonum* (Sect. *Persicaria*) spp.; Africa, Australasia.

**AFR:** *Polygonum barbatum* L., *P. persicaria* L., *P. salicifolium* Brouss. ex Willd. (*P. serrulatum* Lag.), *P. setosulum* A. Rich., *Polygonum* sp., **Algeria, Cameroon, Congo, Madeira, Uganda.**

**XXXVI.** ***SPORISORIUM*** Ehrenb. ex Link, in Link, Linné's Species Plantarum, Ed. 4, **6**(2): 86, 1825.

**Sori** in florets or inflorescence, more rarely in distal leaves and culms of *Poaceae,* usually covered by a peridium formed of fungal elements overlain by host tissue. Columella present, composed of host tissues permeated by hyphae which produce spores and sterile cells ("partitioning cells"). **Spores** in permanent or loose spore balls, when mature often single, brown, not orange-yellow and without violet tint. **Sterile cells** in groups or chains, sometimes lacking, hyaline, mixed with the spore balls or spores. **Spore germination** of *Ustilago*-type.

Abour 330 species of *Sporisorium* are known, 134 are present in Africa.

Type: *S. sorghi.*

142. ***Sporisorium aegyptiacum*** (A.A. Fisch. Waldh.) Vánky, Mycotaxon **33**: 371, 1988. — *Ustilago aegyptiaca* A.A. Fisch. Waldh., Hedwigia **18**: 100, 1879. — Type on *Schismus calycinus* (= *S. barbatus*), Egypt, coll. G. Ehrenberg, LE(!).

On *Poaceae: Schismus* spp.; N Africa, S & SE Asia, Australasia.

**AFR:** *Schismus barbatus* (L.) Tell. (*S. calycinus* (L.) Cosson & Durieu), **Egypt, Libya.**

143. ***Sporisorium africanum*** (Syd. & P. Syd.) Vánky, Mycotaxon **89**: 86, 2004. — *Sorosporium africanum* Syd. & P. Syd., Ann. Mycol. **7**: 544, 1909. — Type on *Panicum trichopodon* (= *Urochloa trichopus*), Portuguese East Africa [Mozambique], 18.IV.1908, C.W. Howard; isotypes BPI 179411 & 179412, PREM 7631.

*Sphacelotheca serrata* L. Ling, Lloydia **16**: 183, 1953. — *Sporisorium serratum* (L. Ling) Vánky, Mycotaxon **65**: 140, 1997. — Type on *Brachiaria serrata,* Nyasaland [Malawi], Lilongwe, IX.1950, G. Jackson, IMI 44074(!); isotype H.U.V. 17372(!) (syn. by Vánky 2004: 86).

On *Poaceae: Brachiaria* and *Urochloa* spp.; Africa.

**AFR:** *Brachiaria serrata* (Thunb.) Stapf, *Urochloa oligotricha* (Fig. & De Not.) Henrard (*U. bolbodes* (Steud.) Stapf), *U. trichopus* (Hochst.) Stapf (*Panicum trichopodon* A. Rich.), **Malawi, Mozambique, S. Africa.**

144. ***Sporisorium algeriense*** (Pat.) Vánky, Mycotaxon **65**: 174, 1997. — *Cintractia algeriensis* Pat., Bull. Soc. Mycol. France **18**: 48, 1902. — *Sphacelotheca algeriensis* (Pat.) Cif., Ann. Mycol. **26**: 32, 1928. — Type on *Danthonia forsskalii*, Algeria, Biskra, IV.1895, N. Patouillard, FH(!).

On *Poaceae: Danthonia* (*Astenatherum*) spp.; N Africa.

**AFR:** *Danthonia forsskalii* (Vahl) R. Br. (*Astenatherum forsskalii* (Vahl) Nevski; *Centropodia forsskalii* (Vahl) Cope), *D. fragilis* Guinet & Sauvage (*Astenatherum fragile* (Guinet & Sauvage) Monod), **Algeria, Egypt.**

145. ***Sporisorium anadelphiae*** (Vienn.-Bourg.) Vánky, Mycotaxon **85**: 58, 2003. — *Sorosporium anadelphiae* Vienn.-Bourg., Bull. Soc. Bot. France **104**: 266, 1957. — Type on *Anadelphia pumila,* Guinea (ex French), Foulaya

near Kindia, I.1957, G. Viennot-Bourgin, PC; isotype H.U.V. 15800(!).

On *Poaceae: Anadelphia pumila* Jacques-Félix; Africa. Known only from the type locality.

**AFR:** *Anadelphia pumila,* **Guinea.**

146. ***Sporisorium andropogonis*** (Opiz) Vánky, Symb. Bot. Upsal. **24**(2): 113, 1985. — *Uredo* (*Ustilago*) *andropogonis* Opiz, Naturalientausch No. 1–10, Prag, etc.: 43, 1824 (as "*andropogi*"). — *Sphacelotheca andropogonis* (Opiz) Bubák, Arch. Prír. Vyzk. Čech. **15**: 25, 1912. — *Cintractia andropogonis* (Opiz) Kochman, Planta Polonica **4**: 75, 1936. — Type on *Andropogon angustifolius* (= *Dichanthium ischaemum*), Czech Rep., Dablizerberg [Ďáblice] Mt., near Prague, F.M. Opiz.

*Ustilago ischaemi* Fuckel, Jahrb. Vereins Naturk. Herzogth. Nassau **15**: 22, 1860. — *Cintractia ischaemi* (Fuckel) Syd. & P. Syd., Oesterr. Bot. Z. **51**: 12, 1901. — *Sphacelotheca ischaemi* (Fuckel) G.P. Clinton, J. Mycol. **8**: 140, 1902. — Type on *Andropogon ischaemum* (= *Dichanthium ischaemum*), Germany, Nassovia [Nassau], Biebrich near Wiesbaden, L. Fuckel.

*Ustilago cylindrica* Peck, Bot. Gaz. (Crawfordsville) **7**: 55, 1882. — Type on *Andropogon* (?), USA, Arizona, VI., C.G. Pringle (syn. by Clinton 1902: 129, as *Sphacelotheca ischaemi*).

*Sorosporium platense* Hirschh., Revista Mus. La Plata, N.S., Bot. **3**: 348, 1941. (as "*platensis*"). — *Sphacelotheca platensis* (Hirschh.) Hirschh., Ustil. Fl. Argent.: 129, 1986. — Type on *Andropogon saccharoides*, Argentina, Buenos Aires, Fac. de Agron. y Veter., XII.1936, E. Hirschhorn, Herb. Hirschhorn 363; isotype LPS 3057(!) (syn. by Vánky 2006:3).

*Sphacelotheca chloridis* Mundk., Indian J. Agric. Sci. **14**: 50, 1944. — Type on "*Chloris barbata* Sw." (= misnamed *Bothriochloa pertusa* (L.) A. Camus, det. K. Vánky), India, Mysore, Bangalore, Karnataka, 20.VIII.1942, M.J. Thirumalachar, HCIO 10000; isotypes BPI 195098, H.U.V. 17273(!) (syn. by Vánky 2004: 226).

*Ustilago bothriochloae-intermediae* Padwick, Mycol. Pap. **17**: 5, 1946. — *Sphacelotheca bothriochloae-intermediae* (Padwick) Narasimhan, in Thirumalachar & Pavgi, Mycopathol. Mycol. Appl. **7**: 287, 1956. — Type on *Bothriochloa intermedia* (R. Br.) A. Camus, India, Bengal, Dacca, Tejagon, 9.XI.1944, G.W. Padwick 895, HCIO 10837; isotypes IMI 30085, H.U.V. 17332(!) (syn. by Vánky 2004: 226).

*Sphacelotheca heteropogonis-triticei* L. Ling, Sydowia **4**: 77, 1950. — Type on *Heteropogon triticeus* (R. Br.) Stapf ex Craib, Philippines, Luzon, Pangasinan Prov., S of Alaminos, III.1928, M.S. Clemens, BPI 177833(!) (syn. by Vánky 2000: 178).

*Sorosporium baluchistani* S. Ahmad, Mycol. Pap. **64**: 10, 1956. — Type on *Bothriochloa* sp., Pakistan, Baluchistan, Hindubag, 7.VI.1951, I. Ilahi 9033, IMI 57440; isotype H.U.V. 17366(!) (syn. by Vánky 1997: 148).

*Sphacelotheca bothriochloae* Y.C. Wang, Acta Bot. Sinica **10**: 134, 1962 (later homonym, not Zundel 1939). — Type on *Bothriochloa intermedia* (R. Br.) A. Camus, China, Sichuan, 11.IX.1958, X.-J. Liu 644, HMAS 31561; isotype H.U.V. 7987(!) (syn. by Vánky 2004: 226).

On *Poaceae: Andropogon, Bothriochloa, Dichanthium, Diheteropogon, Heteropogon,* and *Schizachyrium* spp.; cosmopolitan.

**AFR:** *Andropogon chinensis* (Nees) Merr., *A. gabonensis* Stapf, *A. gayanus* Kunth, *A. tectorum* Schum. & Thorn., *Andropogon* sp., *Dichanthium insculptum* (A. Richard) W.D. Clayton (*Andropogon pubescens* Vis.), *D. ischaemum* (L.) Roberty (*Andropogon angustifolius* Sib. & Sm.; *A. ischaemum* L.; *Bothriochloa ischaemum* (L.) Keng), *Bothriochloa bladhii* (Retz.) S.T. Blake (*B. glabra* (Roxb.) A. Camus), *Diheteropogon amplectens* (Nees) W.D. Clayton (*Andropogon amplectens* Nees), *Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schult., **Chad, Congo, Ethiopia, Gambia, Madagascar, Malawi, Morocco, Sierra Leone, S. Africa, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.**

147. ***Sporisorium andropogonis-chinensis*** Vánky, Mycotaxon **95**: 5, 2006. — Type on *Andropogon chinensis,* Zambia, Eastern Prov., 407 km ENE of Lusaka, alt. 1070 m, 18.IV.2001, C., T. & K. Vánky, H.U.V. 21063(!).

On *Poaceae: Andropogon chinensis* (Nees) Merr.; C Africa. Known only from the type collection.

**AFR:** *Andropogon chinensis,* **Zambia.**

148. ***Sporisorium andropogonis-eucomi*** Vánky, Mycotaxon **95**: 5, 2006. — Type on *Andropogon eucomus,* South Africa, Mpumalanga Prov., 9 km NE of Grascop, road R534, alt. 1590 m, 22.I.1997, C. & K. Vánky, H.U.V. 21060(!); isotypes in PREM, BRIP 47128, IMI 393746.

On *Poaceae: Andropogon eucomus* Nees; Africa. Known only from the type collection.

**AFR:** *Andropogon eucomus,* **S Africa.**

149. ***Sporisorium andropogonis-finitimi*** (Maubl.) Vánky & Mouch., Mycol. Res. **104**: 382, 2000. — *Ustilago andropogonis-finitimi* Maubl., Bull. Soc. Mycol. France **22**: 74, 1906. — Lectotype (design. by Vánky & Mouchacca 2000: 382) on *Hyparrhenia finitima,* Mozambique, 1905, G. Letestu, PC(!) ex Herb. Station Central Pathol. Végét., Versailles, no. 4132; isolectotype H.U.V. 18828(!).

On *Poaceae: Hyparrhenia* spp.; Africa.

**AFR:** *Hyparrhenia filipendula* (Hochst.) Stapf, and *H. finitima* (Hochst.) Stapf (*Andropogon finitimus* Hochst.), **Mozambique, Zambia, Zimbabwe.**

150. ***Sporisorium andropogonis-gabonensis*** Vánky, Mycotaxon **95**: 7, 2006. — *Sorosporium congoense* L. Ling, Lloydia **16**: 186, 1953 (not *Sporisorium congense* (Syd. & P. Syd.) Vánky). — Type on *Andropogon gabonensis,* Congo, N. Dembo, VI.1906, H. Vanderyst B32, BR 339(!). Paratypes on *Andropogon gabonensis,* Congo, N.

Dembo, 23.VI.1908, H. Vanderyst, BR 275; Congo, Kinshasa, 4.VI.1906, H. Vanderyst, BR 1326.
On *Poaceae: Andropogon gabonensis* Stapf; Africa.
**AFR:** *Andropogon gabonensis,* **Congo.**

151. ***Sporisorium andropogonis-schirensis*** (L. Ling) Vánky, Mycotaxon **91**: 262, 2005. — *Sphacelotheca andropogonis-schirensis* L. Ling. Lloydia **16**: 181, 1953. — Type on *Andropogon schirensis,* Congo, Bandundu, II.1914, H. Vanderyst 3555, BR 1349; isotypes in BPI 193953, K, H.U.V. 18276(!).
On *Poaceae: Andropogon* spp.; Africa.
**AFR:** *Andropogon appendiculatus* Nees, *A. schirensis* A. Rich., **Congo, S. Africa.**

152. ***Sporisorium andropogonis-tectorum*** (L. Ling) Vánky, Mycotaxon **89**: 106, 2004. — *Ustilago andropogonis-tectorum* L. Ling, Sydowia **7**: 152, 1953. — Type on *Andropogon tectorum,* Sierra Leone, Hill Station, 27.VII.1941, F.C. Deighton M2302, IMI 10966; isotype BPI 157098. Paratype on *Andropogon tectorum,* Nigeria, 1936, J. West 69, IMI 44426; isoparatype H.U.V. 17809(!).
On *Poaceae: Andropogon tectorum* Schum.; Africa.
**AFR:** *Andropogon tectorum,* **Nigeria, Sierra Leone.**

153. ***Sporisorium andropteri*** (Zambett.) Vánky, Mycotaxon **95**: 59, 2006. — *Sphacelotheca andropteri* Zambett., Bull. Soc. Mycol. France **95**: 410, 1980. — Type on *Andropterum stolzii* (as "*stakii*"), Congo, S of Boudouinville, Mission St. Martin, Walley of Cumons, coll. Boudewyn 51, BR 2; isotype H.U.V. 21037(!).
On *Poaceae: Andropterum stolzii* (Pilg.) C.E. Hubb.; Africa. Known only from the type collection.
**AFR:** *Andropterum stolzii,* **Congo.**

154. ***Sporisorium anthephorae*** (Syd. & P. Syd.) Vánky, Mycotaxon **81**: 391, 2002. — *Ustilago anthephorae* Syd. & P. Syd., Ann. Mycol. **12**: 197, 1914. — *Sphacelotheca anthephorae* (Syd. & P. Syd.) Zundel, Bothalia **3**: 295, 1938. — Type on *Anthephora pubescens,* Namibia, Grootfontein, 10.IV.1913, A. Engler.
On *Poaceae: Anthephora* spp.; Africa.
**AFR:** *Anthephora nigritana* Stapf & C.E. Hubb., *A. pubescens* Nees, **Namibia, Nigeria, S. Africa.**

155. ***Sporisorium anthistiriae*** (Cobb) Vánky, in Vánky & Guo, Acta Mycol. Sinica, Suppl. **I**: 230, 1987. — *Tolyposporium anthistiriae* Cobb, Agric. Gaz. New South Wales **3**: 1006, 1892. — *Sorosporium anthistiriae* (Cobb) L. Ling, Mycol. Pap. **11**: 9, 1945. — Type on *Anthistiria ciliata* L. fil. (= *Themeda quadrivalvis* (L.) Kuntze); Australia, New South Wales.
*Tolyposporium anthistiriae* Henn., Hedwigia **37**: 283, 1898 (later homonym, not Cobb, 1892). — Type on *Anthistiria* sp. (= *Themeda* sp.), Central Africa [Sudan], Djur, "gr. Seriba Ghattes-Steppe", 30.V.1869, G. Schweinfurth 2439, BPI 192686, 195174.
On *Poaceae: Themeda* spp.; Africa, E Asia, Australia.
**AFR:** *Themeda triandra* Forssk., *Themeda* sp. (*Anthistiria* sp.), **Eritrea, Madeira, Malawi, S. Africa, Sudan, Tanzania.**

156. ***Sporisorium aristidae-lanuginosae*** (Maire) Vánky, Mycotaxon **78**: 304, 2001. — *Sphacelotheca aristidae-lanuginosae* Maire, Bull. Soc. Bot. France **53**: CXCIX, 1906. — Type on *Aristida lanuginosa* (= *A. lanosa*), Algeria, Beni-Ounif, 13.IV.1906, R. Maire.
On *Poaceae: Aristida* and *Stipagrostis* spp.; N Africa, Asia.
**AFR:** *Aristida lanosa* Muhl. ex Ell. (*A. lanuginosa* Bosc; *A. oranensis* Henr.), *Stipagrostis plumosa* (L.) Munro ex T. Anderson (*Aristida plumosa* L.), *S. rigidifolia* H. Scholz, **Algeria, Chad, Libya, Morocco, Tunisia.**

157. ***Sporisorium aristidicola*** (Speg.) Vánky, Mycotaxon **78**: 305, 2001. — *Urocystis aristidicola* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **12**: 294, 1909. — *Tuburcinia aristidicola* (Speg.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 26, 1922. — Lectotype (design. by Vánky 2001: 305) on *Aristida* "*complanata* Trin." (= misnamed *A. macrophylla* Hack., det. M.A. Torres), Argentina, Prov. Misiones, near Posadas, I.1907, C. Spegazzini, LPS 3681(!); isolectotype BPI 181763(!).
*Sorosporium consanguineum* Ellis & Everh. var. *bullatum* Pavgi & Thirum., Sydowia **5**: 10, 1951. — *Sorosporium bullatum* (Pavgi & Thirum.) Pavgi & Thirum., in Thirum. & Pavgi, Mycopathol. Mycol. Appl. **7**: 284, 1956 (later homonym, not J. Schröt. 1869). — Type on *Aristida adscensionis,* India, Uttar Pradesh, Varanasi, Banaras Hindu University, 2.XI.1948, M.S. Pavgi, HCIO 20048(!) (syn. by Vánky 2001: 305).
*Sorosporium penuriasorus* Durán, *Ustilaginales* of Mexico: 67, 1987. — Type on *Aristida ternipes* Cav., Mexico, 1 mi W of Hwy 15 on the road to San Blas, Nay, 28.X.1969, R. Durán, WSP 67741; isotype H.U.V. 14405(!) (syn. by Vánky 2001: 305).
On *Poaceae: Aristida* spp.; Africa, S Asia, Australasia, N & S America.
**AFR:** *Aristida adscensionis* L., *A. mutabilis* Trin. & Rupr., **Nigeria, Sudan, Zambia.**

158. ***Sporisorium austroafricanum*** M. Piątek, Ann. Bot. Fenn. **46**: 426, 2009. — Type on *Ischaemum fasciculatum*, South Africa, Gauteng Prov., c. 50 km E of Pretoria, Bronkhorstspruit Tul, Seringkop, 1.XI.1944, L.E. Codd, PREM 34354(!).
On *Poaceae: Ischaemum fasciculatum* Brongn.. Known only from the type collection.
**AFR:** *Ischaemum fasciculatum,* **S. Africa.**

159. ***Sporisorium barcinonense*** (Riofrio) Vánky, in Vánky *et al.,* J. Phytopathology **121**: 188, 1988. — *Sphacelotheca barcinonensis* Riofrio, Bol. Soc. Espan. Hist. Nat. **23**: 193,

1923. — Type on *Andropogon hirtus* L. var. *longiaristatus* (= *Hyparrhenia hirta*), Spain, Mt. Tibidabo near Barcelona, B.F. Riofrio, MPU, Herb. Maire 1616(!).

On *Poaceae: Hyparrhenia hirta* (L.) Stapf (*Andropogon hirtus* L.); S Europe, N Africa.

**AFR:** *Hyparrhenia hirta*, **Canary I.**

160. ***Sporisorium bothriochloae*** (L. Ling) Vánky, Fungal Diversity **15**: 229, 2004. — *Sorosporium bothriochloae* L. Ling, Lloydia **16**: 186, 1953. — Type on *Bothriochloa glabra* (= *B. bladhii*), Nyasaland [= Malawi], Kalembo, 2.IV.1949, P.O. Wiehe 142, IMI 35066(!); isotype BPI 179467.

On *Poaceae: Bothriochloa* and *Dichanthium* spp.; C Africa, Australia.

**AFR:** *Bothriochloa bladhii* (Retz.) S.T. Blake (*B. glabra* (Roxb.) A. Camus), *Bothriochloa* sp., **Malawi, Zambia.**

161. ***Sporisorium caledonicum*** (Pat.) Vánky, Mycotaxon **40**: 165, 1991. — *Sorosporium caledonicum* Pat., Bull. Soc. Mycol. France **3**: 173, 1887. — Type on *Heteropogon contortus*, New Caledonia, 1868-1870, M. Balansa, PC; isotype FH.

*Sorosporium heteropogonis-contorti* Bacc., Ann. Bot. (Rome) **14**: 132, 1917. — Type on *Heteropogon contortus*, Ethiopia, Hausac, Arussa, Luoghi, alt. 1450 m, 8.VII.1909, G. Negri 1140, FT(!) (syn. by Vánky 2000:178).

On *Poaceae: Heteropogon* spp.; Africa, S Asia, Australasia, New Caledonia, N America.

**AFR:** *Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schult. (*Andropogon contortus* L.), **S. Africa, Ethiopia, Zambia, Zimbabwe.**

162. ***Sporisorium catinatum*** (Zambett.) Vánky, Mycotaxon **65**: 162, 1997. — *Sphacelotheca catinata* Zambett., Rev. Mycol. (Paris), N.S., **38**: 81, 1973. — Type on *Loudetia superba* (= *Tristachya superba*), Zambia, N of Kafue, near Shimabala, coll. A. Angus 1151, IMI 90030(!).

On *Poaceae: Tristachya superba* (De Not.) Schweinf. & Aschers. (*Loudetia superba* De Not.); Africa.

**AFR:** *Tristachya superba,* **Zambia.**

163. ***Sporisorium cenchri*** (Lagerh.) Vánky, Symb. Bot. Upsal. **24**(2): 114, 1985. — *Ustilago cenchri* Lagerh., in Patouillard & Lagerheim, Bull. Herb. Boissier **3**: 62, 1895. — Type on *Cenchrus* sp., Ecuador, Riobamba, VIII.1891, G. Lagerheim, S(!).

*Sorosporium cenchri* Henn., Hedwigia **35**: 221, 1896. — Type on *Cenchrus echinatus* L., Brazil, Santa Catharina, II.1887, E. Ule (1623; BP(!), originated from B, who in his turn obtained it from FH); isotypes in Rabenhorst, Fgi. eur. no. 4405 (as *Tolyposporium cenchri*, H.U.V. 1640(!).

*Tolyposporium cenchri* Bref., Unters. Gesammtgeb. Mykol. **12**: 156, 1895. — *Sorosporium cenchri* (Bref.) Zundel, Bothalia **3**: 303, 1938 (later homonym, not Henn. 1896). — *Sorosporium brefeldianum* G.W. Fisch. & Holton, Biology and control of smut fungi: 36, 1957. — Type on *Cenchrus echinatus* L., Brazil, Rio de Janeiro, Botanical Garden, F.A.G.J. Möller.

*Sorosporium cenchri* Henn. var. *levis* Vörös & Ubrizsy, Acta Phytopathol. Acad. Sci. Hung. **3**: 267, 1968. — Type on *Cenchrus pauciflorus* Benth. (= *C. incertus* M.A. Curtis), Hungary, Talfája near Kecskemét, 27.IX.1967, G. Ubrizsy, H.U.V. 1646(!).

On *Poaceae: Cenchrus* and *Pennisetum* spp. Rather common in N & S America, scattered in Europe, Africa, Asia, where probably introduced.

**AFR:** *Cenchrus ciliaris* L. (*Pennisetum ciliare* (L.) Link; *P. cenchroides* Rich.), *Cenchrus* sp., **Eritrea, Ethiopia, Madagascar, S. Africa.**

164. ***Sporisorium chudeaui*** (Har. & Pat.) Vánky, Mycotaxon **65**: 143, 1997. — *Sphacelotheca chudeaui* Har. & Pat. (as "*chudaei*"), Bull. Soc. Mycol. France **26**: 208, 1910. — Type on *Panicum turgidum* Forssk. (= misnamed *Vetiveria nigritana,* det. A. Camus, see Ling 1953: 182), Mauritania, Sahel, Biakh, 25.I.1908, R. Chudeau, PC; isotypes BPI 177313, 177314, IMI 34549, H.U.V. 16786(!).

On *Poaceae: Vetiveria* spp.; Africa, Australia.

**AFR:** *Vetiveria nigritana* (Benth.) Stapf, **Ghana, Mauritania, Togo.**

165. ***Sporisorium ciccaronei*** Vánky, Mycotaxon **106**: 142, 2008. — *Sphacelotheca elionuri* Ciccar., Mycopathol. Mycol. Appl. **5**: 224, 1951 (as "*elyonuri*"; not *Sporisorium elionuri* (Henn. & Pole-Evans) Vánky). — Type on *Elionurus argenteus* var. *caespitosus* (= *E. muticus*), Ethiopia, Benishangul-Gumuz Prov., "Asosa and Afodu", c. 1600 m., III.1939, A. Ciccarone, BPI 177497/A(!); isotype BPI 195067(!).

On *Poaceae: Elionurus muticus* (Spreng.) Kuntze (*E. argenteus* Nees var. *caespitosus* (A. Rich.) Hack.); E Africa.

**AFR:** *Elionurus muticus,* **Ethiopia.**

166. ***Sporisorium compactum*** Vánky, Mycotaxon **85**: 23, 2003. — Type on *Cymbopogon giganteus,* Senegal, Bakel, 3.I.1964, G. Adam 19647, H.U.V. 19818(!).

On *Poaceae: Cymbopogon giganteus* Chiov.; Africa. Known only from the type collection.

**AFR:** *Cymbopogon giganteus,* **Senegal.**

167. ***Sporisorium congense*** (Syd. & P. Syd.) Vánky, Fungal Diversity **12**: 186, 2003. — *Ustilago congensis* Syd. & P. Syd., in Wildeman, Études sur la flore du Bas- et Moyen-Congo **3**: 9, 1909. — *Sphacelotheca congensis* (Syd. & P. Syd.) Wakef., in Zundel, Mycologia **22**: 140, 1930. — Lectotype (design. by Vánky 2003: 186) on *Andropogon* sp. (= *Hyparrhenia diplandra*, det. J. Bosser, BR), Congo, Leopoldville Prov., Kisantu, 13.IX.1908, H. Vanderyst 712, BR 374(!); isolectotype BPI 159678, BPI 195076.

On *Poaceae: Hyparrhenia diplandra* (Hack.) Stapf; C Africa.

**AFR:** *Hyparrhenia diplandra,* **Cameroon, Congo, Uganda.**

In old specimens, the spores are yellowish-brown and collapsed on one side, looking like coffee beans.

168. ***Sporisorium consanguineum*** (Ellis & Everh.) Vánky, **s. lat.**, Mycotaxon **31**: 402, 1988. — *Sorosporium consanguineum* Ellis & Everh., J. Mycol. **3**: 56, 1887. — Type on "*Aristida rusbyi* Scribn." (= *A. arizonica* Vasey), USA, North Arizona, coll. Rusby, BPI 179664(!).

*Ustilago aristidae* Peck, Bull. Torrey Bot. Club **12**: 35, 1885 (not *Sporisorium aristidae* (S. Ahmad) Vánky). — Type on *Aristida* sp., USA, Texas, El Paso, Sept., coll. M.E. Jones, BPI 179600.

*Sorisporium aristidae* Neger, Ann. Univ. Chile **95**: 789, 1896. — Type on *Aristida pallens* Cav., Chile, Bio-Bio Prov., Angol, IX.1896, F.W. Neger. Holotype destroyed in Berlin (B). Neotype (design. by Vánky 2001: 307) in BPI 195114(!); isoneotype BPI 179446(!) (syn. by Zundel 1953: 57, confirmed).

*Sorosporium bornmuelleri* Magnus, Verh. K. K. Zool.-Bot. Ges. Wien **50**: 434, 1900 (as "*Sorisporium*"). — Type on *Aristida coerulescens* (= *A. adscensionis*), Lebanon (Syria), near Burmmana, alt. c. 600–700 m, VII.1897, J. Bornmüller, HBG 988(!); isotypes BPI 179558(!) and in Bornmüller, Iter Syriacum, 1897, no. 988, H.U.V. 1653(!) (syn. by Zundel 1937: 584, confirmed).

On *Poaceae: Aristida* and *Stipagrostis* spp., in the tropics and subtropics of Africa, Asia, Australia, N, C & S America.

**AFR:** *Aristida adscensionis* L. (*A. caerulescens* Desf.), *A. junciformis* Trin. & Rupr., *Stipagrostis plumosa* (L.) Munro ex T. Anderson (*Aristida plumosa* L.), **Morocco, S. Africa.**

169. ***Sporisorium cornutum*** (Syd., P. Syd. & Butler) Vánky, Mycotaxon **48**: 40, 1993. — *Ustilago cornuta* Syd., P. Syd. & Butler, Ann. Mycol. **4**: 426, 1906. — *Sphacelotheca cornuta* (Syd., P. Syd. & Butler) Mundk., Trans. Brit. Mycol. Soc. **23**: 110, 1939. — Type on *Ophiuros corymbosus* (= *O. exaltatus*), India, Gujarat, Surat, 16.VIII.1903, E.J. Butler 447, HCIO 447; isotypes BPI 159715, 159716, H.U.V. 15515(!).

On *Poaceae: Ophiuros exaltatus* (L. fil.) Kuntze (*O. corymbosus* Gaertn. fil.); S Africa, S & E Asia.

**AFR:** *Ophiuros exaltatus,* **S. Africa.**

170. ***Sporisorium cruentum*** (J.G. Kühn) Vánky, Symb. Bot. Upsal. **24**(2): 115, 1985. — *Ustilago cruenta* J.G. Kühn, Hamburger Garten-Blumenzeitung **28**: 178, 1872. — *Sphacelotheca cruenta* (J.G. Kühn) Potter, Phytopathology **2**: 98, 1912. — Type on *Sorghum saccharatum* (= *S. bicolor,* Germany, Schlesien [now Poland], Attendorf, 1859, J. Kühn.

*Ustilago sorghi* Pass., in Thümen, Herb. myc. oecon. no. 63, 1873; Hedwigia **12**: 114, 1873. — Type on *Sorghum vulgare*. (= *S. bicolor*), Italy, Parma, summer 1872, G. Passerini, H.U.V. 3408(!); isotypes in Thümen, Herb. myc. oecon. no. 63, H.U.V. 2016(!) (syn. by Vánky 1994: 200).

*Endothlaspis sorghi* Sorokin, Rev. Mycol. (Toulouse) **12**: 4, 1890. — *Cintractia sorghi* (Sorokin) de Toni, in Saccardo, Syll. Fung. **7**: 481, 1888. — Type on *Sorghum cernuum,* Central Asia, Boukhara, between Kerti and Tzardjui, near Petro-Alexandrowsk, Kisil-Koum, 5.IX.1879 (syn. by Vánky 1987: 34).

*Sphacelotheca holci* H.S. Jacks., Monogr. Univ. Puerto Rico, Ser. B. No. **2**: 259, 1934 (n.v.). — Type on *Holcus sorghum* L. (= *Sorghum bicolor*), Venezuela, Aragray, near Maracay, Gardens at Las Delicias (syn. by G.W. Fischer 1953: 134).

On *Poaceae: Sorghum* spp.; cosmopolitan.

**AFR:** *Sorghum arundinaceum* (Desv.) Stapf (*S. bicolor* (L.) Moench subsp. *arundinaceum* (Desv.) De Wet & Harlan; *S. verticilliflorum* (Steud.) Stapf), *S. bicolor* (L.) Moench (*S. vulgare* Pers.; *S. saccharatum* (L.) Pers.; *S. cernuum* (Ard.) Host; *S. technicum* (Koernicke) Roshev.), *S. caffrorum* P. Beauv., *S. halepense* (L.) Pers., *Sorghum* sp., **Egypt, Ethiopia, Malawi, S. Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe.**

*Sporisorium cruentum* has a thinner soral peridium, larger spores with fine but more visible warts, and larger sterile cells than *S. sorghi. S. cruentum* regularly causes congestion and stunting of the panicle, while *S. sorghi* may or may not produce congestion of the panicle.

171. ***Sporisorium cymbicum*** Vánky, Mycotaxon **85**: 23, 2003. — Type on *Cymbopogon nardus,* Zimbabwe, Manicaland Prov., Nyanga National Park, Mtarazi Waterfalls, alt. c. 1700 m, 22.II.1999, C. & K. Vánky, H.U.V. 19808(!); isotypes BPI 841911 and in Vánky, Ust. exs. no. 1150. Paratype on *Cymbopogon validus,* South Africa, Northern Prov., near Duiwelskloof, Ebeneser Dam, road no. 528, alt. c. 1490 m, 23.I.1997, C. & K. Vánky, H.U.V. 19816(!); isoparatypes BPI 841712 and in Vánky, Ust. exs. no. 1151. Paratype on *Cymbopogon plurinodis,* South Africa, Western Cape Prov., 55 km E Knysna, Tsitsikamma National Park, alt. c. 250 m, 19.XII.1996, C. & K. Vánky, H.U.V. 198871(!); isoparatypes in Vánky, Ust. exs. no. 1156. Paratypus on *Cymbopogon nardus* (det. M. Namaganda), Uganda, Iganga Distr., 50 km NNE of Iganga, alt. c. 1155 m, 1.III.2002, M. Namaganda, C. & K. Vánky, H.U.V. 19979(!); isoparatype MHU.

On *Poaceae: Cymbopogon* spp.; C & S Africa.

**AFR:** *Cymbopogon nardus* (L.) Rendle, *C. plurinodis* (Stapf) Stapf ex Burtt Davy, *C. validus* (Stapf) Stapf ex Burtt Davy (*C. afronardus* Stapf), **S. Africa, Uganda, Zimbabwe.**

172. ***Sporisorium decorsei*** (Har. & Pat.) Vánky, Mycotaxon **65**: 160, 1997. — *Tolyposporium decorsei* Har. & Pat., Bull. Mus. Hist. Nat. (Paris) **15**: 197, 1909. — *Sorosporium decorsei* (Har. & Pat.) L. Ling, Lloydia **16**: 187, 1953. — Type on *Trichopteryx* aff. *gigantea* (= *Tristachya superba*), Chad, "Chari, pays Ndonko à Kouti Tété", 2–18.V.1903, A.J. Decorse 8276, PC(!).

On *Poaceae: Tristachya* spp.; C & S Africa.

**AFR:** *Tristachya rehmanii* Hack., *T. superba* (De Not.) Schweinf. & Aschers. (*Loudetia superba* De Not.; *Trichopteryx gigantea* Stapf), **Chad, Congo, S. Africa, Tanzania, Zambia, Zimbabwe.**

173. ***Sporisorium dembianense*** (Bacc.) Vánky, Fungal Diversity **12**: 187, 2003. — *Sorosporium dembianense* Bacc., Ann. Bot. (Rome) **14**: 132, 1917. — Lectotype (design. by Ling 1953: 188) on *Andropogon papillipes* A. Rich. (= misnamed *Hyparrhenia rufa,* det. L. Ling, confirmed K. Vánky), Ethiopia, Amhara–Dembia, Asoso, 27.X.1909, E. Chiovenda 2671, FT(!); isolectotype BPI 179725(!). Syntype on *Andropogon arrhenobasis* (= *Hyparrhenia arrhenobasis*), Ethiopia, Amhara–Dembia, Gondar, in the valley of Cahà, 2.X.1909, E. Chiovenda 2281, FT(!); isosyntype BPI 179721.

On *Poaceae: Hyparrhenia* spp.; Africa.

**AFR:** *Hyparrhenia arrhenobasis* (Hochst. ex Steud.) Stapf (*Andropogon arrhenobasis* Hochst. ex Steud.), *H. filipendula* (Hochst.) Stapf, *H. hirta* (L.) Stapf, *H. rufa* (Nees) Stapf, *H. tamba* (Steud.) Stapf, **Ethiopia, Malawi, S. Africa, Tanzania, Zambia, Zimbabwe.**

174. ***Sporisorium densiflorum*** (L. Ling) Vánky, Mycotaxon **85**: 27, 2003. — *Sorosporium densiflorum* L. Ling, Lloydia **16**: 188, 1953. — Type on *Cymbopogon densiflorus*, Congo, Leverville, 6.XII.1918, H. Vanderyst, BR 1329; isotype BPI 179970(!).

On *Poaceae: Cymbopogon* spp.; C & S Africa.

**AFR:** *Cymbopogon densiflorus* (Steud.) Stapf, and *C. dieterlenii* Stapf ex Phill., **Congo, S. Africa.**

175. ***Sporisorium desertorum*** (Thüm.) Vánky, Mycotaxon **74**: 169, 2000. — *Sorosporium desertorum* Thüm., Grevillea **8**: 50, 1879. — Type on *Coelorachis hirsuta* (= *Lasiurus sindicus*), "im Wadi Gundeli bei der Palastruine Dar el Beda, mittelaegyptische Wüste, arabische Seite" [in Wadi Gundeli, at the ruins of the palace Dar el Beda, Mid Egyptian Desert, Arabic side; today probably in Chad], 31.IV.1879, G. Schweinfurth, H.U.V. 7254(!) (damaged by insects); isotypes in Thümen, Mycoth. univ. no. 1514, H.U.V. 1656(!), and in Roumeguère, Fgi. sel. gall. exs. no. 4724, BPI 179726, 179727, H.U.V. 12834(!).

*Sorosporium lasiuri* S. Ahmad, Biol. Soc. Pakistan Monograph **5**: 38, 1969. — Type on *Lasiurus hirsutus* (= *L. sindicus*), Pakistan, Shahkot hills, 20.IV.1957, S. Ahmad 15330 (syn. by Vánky 2000: 169).

*Sorosporium lasiuri* Zambett., Bull. Soc. Mycol. France **86**: 675, 1970 (later homonym and invalid name; ICBN, Art. 36.1 & 37.1). — On *Lasiurus hirsutus* (= *L. sindicus*), Mauritania, at Taziast (without date and name of collector) (syn. by Vánky 2000: 169).

On *Poaceae: Lasiurus sindicus* Henrard (*L. hirsutus* (Forssk.) Boiss.; *Coelorachis hirsuta* (Forssk.) Brongn.); Africa, S Asia.

**AFR:** *Lasiurus sindicus*, **Chad, Egypt, Mauritania.**

176. ***Sporisorium destruens*** (Schltdl.) Vánky, Symb. Bot. Upsal. **24**(2): 115, 1985. — *Caeoma destruens* Schltdl., Fl. Berol., Pars 2. Cryptogamia: 130, 1824. — *Uredo destruens* (Schltdl.) Duby, Botanicon Gallicum, Ed. 2, Pars 2: 901, 1830. — *Tilletia destruens* (Schltdl.) Lév., Ann. Sci. Nat. Bot., Sér. 3, **8**: 372, 1847. — *Ustilago destruens* (Schltdl.) Rabenh., in Rabenhorst, Herb. viv. myc., Ed. 2, no. 400, 1857. — *Anthracocystis destruens* (Schltdl.) Bref., Unters. Gesammtgeb. Mykol. **15**: 53, 1912. — *Sphacelotheca destruens* (Schltdl.) J.A. Stevenson & A.G. Johnson, Phytopathology **34**: 613, 1944. — Neotype (design. by Vánky 1985: 116) on *Panicum miliaceum,* Germany, Bunzlau [Poland, Bolesławiec], J. Kühn, H.U.V. 1895(!); isoneotypes in Rabenhorst, Herb. viv. myc., ed. 2, no. 400 (as *Ustilago destruens*). The holotype was lost in Berlin during World War II. No isotypes are preserved in Herb. Schlechtendal (HAL) either.

*Uredo segetum* Pers. δ *Uredo panici-miliacei* Pers., Synopsis Methodica Fungorum: 224, 1801. — *Uredo carbo* δ *panici-miliacei* (Pers.) DC., Fl. fr. **6**: 76, 1815. — *Erysibe panicorum* β *panici-miliacei* (Pers.) Wallr., Flora Cryptogamica Germaniae, Pars 2, 4: 216, 1833. — *Ustilago panici-miliacei* (Pers.) G. Winter, in Rabenhorst, Krypt.-Fl., 2 Aufl., **1**(1): 89, 1881. — *Sorosporium panici-miliacei* (Pers.) Takah., Bot. Mag. (Tokyo) **16**: 184 & 247, 1902. — *Sphacelotheca panici-miliacei* (Pers.) Bubák, Houby Ceské **2**: 27, 1912. — Type on *Panicum miliaceum*, sine loco.

On *Poaceae: Panicum* spp.; cosmopolitan.

**AFR:** *Panicum miliaceum* L. (cult.), **Congo, Libya, Madagascar, S. Africa.**

177. ***Sporisorium dinteri*** (Syd. & P. Syd.) Vánky, Fungal Diversity **15**: 232, 2004. — *Ustilago dinteri* Syd. & P. Syd., Ann. Mycol. **13**: 37, 1915. — *Sphacelotheca dinteri* (Syd. & P. Syd.) Zundel, Mycologia **22**: 140, 1930. — Type on *Andropogon papillosus* (= *Dichanthium annulatum* var. *papillosum*), Namibia, Oljikuara-Okaharni, 7.III.1913, Dinter 3286, BPI 160215(!); isotypes BPI 188928 & 188929.

On *Poaceae: Bothriochloa* and *Dichanthium* spp.; Africa, S Asia, Australia.

**AFR:** *Bothriochloa bladhii* (Retz.) S.T. Blake, *Dichanthium annulatum* (Forssk.) Stapf var. *papillosum* (A. Rich.) De Wet & Harlan (*D. papillosum* (A. Rich.) Stapf; *Andropogon papillosus* A. Rich.), **Namibia, Zimbabwe.**

178. ***Sporisorium distachyum*** Vánky, Mycotaxon **95**: 12, 2006. — Type on *Andropogon distachyos,* Ethiopia, Arsi Region, 241 km SE of Addis Abeba, 77 km S of Asela, alt. 2985 m, 4.XI.2004, T. & K. Vánky, H.U.V. 20909(!); isotypes in Vánky, Ustil. exs. no. 1286. Paratype on *Andropogon abyssinicus,* Ethiopia, Arsi Region, 162 km SE of Addis Abeba, 2 km N of Asela, alt. 2345 m, 3.XI.2004, T. & K. Vánky, H.U.V. 20908(!); isoparatypes in Vánky, Ustil. exs. no. 1287.

On *Poaceae: Andropogon* spp.; Africa.

**AFR:** *Andropogon abyssinicus* Fresen., *A. distachyos* L., **Ethiopia.**

179. ***Sporisorium doidgeae*** (Zundel) Langdon & Full., Mycotaxon **6**: 452, 1978. — *Sphacelotheca doidgeae* Zundel, Mycologia **22**: 131, 1930. — Lectotype (designated by Doidge 1950: 382) on *Bothriochloa glabra* (= *B. bladhii*), South Africa, Natal, Edendale, 26.XII.1911, E.M. Doidge, PREM 1997; isolectotypes BPI 195079(!), H.U.V. 18065(!). Syntypes on *Bothriochloa* sp. (= *B. insculpta*; det. K. Vánky), South Africa, Transvaal, Pretoria, Onderstepoort, 20.XII.1921, A.O.D. Mogg, PREM 15058, BPI 160222(!), H.U.V. 1899(!); on *Bothriochloa glabra* (= *B. bladhii*), South Africa, Natal, Maritzburg, 15.III.1915, J.M. Sim, PREM 8939, H.U.V. 18066(!).

*Sorosporium andropogonis-micranthi* Y. Ling & T.L. Chen, Res. Bull. Inst. Zool. Bot. Fukien Acad. **1**: 21, first half? of 1945. — *Sporisorium andropogonis-micranthi* (Y. Ling & T.L. Chen) Vánky, Mycotaxon **74**: 176, 2000. — Syntypes on *Andropogon micranthus* Kunth (= *Capillipedium parviflorum* (R. Br.) Stapf), China, Fukien Prov., Yungan, Moping, 26.IX.1942, T.L. Chen 294, and Fukien Prov., vicinity of Sha-hsien, 15.X.1942, T.L. Chen 300 (syn. by Vánky 2004: 233).

*Sphacelotheca capillipedii* L. Ling, Mycol. Pap. **11**: 8, Sept. 12, 1945. — *Sporisorium capillipedii* (L. Ling) L. Guo, Mycosystema **3**: 78, 1990. — Type on *Capillipedium parviflorum* (R. Br.) Stapf, China, Szechwan Prov., Chengtu, 11.XI.1938, L. Ling, IMI 498(!). Topotypes: 5.IX.1939, L. Ling, BPI 177299(!), 5.II.1940, L. Ling, BPI 195086(!), and XI.1947, K.R. Lin, BPI 177298(!) (syn. by Vánky 2004: 233).

*Sphacelotheca pakistanica* S. Ahmad, Mycol. Pap. **64**: 7, 1956. — Type on *Capillipedium parviflorum* (R. Br.) Stapf, Pakistan, Murree, VIII.1952, S. Ahmad; isotype in H.U.V. 7245(!) (syn. by Vánky 2004: 233).

On *Poaceae: Bothriochloa, Capillipedium,* and *Dichanthium* spp.; Africa, Asia, Australia.

**AFR:** *Bothriochloa bladhii* (Retz.) S.T. Blake (*B. glabra* (Roxb.) A. Camus), *B. insculpta* (Hochst. ex A. Rich.) A. Camus, **Ethiopia, S. Africa, Zimbabwe.**

180. ***Sporisorium dubiosum*** (Zundel) Vánky, Mycotaxon **81**: 396, 2002. — *Cintractia dubiosa* Zundel, Mycologia **23**: 299, 1931. — *Sorosporium dubiosum* (Zundel) L. Ling, Lloydia **16**: 189, 1953. — Type on *Pennisetum* sp. (= *Cenchrus ciliaris*, det. K. Vánky), British East Africa [Kenya], Nairobi, 9.IX.1920, H.L. Shantz, BPI 171508(!); isotypes BPI 171508–171510.

On *Poaceae: Cenchrus ciliaris* L. (*Pennisetum cenchroides* Rich.); Africa.

**AFR:** *Cenchrus ciliaris,* **Kenya, Namibia, S. Africa.**

181. ***Sporisorium ehrenbergii*** (J.G. Kühn) Vánky, Mycotaxon **38**: 270, 1990. — *Sorosporium ehrenbergii* J.G. Kühn, Mitth. Vereins. Erdk. Halle **1877**: 87. — *Tolyposporium ehrenbergii* (J.G. Kühn) Pat., Bull. Soc. Mycol. France **19**: 254, 1903. — Type on *Sorghum cernuum* (= *S. bicolor*), Egypt, Cairo.

*Tolyposporium filiferum* Busse, Arbeiten Biol. Abt. Landw.-Forstw. Kaiserl. Gesundheit. **4**: 383, 1905. — *Sorosporium filiferum* (Busse) Zundel, Mycologia **22**: 148, 1930. — Lectotype (design. by Vánky 1990: 270) on *Andropogon sorghum* (L.) Brot. var. *densissimus* Busse & Pilger (= *S. bicolor*), Tanzania, Ugogo, VIII.1900, W. Busse 278, EA(!). Syntypes W. Busse 278a & 1182c, EA(!) (syn. in Zundel 1953: 128, confirmed).

On *Poaceae: Sorghum* spp.; Africa, Asia.

**AFR:** *Sorghum bicolor* (L.) Moench. (*S. cernuum* (Ard.) Host; *S. vulgare* Pers.; *S. caffrorum* (Retzius) P. Beauv.), *S. purpureo-sericeum* (A. Rich.) Aschers. & Schweinf. Widespread on cultivated *Sorghum* in warm regions, **Burkina Faso (Upper Volta), Chad, Egypt, Ethiopia, Gambia, Ghana, Kenya, Namibia, Nigeria, S. Africa, Sudan, Tanzania.**

Recently, a morphologically identical fungus was collected on *Pennisetum glaucum* (L.) R. Br. (*P. typhoideum* L. Rich.) in Eritrea (H.U.V. 19512, det. K. Vánky), which is under investigation.

182. ***Sporisorium elegantis*** Vánky, Mycotaxon **62**: 132, 1997. — Type on *Thelepogon elegans,* India, Maharashtra State, 36 km NW of Pune, near National Defence Academy, alt. c. 610 m, 28.X.1992, C. & K. Vánky, H.U.V. 17656(!). Paratypes: India, 26.III.1966, coll. Chauhan, IMI 119252, H.U.V. 17401(!); Nigeria, 1959, coll. E. Harris 537, IMI 78605, H.U.V. 17402(!).

On *Poaceae: Thelepogon elegans* Roem. & Schult.; C Africa, S Asia.

**AFR:** *Thelepogon elegans,* **Nigeria.**

183. ***Sporisorium elionuri*** (Henn. & Pole-Evans) Vánky, Mycotaxon **73**: 155, 1999. — *Ustilago elionuri* Henn. & Pole-Evans, in Henn., Bot. Jahresb. Syst. **41**: 270, 1908. — *Sphacelotheca elionuri* (Henn. & Pole-Evans) Vienn.-Bourg. (nom. herb.?). — Type on *Elionurus argenteus* (= *E. muticus*), South Africa, Pretoria, XII.1905, I.B. Pole-Evans, PREM 102(!).

*Ustilago elionuri* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **12**: 288, 1909 (later homonym, not Henn. & Pole-Evans, 1908). — *Ustilago elionuri-candidi* Speg., in Saccardo & Trotter, in Saccardo, Syll. Fung. **21**: 501, 1912. (nom. nov. pro *U. elionuri* Speg.). — *Sphacelotheca elionuri-candidi* (Speg.) Hirschh., Ustil. Fl. Argent.: 119, 1986. — Type on *Elionurus candidus* (= *E. muticus*), Argentina, Santa Fé Prov., near Reconquista, XI.1907, M. Estrada. Topotype: II.1908, C. Spegazzini, LPS 3106; isotopotype BPI 160352(!).

On *Poaceae: Elionurus muticus* (Sprengel) Kunth (*E. argenteus* Nees; *E. candidus* (Trin.) Hack.); Africa, S America.

**AFR:** *Elionurus muticus, Elionurus* sp., **Congo, S. Africa, Zimbabwe.**

184. ***Sporisorium elionuri-tristis*** Vánky, Mycotaxon **73**: 158, 1999. — Type on *Elionurus tristis,* Madagascar, S of Ambositra, I.1964, J. Bosser 17715, H.U.V. 16851(!); isotype PC.

On *Poaceae: Elionurus tristis* Hack.; S Africa. Known only from the type collection.

**AFR:** *Elionurus tristis,* **Madagascar.**

185. ***Sporisorium enteromorphum*** (McAlpine) Vánky, Mycotaxon **51**: 161, 1994. — *Ustilago enteromorpha* McAlpine, Agric. Gaz. New South Wales **7**: 154, 1896. — *Sorosporium enteromorphum* (McAlpine) McAlpine, The smuts of Australia: 177, 1910. — Type on *Anthistiria ciliata* L. fil. (= *Themeda quadrivalvis* (L.) Kuntze), Australia, Victoria, near Melbourne, X. & XI. 1892, G.H. Robinson; isotype BPI 179841 (as "21.XII.1892, G.H. Robinson", in accordance with McAlpine 1910: 177).

On *Poaceae: Themeda* spp.; S Africa, Australia.

**AFR:** *Themeda triandra* Forssk., **S. Africa.**

186. ***Sporisorium eriochloae*** Vánky, Mycotaxon **74**: 174, 2000. — Type on *Eriochloa fatmensis,* Sudan, Malakal, 12.X.1956, S.A.J. Tarr, H.U.V. 17807(!); isotypes BPI 192688, IMI 67783 and in Sudan Mycological Herbarium no. 2877.

On *Poaceae: Eriochloa fatmensis* (Hochst. & Steud.) W.D. Clayton (*E. nubica* (Steud.) Hack. & Stapf ex Thell.); Africa.

**AFR:** *Eriochloa fatmensis,* **Sudan.**

187. ***Sporisorium eriochrysis*** Vánky, Mycotaxon **85**: 56, 2003. — Type on *Eriochrysis brachypogon,* Uganda, Masaka Distr., 20 km E of Masaka, Lake Nabugabo near Bale, alt. c. 1130 m, 26.II.2002, C., T. & K. Vánky, H.U.V. 19995(!); isotypes MHU, BPI, K, and in Vánky, Ust. exs. no. 1178.

On *Poaceae: Eriochrysis brachypogon* (Stapf) Stapf; C Africa. Known only from the type collection.

**AFR:** *Eriochrysis brachypogon,* **Uganda.**

188. ***Sporisorium erythraeense*** (Syd. & P. Syd.) Vánky, Mycotaxon **40**: 163, 1991. — *Ustilago erythraeensis* Syd. & P. Syd., Ann. Mycol. **9**: 144, 1911. — *Sphacelotheca erythraeensis* (Syd. & P. Syd.) G.P. Clinton, in Zundel, North American Flora **7**: 996, 1939. — Type on *Manisuris granularis* (= *Mnesithea granularis*), Africa, Eritrea, Ghinda-Amasen Prov., Dongollo, 13.III.1902, Pappi, BPI 188934(!).

On *Poaceae: Mnesithea granularis* (L.) de Koning & Sosef (*Manisuris granularis* (L.) Sw.; *Hackelochloa granularis* (L.) Kuntze); Africa, Asia, Australia, N America.

**AFR:** *Mnesithea granularis,* **Eritrea.**

189. ***Sporisorium euclastae*** Vánky & C. Vánky, in Vánky, Mycotaxon **89**: 73, 2004. — Type on *Euclasta condylotricha,* Zambia, Southern Prov., 70 km SW of Lusaka, alt. c. 1060 m, 16.IV.2001, C., T. & K. Vánky, H.U.V. 19931(!); isotypes in MHU, IMI, BPI 843862.

On *Poaceae: Euclasta condylotricha* (Steud.) Stapf; C Africa. Known only from the type collection.

**AFR:** *Euclasta condylotricha,* **Zambia.**

190. ***Sporisorium everhartii*** (Ellis & Galloway) M. Piepenbr., Mycol. Res. **103**: 462, 1999. — *Sorosporium everhartii* Ellis & Galloway, J. Mycol. **6**: 32, 1890. — Type on *Andropogon virginicus* L., USA, New Jersey, Newfield, October, coll. N.A.F. 2265b.

On *Poaceae: Andropogon* and *Schizachyrium* spp.; Africa, N America (Mex., USA), W Indies (Cuba).

**AFR:** *Andropogon fastigiatus* Sw., **Guinea.**

Report of this smut (Zundel 1938: 304; 1953: 59) on *Hyparrhenia ruprechtii* (= *Hyperthelia dissoluta*) from S Africa is *Sporisorium ischaemoides* (Henn.) Vánky (PREM 7770!).

191. ***Sporisorium exsertum*** (McAlpine) L. Guo, Mycosystema **3**: 80, 1990. — *Cintractia exserta* McAlpine, The smuts of Australia: 170, 1910. — *Sphacelotheca exserta* (McAlpine) Cif., Ann. Mycol. **26**: 32, 1928. — *Sphacelotheca exserta* (McAlpine) W.Y. Yen, Contr. Inst. Bot. Natl. Acad. Peiping **3**: 5, 1935 (comb. superfl.). — Lectotype (design. by Zundel 1953: 91) on *Anthistiria ciliata* L. fil. (= *Themeda quadrivalvis* (L.) Kuntze), Australia, Victoria, Kiewa Valley, XI.1902, G.H. Robinson, BPI 32225(!) (as on *Anthistiria australis*).

*Ustilago anthistiriae* Petch, Ann. Roy. Bot. Gard. (Peradeniya) **4**: 304, 1909. — *Sphacelotheca anthistiriae* (Petch) L. Ling, Farlowia **4**: 328, 1953. — Type on *Anthistiria tremula* Nees ex Steud. (= *Themeda tremula* (Nees ex Steud.) Hack.), Ceylon [Sri Lanka], Peradeniya, 10.V.1908, T. Petch, BPI 157285, 157286(!) (syn. by Vánky 1994: 161).

*Sphacelotheca vryburgii* Zundel, Mycologia **23**: 298, 1931. — Type on *Themeda forsskalii* Hack. (= *T. triandra* ), South Africa, (Bechuanaland), Vryburg Distr., Armoedis Vlakte, 5.V.1916, I.B. Pole Evans, PREM 9733; isotypes BPI 195083, H.U.V. 15630(!) (syn. by Vánky 1994: 161).

*Ustilago condigna* Syd., Ann. Mycol. **36**: 293, 1939. — Type on *Themeda avenacea* (F. Muell.) Maiden & Betche, Australia, South Australia, Coniston, VIII.1936, J.B. Clealand. The type probably does not exist any longer (comp. Vánky 1994: 162; syn. by Ling 1953: 328).

On *Poaceae: Themeda* spp.; Africa, S Asia, Australia.

**AFR:** *Themeda triandra* Forssk., **S. Africa, Zimbabwe.**

192. ***Sporisorium fastigiatum*** Vánky, Mycotaxon **74**: 206, 2000. — Type on *Andropogon fastigiatus,* Zimbabwe, Matabeleland North Prov., 25 km SE of Binga, alt. c. 690 m, 15.III.1999, C. & K. Vánky, H.U.V. 18910(!); isotypes BPI 746885 and in Vánky, Ust. exs. no. 1066. Paratype on *Andropogon fastigiatus,* Matabeleland North Prov., c. 50 km NW of Lusulu, alt. c. 970 m, 16.III.1999, C. & K. Vánky, H.U.V. 18911(!).

On *Poaceae: Andropogon* spp.; Africa.

**AFR:** *Andropogon fastigiatus* Sw. (*Diectomis fastigiata* (Sw.) Kunth), **Guinea, Zimbabwe.**

193. ***Sporisorium filiforme*** (Henn.) Vánky, Mycotaxon **74**: 180, 2000. — *Ustilago filiformis* Henn., Bot. Jahrb. Syst. **30**: 254, 1901 (not *U. filiformis* (Schrank) Rostrup, 1890). — *Sorosporium filiforme* (Henn.) Zundel (as "*filiformis*"), Mycologia **22**: 153, 1930. — Type on *Andropogon contortus* L. (= *Heteropogon contortus*), Tanzania, Usafua, Utengule, 20.VI.1899, W. Goetze 1059, BPI 160436(!); isotypes BPI 160437(!) & 160438(!).
On *Poaceae: Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schult.; Africa. Known only from the type collection.
**AFR:** *Heteropogon contortus,* **Kenya, Tanzania.**

194. ***Sporisorium formosanum*** (Sawada) Vánky, Publ. Herb. Univ. Uppsala **11**: 12, 1983. — *Ustilago formosana* Sawada, J. Formosan Nat. Hist. Soc. **34**: 6, 1918 (in Japanese, n.v.); in Tanaka, Mycologia **14**: 89, 1922. — *Sorosporium formosanum* (Sawada) Sawada, Descriptive catalogue of the Formosan fungi. **4**: 29, 1928 (n.v.). — Type on *Panicum proliferum* Lam. (= cf. *Panicum repens*; det. K. Vánky 1994: 202), Formosa [Taiwan; N.R. China] (no special collection designated).
*Ustilago digitariae* Rabenh. f. *panici-repentis* J.G. Kühn, Hedwigia **15**: 5, 1876 (nomen confusum; comp. Vánky 1990: 274). — On *Panicum repens*, Spain, Malaga, 16.X.1875, Walffenstein, H.U.V. 10266(!) (syn. by Ling 1949: 132).
*Sorosporium panici* Beeli, Bull. Jard. Bot. État **8**: 7, 1922 (later homonym, not MacKinnon, 1912: 210). — *Sorosporium beelii* Zundel, Bothalia **3**: 307, 1938 (nom. nov.). — Type on *Panicum* sp., Congo, Leopoldsville Prov., Boma, 1913, H. Vanderyst, BR 1315(!) (syn. by Ling 1951: 46).
*Sorosporium panici* Beeli var *kinshasaensis* Beeli, Bull. Jard. Bot. État **8**: 8, 1922. — *Sorosporium kinshasaensis* (Beeli) Zundel, Mycologia **29**: 590, 1937. — *Sorosporium beelii* Zundel var. *kinshasaensis* (Beeli) Hendrix, Publ. Inst. Nat. Etude Agron. Congo Belge, Ser. Sci. **35**: 8, 1948 (n.v.). — Type on *Panicum kinshasaense* (= *P. repens*), Congo, Kinshasa, 2.VI.1916, H. Vanderyst 4, BR 1323 (syn. by Ling 1951: 46).
*Ustilago amadelpha* Syd., P. Syd. & Butler var. *glabriuscula* Cif., Nuovo Giorn. Bot. Ital. **40**: 255, 1933. — Type on ?*Andropogon* (= misnamed *Panicum repens,* det. Rifai, 1980: 399), Java, Hortus Bogoriensis, IV.1930, coll. ? (12347) (syn. by Ling 1949: 132).
*Ustilago overeemii* Cif., Nuovo Giorn. Bot. Ital. **40**: 254, 1933. (as "*overeeimi*"). — *Sorosporium overeemii* (Cif.) Malençon, Rev. Mycol. (Paris), N.S., **10**: 121, 1945. — *Sporisorium overeemii* (Cif.) Rifai, Reinwardtia **9**: 400, 1980. — Type on *Panicum repens,* Java, Hortus Bogoriensis, IV.1921, V. Overeem 633 (syn. by Ling 1949: 266).
*Sorosporium punctatum* Malençon & Yen, Rev. Mycol. (Paris) **2**: 130, 1937. — Lectotype (design. by Vánky 1994: 202) on *Panicum repens,* Morocco, Rabat, 1.VI.1907, PC(!) (syn. by Vánky 1994: 202).
*Sorosporium trichophorum* (Tul. & C. Tul.) Zundel, Mycologia **31**: 583, 1939. — Type on "*Cynodon dactylon*" (=? *Panicum repens*), Algeria, La Calle, 13.VII.1840, L. Motelay 1878, PC (Herb. Tulasne).
*Ustilago hypodytes* (Schltdl.) Fr. var. *congoensis* Zambett., Bull. Soc. Mycol. France **95**: 412, 1980 (nom. inval., no Latin diagnosis; ICBN/Vienna, Art. 36.1). — On *Panicum* sp., Congo, Léopoldville [Kinshasa] Prov., Atène, I.1914, H. Vanderyst 3439, H.U.V. 17148(!) (syn. by Vánky 2005: 225).
On *Poaceae: Panicum repens* L. (*P. kinshasaense* Vanderyst); S Europe, Africa, Asia, Indonesia.
**AFR:** *Panicum repens, Panicum* sp., **Congo, Madeira, Morocco, Uganda.**

195. ***Sporisorium foveolati*** (Maire) Vánky, Mycotaxon **33**: 367, 1988. — *Sphacelotheca foveolati* Maire, Bull. Soc. Hist. Nat. Afrique N. **22**: 21, 1931. — Type on *Andropogon foveolatus* (= *Dichanthium foveolatum*), Algeria, in the mountains of C. Sahara, Tefedest, Oued Araghan, 10.IV.1928, R. Maire, MPU, Herb. Maire 9455(!).
On *Poaceae: Dichanthium foveolatum* (Delile) Roberty (*Andropogon foveolatus* Delile; *Eremopogon foveolatus* (Delile) Stapf); Africa.
**AFR:** *Dichanthium foveolatum,* **Algeria, Cape Verde I., Chad, Congo, Eritrea, Morocco.**

196. ***Sporisorium furcatum*** (Syd., P. Syd. & Butler) Vánky, Mycotaxon **89**: 96, 2004. — *Sorosporium furcatum* Sad., P. Syd. & Butler, Ann. Mycol. **10**: 254, 1912. — Type on *Ischaemum aristatum* L., India, Maharashtra State, Nagpur Distr., Lendru, 2.X.1908, P.A. Pandit, HCIO 1442(!) (very poor material); isotype BPI 195113(!).
On *Poaceae: Ischaemum* spp.; Africa, S Asia, E Malaysia.
**AFR:** *Ischaemum* sp., **Mauritius, Sudan.**

197. ***Sporisorium gayanum*** Vánky & C. Vánky, in Vánky, Mycotaxon **74**: 205, 2000. — Type on *Andropogon gayanus,* Zimbabwe, Matabeleland North Prov., 12 km N of Lusulu, alt. c. 1010 m, 16.III.1999, C. & K. Vánky, H.U.V. 18899(!); isotypes BPI, IMI 380465, S, and in Vánky, Ust. exs. no. 1065.
On *Poaceae: Andropogon gayanus* Kunth; Africa.
**AFR:** *Andropogon gayanus,* **Malawi, Zambia, Zimbabwe.**

198. ***Sporisorium glutinosum*** (Zundel) Vánky, Mycotaxon **74**: 180, 2000. — *Sorosporium glutinosum* Zundel, Mycologia **36**: 407, 1944. — Type on *Heteropogon contortus,* Mauritius, near Reduit (without date and name of collector), Dept. of Agriculture, Div. Plant Pathology, Mauritius, Exsicc. D 208, BPI 178071(!) & 195133(!).
*Tolyposporium andropogonis* M.K. Patel & N.B. Kulk., in Patel *et al.,* Indian Phytopathol. **4**: 65, 1951. — *Sorosporium*

*andropogonis* (Patel & N.B. Kulk.) Thirum. & Neerg., Friesia **11**: 182, 1977(1978). — Type on *Andropogon triticeus* R. Br. (= *Heteropogon triticeus* (R. Br.) Stapf ex Craib), India, Poona, Vetal Hill, X.1950, N.B. Kulkarni, HCIO 20076(!) (syn. by Vánky 2000: 180).

On *Poaceae: Heteropogon* spp.; Africa, S Asia, Australia.

**AFR:** *Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schult., **Mauritius.**

199. ***Sporisorium goniosporum*** (Massee) Vánky, Mycotaxon **78**: 308, 2001. — *Ustilago goniospora* Massee, Bull. Misc. Inform. **1899**: 183, 1899. — *Sorosporium goniosporum* (Massee) L. Ling, Lloydia **16**: 189, 1953. — Type on *Aristida* sp. (= *A. adoensis*), Kenya, Ukamba, coll. Scott-Elliott 6491, K; isotypes BPI 194459, H.U.V. 15442(!).

On *Poaceae: Aristida adoensis* Hochst.; Africa. Known only from the type collection.

**AFR:** *Aristida adoensis,* **Kenya.**

200. ***Sporisorium henningsii*** (Sacc. & P. Syd.) Vánky, Mycotaxon **59**: 106, 1996. — *Ustilago henningsii* Sacc. & P. Syd., in Saccardo, Syll. Fung. **16**: 368, 1902. — *Ustilago stenotaphri* Henn., Hedwigia **37**: 293, 1898 (non *U. stenotaphri* McAlpine 1895, nec Massee 1899). — Type on *Stenotaphrum glabrum* (= *S. dimidiatum*), Namibia, Windhoek, alt. c. 450 feet, VII.1896, F.R.R. Schlechter; isotypes in Plantae Schlechterianae Austro-Africanae, Iter secundum, BPI 156967, H.U.V. 3147(!), 12917(!).

On *Poaceae: Stenotaphrum dimidiatum* (L.) Brongn. (*S. glabrum* Trin.); SW Africa.

**AFR:** *Stenotaphrum dimidiatum,* **Namibia.**

201. ***Sporisorium heteropogonicola*** (Mundk. & Thirum.) Vánky, in Shivas & Vánky, Mycol Res. **101**: 839, 1997. — *Sorosporium heteropogonicola* Mundk. & Thirum., in Thirumalachar & Mundkur, Mycol. Pap. **40**: 5, 1951. — Type on *Heteropogon contortus,* India, Mysore, Nandi Hills, 18.XI.1944, M.J. Thirumalachar, HCIO 10785(!).

On *Poaceae: Heteropogon contortus* (L.) P. Beauv. ex Roem. & Schult.; S Asia, Africa, Australia, N America.

**AFR:** *Heteropogon contortus,* **Malawi, Zambia, Zimbabwe.**

202. ***Sporisorium hodsonii*** (Zundel) Vánky, Mycotaxon **91**: 225, 2005. — *Sorosporium hodsonii* Zundel, Mycologia **22**: 152, 1930. — Type on *Andropogon* sp. (= misnamed *Panicum* sp.; Ling 1951: 107), South Africa, Transvaal, Hopefield, Lawley post office, 2.II.1910, G.B. Lawley, PREM 704; isotypes BPI 180035, 195137, H.U.V. 17998(!).

*Sorosporium harrismithense* Zundel, Mycologia **22**: 154, 1930. — Type on *Andrpogon* sp. (= misnamed *Panicum laevifolium;* Ling 1951: 107), South Africa, Orange Free State, Harrismith, 22.II.1911, C.P. van der Merwe, PREM 1473; isotypes BPI 180017, 195140, H.U.V. 17996(!) (syn. by Ling 1951: 107, confirmed).

*Sorosporium flanaganianum* Zundel, Mycologia **22**: 155, 1930. — Lectotype (designated by Zundel 1938: 309) on *Andrpogon* sp. (= misnamed *Panicum* sp.; Ling 1951: 108), South Africa, Transvaal, Emmasdale, Heidelberg, 15.I.1910, without collector, PREM 713; isolectotype H.U.V. 17994(!). Syntype: Cape Prov., Prospect, 21.I.1916, H. Flanagan, PREM 9423; isosyntype H.U.V. 17995(!) (syn. by Ling 1951: 107, confirmed).

*Ustilago versatilis* Syd., Ann. Mycol. **33**: 231, 1935. — *Sorosporium versatilie* (Syd.) Zundel, Bothalia **3**: 308, 1938 (as "*versatilis*"). — Type on *Panicum proliferum* var. *paludosum,* South Africa, Eastern Cape Prov., Komga, Prospect, 12.II.1916 (as "12.II.1926"), H.G. Flanagan, PREM 9550; isotypes BPI 180825, H.U.V. 18178(!) (syn. by Vánky 2005: 226).

*Sorosporium afrum* Syd., Ann. Mycol. **33**: 232, 1935. — Type on *Panicum laevifolium* (= *P. schinzii*), South Africa, Transvaal, Johannesburg, III.1931, A.M. Bottomley, PREM 26608; isotype H.U.V. 17983(!) (syn. by Ling 1951: 107, confirmed).

On *Poaceae: Panicum* spp.; S Africa, E Asia.

**AFR:** *Panicum laevifolium* Hack., *P. subalbidum* Kunth (*P. longijubatum* Stapf; *P. proliferum* Lam. var. *paludosum* Stapf), *P. schinzii* Hack., *Panicum* sp., **S. Africa.**

203. ***Sporisorium holstii*** (Henn.) Vánky, Mycotaxon **51**: 162, 1994. — *Sorosporium holstii* Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C,: 49, 1895. — Type on *Anthistiria glauca* (= *Themeda triandra*), Tanganyika Territory [Tanzania], Usambara, 1893, C. Holst 3111a, B(?); isotypes BPI 180025,180027 & 195134, HBG, H.U.V. 12098(!).

On *Poaceae: Themeda triandra* Forssk. (*T. australis* (R. Br.) Stapf; *T. forsskalii* Hack.; *Anthistiria glauca* Desf.); Africa.

**AFR:** *Themeda triandra,* **Malawi, S. Africa, Tanzania, Uganda, Zambia.**

204. ***Sporisorium hwangense*** Vánky & C. Vánky, in Vánky, Mycotaxon **74**: 194, 2000. — Type on *Sporobolus panicoides,* Zimbabwe, Matabeleland North Prov., Hwange (Wankie) National Park, Main Camp, Sedina Water Hole, alt. c. 930 m, 6.III.1999, C. & K. Vánky, H.U.V. 18888(!); isotypes in BPI and in Vánky, Ust. exs. no. 1059.

On *Poaceae: Sporobolus panicoides* A. Rich.; Africa. Known only from the type locality.

**AFR:** *Sporobolus panicoides,* **Zimbabwe.**

205. ***Sporisorium ignotum*** (Vánky) M. Piątek, Polish Botanical Journal **55**: 310, 2010. — *Ustilago ignota* Vánky, Mycotaxon **91**: 242, 2005. — Type on *Panicum* sp., Zimbabwe, comm. A. Rothwell, 2.IX.1955, as *Ustilago crus-galli*, MR 13381, IMI 61014; isotype H.U.V. 19022(!).

On *Poaceae: Panicum* sp.; S Africa. Known only from the type collection.

**AFR:** *Panicum* sp., **Zimbabwe.**

206. ***Sporisorium ingoldii*** Vánky, Mycotaxon **95**: 50, 2006. — Type on *Echinochloa colona,* India, Uttar Pradesh, Varanasi, Banaras Hindu University Campus, alt. c. 100 m., 4.X.1992, C. & K. Vánky, H.U.V. 15764(!); isotypes in Vánky, Ust. exs. no. 948 (as "*Ustilago trichophora*"). Paratypes on *E. colona,* India, Madhya Pradesh, 21 km NW of Jabalpur, 15.X.1992, N.D. Sharma, R.S. Singh & K. Vánky, H.U.V. 15587(!); on *E. colona,* Ethiopia, Gondar Region, above the Blue Nile Falls, alt. 1710 m., 22.X.2004, T. & K. Vánky, H.U.V. 20936(!); isoparatypes in Vánky, Ust. exs. no. 1270.
On *Poaceae: Echinochloa colona* (L.) Link; Africa, S Asia.
**AFR:** *Echinochloa colona,* **Ethiopia, S Africa.**

207. ***Sporisorium inopinatum*** Vánky, Mycotaxon **81**: 384, 2002. — Type on *Aristida scabrivalvis,* Zimbabwe, Matabeleland South Prov., 30 km SE of Bulawayo, alt. c. 1180 m, 2.III.1999, C. & K. Vánky, H.U.V. 18924(!); isotypes BPI and in Vánky, Ust. exs. no. 1108. Paratypes on *Aristida scabrivalvis,* Zimbabwe, Matabeleland North Prov., Hwange National Park, Robins Camp. Crocodile Pool, alt. c. 930 m, 9.III.1999, C. & K. Vánky, H.U.V. 18940(!); *Aristida adscensionis,* Zimbabwe, Matabeleland North Prov., 75 km E of Hwange, 10 km SW of Kamativi, alt. c. 850 m, 13.III.1999, C. & K. Vánky, H.U.V. 18925(!); isoparatype BPI; *Aristida adscensionis,* Zambia, Southern Prov., 10 km NW of Monze, alt. c. 990 m, 15.IV.2001, C., T. & K. Vánky, H.U.V. 19682(!).
On *Poaceae: Aristida* spp.; C & S Africa
**AFR:** *Aristida adscensionis* L., *A. scabrivalvis* Hack, **Zambia, Zimbabwe.**

208. ***Sporisorium ischaemoides*** (Henn.) Vánky, Fungal Diversity **12**: 188, 2003. — *Ustilago ischaemoides* Henn., in Wildeman, Ann. Mus. Congo Bot., Sér. 5, Bot. **2**: 86, 1907. — *Sorosporium ischaemoides* (Henn.) Zundel, Mycologia **29**: 587, 1937. — Lectotype (design. by Vánky 2003: 188) on *Andropogon* sp. (= *Hyparrhenia diplandra,* det. J. Bosser, BR), Congo, Leopoldville, 18.V.1906, H. Vanderyst 121, BR 393; isolectotype BPI 194451.

*Sorosporium wildemanianum* Henn., in Wildeman, Ann. Mus. Congo, Sér. 5, Bot. **2**: 87, 1907. — Type on *Andropogon* sp. (= *Hyparrhenia rufa*), Congo, Mbele, 10.V.1906, H. Vanderyst 150, BR(!) (syn. by Ling 1951: 105, confirmed).

*Sorosporium austro-africanum* Zundel, Mycologia **22**: 147, 1930. — Type on *Andropogon cymbarius* L. (*Hyparrhenia cymbaria* = misnamed *H. tamba,* comp. Doidgee 1950: 378; or *H. hirta,* comp. Ling 1951: 106), South Africa, Natal, Tugela River, V.1920, E.M. Doidge, PREM 14168; isotypes BPI 179490, 195136, H.U.V. 17985(!) (syn. by Ling. 1951: 106, confirmed).

*Sorosporium hansfordii* Ainsw., Proc. Linn. Soc. London **153**: 93, 1941. — Type on *Hyparrhenia pilgeriana,* Uganda, Elgon, Kabaroni, XII.1933, C.G. Hansford U1721, IMI 38989; isotypes BPI 180016, H.U.V. 17361(!) (syn. by Ling 1951: 106, confirmed).
On *Poaceae: Euclasta, Hyparrhenia,* and *Hyperthelia* spp.; C & S Africa.
**AFR:** *Euclasta condylotricha* (Steud.) Stapf, *Hyparrhenia anamesa* Clayton, *H. anthistirioides* (A. Rich.) Stapf, *H. cymbaria* (L.) Stapf, *H. diplandra* (Hack.) Stapf, *H. filipendula* (Hochst.) Stapf, *H. hirta* (L.) Stapf, *H. pilgeriana* C.E. Hubb., *H. rufa* (Nees) Stapf, *H. subplumosa* Stapf, *H. tamba* (Steud.) Stapf, *H. welwitschii* (Rendle) Stapf (*H. gracilescens* Stapf), *Hyparrhenia* sp., *Hyperthelia dissoluta* (Nees ex Steud.) Clayton (*Hyparrhenia dissoluta* (Nees ex Steud.) C.E. Hubb.), **Congo, Malawi, S. Africa, Sierra Leone, Tanzania, Uganda, Zambia, Zimbabwe.**

209. ***Sporisorium kenyanum*** M. Piątek, Polish J. Bot. **51**: 160, 2006. — Type on *Setaria pallidefusca* (= *S. pumila*), Kenya, sine loco, coll. P.J. Greenway, IMI 68621(!).
On *Poaceae: Setaria pumila* (Poir.) Roem. & Schult. (*S. pallidefusca* (Schumach.) Stapf & C.E. Hubb.); Africa. Known only from the type collection.
**AFR:** *Setaria pumila,* **Kenya.**

210. ***Sporisorium lanigeri*** (Magnus) Vánky, Mycotaxon **85**: 27, 2003. — *Ustilago lanigeri* Magnus, Verh. K. K. Zool.-Bot. Ges. Wien **49**: 88, 1899. — *Sphacelotheca lanigeri* (Magnus) Maire, in Zundel, Mycologia **22**: 141, 1930. — Type on *Andropogon laniger* (= *Cymbopogon schoenanthus*), Iran, Kerman, Mt. Kuh-tagh-Ali, alt. c. 2200 m, 20.VI.1892, J. Bornmüller 4436, S; isotypes BPI 194475(!), HBG.

*Ustilago furcata* Pat. & Hariot, J. Bot. (Morot) **14**: 236, 1900. — *Sphacelotheca furcata* (Pat. & Har.) Pat. & Har., in Hariot & Patouillard, Bull. Mus. Natl. Hist. Nat. Paris **15**: 197, 1909. — Type on *Cymbopogon* sp., French Sudan [Mali], Reg. Tombouctou, Sompi, VIII.1899, M.A. Chevalier, FH (syn. by Ling 1951: 42).

*Ustilago schoenanthi* Syd., P. Syd. & Butler, Ann. Mycol. **4**: 425, 1906. — *Sphacelotheca schoenanthi* (Syd., P. Syd. & Butler) Zundel, Mycologia **22**: 136, 1930. — Type on *Andropogon schoenanthus* L. (= *Cymbopogon schoenanthus*), India, Madras, Tinnevelli, Alancolam, 1.VII.1901, C.A. Barber, HCIO 449; isotypes BPI 166233, 188944, 193952, H.U.V. 1994(!), 17304(!) (syn. by Vánky 2003: 27).

*Sphacelotheca moggii* Zundel, Mycologia **22**: 130, 1930. — Type on *Andropogon plurinodis* Stapf (= *Cymbopogon plurinodis*), South Africa, (Bechuanaland), Armoedsvlakte, 28.VIII.1924, A.O.D. Mogg, PREM 19859; isotypes BPI 178080, 195089, H.U.V. 18171(!) (syn. by Vánky 2003: 27).

*Sphacelotheca concentrica* Zundel, Mycologia **22**: 138, 1930. — Type on *Cymbopogon plurinodis,* South Africa, Transvaal, Pretoria, Kaalplaats, 1.XI.1917, A.O.D. Mogg, PREM 10708; isotypes BPI 195116, H.U.V. 18020(!) (syn. by Ling 1951: 43).

*Sorosporium pretoriense* Zundel (as "*pretoriaense*"), Mycologia **22**: 146, 1930. — Type on *Andropogon dichrous* Steud. (= *Cymbopogon plurinodis,* comp. Zundel 1953: 70), South Africa, Transvaal, Pretoria, between Ashbury and Irene, 14.III.1917, I.B. Pole-Evans, PREM 10045; isotypes BPI 180139, HCIO 10143, H.U.V. 15413(!) (syn. by Vánky 2003: 27).

*Sphacelotheca natalensis* Zundel, Mycologia **22**: 139, 1930. — Type on *Andropogon* sp. (= *Cymbopogon excavatus,* comp. Doidge 1950: 382), South Africa, Natal, Mooi River, 4.IX.1917, A.O.D. Mogg, PREM 11705; isotypes BPI 190145, 195074, 195090, H.U.V. 18173(!) (syn. by Vánky 2003: 28).

*Sphacelotheca columellifera* "(Tul. & C. Tul.) Yen", Rev. Mycol. (Paris), N.S., **2**: 76, 1937 (not (Tul. & C. Tul.) Cif., 1928: 32). — *Sphacelotheca yenii* Zundel, Mycologia **31**: 584, 1939. — Type on *Andropogon laniger* (= *Cymbopogon schoenanthus*), Morocco, near Skourat, 13.VI.1934, G.J.L. Malençon, PC; isotypes HMAS, H.U.V. 12075(!) (syn. by Ling 1951: 43).

*Sphacelotheca cymbopogonis* W.Y. Yen, Rev. Mycol. (Paris), N.S., **3**: 7, 1938. — Type on *Cymbopogon proximus,* Chad, Quadaï, between Bittine and Abéché, 10.X.1935, M. Murat 34, LAM (syn. by Ling 1951: 43).

*Sphacelotheca consueta* Syd., in Sydow & Ahmad, Ann. Mycol. **37**: 442, 1939. — Type on *Cymbopogon parkeri* Stapf, Pakistan, Panjab, Shahkot Hills, 15.XII.1935, S. Ahmad 60, HCIO 10101; isotypes BPI 195065, S, H.U.V. 16374(!). Topotype BPI 1110460 (syn. by Ling 1951: 43).

*Sorosporium ladharense* Syd., in Sydow & Ahmad, Ann. Mycol. **37**: 443, 1939. — Type on *Cymbopogon jwarancusca* (Jones) Schult., India, Punjab, Ladhar, Sheikhupura, 10.IV.1937, S. Ahmad 60 a, HCIO 10104; isotypes BPI 195124, H.U.V. 15618(!) (syn. by Vánky 2003: 28).

*Sphacelotheca cymbopogonis-colorati* Mundk. & Thirum., in Thirumalachar & Mundkur, Mycol. Pap. **40**: 3, 1951. — *Sporisorium cymbopogonis-colorati* (Mundk. & Thirum.) Kakishima & Ono, in Nakaike & Malik [eds], Cryptogamic flora of Pakistan, **2**: 189, 1993. — Type on *Cymbopogon coloratus* (Nees) Stapf, India, Mysore, Hassan, Bellur, 28.XII.1942, M.J. Thirumalachar, HCIO 10698; isotypes IMI 4954, H.U.V. 17280(!) (syn. by Vánky 2003: 28).

*Sphacelotheca mutila* Mundk. & Thirum., in Thirumalachar & Mundkur, Mycol. Pap. **40**: 4, 1951. — Type on *Cymbopogon caesius* (Nees) Stapf, India, Mysore, Bangalore, 18.VIII.1944, M.J. Thirumalachar, HCIO 10774; isotype H.U.V. 17292(!) (syn. by Vánky 2003: 28).

*Sporisorium martinii* Bag & Agarwal, Indian Phytopathol. **54**: 221, 2001. (as "*martinae*"). — Type on *Cymbopogon martinii* (Roxb.) Watson, India, W Bengal, Cooch Behar, III.1996, D.K. Agarwal (on the label, collector M.K. Bag), HCIO 42945; isotype H.U.V. 20273(!) (syn. by Vánky 2004: 113).

On *Poaceae: Cymbopogon* spp.; Africa, Asia, Australia.

**AFR:** *Cymbopogon excavatus* (Hochst.) Stapf ex Burtt Davy, *C. marginatus* (Steud.) Stapf ex Burtt Davy, *C. nardus* (L.) Rendle (*C. validus* (Stapf) Stapf ex Burtt Davy), *C. plurinodis* (Stapf) Stapf ex Burtt Davy, *C. proximus* Stapf, *C. schoenanthus* (L.) Sprengel (*Andropogon laniger* Desf.), *Cymbopogon* sp., **Algeria, Chad, Eritrea, Mali, Morocco, S. Africa, Sudan, Zimbabwe.**

211. ***Sporisorium lepturi*** (Thüm.) Vánky, Mycotaxon **40**: 163, 1991. — *Ustilago carbo* (DC.) Tul. & C. Tul. var. *lepturi* Thüm., in Fischer von Waldheim, Ann. Sci. Nat. Bot., Sér. 6, **4**: 200, 1877. — *Ustilago lepturi* (Thüm.) Henn., Bull. Herb. Boissier **1**: 114, 1893. — Type on *Lepturus incurvatus* Trin. (= misnamed *Hemarthria altissima,* det. K. Vánky 1991: 163), Egypt, near Damietta [Dumyat], VII.1876, G. Schweinfurth, H.U.V. 10268(!); isotypes in Thümen, Mycoth. univ. no. 1218, H.U.V. 3916(!).

*Ustilago rottboelliae* Syd., P. Syd. & Butler, Ann. Mycol. **5**: 486, 1907. — *Sphacelotheca rottboelliae* (Syd., P. Syd. & Butler) Mundk., Trans. Brit. Mycol. Soc. **23**: 111, 1939. — Type on *Rottboellia compressa* (= *Hemarthria compressa*), India, Pusa, 28.VII.1907, E.J. Butler 723, HCIO 723(!) (syn. by Vánky 1991: 163).

*Cintractia densa* McAlpine, The smuts of Australia: 168, 1910. — *Sphacelotheca densa* (McAlpine) Cif., Ann. Mycol. **26**: 32, 1928. — Type on *Rottboellia compressa* (= *Hemarthria compressa*), Australia, Victoria (8 collections; no type indicated by McAlpine; syn. by Mundkur 1939: 111, as *Sphacelotheca rottboelliae*).

On *Poaceae: Hemarthria* (*Rottboellia*) and *Ophiuros* spp.; Africa, Asia, Australia.

**AFR:** *Hemarthria altissima* (Poiret) Stapf ex C.E. Hubb. (*Rottboellia altissima* Poiret; *Manisuris altissima* (Poiret) Hitchc.), *H. compressa* (L. fil.) R. Br. (*R. compressa* L. fil.), **Egypt, Ethiopia, S. Africa.**

212. ***Sporisorium linderi*** (Zundel) Vánky, Mycotaxon **73**: 142, 1999. — *Sphacelotheca linderi* Zundel (as "*linderii*"; see ICBN Art. 60, Rec. 60C(b)), Mycologia **36**: 405, 1944. — Type on *Digitaria horizontalis,* Congo, 2.XII.1926 (not 1936), D.H. Linder 1611, BPI 195099(!).

*Ustilago inconspicua* Pole-Evans (nom. herb.). — *Sorosporium inconspicuum* (Pole-Evans) Zundel, Bothalia **3**: 304, 1938 (invalid name, no Latin diagnosis; ICBN 36.1). — Lectotype (design. by Diodge, 1950: 379) on *Digitaria monodactyla,* South Africa, Pretoria, 26.XII.1915, I.B. Pole-Evans, PREM 9416(!) (not *Sporisorium inconspicuum* (Zundel) Vánky 1991: 164, type on *Mesosetum loliiforme* (Hochst.) Chase, Brazil) (syn. by Vánky 1999: 142).

*Sporisorium pole-evansii* Vánky, Mycotaxon **70**: 23, 1999. — Type on *Digitaria eriantha,* South Africa, Gauteng Prov., c. 15 km S of Pretoria, Irene Institute, alt. c. 1500 m, 15.I.1997, C. Roux, C. & K. Vánky, H.U.V. 18452(!); isotypes PREM, BPI, and in Vánky, Ust. exs. no. 1026. Paratype on *Digitaria monodactyla,* South Africa,

KwaZulu-Natal Prov., Drakensberg Mts., Cathedral Peak National Park, Mikes Pass, alt. c. 2000 m, 30.XII.1996, C. & K. Vánky, H.U.V. 18453(!); isoparatypes BPI, PREM (syn. by Vánky 1999: 143).

On *Poaceae: Digitaria* spp.; C & S Africa.

**AFR:** *Digitaria argyrograpta* (Nees) Stapf, *D. ciliaris* (Retz.) Koel. (*D. marginata* Link), *D. eriantha* Steud. (*D. pentzii* Stent), *D. horizontalis* Willd., *D. milanjiana* (Rendle) Stapf, *D. monodactyla* (Nees) Stapf, *D. violascens* Link, and *Digitaria* sp., **Congo, Malawi, S. Africa, Zambia, Zimbabwe.**

213. ***Sporisorium lingianum*** Vánky, Mycotaxon **81**: 391, 2002. — *Sorosporium anthephorae* L. Ling, Lloydia **16**: 184, 1953; not *Sporisorium anthephorae* (Syd. & P. Syd.) Vánky. — Type on *Anthephora acuminata* (= *A. elongata*), Nyasaland [Malawi], Central Prov., Mzimba Distr., 29.IX.1950, G. Jackson, IMI 44451; isotypes BPI 179438, H.U.V. 17365(!).

On *Poaceae: Anthephora elongata* De Wild. (*A. acuminata* (Rendle) Robyns ex Stapf & C.E. Hubb.); C Africa.

**AFR:** *Anthephora elongata*, **Malawi.**

214. ***Sporisorium livingstoneanum*** Vánky, Mycotaxon **95**: 17, 2006. — Type on *Andropogon gayanus,* Zambia, Southern Prov., 10 km N of Livingstone, alt. 960 m, 14.IV.2001, T., C. & K. Vánky, H.U.V. 21070(!); isotypes in BPI 872302, BRIP 393747, IMI. Paratypes on *Andropogon chinensis,* Zambia, Lusaka Prov., 169 km ENE of Lusaka, alt. 900 m, 17.IV.2001, T., C. & K. Vánky, H.U.V. 21072(!); isoparatypes BPI 872303, IMI 393748; Lusaka Prov., 201 km E of Lusaka, alt. 760 m, 27.IV.2001, C. & K. Vánky, H.U.V. 21073(!); isoparatypes in BPI 872304, BRIP 47135, IMI 393749.

On *Poaceae: Andropogon chinensis* (Nees) Merr., *A. gayanus* Kunth; C Africa.

**AFR:** *Andropogon chinensis, A. gayanus,* **Burkina Faso (Upper Volta), Zambia.**

215. ***Sporisorium loudetiae-pedicellatae*** Vánky & C. Vánky, in Vánky, Mycotaxon **65**: 165, 1997. — Type on *Loudetia pedicellata,* South Africa, Northern Prov., c. 20 km S of Naboomspruit, Nylsvley Nature Reserve, alt. c. 1250 m, 24.I.1997, C. & K. Vánky, H.U.V. 18037(!); isotypes BPI, IMI, PREM, and in Vánky, Ust. exs. no. 1024.

On *Poaceae: Loudetia pedicellata* (Stent) Chippind.; S Africa.

**AFR:** *Loudetia pedicellata,* **S. Africa.**

216. ***Sporisorium loudetiae-superbae*** (L. Ling) Vánky, Mycotaxon **65**: 162, 1997. — *Sorosporium loudetiae-superbae* L. Ling, Lloydia **16**: 190, 1953. — Type on *Loudetia superba* (= *Tristachya superba*), Nyasaland [= Malawi], Kasupi, 16.VI.1949, P.O. Wiehe 277, IMI 35741; isotypes BPI 180056, H.U.V. 17385(!).

On *Poaceae: Tristachya superba* (De Not.) Schweinf. & Aschers. (*Loudetia superba* De Not.); C Africa. Known only from the type collection.

**AFR:** *Tristachya superba*, **Malawi.**

217. ***Sporisorium magnusianum*** (A.A. Fisch. Waldh.) Vánky, Mycotaxon **99**: 9, 2007. — *Tilletia magnusiana* A.A. Fisch. Waldh., Aperçu Syst. Ustil.: 47, 1877. — *Sphacelotheca magnusiana* (A.A. Fisch. Waldh.) Cif., Trans. Brit. Mycol. Soc. **18**: 262, 1934. — Type on *Panicum geniculatum* Lam. (= *Setaria geniculata* (Lam.) P. Beauv.), no further data are given (type probably lost).

*Ustilago pamparum* Speg., Anales Soc. Ci. Argent. **17**: 89, 1884, nom. nud.; Bol. Acad. Nac. Ci. Cordoba **11**: 28, 1887. — *Sphacelotheca pamparum* (Speg.) G.P. Clinton, J. Mycol. **8**: 140, 1902. — *Sporisorium pamparum* (Speg.) Vánky, in Vánky & Guo, Acta Mycol. Sinica, Suppl. **I**: 234, 1987('1986'). — Type on *Setaria* sp., Argentina, "in pratis secus Rio Negro", VIII.1888, C. Spegazzini, LPS 3738?, in Fungi Arg. pug. I, no. 4 (as "*Ustilago setariae* Niessl") (syn. by Ciferri 1934: 262).

*Ustilago kolaczekii* J.G. Kühn, in Rabenhorst, Fgi. eur. no. 3401, 1886. — Type on *Setaria geniculata* (Lam.) P. Beauv., Germany, Berlin, Botanical Gardens, Autumn 1884, P. Hennings (of seeds originating from Chile); isotypes in Rabenhorst, Fgi. eur. no. 3401, H.U.V. 1982(!) (syn. by Ciferri 1934: 263).

On *Poaceae: Panicum* and *Setaria* spp; S Africa, E Asia (China), N America (Mex., USA), S America (Argentina, Bolivia).

**AFR:** *Setaria sphacelata* (Schumach.) Stapf & C.E. Hubb. var. *sphacelata* (*S. perennis* Hack.), *S. sphacelata* var. *torta* (Stapf) W.D. Clayton, **S. Africa.**

218. ***Sporisorium manilense*** (Syd. & P. Syd.) Vánky, Mycotaxon **59**: 110, 1996. — *Ustilago manilensis* Syd. & P. Syd., Ann. Mycol. **10**: 77, 1912. — *Sphacelotheca manilensis* (Syd. & P. Syd.) Ling, Sydowia **4**: 78, 1950. — Type on *Panicum indicum* L. (= *Sacciolepis indica* (L.) Chase), Philippine Islands, Luzon I., near Manila, X.1910, E.D. Merrill 7419, BPI 163271(!). Topotype: Manila, 12.XI.1911, E.D. Merrill 8416, BPI 163270(!).

*Sphacelotheca sacciolepidis* Thirum. (as "*saccolepidis*"), Lloydia **13**: 173, 1950. — *Sporisorium sacciolepidis* (Thirum.) K. Vánky, Mycotaxon **48**: 41, 1993. — Type on *Sacciolepis indica* (L.) Chase, India, Mysore, Bhadravati, 18.VIII.1947, H.C. Govindu, HCIO 18808(!).

On *Poaceae: Sacciolepis* spp.; Africa, S Asia.

**AFR:** *Sacciolepis africana* C.E. Hubb. & Snowden, *S. chevalieri* Stapf, **Ethiopia, Malawi.**

219. ***Sporisorium maranguense*** (Henn.) Vánky, Fungal Diversity **12**: 193, 2003. — *Sorosporium maranguense* Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 49, 1895 (as "*maranguensis*"). — Type on *Andropogon lepidus*

(= *Hyparrhenia cymbaria*), Tanzania, Marangu, coll. Volkens 689.

On *Poaceae: Hyparrhenia cymbaria* (L.) Stapf (*Andropogon lepidus* Nees); C Africa.

**AFR:** *Hyparrhenia cymbaria,* **Congo, Malawi, Tanzania.**

220. ***Sporisorium masseeanum*** Vánky, Australas. Pl. Pathol. **29**: 160, 2000. — Type on *Miscanthus capensis,* South Africa, Transkei Reg., Cape Colony, without date, coll. W. Saxton, H.U.V. 15441(!); isotype K (*Ustilago gigaspora* Massee, nom. herb.).

On *Poaceae: Miscanthus capensis* (Nees) Anderss. (*Erianthus capensis* Nees); S Africa. Known only from the type collection.

**AFR:** *Miscanthus capensis,* **S. Africa.**

221. ***Sporisorium megaloprotachnes*** Vánky & T. Vánky, in Vánky, Mycotaxon **81**: 389, 2002. — Type on *Megaloprotachne albescens,* Malawi, Northern Prov., 81 km SSW of Mzuzu, Viphya Plateau, alt. c. 1550 m, 23.IV.2001, T., C. & K. Vánky, H.U.V. 19622(!); isotypes BPI, IMI 386803.

On *Poaceae: Megaloprotachne albescens* C.E. Hubb.; C Africa. Known only from the type collection.

**AFR:** *Megaloprotachne albescens,* **Malawi.**

222. ***Sporisorium melinidis*** (Zundel) Vánky, Mycotaxon **65**: 141, 1997. — *Cintractia melinidis* Zundel, Bothalia **3**: 302, 1938 (as "*melinis*"). — Type on *Melinis tenuinervis* (= *M. minutiflora*), South Africa, Cape Town, 12.VI.1914, C.W. Malley, PREM 19860(!); isotypes BPI 141632 & 171971, H.U.V. 17930(!).

*Ustilago rhynchelytri* L. Ling, Sydowia **7**: 153, 1953. — Type on *Rhynchelytrum repens* (= *Melinis repens*), Nyasaland [Malawi], Lilongwe, 5.IV.1951, G. Jackson, IMI 49714(!); isotype BPI 166085(!) (syn. by Vánky 1997: 141).

On *Poaceae: Melinis* (*Rhynchelytrum*) spp.; Africa, Australia.

**AFR:** *Melinis minutiflora* P. Beauv. (*M. tenuinervis* (Stapf) Stapf), *M. nerviglumis* (Franch.) Zizka, *M. repens* (Willd.) Zizka subsp. *repens* (*Rhynchelytrum repens* (Willd.) C.E. Hubb.; *R. roseum* (Nees) Stapf & C.E. Hubb.), **Malawi, S. Africa.**

223. ***Sporisorium mildbraedii*** (Syd. & P. Syd.) Vánky, Mycotaxon **85**: 29, 2003. — *Ustilago mildbraedii* Syd. & P. Syd., in Mildbraed, Wissenschaftliche Ergebnisse der Deutschen Zentral-Afrika-Expedition 1907–1908, Bd. **2**: 95, 1914. — *Sphacelotheca mildbraedii* (Syd. & P. Syd.) Zundel, Mycologia **22**: 135, 1930. — Type on *Andropogon schoenanthus* (= *Cymbopogon schoenanthus*), Deutsch Ost Africa [Rwanda], Mpororo, at Kakitumbe Creek, 23.VII.1907, G.W.J. Mildbraed 357, S; isotypes BPI 163317(!) & 194453(!).

*Sphacelotheca cymbopogonis-afronardi* L. Ling, nom. herb. — On *Cymbopogon afronardus* (= *C. nardus*), Uganda, Kawanda, VII.1940, coll. C.G. Hansford 2754, BPI 177450, 177451, Herb. Mycol. Dep. Agric. Uganda 2754, IMI 10956, H.U.V. 1958, 6066(!).

On *Poaceae: Cymbopogon* spp.; Africa.

**AFR:** *Cymbopogon schoenanthus* (L.) Sprengel (*Andropogon schoenanthus* L.), *C. nardus* (L.) Redle (*C. afronardus* Stapf), **Rwanda, Uganda.**

224. ***Sporisorium mixtum*** (Massee) Vánky, Mycotaxon **56**: 214, 1995. — *Tilletia mixta* Massee, Bull. Misc. Inform. **1899**: 145, 1899. — *Sorosporium mixtum* (Massee) McAlpine, The smuts of Australia: 178, 1910. — New lectotype (design. by Vánky 1995: 214) on *Eriochloa annulata* (Fluegge) Kunth (= *E. procera* (Retz.) C.E. Hubb), Australia, New South Wales, Murrumbidgee, coll. Bennett, NY(!).

*Sorosporium eriochloae* Griffiths, Bull. Torrey Bot. Club **31**: 84, 1904. — Type on *Eriochloa punctata* (L.) Desv., USA, Arizona, Santa Rita Mountains, Empire Ranch, 28.IX.1902, D. Griffiths & Thornber, BPI 195112(!); isotype BPI 195121(!).

On *Poaceae: Brachiaria* and *Eriochloa* spp.; Africa, Australia, N America.

**AFR:** *Brachiaria lata* (Schumacher) Hubb., *B. xantholeuca* (Hackel ex Schinz) Stapf, **Cape Verde I.**

225. ***Sporisorium modestum*** (Syd.) H. Scholz, in Fraiture, Bull. Jard. Bot. Nat. Belg. **66**: 171, 1997. — *Ustilago modesta* Syd., Ann. Mycol. **33**: 231, 1935. — *Sphacelotheca modesta* (Syd.) Zundel, Bothalia **3**: 301, 1938. — Type on *Enneapogon brachystachyum* (= *E. desvauxii*), South Africa, Cape Prov., Prieska, 19.III.1928, E.G. Bryant, PREM 23506; isotypes BPI 198079, H.U.V. 18200(!).

On *Poaceae: Enneapogon* and *Schmidtia* spp.; Africa, E Asia, Australia.

**AFR:** *Enneapogon desvauxii* P. Beauv. (*E. brachystachyum* (Jaub. & Spach) Stapf), *Schmidtia pappophoroides* Steud., **Namibia, S. Africa, Sudan, Zambia.**

226. ***Sporisorium monachnes*** Vánky & C. Vánky, in Vánky, Mycotaxon **74**: 198, 2000. — Type on *Tricholaena monachne,* Zimbabwe, Manicaland Prov., c. 70 km S of Mutare, alt. c. 730 m, 26.II.1999, C. & K. Vánky, H.U.V. 18877(!); isotypes BPI, IMI 380466, S.

On *Poaceae: Tricholaena monachne* (Trin.) Stapf & C.E. Hubb.; S Africa.

**AFR:** *Tricholaena monachne,* **S. Africa, Zimbabwe.**

227. ***Sporisorium moniliferum*** (Ellis & Everh.) L. Guo, Mycosystema **3**: 82, 1990. — *Ustilago monilifera* Ellis & Everh., Bull. Torrey Bot. Club **22**: 362, 1895. — *Sphacelotheca monilifera* (Ellis & Everh.) G.P. Clinton, J. Mycol. **8**: 141, 1902. — Type on *Heteropogon contortus,* USA, Arizona, Tucson, V.1893, J.W. Toumey 2.

*Ustilago andropogonis-contorti* Henn., nom. herb. — On *Andropogon contortus* L. (= *Heteropogon contortus*), Mexico (syn. by Clinton 1902: 141).

*Ustilago warneckeana* Henn., Bot. Jahrb. Syst. **38**: 119, 1907. — *Sphacelotheca warneckeana* (Henn.) Zundel, Mycologia **22**: 137, 1930. — Type on *Andropogon contortus* L. (= *Heteropogon contortus*), Togo, Lome, at the Lagune, XII.1899, Warnecke 3, H.U.V. 13342(!) (syn. confirmed).

*Sphacelotheca ischaemi* (Fuckel) G.P. Clinton f. *heteropogonis* Bacc., Ann. Bot. (Rome) **14**: 131, 1917. — Type on *Heteropogon contortus,* Abyssinia [Ethiopia], Galla Arussi, on the river-bank of Hauasch, alt. c. 1450 m, 8.VII.1909 (as "2.VII.1909"), F. Negri 1148/b, FT(!) (syn. by Ling 1953: 182, confirmed).

On *Poaceae: Heteropogon* spp.; cosmopolitan.

**AFR:** *Heteropogon betafensis* A. Camus, *H. contortus* (L.) P. Beauv. ex Roem. & Schult., *H. melanocarpus* (Ell.) Benth., **Cameroon, Congo, Eritrea, Ethiopia, Madagascar, Namibia, S. Africa, Tanzania, Togo, Uganda, Zambia, Zimbabwe.**

228. ***Sporisorium monocymbii*** (Syd.) Vánky, Mycotaxon **62**: 145, 1997. — *Sphacelotheca monocymbii* Syd., Ann. Mycol. **37**: 200, 1939. — *Sorosporium monocymbii* (Syd.) L. Ling, Sydowia **7**: 155, 1953. — Type on *Monocymbium ceresiiforme,* Sierra Leone, by the road side 10 miles from Kabala on the road to Musaia, 16.XI.1930, F.C. Deighton 313, IMI 43051; isotypes BPI 178108, 195108, H.U.V. 17481(!).

On *Poaceae: Monocymbium ceresiiforme* (Nees) Stapf; Africa. Known only from the type collection.

**AFR:** *Monocymbium ceresiiforme,* **Sierra Leone.**

229. ***Sporisorium mutabile*** (Syd.) Vánky, Mycotaxon **85**: 29, 2003. — *Sphacelotheca mutabilis* Syd., Ann. Mycol. **35**: 24, 1937. — *Sorosporium mutabile* (Syd.) L. Ling, Lloydia **14**: 107, 1951. — Type on *Cymbopogon refractus* (R. Br.) A. Camus, Australia, New South Wales, Pennant Hills, VI.1931, L.R. Fraser 118, DAR 973; isotypes BPI 195071, IMI 37633, H.U.V. 18115(!).

*Sorosporium cantonense* Zundel, Mycologia **31**: 584, 1939 (as "*Cantonensis*"). — *Sporisorium cantonense* (Zundel) L. Guo, Mycosystema **17**: 1, 1998. — Type on *Cymbopogon hamatulus* (Nees) A. Camus (as "*hematatus*"), China, 80 miles N of Canton, on North River, Yinktak (Guangdong, Guangzhou), 9.IX.1921, A.S. Hitchcock 18822, BPI 179478(!) (syn. by Vánky 2003: 30).

*Sorosporium terrareginalense* Zundel, Mycologia **36**: 409, 1944. — Type on *Cymbopogon refractus,* Australia, Queensland, Brisbane, Highway near Mt. Coot-tha, 9.II.1943, M.S. Clemens, BPI 180159(!) (syn. by Ling 1951: 107).

On *Poaceae: Cymbopogon* spp.; Africa, Asia, Australasia.

**AFR:** *Cymbopogon densiflorus* (Steud.) Stapf, *C. nardus* (L.) Rendle, **Malawi, Zimbabwe.**

230. ***Sporisorium nealii*** (Ellis & F.W. Anderson) Vánky, Mycotaxon **74**: 182, 2000. — *Ustilago nealii* Ellis & F.W. Anderson, J. Mycol. **6**: 116, 1891. — *Sphacelotheca nealii* (Ellis & F.W. Anderson) G.P. Clinton, Proc. Boston Soc. Nat. Hist. **31**: 389, 1904. — Type on *Heteropogon melanocarpus,* USA, Florida, Lake City, 1890, J.C. Neal, BPI 190154.

On *Poaceae: Heteropogon melanocarpus* (Ell.) Benth.; Africa, S Asia, N America.

**AFR:** *Heteropogon melanocarpus,* **Congo, Malawi, Zambia, Zimbabwe.**

231. ***Sporisorium niariense*** Vánky, Fungal Diversity **12**: 195, 2003. — Type on *Hyparrhenia niariensis,* Tanzania, Kigoma Distr., Kakombe, 14.IV.1964, K. Pirozynski, M1087, IMI 107465; isotype H.U.V. 18982(!).

On *Poaceae: Hyparrhenia niariensis* (Franch.) Clayton; Africa. Known only from the type collection.

**AFR:** *Hyparrhenia niariensis,* **Tanzania.**

232. ***Sporisorium nyasalandicum*** (L. Ling) Vánky, Mycotaxon **91**: 226, 2005. — *Sorosporium nyasalandicum* L. Ling, Sydowia 7: 156, 1953. — Type on *Panicum* sp., Nyasaland [= Malawi], Palombe Plains, 20.VII.1951, G. Jackson, IMI 49707; isotypes BPI 180080, H.U.V. 17375(!).

On *Poaceae: Panicum* sp.; Africa. Known only from the type collection.

**AFR:** *Panicum* sp., **Malawi.**

233. ***Sporisorium nyassae*** (Syd. & P. Syd.) Vánky (in prep.). — *Ustilago nyassae* Syd. & P. Syd., Ann. Mycol. **18**: 156, 1920. — *Sphacelotheca nyassae* (Syd. & P. Syd.) Zundel, Mycologia **22**: 133, 1930. — Type on *Andropogon* sp. (= *Hyparrhenia* sp.), Nyasaland [= Malawi], "Nyassa-Hochland", Station Kyimbila, alt. c. 1600 m, 15.1912, A. Stolz 1262, B; isotypes BPI 164314, H.U.V. 5219(!).

*Ustilago carbo* (DC.) Tul. & C. Tul. ⊠ *columellifera* Tul. & C. Tul. a. *transfissa* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 81, 1847. — *Sphacelotheca transfissa* (Tul. & C. Tul.) Zundel, Mycologia **31**: 582, 1939. — *Sporisorium transfissum* (Tul. & C. Tul.) G. Deml, Z. Mykol. **49**: 174, 1983. — Type on *Andropogon hirtus* L. (= *Hyparrhenia hirta*), Algeria, La Calle, V.1841, L. Motelay 1878, PC(!).

On *Poaceae: Hyparrhenia* spp.; Africa.

**AFR:** *Hyparrhenia hirta* (L.) Stapf, *Hyparrhenia* sp., **Algeria, Malawi, Morocco.**

234. ***Sporisorium ophiuri*** (Henn.) Vánky, Publ. Herb. Ustilag. Vánky (H.U.V.) **3**: 9, 1986. — *Ustilago ophiuri* Henn., Monsunia **1**: 1, 1900. — *Sphacelotheca ophiuri* (Henn.) L. Ling, Sydowia **3**: 127, 1949. — Type on *Ophiuros exaltatus* (L. fil.) Kuntze, Java, South coast of Kediri, II.1884, O. Warburg, CONN.

*Ustilago flagellata* Syd. & P. Syd., Ann. Mycol. **9**: 144, 1911. — *Sphacelotheca flagellata* (Syd. & P. Syd.) Zundel, Bothalia **3**: 301, 1938. — Type on *Rottboellia exaltata,* Philippines, Luzon, Rizal Prov., XII.1909, E.D. Merrill 7068, BPI 160463, HCIO 7447, H.U.V. 6645(!) (syn. by Ling 1949: 127, confirmed).

*Sphacelotheca ophiuri-monostachydis* Tay, in Ling, Mycol. Pap. **11**: 8, 1945. — Type on *Ophiuros monostachyus,* China,

Yunnan Prov., Kaiyuen, VIII.1939, C.C. Cheo, Tsing Hua Plant Path. Herb. 4301. Paratype Yunnan Prov., 11.VIII.1938, T.H. Wang & S.T. Cheo, Tsing Hua Plant Path. Herb. 4297; isoparatypes IMI 506, H.U.V. 17492(!) (syn by Ling 1949: 127, confirmed).

On *Poaceae: Chasmopodium, Hemarthria,* and *Rottboellia* spp.; Africa, Asia, Indonesia, Australia.

**AFR:** *Chasmopodium caudatum* (Hack.) Stapf, *Hemarthria compressa* (L. fil.) R. Br. (*Rottboellia compressa* L. fil.), *Rottboellia cochinchinensis* (Lour.) W.D. Clayton (*R. exaltata* L. fil.; *Ophiuros monostachyus* J.S. Presl), **Ethiopia, Guinea, Kenya, Madagascar, Malawi, S. Africa, Sierra Leone, Tanzania, Zambia, Zimbabwe.**

235. ***Sporisorium ovarium*** (Griffiths) Vánky, Mycotaxon **65**: 138, 1997. — *Sorosporium ovarium* Griffiths, Bull. Torrey Bot. Club **34**: 209, 1907. — Lectotype (design. by Zundel 1953: 68) on *Panicum caespitosum* Sw. (= *Brachiaria reptans* (L.) Gard. & C.E. Hubb.), Mexico, Hidalgo, Dublan, 9.IX.1905, D. Griffiths, BPI 180088(!).

*Sphacelotheca diplospora* (Ellis & Everh.) G.P. Clinton var. *verruculosa* G.P. Clinton, North American Flora **7**: 27, 1906. — Type on *Panicum* sp. (= *Brachiaria meziana* Hitchc., comp. Ling 1953: 191), Mexico, near Mexico City, Lecheria, 5.VII.1904, C.G. Pringle, NHES; isotypes BPI 177481, H.U.V. 16754(!) (syn. by Ling 1953: 191, confirmed).

*Sphacelotheca panici-racemosi* Zillig, nom. herb.? — On *Panicum racemosum,* Uruguay, Dept. Montevideo, Pajas Blancas, IV.1935, Herter, BPI 194874, H.U.V. 15924(!) (syn. by Vánky 2005:227).

*Ustilago verecunda* Syd., Ann. Mycol. **33**: 231, 1935. — *Sorosporium verecundum* (Syd.) Zundel, Bothalia 3: 304, 1938. — Type on *Urochloa helopus* (= *U. panicoides*), South Africa, Transvaal, Pretoria, Wonderboom, Siding, 27.II.1931, A.O.D. Mogg, PREM 26609; isotype H.U.V. 18208(!) (syn. by Vánky 2004: 87).

*Sorosporium brachiariae* J.C.F. Hopkins, Trans. Rhodesia Sci. Assoc. **35**: 126, 1938. — Type on *Brachiaria brizantha,* Rhodesia [Zimbabwe], Salisbury [Harare], 26.I.1932, J.C. Hopkins, Herb. Dept. Agricult. Southern Rhodesia no. 1860; isotypes PREM 30370(!), BPI 179468(!) & 195141 (syn. by Ling 1953: 191, confirmed).

*Ustilago urochloana* Zundel, Mycologia **35**: 166, 1943. — Type on *Urochloa trichopus,* South Africa, Transvaal, Crocodile River, Brown's Kuil Drift, 8.VI.1921, A.O.D. Mogg, PREM 20690; isotypes BPI 168742, HCIO, H.U.V. 15403(!) (syn. by Vánky 2004: 87).

*Sorosporium brachiariae-ramosae* T.S. Ramakr., Proc. Indian Acad. Sci. **35**: 113, 1952. — Type on *Brachiaria ramosa* Stapf, India, Tamil Nadu, Coimbatore, Pollachi, 20.VIII.1912, S. Sundararaman, HCIO 19814; isotypes IMI 56705, H.U.V. 17272(!) (syn. by Vánky 1997: 139).

On *Poaceae: Brachiaria, Megathyrsus, Panicum,* and *Urochloa* spp.; Africa, S Asia, Australia, N & C America.

**AFR:** *Brachiaria brizantha* (A. Rich.) Stapf, *B. lata* (Schum.) C.E. Hubb., *B. xantholeuca* (Hackel ex Schinz) Stapf, *Megathyrsus maximus* (Jacq.) B.K. Simon & S.W.L. Jacobs (*Panicum maximum* Jacq.), *Urochloa mosambicensis* (Hack.) Dandy (*U. pullulans* Stapf var. *mosambicensis* Hack.), *U. oligotricha* (Fig. & De Not.) Henrard (*U. bolbodes* (Steud.) Stapf), *U. panicoides* P. Beauv. (*U. helopus* (Trin.) Stapf), *U. trichopus* (Hochst.) Stapf, **Botswana, Cape Verde I., Malawi, S. Africa, Zambia, Zimbabwe.**

*Sorosporium panici* MacKinnon on *Panicum maximum* in South Africa (Doidge 1950: 379) and in Zimbabwe (Whiteside 1966), refers to *Sporisorium ovarium.*

236. ***Sporisorium panicicola*** Vánky, Mycotaxon **91**: 229, 2005. — Type on *Panicum coloratum,* Island of Réunion, 14 km SW of St.-Benoît, Lake Le Grand Etang, alt. c. 500 m, 2.XII.1994, C. & K. Vánky, H.U.V. 20586(!); isotypes in Vánky, Ust. exs. no. 1238.

On *Poaceae: Panicum coloratum* L. Known only from the type collection.

**AFR:** *Panicum coloratum,* **Réunion.**

237. ***Sporisorium paspali-thunbergii*** (Henn.) Vánky, Publ. Herb. Ustilag. Vánky (H.U.V.) **3**: 9, 1986. — *Ustilago paspali-thunbergii* Henn., Hedwigia **43**: 140, 1904. — *Sorosporium paspali-thunbergii* (Henn.) S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 94, 1935. — Type on *Paspalum thunbergii* Kunth, Japan, Honshu, Nikko, IX.1902, S. Kusano 373.

*Sorosporium paspali* McAlpine, The smuts of Australia: 180, 1910. — Type on *Paspalum scrobiculatum,* Australia, Queensland, coll. F.M. Bailey (syn. by Ito 1935: 94).

*Sorosporium paspali* McAlpine, var. *verrucosum* Thirum. & M.S. Pavgi, Mycopathol. Mycol. Appl. **7**: 283, 1956. — Type on *Paspalum scrobiculatum,* India, Bihar, Netarhat, 28.VIII.1952, M.J. Thirumalachar, HCIO 20992; isotypes IMI, H.U.V. 17295(!) (syn. by Vánky 2007: 3).

On *Poaceae: Paspalum* spp.; Africa, S & E Asia, Philippines, Australia, Hawaii.

**AFR:** *Paspalum scrobiculatum* L., **Ethiopia, Malawi, S. Africa, Uganda.**

238. ***Sporisorium penniseti*** (Rabenh.) Ershad, Iranian J. Pl. Pathol. **30**: 18, 1994. — *Ustilago penniseti* Rabenh., Hedwigia **10**: 18, 1871. — *Sphacelotheca penniseti* (Rabenh.) Reichert, Bot. Jahrb. Syst. **56**: 679, 1921. — Neotype (design. by Vánky 2000: 211) on *Pennisetum orientale* Rich. "Taurus Catasnicus, 1865", C. Haussknecht, JE(!).

*Ustilago pappiana* Bacc., Ann. Bot. (Rome) **4**: 272, 1906. — *Sorosporium pappianum* (Bacc.) L. Ling, Lloydia **16**: 192, 1953. — Lectotype (design. by Ling 1953: 192) on *Pennisetum ruppellii* (= *P. setaceum*), Eritrea-Amasen, Addi-Baró, along the river Mareb, 29.X.1902 (as "22.XI.1902"), A. Pappi, FT (RO 6168)(!). Syntype on *Pennisetum orientale* [var. *altissimum* Chiov.] (= *P.*

*setaceum*), Eritrea, Ingal-Ceccaharat near Oculé-Cusai, alt. c. 1600 m, 22.III.1893 (as "22.IV.1893"), A. Pappi, FT (RO 4797!) (syn. by Vánky 2003: 11).

*Sorosporium catharticum* Maire, in Recueil de traveaux cryptogamiques dédiés à Louis Mangin: 359, 1931. — *Sporisorium catharticum* (Maire) Vánky, Mycotaxon **35**: 155, 1989. — Type on *Cenchrus catharticus* (= *C. biflorus*), Algeria, South Sahara, near Tilemsi, coll. T. Monod 467, MPU(!) (syn. by Vánky 2000: 211).

*Sphacelotheca panjabensis* Syd., in Sydow & Ahmad, Ann. Mycol. **37**: 442, 1939. — *Ustilago panjabensis* (Syd.) L. Ling, Sydowia **4**: 76, 1950. — Type on "*Cenchrus biflorus* Roxb." (= *C. setigerus* Vahl, det. K. Vánky), India, Punjab, Sargodha, sine die, coll. S. Ahmad 33, H.U.V. 17298(!) (syn. by Vánky 2002: 397).

*Sorosporium penniseti* Mundk., Trans. Brit. Mycol. Soc. **23**: 116, 1939. — Type on *Pennisetum ciliare* (= *Cenchrus ciliaris*), India, Delhi, 3.VIII.1938, M.A. Khan, HCIO 7749(!); isotype IMI (syn. by Vánky 2000: 211).

*Sphacelotheca stewartii* Mundk., Mycologia **36**: 290, 1944. — Type on *Pennisetum flaccidum* Grieseb., Kashmir, Baltistan, on the way from Kasurmik to Doghani, alt. c. 9000 ft, 16.VIII.1940, R.R. Stewart 20793, HCIO 10017; isotype H.U.V. 17309(!) (syn. by Vánky 2003: 11).

*Ustilago penniseti* Rabenh. var. *verruculosa* Massenot, in Guyot, Malençon & Massenot, Rev. Mycol. (Paris) **34**: 217, 1969. — Type on *Pennisetum ciliare,* Morocco, near Atchana, Valley of Oued Guir, 12.VI.1932, G. Malençon 140, PC; isotype H.U.V. 13658(!) (syn. by Vánky 2000: 211).

On *Poaceae: Cenchrus* and *Pennisetum* spp.; S Europe, Africa, S Asia.

**AFR:** *Cenchrus biflorus* Roxb. (*C. catharticus* Delile), *C. ciliaris* L. (*Pennisetum ciliare* (L.) Link; *P. cenchroides* Rich.), *Pennisetum divisum* (Forssk. ex Gmelin) Henrard (*P. dichotomum* (Forssk.) Delile), *P. macrourum* Trin., *P. natalense* Stapf, *P. parisii* Trab., *P. setaceum* (Forssk.) Chiov. (*P. asperifolium* auct.; *P. orientale* Rich. var. *altissimum* Chiov.; *P. ruppellii* Steud.), *P. trisetum* Leeke, **Algeria, Canary I., Cape Verde I., Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Madeira, Morocco, Namibia, S. Africa, Tunisia, Zimbabwe.**

239. ***Sporisorium penniseticola*** Vánky, Mycol. Balcan. **2**: 92, 2005. — Type on *Pennisetum sphacelatum,* Ethiopia, Shewa Region, 129 km N of Addis Abeba, alt. 3007 m, 20.X.2004, T. & K. Vánky, H.U.V. 20862(!); isotypes in, S, and in Vánky, Ust. exs. no. 1261. Paratypes on *P. sphacelatum*, Ethiopia, Gondar Region, 20 km NE of Gondar, alt. 2780 m, 24.X.2004, T. & K. Vánky, in S, H.U.V. 20863(!); Arsi Region, 11 km S of Asela, alt. 2630 m, 4.XI.2004, T. & K. Vánky, in S, H.U.V. 20864(!).

On *Poaceae: Pennisetum sphacelatum* (Nees) Th. Dur. & Schinz; Africa.

**AFR:** *Pennisetum sphacelatum,* **Ethiopia.**

240. ***Sporisorium polliniae*** (Magnus) Vánky, Mycotaxon **18**: 331, 1983. — *Sorisporium polliniae* Magnus, Verh. Zool. Bot. Ges. Wien **50**: 433, 1900. — Type on *Pollinia distachya* (= *Andropogon distachyos*), Judaea [= Israel], Jaffa Distr., Bab-el-Wad, 15.V.1897, J. Bornmüller 1015; isotypes in Bornmüller, Iter syriacum 1897, no. 1015, BPI 180134(!).

*Sorosporium icosiense* Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 145, 1917. — Type on *Andropogon distachyos,* Algeria, near Icosium, Télemly, El-Biar, coll. R. Maire (syn. by Ling 1951: 47).

On *Poaceae: Andropogon* spp.; Mediterranean region (S Europe, N Africa, Asia).

**AFR:** *Andropogon abyssinicus* Fresen., *A. distachyos* L. (*Pollinia distachya* (L.) Spreng.), **Algeria, Ethiopia, Morocco.**

241. ***Sporisorium pseudomaranguense*** (Zundel) Vánky, Mycotaxon **91**: 263, 2005. — *Sorosporium pseudomaranguense* Zundel, Bothalia **3**: 309, 1938. - Type on *Andropogon* sp. (det. A. Chase), South Africa, Natal, Mooi River, 21.III.1917, A.O.D. Mogg, PREM 10073; isotype H.U.V. 18007(!).

On *Poaceae: Andropogon* sp.; S Africa. Known only from the type collection.

**AFR:** *Andropogon* sp., **S. Africa.**

242. ***Sporisorium pulverulentum*** (Cooke & Massee) Vánky, Symb. Bot. Upsal. **24**(2): 120, 1985. — *Cintractia pulverulenta* Cooke & Massee, in Cooke, Grevillea **18**: 34, 1889. — *Ustilago pulverulenta* (Cooke & Massee) Cif., Ann. Mycol. **26**: 33, 1928. — *Ustilago pulverulenta* (Cooke & Massee) Boedijn, Bull. Jard. Bot. Buitenzorg, Ser. 3, **13**: 485, 1935 (comb. superfl.). — *Sphacelotheca pulverulenta* (Cooke & Massee) L. Ling, Sydowia **3**: 127, 1949. — Type on "*Erianthus* sp." (= misidentified *Saccharum* sp., det. N.L. Bor), India, Assam, Nungklo, Khasia Hills, alt. c. 1275 m, 28.V.1886, C.B. Clarke 44069-C, K.

On *Poaceae: Saccharum* (incl. *Erianthus*) and *Tripidium* spp.; S Europe, N Africa, S & E Asia.

**AFR:** *Saccharum arundinaceum* Retz., **Ethiopia.**

243. ***Sporisorium reilianum*** (J.G. Kühn) Langdon & Full., Mycotaxon **6**: 452, 1978. — *Ustilago reiliana* J.G. Kühn, in Rabenhorst, Fungi europaei exsiccati no. 1998, 1875. — *Cintractia reiliana* (J.G. Kühn) G.P. Clinton, Univ. Illinois Agric. Exp. Sta. Bull. **57**: 346, 1900. — *Sphacelotheca reiliana* (J.G. Kühn) G.P. Clinton, J. Mycol. **8**: 141, 1902. — *Sorosporium reilianum* (J.G. Kühn) McAlpine, Smuts of Australia: 181, 1910. — Type on *Sorghum vulgare* (= *S. bicolor,* cult.), Egypt, Saokara (Saqqâra), Memphis, 16.VI.1868, W. Reil; isotypes in Rabenhorst, Fgi. eur. no. 1998, H.U.V. 1679(!).

*Ustilago holci-sorghi* Rivolta, Dei Parassiti Vegetali, Torino: 422, 1873 (nomen dubium). — *Sphacelotheca holci-sorghi* (Rivolta) Cif., Fl. Ital. Crypt. Pars I. Fungi, Fasc. **17**:

267, 1938. — *Sorosporium holci-sorghi* (Rivolta) Moesz, A Kárpát-medence üszöggombái, Budapest: 147, 1950. — *Sporisorium holci-sorghi* (Rivolta) Vánky, Symb. Bot. Upsal. **24**(2): 117, 1985. — Type on *Holcus sorghum* L. (= *Sorghum bicolor*), Italy (syn. in Zundel 1953: 106).

*Ustilago reiliana* J.G. Kühn f. *zeae* Pass., in Rabenhorst, Fungi europaei exsiccati no. 2096, 1876. — Type on *Zea mays,* Italy, Vigheffio near Parma, VIII.1875, G. Passerini; isotypes in Rabenhorst, Fgi. eur. no. 2096, H.U.V. 1690(!) (syn. in Zundel 1953: 107).

*Ustilago pulveracea* Cooke, Grevillea **4**: 115, 1876. — Type on *Zea mays,* Lahore, coll. J.L. Stewart.

*Ustilago abortifera* Speg., Anales Mus. Nac. Buenos Aires, Ser. 2, **6**: 208, 1899. — Type on *Zea mays,* Argentina, Salta, VIII.1881, LPS 3195 (syn. by Ciferri 1938:403, as *Sphacelotheca holci-sorghi,* and by Hirschhorn 1941: 350, and others as *Sorosporium* or *Sphacelotheca reiliana;* confirmed).

*Sorosporium simii* Pole-Evans, South. Afr. J. Sci. **12**: 543, 1916. — Type on *Sorghum* "*halepense*" (= misidentified *S. verticilliflorum,* det. Doidge 1950:380, = *S. arundinaceum*), South Africa, Natal, Maritzburg, 23.II.1915, J.M. Sim, PREM 8978; isotype H.U.V. 18013(!) (syn. by Vánky, in Vánky & Shivas 2001: 350).

*Ustilago reiliana* f. sp. *sorghi* Geschele, Mater. Mikol. Fitopatol. **6**: 93, 1927 (nom. nud.). — *Sorosporium holci-sorghi* f. *sorghi* (Geschele) Săvul., Ustilaginalele din R.P. Romînă: 843, 1957 (comb. illegit.). — On *Sorghum sudanense* (Piper) Stapf, Ukraine, Sinelnikovo, Agricultural Experimental Station.

On *Poaceae: Cleistachne sorghoides* Benth., *Sorghum* spp., and *Zea mays* L.; cosmopolitan.

**AFR:** *Cleistachne sorghoides, Sorghum arundinaceum* (Desv.) Stapf (*S. verticilliflorum* (Steud.) Stapf), *S. bicolor* (L.) Moench (*S. vulgare* Pers.), *S. caffrorum* P. Beauv., *S. halepense* (L.) Pers., *Zea mays,* **Cameroon, Egypt, Ethiopia, Kenya, Malawi, Morocco, S. Africa, Tanzania, Uganda, Zambia, Zimbabwe.**

244. ***Sporisorium rhytachnes*** (Syd.) Vánky, Mycotaxon **74**: 171, 2000. — *Sphacelotheca rhytachnes* Syd., Ann. Mycol. **37**: 201, 1939. — Type on *Rhytachne triaristata,* Sierra Leone, Mama Beach near Kent, roadside, 3.XII.1936, F.C. Deighton 1109, IMI 43050; isotypes BPI 113630, 195072, H.U.V. 17496(!).

On *Rhytachne triaristata* Stapf, W Africa. Known only from the type collection.

**AFR:** *Rhytachne triaristata,* **Sierra Leone.**

245. ***Sporisorium rhytachnes-rottboellioidis*** Vánky, Mycotaxon **85**: 54, 2003. — Type on *Rhytachne rottboellioides* (det. M. Namaganda, MHU), Uganda, Masaka Distr., 13 km E of Masaka, on Bukakata road, alt. c. 1140 m, 17.II.2002, C., T. & K. Vánky, H.U.V. 19994(!); isotypes MHU, BPI, IMI, K.

On *Poaceae: Rhytachne rottboellioides* Desv.; C Africa. Known only from the type collection.

**AFR:** *Rhytachne rottboellioides,* **Uganda.**

246. ***Sporisorium saharianum*** (Trotter) Karatygin, in Karatygin & Azbukina, Definitorium fungorum URSS. etc.: 78, 1989. — *Sorosporium saharianum* Trotter, in Saccardo & Trotter, Ann. Mycol. **11**: 413, 1913. — Type on *Aristida pungens* (= *Sporobolus pungens*), Libya, Tripoli, dunes near Sdun (Sliten), 25.IV.1913, A. Trotter, PAD(!); isotype BPI 195123(!).

On *Sporobolus pungens* (Schreber) Kunth (*Aristida pungens* Schreber), N Africa.

**AFR:** *Sporobolus pungens,* **Libya.**

247. ***Sporisorium scheffleri*** (Syd. & P. Syd.) Vánky, Mycotaxon **91**: 232, 2005. — *Ustilago scheffleri* Syd. & P. Syd., Bot. Jahrb. Syst. **45**: 262, 1911. — Type on "*Pennisetum inclusum* Pilg." (= misidentified *Panicum coloratum* var. *minus*), "Massaihochland, Lamuru" (= Kenya, Kiambu Distr., Limuru), alt. c. 3000 m, 30.VI.1909, G. Scheffler 293; isotypes in H, M, IMI, BPI 166232, 194468, H.U.V. 12741(!).

On *Poaceae: Panicum coloratum* L. var. *minus* Chiov.; E Africa. Known only from the type locality.

**AFR:** *Panicum coloratum* var. *minus,* **Kenya.**

248. ***Sporisorium schizachyrii*** Vánky, Mycotaxon **81**: 418, 2002. — Type on *Schizachyrium exile,* Zambia, Southern Prov., 75 km ESE of Kafue, Chirundu Fossil Forest, alt. c. 490 m, 28.IV.2001, C. & K. Vánky, H.U.V. 19654(!); isotypes in Vánky, Ust. exs. no. 1128.

On *Poaceae: Schizachyrium* spp.; C Africa, S America.

**AFR:** *Schizachyrium exile* (Hochst.) Pilger, **Zambia.**

249. ***Sporisorium scholzii*** Vánky, Mycotaxon **95**: 22, 2006. — Type on *Andropogon schirensis,* Zambia, Eastern Prov., 407 km ENE of Lusaka, alt. 1070 m, 18.IV.2001, C., T. & K. Vánky, H.U.V. 21062(!). Paratype on *Andropogon schirensis,* Zambia, Lusaka Prov., 124 km ENE of Lusaka, alt. 1035 m, 17.IV.2001, T., C. & K. Vánky, H.U.V. 21065(!).

On *Poaceae: Andropogon schirensis* A. Rich.; C Africa. Known only from the type collections.

**AFR:** *Andropogon schirensis,* **Zambia.**

250. ***Sporisorium schweinfurthianum*** (Thüm.) Vánky, Publ. Herb. Univ. Uppsala **11**: 12, 1983. — *Ustilago schweinfurthiana* Thüm., in Thümen, Mycotheca universalis no. 726, 1877. — *Sphacelotheca schweinfurthiana* (Thüm.) Sacc., Ann. Mycol. **6**: 554, 1908. — Type on *Imperata cylindrica,* Egypt, Mansurah Prov., Talcha, 26.VII.1876, G. Schweinfurth, H.U.V. 9137(!); isotypes in Thümen, Mycoth. univ. no. 726, H.U.V. 1996(!).

On *Poaceae: Imperata cylindrica* (L.) Raeuschel (*I. arundinacea* Cyr.); S Europe, Africa, Asia.

**AFR:** *Imperata cylindrica,* **Algeria, Cameroon, Egypt, Ghana, Guinea, Ivory Coast, Libya, Morocco, Nigeria, S. Africa, Sudan, Tunisia, Uganda.**

251. ***Sporisorium sehimicola*** Vánky, Mycotaxon **74**: 186, 2000. — Type on *Sehima ischaemoides,* Zimbabwe, Matabeleland North Prov., Hwange (Wankie) National Park, 15 km N of Robins Camp, "Tshowe Loop", alt. c. 930 m, 11.III.1999, C. & K. Vánky, H.U.V. 18900(!); isotypes in BPI and in Vánky, Ust. exs. no. 1063. Paratype on *Sehima ischaemoides,* Sudan, Jebel Fau, 1.XII.1952, J.K. Jackson 2472, IMI 51513(!).

On *Poaceae: Sehima ischaemoides* Forssk. (*S. nervosum* (Rottler) Stapf); Africa.

**AFR:** *Sehima ischaemoides,* **Sudan, Zambia, Zimbabwe.**

252. ***Sporisorium setariae-mombassanae*** (L. Ling) Vánky, Mycotaxon **99**: 11, 2007. — *Ustilago setariae-mombassanae* L. Ling, Lloydia **16**: 181, 1953. — Type on *Setaria mombassana* (= *S. incrassata*), Nyasaland [= Malawi], Chitala to Samlima Road, 22.III.1949, P.O. Wiehe 69, IMI 34947; isotypes BPI 166391, H.U.V. 17397(!).

On *Poaceae: Setaria incrassata* (Hochst.) Hack. (*S. mombassana* R.A.W. Herrm.); SE Africa. Known only from the type collection.

**AFR:** *Setaria incrassata* (*S. mombassana*), **Malawi.**

253. ***Sporisorium sorghi*** Ehrenb. ex Link, in Willdenow, Linné's Species Plantarum, Ed. 4, **6**(2): 86, 1825. — *Sphacelotheca sorghi* (Ehrenb. ex Link) G.P. Clinton, J. Mycol. **8**: 140, 1902. — *Cintractia sorghi* (Ehrenb. ex Link) Hirschh., Rev. Argent. Agron. **6**: 198, 1939. — Type on *Sorghum vulgare* (= *S. bicolor*), Egypt, C.G. Ehrenberg. Neotype (design. by Vánky 1990: 275) on *Sorghum bicolor*, Egypt, Cairo, VI.1876, G. Schweinfurth, H.U.V. 1672(!); isoneotypes in Thümen, Mycoth. univ. no. 725 (as *Ustilago reiliana* J.G. Kühn f. *sorghi cernui* on *Sorghum cernuum*). Paraneotype on *Sorghum bicolor,* Romania, Transylvania, near Odorhei [Székelyudvarhely], alt. c. 480 m, 5.IX.1963, K. Vánky, H.U.V. 2027(!); isoparaneotypes in Vánky, Ust. exs. no. 50 (as *Sphacelotheca sorghi* on *Sorghum vulgare*). For comments about neotypifying see Vánky 1990: 275.

*Ustilago sorghicola* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **1**: 58, 1902. — *Sphacelotheca sorghicola* (Speg.) Zundel, Mycologia **22**: 131, 1930. — Type on *Sorghum vulgare* (= *S. bicolor*), Argentina, La Plata, III.1902, C. Spegazzini, LPS 3047; isotype H.U.V. 19353(!) (syn. by Ling 1953: 333, confirmed).

*Tilletia sorghi-vulgaris* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 116, 1847. — *Cintractia sorghi-vulgaris* (Tul. & C. Tul.) G.P. Clinton, Univ. Illinois Agric. Exp. Sta. Bull. **47**: 404, 1897. — *Ustilago tulasnei* J.G. Kühn, Ber. Sitzungen Naturf. Ges. Halle **1874**: 5, 1874 (nom. nov. superfl. pro *T. sorghi-vulgaris*). — Type on *Sorghum vulgare* (= *S. bicolor*), Abyssinia [Ethiopia], PC(!).

On *Poaceae: Sarga* and *Sorghum* spp.; cosmopolitan.

**AFR:** *Sorghum arundinaceum* (Desv.) Stapf, *S. bicolor* (L.) Moench (*Andropogon sorghum* Brot.; *S. vulgare* Pers.), *S. caffrorum* P. Beauv., *S. gambicum* Snowden, *S. guineense* Stapf, *S. halepense* (L.) Pers., *S. margaritiferum* Stapf, **Algeria, Botswana, Cameroon, Congo, Egypt, Eritrea, Ethiopia, Gambia, Ivory Coast, Kenya, Malawi, Malta, Morocco, Nigeria, S. Africa, Senegal, Sierra Leone, Sudan, Tanzania, Uganda, Zimbabwe.**

254. ***Sporisorium sphacelatum*** Vánky, Mycotaxon **85**: 13, 2003. — Type on *Pennisetum sphacelatum,* South Africa, Eastern Cape Prov., Mts. Drakensberg, between Barkley East and Lady Grey, alt. c. 960 m, 22.XII.1996, C. & K. Vánky, H.U.V. 19733(!); isotypes in Vánky, Ust. exs. no. 1145. Paratype on *P. sphacelatum,* Lesoto, Leribe Distr., Nkaobee Pass, c. 15 km N of Katse Dam Wall, alt. c. 2400 m, 25.XII.1996, C. & K. Vánky, H.U.V. 19734(!).

On *Poaceae: Pennisetum sphacelatum* (Nees) Dur. & Schinz.; S Africa. Known only from the type collections.

**AFR:** *Pennisetum sphacelatum,* **Lesotho, S. Africa.**

255. ***Sporisorium stuhlmannii*** (Henn.) Vánky, Mycotaxon **89**: 107, 2004. — *Ustilago stuhlmannii* Henn., Bot. Jahrb. Syst. **17**: 3, 1893. — *Sphacelotheca stuhlmannii* (Henn.) Zundel, Mycologia **22**: 136, 1930. — Type on *Andropogon* sp., "Central Afrikan. Seengebiet" [= Tanzania], Ukami, Morogoro, 18.V.1890, F. Stuhlmann 63, "Emin Pascha Expedition", BPI 189126(!).

On *Poaceae: Andropogon* spp.; Africa, N America (Mex., USA), W Indies (Dominican Rep.).

**AFR:** *Andropogon* sp., **Tanzania, Zimbabwe.**

256. ***Sporisorium styppeiochloae*** (Dennis & M.B. Ellis) Vánky, Mycotaxon **89**: 108, 2004. — *Sorosporium styppeiochloae* Dennis & M.B. Ellis, Kew Bull. **35**: 846, 1981. — Type on *Styppeiochloa gynoglossa,* Mozambique, Lourenço Marques, Namaacha (Namahacha), alt. 650 m, 9.XII.1948, Carvalho 300, K; isotype IMI 40001(!).

On *Poaceae: Styppeiochloa gynoglossa* (Goossens) De Winter (*Crinipes gynoglossa* Goossens); SE Africa. Known only from the type collection.

**AFR:** *Styppeiochloa gynoglossa,* **Mozambique.**

257. ***Sporisorium sydowiorum*** Vánky, Mycotaxon **110**: 318, 2009. — Replacing *Tolyposporium setariicola* Syd. & P. Syd., Ann. Mycol. **10**: 77, 1912 (as "*setariicolum*"; not *Sporisorium setariicola* (Thirum. & Safeeulla) Bag & D.K. Agarwal). — *Tolyposporidium setariicola* (Syd. & P. Syd.) Thirum. & Neerg., Friesia **11**: 182, 1978('1977') (as "*setariicolum*"). — Type on *Setaria aurea* (= *S. sphacelata* var. *aurea*), Cameroon, Sidderiberg, 30.VII.1909, C. Ledermann 4803. Type not in B.

On *Poaceae: Setaria sphacelata* (Schumach.) Stapf & C.E. Hubb. var. *aurea* (Hochst. ex A. Braun) Clayton (*S. aurea*

Hochst. ex A. Braun); C Africa. Known only from the type description.

**AFR:** *Setaria sphacelata* var. *aurea,* **Cameroon.**

258. ***Sporisorium tanganyikeanum*** (Zundel) Vánky, Mycotaxon **91**: 235, 2005. — *Sorosporium tanganyikeanum* Zundel, Mycologia **36**: 408, 1944. — Type on *Panicum repens,* Tanganyika Territory [Tanzania], Kigoma, 24.I.1927, D.H. Linder, BPI 195129(!); isotype BPI 180801(!).

On *Poaceae: Panicum repens* L.; C Africa. Known only from the type collection.

**AFR:** *Panicum repens,* **Tanzania.**

259. ***Sporisorium tembuti*** (Henn. & Pole-Evans) Vánky, Mycotaxon **99**: 63, 2007. — *Sorosporium tembuti* Henn. & Pole-Evans, in Henn., Bot. Jahrb. Syst. **41**: 270, 1908. — Type on *Andropogon* ? *cymbarius* L. (= misidentified *Hyparrhenia tamba,* det. Doidge 1950: 380), South Africa, Transvaal, Waterval Onder, 17.VI.1905, J. Burtt Davy, PREM 169; isotype H.U.V. 17991(!).

*Ustilago tumefaciens* Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C,: 48, 1895. — *Sorosporium tumefaciens* (Henn.) Zundel, Mycologia **22**: 149, 1930, not McAlpine 1910 (not *Sporisorium tumefaciens* (McAlpine) Vánky 1983: 328). — *Sorosporium zundelianum* Cif., Nuovo Giorn. Bot. Ital., N.S., **40**: 268, 1933, nom. nov. (not *Sporisorium zundelianum* Vánky 1995: 207, type on *Trachypogon plumosus*). — *Sporisorium leelingianum* K. Vánky, Fungal Diversity **12**: 190, 2003 (nom. nov. superfl. pro *Ustilago tumefaciens* Henn.). — Lectotype on *Andropogon rufus* (= *Hyparrhenia rufa*), Tanzania, Kilimanjaro, Rombo Mku, alt. c. 1450 m, VI.1893, S. Volkens 397, (design. by Vánky 2003: 190) K(!); isolectotype BPI 168667(!). (The type in B was lost during World War II; syn. by Vánky 2007: 63).

*Sorosporium healdii* Zundel, Mycologia **22**: 147, 1930. — Type on *Andropogon cymbarius* (= *Hyparrhenia* sp.; comp. Doidge 1950: 379), South Africa, Transvaal, Pretoria, 7.V.1916, I.B. Pole-Evans, PREM 9732; isotypes BPI 180020, H.U.V. 17997(!) (syn. by Ling 1951: 108, as *Sorosporium tembuti*, confirmed).

*Sorosporium proliferatum* Zundel, Mycologia **22**: 150, 1930. — Type on *Andropogon hirtus* L. (= misidentified *Hyparrhenia aucta* = *H. dregeana,* det. Doidge 1950: 380; and/or *H. tamba,* det K. Vánky), South Africa, Transvaal, Waterval Boven, 29.XI.1918, I.B. Pole-Evans, PREM 11336; isotype H.U.V. 18006(!) (syn. by Ling 1951: 108, confirmed).

*Sorosporium clintonii* Zundel, Mycologia **22**: 153, 1930. — Type on *Andropogon cymbarius* (= misidentified *Hyparrhenia tamba*?, det. "L. C." in PREM; comp. also Doidge 1950: 378), South Africa, Pretoria, Waterkloof, 14.IV.1916, I.B. Pole-Evans, PREM 9693; isotype H.U.V. 1652(!) (syn. by Ling 1951: 108, as *Sorosporium tembuti,* confirmed).

On *Poaceae: Hyparrhenia* and *Hyperthelia* spp.; Africa.

**AFR:** *Hyparrhenia anamesa* Clayton, *H. collina* (Pilg.) Stapf (*H. scabrimarginata* (de Wild.) Robyns), *H. cymbaria* (L.) Stapf (*Andropogon cymbarius* L.), *H. dregeana* (Nees) Stapf (*H. aucta* (Stapf) Stapf ex Stent), *H. filipendula* (Hochst.) Stapf, *H. hirta* (L.) Stapf, *H. rufa* (Nees) Stapf (*Andropogon rufus* (Nees) Kunth), *H. tamba* (Steud.) Stapf, *H. variabilis* Stapf, *Hyparrhenia* sp., *Hyperthelia dissoluta* (Nees ex Steud.) Clayton (*Hyparrhenia dissoluta* (Nees ex Steud.) C.E. Hubb.; *H. ruprechtii* (Hack.) Fourn.), **Cameroon, Chad, Ethiopia, Malawi, S. Africa, Tanzania, Uganda, Zambia.**

260. ***Sporisorium tenue*** (Syd. & P. Syd.) Vánky, Fungal Diversity **15**: 238, 2004. — *Ustilago tenuis* Syd. & P. Syd., in Sydow *et al.,* Ann. Mycol. **4**: 425, 1906. — *Sphacelotheca tenuis* (Syd. & P. Syd.) Zundel, Mycologia **22**: 137, 1930. — Type on *Andropogon pertusus* L. (= *Bothriochloa pertusa* (L.) A. Camus), India, Mysore, Hunsur, 21.IX.1903, E.J. Butler 452, BPI 168150(!); isotypes BPI 188949(!) (date of collection incorrectly as "21.XI.1903"), BPI 192075(!) (date of collection as "29.III.1903").

*Sphacelotheca amphilophis* Syd., Ann. Mycol. **33**: 232, 1935. — *Sporisorium amphilophis* (Syd.) Langdon & Full., Mycotaxon **6**: 451, 1978. — Type on *Amphilophis insculpta* (= *Bothriochloa insculpta*), South Africa, Transvaal, Barberton Distr., along Crocodile River at Schagen, VI.1931, L.C.C. Liebenberg 2297, PREM 26023; isotypes BPI 177156, H.U.V. 17936(!) (syn. by Vánky 2004: 238).

*Sphacelotheca bothriochloae* Zundel, Mycologia **31**: 587, 1939 (as "*botriochloae*"). — Type on *Bothriochloa decipiens* (Hack.) C.E. Hubb., Australia, New South Wales, Walla Walla, 17.V.1937, R.A. Black, BPI 195096(!) (syn. by Vánky 2004: 238).

*Sphacelotheca macalpinae* Zundel, Mycologia **31**: 583, 1939. — Type on *Andropogon intermedius* R. Br. (= *Bothriochloa intermedia* (R. Br.) A. Camus, = *B. bladhii*), Australia, New South Wales, 1912 (without exact place, date and collector; as *Cintractia columellifera*), BPI 178058(!) (syn. by Vánky 2004: 238).

On *Poaceae: Bothriochloa* and *Dichanthium* spp.; Africa, S Asia, Australasia.

**AFR:** *Bothriochloa bladhii* (Retz.) S.T. Blake (*Dichanthium bladhii* (Retz.) W.D. Clayton), *B. insculpta* (Hochst. ex A. Rich.) A. Camus (*Amphilophis insculpta* (A. Rich.) Stapf), **Ethiopia, Malawi, S. Africa, Zimbabwe.**

*Sphacelotheca tenuis*, reported by Zundel (1938: 297; 1953: 112) on *Hyparrhenia* sp. from S Africa, represents *Sporisorium vanderystii* (Henn.) Langdon & Full. (PREM 11862!).

261. ***Sporisorium themedae*** (Duke) Vánky, Mycotaxon **51**: 163, 1994. — *Sphacelotheca themedae* Duke, Bull. Misc. Inform. **8**: 315, 1926. — Type on *Themeda triandra,* Kenya, Nairobi, 14.V.1916, W.J. Dowson, BPI 195087(!).

On *Poaceae: Themeda* spp.; Africa, S Asia, Australasia.

**AFR:** *Themeda triandra* Forssk., *T. quadrivalvis* (L.) O. Kuntze, **Kenya, Mauritius, S. Africa.**

262. ***Sporisorium tothii*** Vánky, Mycotaxon **85**: 14, 2003. — Type on *Pennisetum glaucum,* Sierra Leone, Central Prov., Njala, XII.1929, C.F. Deighton, H.U.V. 7114(!); isotype BPI 192487.
On *Poaceae: Pennisetum glaucum* (L.) R. Br. (*P. typhoideum* L. Rich); W Africa. Known only from the type collection.
**AFR:** *Pennisetum glaucum,* cult., **Sierra Leone.**

263. ***Sporisorium trachypogonis-spicati*** Vánky & C. Vánky, in Vánky, Mycotaxon **74**: 190, 2000. — Type on *Trachypogon spicatus,* Zimbabwe, Matabeleland South Prov., Matobo National Park, between Toghwana Dam and Maleme Dam, alt. c. 1390 m, 21.III.1999, C. & K. Vánky 18960(!); isotype BPI. Paratypes on *Trachypogon spicatus,* Congo, Prov. III, Banza Boma, VI.1915, H. Vanderyst 5491, BR, H.U.V. 18268(!); Congo, Prov. IV, Kasongo-Lunda, 1925, H. Vanderyst 17353, BR, H.U.V. 18269(!).
On *Poaceae: Trachypogon spicatus* (L. fil.) Kuntze; C & S Africa.
**AFR:** *Trachypogon spicatus,* **Congo, Zimbabwe.**

264. ***Sporisorium transfissum*** (Tul. & C. Tul.) G. Deml, Z. Mykol. **49**: 174, 1983. — *Ustilago carbo* (DC.) Tul. & C. Tul. ⊠ *columellifera* a. *transfissa* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 81, 1847. — *Sphacelotheca columellifera* (Tul. & C. Tul.) Cif., Ann. Mycol. **26**: 32, 1928. — *Sphacelotheca transfissa* (Tul. & C. Tul.) Zundel 1939: 582. — Type on *Andropogon hirtus* (= *Hyparrhenia hirta*), Algeria, La Calle, V.1841, L. Motelay 1878, PC(!).
*Ustilago nyassae* Syd. & P. Syd., Ann. Mycol. **18**: 156, 1920. — *Sphacelotheca nyassae* (Syd. & P. Syd.) Zundel, Mycologia **22**: 133, 1930. — Type on *Andropogon* sp. (= *Hyparrhenia* sp., det. H. Scholz, B), Nyasaland [= Malawi], "Nyassa-Hochland", Station Kyimbila, alt. c. 1600 m, 15.1912, A. Stolz 1262, B; isotypes BPI 164314, H.U.V. 5219(!) (syn. by Vánky 2003: 195).
On *Poaceae: Hyparrhenia* and *Hyperthelia* spp.; S Europe, Africa.
**AFR:** *Hyparrhenia anamesa* Clayton, *H. diplandra* (Hack.) Stapf, *H. hirta* (L.) Stapf (*Andropogon hirtus* L.), *H. hirta* var. *longiaristata* auct., *H. newtonii* (Hack.) Stapf var. *macra* Stapf, *H. quarrei* Robyns, *H. rufa* (Nees) Stapf, *H. tamba* (Steud.) Stapf, *Hyparrhenia* sp., and *Hyperthelia dissoluta* (Nees ex Steud.) Clayton, **Algeria, Chad, Congo, Madagascar, Madeira, Malawi, Morocco, S. Africa, Zambia, Zimbabwe.**

265. ***Sporisorium transvaalense*** (Zundel) Vánky, in Vánky & Shivas, Mycotaxon **80**: 348, 2001. — *Sphacelotheca transvaalensis* Zundel, Mycologia **22**: 139, 1930. — Type on "*Andropogon* sp. (*Sorghum* sp.)" (= *Sorghum versicolor*), South Africa, Transvaal, Pretoria, Onderstepoort, 23.I.1919, A.O.D. Mogg, PREM 17047; isotypes BPI 195093, H.U.V. 17937(!).
On *Sorghum versicolor* Anderss., S Africa.
**AFR:** *Sorghum versicolor,* **S. Africa, Zimbabwe.**

266. ***Sporisorium tranzschelianum*** (Lavrov) Karatygin, in Karatygin & Azbukina, Definitorium fungorum URSS: 81, 1989. — *Sorosporium tranzschelianum* Lavrov, Trudy Biol. Naučno- Issl. Inst. Tomsk. Gosud. Univ. **2**: 32, 1936. — Type on *Arthraxon ciliaris* P. Beauv. var. *langsdorffii* (Trin.) Hack. (= *Arthraxon langsdorffii* (Trin.) Roshev.), Russia, Far East Region, Vladivostok area, Suifun Distr., valley of the Suifun River, Krivoi spring, affluent of the Suputinka River, 11.VII.1929, W. Tranzschel (as "*Ustilago arthraxonis* n. sp.", nom. herb.), LE 62389(!).
*Sorosporium arthraxonis* S. Ahmad, Mycol. Pap. **64**: 10, 1956. — Type on *Arthraxon lanceolatus* (Roxb.) Hochst., Pakistan, Murree, VIII.1952, S. Ahmad 4783, IMI 57435(!) (syn. by Vánky 2001: 277).
*Sphacelotheca arthraxonis* Mishra, Mycologia **49**: 259, 1957 (later homonym, not (Pat.) Zundel 1953). — Type on *Arthraxon quartinianus* (A. Rich.) Nash, India, Bihar, Netarhat, alt. c. 1050 m, J.N. Mishra, HCIO 25277; isotypes IMI 68187, H.U.V. 14906(!) (syn. by Vánky 2001: 277).
On *Poaceae: Arthraxon* spp.; NE Africa, S & E Asia, Indonesia, Australasia (PNG).
**AFR:** *Arthraxon micans* (Nees) Hochst., **Ethiopia.**

267. ***Sporisorium tricholaenae*** (Henn.) Vánky, Mycotaxon **33**: 367, 1988. — *Ustilago tricholaenae* Henn., Bot. Jahrb. Syst. **17**: 3, 1893; Bull. Herb. Boissier **1**: 114, 1893. — *Spahacelotheca tricholaenae* (Henn.) Mundk., Indian J. Agric. Sci. **14**: 51, 1944. — Type on *Panicum teneriffae* (= *Tricholaena teneriffae*), Egypt, Wadi Chafura, in the middle Egyptian desert, on the Arabian side, III.1880, G. Schweinfurth.
*Spahacelotheca panici-teneriffae* Picb., Práce Morav. Přír. Společn. (Acta Soc. Sci. Nat. Moravicae) 7(11): 3, 1932. — Type on *Panicum teneriffae* (= *Tricholaena teneriffae*), Israel, Judaea, Wâdi el Kelt near Jericho, alt. c. 100 m, 14.IV.1909, F. Nábělek, BRNM 122731(!) (syn. by Vánky 1988: 367).
On *Poaceae: Melinis* (*Rhynchelytrum*) and *Tricholaena* spp.; S Europe, Africa, S & SW Asia.
**AFR:** *Melinis nerviglumis* (Franch.) Zizka (*Rhynchelytrum nerviglume* (Franch.) Chiov.; *R. nyassanum* (Mez.) Stapf & C.E. Hubb.), *M. repens* (Willd.) Zizka (*Rhynchelytrum repens* (Willd.) C.E. Hubb.; *R. roseum* (Nees) Stapf & C.E. Hubb.), *Tricholaena teneriffae* (L. fil.) Link (*Panicum teneriffae* (L. f.) R.Br.), **Canary I., Congo, Egypt, Zambia, Zimbabwe.**

268. ***Sporisorium tristachyae-hispidae*** (L. Ling) Vánky, Mycotaxon **65**: 162, 1997. — *Sphacelotheca tristachyae-hispidae* L. Ling, Lloydia **16**: 184, 1953. — Type on *Tristachya hispida* (= *T. leucothrix*), Nyasaland [= Malawi],

Lilongwe, II.1951, G. Jackson, IMI 45108(!); isotypes BPI 192091, H.U.V. 17956(!).

On *Poaceae: Tristachya leucothrix* Nees (*T. hispida* (L. fil.) K. Schum.); C & S Africa.

**AFR:** *Tristachya leucothrix,* **Malawi, S. Africa, Zambia.**

269. ***Sporisorium tristachyae-nodiglumis*** Vánky, Mycotaxon **85**: 46, 2003. — Type on *Tristachya nodiglumis,* Zambia, Lusaka Prov., 169 km ENE of Lusaka, alt. c. 900 m, 17.IV.2001, C., T. & K. Vánky, H.U.V. 19719(!); isotypes in Vánky, Ust. exs. no. 1144.

On *Poaceae: Tristachya nodiglumis* K. Schum.; Africa. Known only from the type collection.

**AFR:** *Tristachya nodiglumis,* **Zambia.**

270. ***Sporisorium tristachydis*** (Syd. & P. Syd.) Vánky, Mycotaxon **65**: 161, 1997. — *Sorosporium tristachydis* Syd. & P. Syd., Bot. Jahrb. Syst. **45**: 263, 1911. — *Tolyposporium tristachydis* (Syd. & P. Syd.) Zundel, Bothalia **3**: 310, 1938. — Type on *Tristachya* sp., Cameroon, near Leinde, Garua, IX.1909, Ledermann, BPI 180829(!) & 192475(!).

On *Poaceae: Tristachya* spp.; Africa.

**AFR:** *Tristachya rehmannii* Hack., *Tristachya* sp., **Cameroon, Congo, S. Africa.**

271. ***Sporisorium ugandense*** (Henn.) Vánky, Mycotaxon **91**: 250, 2005. — *Ustilago ugandensis* Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 48, 1895. — Type on "*Panicum* sp." (= *Digitaria abyssinica,* det. K. Vánky), Uganda, Menjo, 24.XII.1890, Stuhlman 1290, B(!); isotype BPI 189128(!).

*Sphacelotheca dolichosora* Ainsw., Proc. Linn. Soc. London **153**: 94, 1941. — *Sporisorium dolichosorum* (Ainsw.) Vánky, Mycotaxon **73**: 142, 1999. — Type on *Digitaria* "*longiflora* (Retz.) Pers." (= misidentified *D. abyssinica,* det. K. Vánky), Uganda, Entebbe, II.1930, L.C.C. Liebenberg, Herb. Dept. Agricult. Uganda no. 1078 (seems to be lost); isotype IMI 44763(!). Topotype: on 5.III.2002, M. Namaganda, C. & K. Vánky, H.U.V. 19985(!) (syn. by Vánky 2005: 251).

On *Poaceae: Digitaria* spp.; Africa, Australia.

**AFR:** *Digitaria abyssinica* (Hochst. ex A. Rich.) Stapf, **Ethiopia, Kenya, Uganda.**

272. ***Sporisorium urelytri*** (L. Ling) Vánky, Mycotaxon **85**: 60, 2003. — *Sorosporium urelytri* L. Ling, Sydowia **7**: 156, 1953. — Type on *Urelytrum giganteum,* Sudan, Equatoria Prov., Meridi-Yei boundary, near Olo River, 4.V.1938, J.G. Myers 9003, IMI 25276; isotype BPI 180815. Paratypes on *Urelytrum giganteum,* Congo, à la Grelo section, VII.1931, P. Quarré 2593, IMI 36152, BPI 180815; on *Urelytrum stapfianum* (= *U. digitatum*), Angola, no date, coll. Gossweiler 9518, IMI 25277; *U. stapfianum* (= *U. digitatum*), Angola, Lalange Plateau, Kela, 3.I.1931, Gossweiler, IMI 36153.

On *Poaceae: Urelytrum* spp.; Africa.

**AFR:** *Urelytrum giganteum* Pilger, *U. digitatum* K. Schum. (*U. stapfianum* C.E. Hubb.), **Angola, Congo, Sudan.**

273. ***Sporisorium vanderystii*** (Henn.) Langdon & Full., Mycotaxon **6**: 451, 1978. — *Ustilago vanderystii* Henn., in Wildeman, Ann. Mus. Congo, Sér. 5, Bot. **2**: 86, 1907. (as "*vanderysti*"). — *Cintractia vanderystii* (Henn.) Zundel, Mycologia **22**: 128, 1930. — *Sphacelotheca vanderystii* (Henn.) L. Ling, Lloydia **14**: 104, 1951. — Lectotype (design. by Ling 1951: 105) on *Andropogon* sp. (= *Hyparrhenia rufa*), Congo, Leopoldville, Dembo, VI.1906, H. Vanderyst B31, BR 334(!).

*Ustilago hyparrheniae* Beeli, Bull. Jard. Bot. État **8**: 6, 1922. — *Sphacelotheca hyparrheniae* (Beeli) Zambett., Bull. Soc. Mycol. France **95**: 414, 1980('1979'). — Type on *Hyparrhenia diplandra,* Congo, Kimpese, VI.1914, H. Vanderyst 4404, BR(!); isotype BPI 194450 (syn. by Ling 1951: 104, confirmed).

*Sphacelotheca evansii* Zundel, Mycologia **22**: 133, 1930. — Type on *Andropogon* sp. (*Hyperthelia dissoluta,* comp. Diodge 1950: 382), South Africa, Transvaal, Olifants River, 4.I.1918, I.B. Pole-Evans, PREM 14174; isotypes BPI 195092, 195108, H.U.V. 18068(!) (syn. by Ling 1951: 104. However, the H.U.V. copy represents *Sporisorium ischaemoides;* mixed collection?).

*Sphacelotheca ritchiei* Zundel, Mycologia **22**: 138, 1930. — Type on *Hyparrhenia cymbaria,* Tanganyika [Tanzania], Morogoro, I.1926, A.H.R. Ritchie, PREM 20650; isotypes BPI 113653, 195085, 195091, H.U.V. 18177(!) (syn. by Ling 1951: 104, confirmed).

*Ustilago puellaris* Syd., Ann. Mycol. **33**: 231, 1935. — *Sporisorium puellare* (Syd.) G. Deml, in Vánky *et al.,* J. Phytopathology **121**: 185, 1988. — Type on *Hyparrhenia hirta,* South Africa, E Transvaal, Nelspruit, Research Station, III.1931, L.C.C. Liebenberg, PREM 26646; isotype H.U.V. 12250(!) (syn. by Vánky 2003: 199).

*Sphacelotheca ruprechtii* Syd., Ann. Mycol. **33**: 232, 1935. — Lectotype (design. by Vánky 2003: 199) on *Hyparrhenia ruprechtii* (= *Hyperthelia dissoluta*), South Africa, Transvaal Prov., Pretoria, Commando Nek, 19.II.1919, I.B. Pole-Evans, PREM 12224; isolectotype H.U.V. 1995(!). Syntypes on *Hyparrhenia ruprechtii,* Transvaal Prov., Rustenburg Distr., Marikana, 10.III.1934, T. Pallister, PREM 27377; isosyntype H.U.V. 18174(!), and Nelspruit Research Station, III.1931, L.C.C. Liebenberg, PREM 26647, 25905; isosyntype H.U.V. 18175(!) (syn. by Ling 1951: 104, confirmed).

*Sphacelotheca kenyae* Zundel, Mycologia **29**: 586, 1937. — Type on *Hyparrhenia* sp., Kenya, Eldoret, 20.IX.1929, A.S. Hitchcock 25028, BPI 178048 (syn. by Ling 1951: 104).

*Ustilago hyparrheniae* Hopkins, Trans. Rhodesia Sci. Assoc. **35**: 1 09 & 126, 1938 (later homonym, not Beeli, 1922). — Type on *Hyparrhenia filipendula,* S Rhodesia [Zimbabwe], Charter, 28.II.1933, J.M. Rattray; isotypes

BPI 161634, 195258, IMI 44465, PREM 30371, H.U.V. 15927(!) (syn. by Ling 1951: 104, confirmed).

On *Poaceae: Exotheca, Hyparrhenia,* and *Hyperthelia* spp.; S Europe, Africa, Australasia, S America.

**AFR:** *Exotheca abyssinica* (A. Rich.) Anderss. (*Hyparrhenia abyssinica* (A. Rich.) Roberty), *Hyparrhenia anamesa* Clayton, *H. anthistirioides* (A. Rich.) Stapf, *H. arrhenobasis* (Hochst. ex Steud.) Stapf, *H. bracteata* (H. & B. ex Willd.) Stapf, *H. cymbaria* (L.) Stapf, *H. diplandra* (Hack.) Stapf, *H. filipendula* (Hochst.) Stapf, *H. hirta* (L.) Stapf, *H. nyassae* (Rendle) Stapf (*H. vulpina* Stapf), *H. rufa* (Nees) Stapf, *Hyperthelia dissoluta* (Nees ex Steud.) Clayton (*Hyparrhenia dissoluta* (Nees ex Steud.) C.E. Hubb.; *H. ruprechtii* (Hack.) Fourn.), **Algeria, Cameroon, Canary I., Cape Verde I., Congo, Ethiopia, Kenya, Madagascar, Madeira, Malawi, Morocco, S. Africa, Swaziland, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.**

274. ***Sporisorium zambianum*** Vánky, Mycotaxon **85**: 42, 2003. — Type on *Schizachyrium exile,* Zambia, Lusaka Prov., 169 km ENE of Lusaka, alt. c. 900 m, 17.IV.2001, C., T. & K. Vánky, H.U.V. 19963(!); isotypes BPI, IMI, K.

On *Poaceae: Schizachyrium exile* (Hochst.) Pilger; Africa. Known only from the type collection.

**AFR:** *Schizachyrium exile,* **Zambia.**

275. ***Sporisorium zilligii*** (Zundel) Vánky, Mycotaxon **95**: 25, 2006. — *Sphacelotheca zilligii* Zundel, Mycologia **22**: 142, 1930. — Type on *Andropogon* sp., South Africa, Cape Prov., Vryburg, 25.III.1921, A.O.D. Mogg, PREM 20666; isotypes BPI 192099, 195088, H.U.V. 18128(!).

On *Poaceae: Andropogon* sp. Known only from the type collection.

**AFR:** *Andropogon* sp., **S Africa.**

Doidge (1950: 384), and after her Zundel (1953: 115), stated that the host plant of this smut is a *Cymbopogon* sp., not an *Andropogon* as originally given. Unfortunately, no healthy host plant is preserved. Judged from the sori, I doubt that the host is a *Cymbopogon* (comp. Vánky 2003: 31).

276. ***Sporisorium zundelianum*** Vánky, Mycotaxon **56**: 207, 1995. — Replaced synonym: *Ustilago trachypogonis* Zundel, Bothalia **3**: 292, 1938 (not *Sporisorium trachypogonis* (Zundel) Vánky 1995: 206). — *Sphacelotheca trachypogonis* (Zundel) Zambett., Bull. Soc. Mycol. France **95**: 415, 1980('1979') (later homonym, not *Sphacelotheca trachyopogonis* Zundel 1933: 353). — Type on *Trachypogon plumosus* (= *T. spicatus*), Union of South Africa, Transvaal, Kaalfontein, 22.II.1918, A.O.D. Mogg, PREM 11709; isotypes BPI 168230 & 194480, H.U.V. 18011(!).

On *Poaceae: Trachypogon spicatus* (L. fil.) Kuntze (*T. plumosus* (H. & B. ex Willd.) Nees); S Africa.

**AFR:** *Trachypogon spicatus*, **S. Africa, Zambia.**

**XXXVII. *TALBOTIOMYCES*** Vánky, R. Bauer & Begerow, Mycol. Balcan. **4**: 12, 2007.

**Sori** on roots of dicotyledonous host plants producing galls. **Spores** intracellular, ornamented, subhyaline, weakly pigmented, lacking brown, black, reddish or violet colour.

*Talbotiomyces* is a monotypic genus.

Type: *T. calosporus.*

277. ***Talbotiomyces calosporus*** (P.H.B. Talbot) Vánky, R. Bauer & Begerow, Mycol. Balcan. **4**: 12, 2007. — *Entorrhiza calospora* P.H.B. Talbot, Bothalia **6**: 453, 1956. — Type on *Limeum glomeratum* (= *L. viscosum* subsp. *viscosum* var. *glomeratum*), South Africa, Transvaal, Pretoria, Brummeria, near Murray Farm, 30.I.1943, J.J.O. Pazzi, PREM 33770; isotype H.U.V. 587(!). Topotype: spring 1944, J.J.O. Pazzi, PREM 35291, 35391(!). Paratypes on *Limeum viscosum,* Transvaal, Pretoria, near Brummeria, Pretoria University Farm, Botanical Reserve, coll. P.H.B. Talbot, PREM on *Limeum viscosum,* Orange Free State, Ficksburg, III.1955, Dr. Meredith, PREM 41034(!); on *Trianthema pentandra,* Orange Free State, near Malaty, 8.IV.1945, B.N. Wolff, PREM 39031(!).

On *Molluginaceae: Limeum* spp., on *Aizoaceae: Trianthema,* and on *Portulacaceae: Portulaca,* South Africa.

**AFR:** *Limeum viscosum* (J. Gay) Fenzl, *L. viscosum* subsp. *viscosum* var. *glomeratum* (Eckl. & Zeyh.) Friedrich (*L. glomeratum* Eckl. & Zeyh.); *Trianthema pentandra* L., on *Portulaca oleracea* L., **S. Africa.**

**XXXVIII. *TESTICULARIA*** Klotzsch, Linnaea **7**: 202, 1832. — *Milleria* Peck, Rep. (Annual) New York State Mus. **31**: 40, 1879, not *Milleria* Linnaeus, 1753. — Type: *M. herbatica* Peck.

**Sori** in spikelets of host plants in *Cyperaceae* (*Rhynchospora*) forming sac-like swellings, covered by a thick peridium, filled with a black, agglutinated or granular mass of spore balls. Between the young spore balls fascicles of long, sterile, fungal cells are present, arranged more or less radially. **Spore balls** many-spored, composed of an external layer of brown spores and a central mass of subhyaline sterile cells. **Spore germination** results in phragmobasidia.

Three species of *Testicularia* are known of which one from Africa.

Type: *T. cyperi.*

278. ***Testicularia africana*** Vánky & M. Piątek, Mycol. Balcan. **3**: 164, 2006. — Type on *Rhynchospora corymbosa,* W Africa, Guinea (French), Reg. Macenta, margin of a small lakelet at Macenta, 28.XI.1962, S. Lisowski, KRAM-F 55901; isotype H.U.V. 21265(!).

On *Cyperaceae: Rhynchospora corymbosa* (L.) Britton; Africa.

**AFR:** *Rhynchospora corymbosa,* **Cameroon, Guinea.**

Zambettakis (1970: 681) gives *Testicularia cyperi* from Sierra Leone which species occurs in N America. Most probably it refers to *T. africana.*

**XXXIX. *THECAPHORA*** Fingerh., Linnaea **10**: 230, 1836, nom. cons. (ICBN/Vienna 2006: 223), emend. Vánky, Mycotaxon **69**: 94, 1998. — *Sorosporium* F. Rudolphi, Linnaea **4**: 116, 1829, nom. rej. (ICBN/Vienna 2006: 223). — Type: *S. saponariae* F. Rudolphi (= *Thecaphora saponariae*) on *Saponaria officinalis* (syn. by Vánky 1998: 153).

*Poikilosporium* Dietel, Flora **83**: 87, 1897. — Type: *P. davidsohnii* (Dietel & Holw.) Dietel (= *Thecaphora piluliformis*) on "*Atriplex* sp." (= misidentified *Bigelowia veneta,* = *Isocoma veneta,* det. Clinton 1902: 145).

*Glomosporium* Kochman, Acta Soc. Bot. Poloniae **16**: 58, 1939. — Type: *G. leptideum* (Syd.) Kochman (syn. by Vánky, Lutz & Bauer 2008: 37).

*Angiosorus* Thirum. & M.J. O'Brien, in O'Brien & Thirumalachar, Sydowia **26**: 201, 1974('1972'). — Type: *A. solani* Thirum. & M.J. O'Brien (= *Thecaphora solani*) on *Solanum tuberosum* subsp. *andigenum* (syn. by Mordue 1988: 177, and Vánky 1988: 370).

*Tothiella* Vánky, Mycotaxon **70**: 39, 1999. — Type: *T. thlaspeos* (Beck) Vánky on *Thlaspi alpestre* (syn. by Vánky 2004: 110).

*Kochmania* M. Piątek, Mycotaxon **92**: 34, 2005. — Type: *K. oxalidis* (Ellis & Tracy) M. Piątek, on *Oxalis stricta* (syn. by Vánky, Lutz & Bauer 2008: 37).

**Sori** in various parts of dicotyledonous host plants, filled with masses of spore balls, rarely spores single, of yellowish to dark reddish brown colour, never black, and without a violet tint. Peridium and columella lacking. **Spore balls** composed of few to many, loosely or firmly agglutinated spores. No sterile cells or hyphae are present in the spore balls, no spores of other type or differentiated sterile cells are present between the spore balls. Spore ball formation through differentiation within an agglomerated sporogenous mass of hyphae; these hyphae are completely consumed for spore formation. **Spores** subpolyhedrally irregular, often wedge-shaped, rarely globoid; wall thin, smooth or nearly so on the contact sides, thick and ornamented on the free side. **Spore germination** not uniform, variable, typically results in germ tubes (basidia?), often with basal swelling, initially aseptate, later septate, with or without ramifications and conjugations, growing out as hyphae, producing apically or subapically ovoid or cylindrical, aerial "sporidia", often on terminal ramifications.

Sixty-one species of *Thecaphora* are known of which five in Africa.

Lectotype: *T. hyalina* Fingerh. (= *T. seminis-convolvuli*).

279. ***Thecaphora capensis*** F. Roets & L.L. Dreyer, in Roets *et al.,* Persoonia **21**: 151, 2008. — Type on *Oxalis lanata* var. *rosea,* South Africa, Western Cape Prov., Jonkershoek Forestry Station (Assegaaibos), VII.2007, F. Roets & L.L. Dreyer, PREM 60075; isotype H.U.V. 21532(!).

On *Oxalidaceae: Oxalis lanata* L. var. *rosea* Salter; S Africa. Known only from the type locality.

**AFR:** *Oxalis lanata* var. *rosea,* **S Africa.**

280. ***Thecaphora cerastii*** M. Lutz & Vánky, in Vánky & Lutz, Mycol. Res. **111**: 1212, 2007. — Type on *Cerastium arvense* L., Argentina, Tierra del Fuego orientalis, Río Grande, Sandy Beach, 27.I.1970, H. Roivainen (as "2124. *Sorosporium saponariae*"), H.U.V. 7136(!); isotypes in H, BPI 195288.

On *Caryophyllaceae* (subfam. *Alsinoideae*): *Cerastium* spp.; Europe, N Africa, N & S America.

**AFR:** *Cerastium boissieri* Gren., *C. gibraltaricum* Boiss., **Morocco.**

281. ***Thecaphora deformans*** Durieu & Mont. ex Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 110, 1847. — Type on *Medicago tribuloides,* Algeria, Mascara, M.C. Durieu de Maisonneuve, PC; isotypes PRM(!), H.U.V. 13674(!).

On *Fabaceae: Medicago* spp.; Europe, N Africa, C Asia.

**AFR:** *Medicago tribuloides* Lam., **Algeria.**

282. ***Thecaphora leptideum*** (Syd.) Zundel, Mycologia **29**: 583, 1937. — *Tolyposporium leptideum* Syd., Ann. Mycol. **11**: 365, 1913. — *Glomosporium leptideum* (Syd.) Kochman, Acta Soc. Bot. Poloniae **16**: 58, 1939. — Type on *Chenopodium album* L., Germany [now France], Lotharingia, Forbach, Kreuzberg Mt., 7.IX.1911, A. Ludwig, B. Topotype: on VIII–X.1912/13, A. Ludwig; isotopotypes in Sydow, Mycoth. germ. no. 1165, H.U.V. 1351(!), and in Sydow, Ust. no. 475, H.U.V. 1450(!).

On *Chenopodiaceae: Chenopodium* spp.; Europe, Africa, E Asia, Australia, N America.

**AFR:** *Chenopodium carinatum* R. Br., **S. Africa.**

283. ***Thecaphora saponariae*** (F. Rudolphi) Vánky, **s. lat.,** Mycotaxon **69**: 94, 1998. — *Sorosporium saponariae* F. Rudolphi, Linnaea **4**: 116, 1829. — *Schizoderma saponariae* (F. Rudolphi) Fries, Syst. Myc., etc., **3** (sect. 2): 477, 1832. — *Ustilago rudolphi* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 99, 1847 (nom. nov. illegit. pro *Sorosporium saponariae*). — *Microbotryum rudolphi* (Tul. & C. Tul.) Lév., in Orbigny de, Dict. Univ. Hist. Nat. **12**: 787, 1849 (comb. illegit.). — Type on *Saponaria officinalis,* Germany, near Heidelberg, A. Braun, HBG.

*Caeoma schlechtendalii* Klotzsch, in Rabenhorst, Herb. viv. myc. no. 87, 1832 (nom. nud.). — On *Dianthus deltoides* L., Germany, H.U.V. 9215(!).

*Sorosporium saponariae* F. Rudolphi f. *gypsophilae* Cesati, in Rabenhorst, Herb. viv. myc. no. 92, 1847. — *Sorosporium gypsophilae* (Cesati) Cif., Ann. Mycol. **26**: 25, 1928. — Type on "*Gypsophila (muralis*?)" (= *Tunica saxifraga* (L.) Scop., = *Petrorhagia saxifraga* (L.) Link, det. H. Lindberg sec. Liro, 1935: 8, 1938: 337), Italy, Brixia [= Brescia], summer 1847, V. de Cesati; isotypes in Rabenhorst, Herb. viv. myc. no. 92, H.U.V. 1742(!).

*Sorosporium dianthi* Rabenh., Flora **33**: 627, 1850. — Type on *Dianthus prolifer* L. (= *Petrorhagia prolifera* (L.) P.W. Ball & Heywood), Italy, Terra di Otranto, Macchia, L. Rabenhorst.

*Thecaphora tunicae* Auersw., Oesterr. Bot. Z. **18**: 242, 1868. — *Sorosporium tunicae* (Auersw.) Liro, Ann. Bot. Soc. Zool.-Bot. Fenn. 'Vanamo' **6**: 8, 1935. — Type on *Tunica saxifraga* (L.) Scop. (= *Petrorhagia saxifraga* (L.) Link), Italy, Venezia Tridentina, Bolzano [formerly Austria, Tirol, Bozen], 28.VI.1867, F.L.B. von Hausmann, LE(!).

*Urocystis purpurea* Hazsl., Math. Természettud. Közlem. **14**: 128, 1877. — *Sorosporium purpureum* (Hazsl.) Liro, Ann. Acad. Sci. Fenn., Ser. A, **42**(1): 63, 1938. — Lectotype (designated by Lindeberg 1959: 62; corrected by Vánky 1985: 108) on *Dianthus deltoides* L., Slovakia, Lučenec [Losonc], J. Kunszt, BP(!).

*Sorosporium dianthorum* Cif., Ann. Mycol. **26**: 24, 1928. — Lectotype on *Dianthus carthusianorum* L. (designated by Lindeberg 1959: 62), Germany, Eisleben, near Kloster Mansfeld, VII.1879, J. Kunze; isolectotypes in Kunze, Fgi. sel. exs. no. 209 (as *Sorosporium saponariae* f. *dianthi-carthusianorum*), H.U.V. 1725(!).

*Sorosporium dianthi-superbi* Liro, in Mycoth. fenn. no. 154, 1934 (nom. nud.); Ann. Acad. Sci. Fenn., Ser. A, **42**(1): 65, 1938 (without Latin diagn.); Mycotheca fennica, Die Etiketten, no. 301–600: 110, 1939. — Type on *Dianthus superbus* L., Finland, Ostrobottnia borealis, Kemi, Maalaisseurakunta, cemetery, 23.VII.1931, V. Heikinheimo & J.I. Liro; isotypes in Liro, Mycoth. fenn. no. 154, H.U.V. 7682(!).

On *Caryophyllaceae: Arenaria, Dianthus, Petrorhagia* (incl. *Tunica*), *Saponaria* spp.; Europe, Africa, Asia, N America.

**AFR:** *Arenaria pungens* Clemete ex Lag., *Dianthus sylvestris* Wulfen (*D. virgineus* Gren. & Godron), *Saponaria officinalis* L., **Algeria, Morocco.**

**XL. *TILLETIA*** Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, 7: 112, 1847.

**Sori** on host plants in *Poaceae,* most commonly in the ovaries, forming "bunt balls" filled with semi-agglutinated to powdery, light to dark brown or black spore mass, mixed with sterile cells. Sori sometimes also as streaks on leaves and culms, rarely producing swellings or witches' brooms, rarely as cover on the surface of leaves, often foetid from trimethylamine (odour of herring brine). Peridium and columella lacking. Infection systemic or local. **Spores** single, medium to large sized, usually ornamented: reticulate, cerebriform, verrucose, spiny, tuberculate or with cylindrical warts ("projections"), rarely smooth, often encased in a hyaline gelatinous sheath. **Sterile cells** usually present between the spores, solitary, variously shaped, smooth but also weakly or conspicuously ornamented (called also "immature spores"), hyaline or slightly pigmented, naked or sheathed. **Spore germination** by means of an aseptate basidium (holobasidium), bearing terminal basidiospores which often conjugate in situ, giving rise to infection hyphae, blastospores and ballistospores (secondary sporidia), or basidiospores numerous, acicular, giving rise to infection hyphae without conjugation.

There are 183 known species of *Tilletia* of which 39 occur in Africa.

Type: *T. caries.*

284. ***Tilletia acroceratis*** Vánky, Mycotaxon **89**: 71, 2004. — Type on *Acroceras macrum,* Zimbabwe, Harare, 27.III.1941, coll. A. Rattray, PREM 33750 (ex "Myc. Herb. S. Rhodesia 5282"); isotypus in H.U.V. 20270(!).

On *Poaceae: Acroceras macrum* Stapf; Africa.

**AFR:** *Acroceras macrum,* **Ethiopia, Zimbabwe.**

285. ***Tilletia aristidae*** Vánky, Mycotaxon **81**: 382, 2002. — Type on *Aristida scabrivalvis* subsp. *contracta* (det. K. Vánky), South Africa, KwaZulu-Natal Prov., near Maritzburg, 26.VI.1911, E.M. Doidge (as *Ustilago* on *Aristida* sp.), BPI 179570(!).

On *Poaceae: Aristida scabrivalvis* Hack. subsp. *contracta* (De Winter) Meld.; S Africa. Known only from the type collection.

**AFR:** *Aristida scabrivalvis* subsp. *contracta,* **S. Africa.**

286. ***Tilletia baldratii*** Montemart., Boll. Stud. Inform. Reale Giardino Colon. **13**(Ser. 3, 7): 44, 1934. — Type on *Poa abyssinica* (= *Eragrostis tef*), Africa, Eritrea [now Ethiopia], Tigrai [Tegre] Prov., comm. I. Baldrati. It is not known where the type is deposited. It is not in FT or FI (C. Nepi, in litt.).

*Tilletia durangenis* Durán, Mycologia **62**: 1101, 1970. — Type on *Eragrostis mexicana* (Hornem.) Link, Mexico, Durango, 71.2 mi NW of J. G. Aguilera off Hwy. Mex. No. 39, alt. 2286 m, 21.X.1969, R. Durán, WSP 58554; isotype in H.U.V. 14446(!). Paratype WSP 58555, isoparatype H.U.V. 14447 (syn. by Vánky 2004: 113).

On *Poaceae: Eragrostis* spp.; N Africa, N America.

**AFR:** *Eragrostis tef* (Zucc.) Trotter (*Poa abyssinica* Jacq.), **Eritrea, Ethiopia.**

287. ***Tilletia beckerae*** (Henn.) Vánky, Mycotaxon **99**: 51, 2007. — *Ustilago beckerae* Henn., in Wildeman, Ann. Mus. Congo, Sér. 5, Bot. **2**: 86, 1907. — Type on *Beckera* sp. (= *Snowdenia* sp.), Congo, Léopoldville [Kinshasa] Prov., Kisantu, V.1906, H. Vanderyst 169, BR(!).

On *Poaceae: Snowdenia* sp. (*Beckera* sp.); C Africa. Known only from the type collection.

**AFR:** *Snowdenia* sp., **Congo.**

288. ***Tilletia brachiariae*** (Pavgi & Thirum.) Vánky, Mycotaxon **65**: 140, 1997. — *T. pulcherrima* Ellis & Gall. ex G.P. Clinton var. *brachiariae* Pavgi & Thirum., Mycologia **44**: 323, 1952. — Type on *Brachiaria distachya* Stapf, India, Uttar Pradesh, Benares [Varanasi], 14.IX.1950, M.S. Pavgi, HCIO 20129(!) (as on "8.XI.1950").

On *Poaceae: Brachiaria* and *Eriochloa* spp.; C Africa, S Asia.

**AFR:** *Brachiaria deflexa* (Schumacher) C.E. Hubb. ex Robyns, **Malawi.**

289. ***Tilletia bromi*** (Brockm.) Brockm., **s. lat.**, Mecklenburgische Kryptogamen no. 102, 1864. — *Ustilago bromi* Brockm., Arch. Vereins Freunde Naturgesch. Mecklenburg **17**: 233, 1863. — *Tilletia bromi* (Brockm.) Nannf., in Lindeberg, Symb. Bot. Upsal. **16**(2): 69, 1959 (comb. superfl.). — Lectotype (design. by Nannfeldt, in Lindeberg 1959: 69) on *Bromus mollis* L. (= *B. hordeaceus*), Germany, Mecklenburg, Grabow, coll. H. Brockmüller. It was not seen by Nannfeldt, and it cannot be traced. With all probability no longer exists. Neotype (design. by Ványky 2005: 265) on *Bromus hordeaceus,* Romania, Banat, near Orsova, alt. c. 65 m, 15.VI.1966, coll. K. Ványky, H.U.V. 2159. Isoneotypes in Ványky, Ust. exs. no. 105 (as *T. fusca* Ellis & Everh. on *Bromus mollis* L.).

*Thecaphora guyotiana* Hariot, Mém. Soc. Acad. l'Aube **61**: 195, 1897 (nom. nud.). — *Tilletia guyotiana* Hariot, J. Bot. (Morot) **14**: 117, 1900. — Type on *Bromus erectus* Hudson, France, Aube Dépt., Gyé-sur-Seine, A.H. Guyot, LE(!).

*Tilletia velenovskyi* Bubák, Oesterr. Bot. Z. **53**: 51, 1903. — Type on *Bromus arvensis* L. (= misnamed *B. japonicus* Thunb., det. Denchev, 1991: 20), Bulgaria, Sadovo, 1902, Stríbrný, comm. J. Velenovsky, BPI, LE(!) (comp. also Magnus, 1909: 100).

*Tilletia belgradensis* Magnus, Hedwigia **48**: 145, 1908. — Type on *Bromus secalinus* L., Yugoslavia, Belgrad, V.1888, J. Bornmüller, S(!) (comp. also Bubák, 1908: 570).

*Tilletia bromina* Maire, Bull. Soc. Hist. Nat. Afrique N. **20**: 282, 1929. — Lectotype (design. by Lindeberg 1959: 69) on *Bromus hordeaceus*, Morocco, Rif Mts., Afestal Mt, VI.1928, R. Maire.

*Tilletia bromi-tectorum* Urries, Ann. Jard. Bot. Madrid **3**: 284, 1943. — Type on *Bromus tectorum* L., Spain, Madrid, El Pardo, XI.1932, M.J. de Urries.

On *Poaceae: Bromus* spp.; cosmopolitan.

**AFR:** *Aira praecox* L., *Avellinia michelii* (Savi) Parl. (*Festuca michelii* (Savi) Bertol.; *Vulpia michelii* (Savi) Reichenb.), *Bromus hordeaceus* L., *Festuca myuros* L., *Micropyrum tenellum* (L.) Link, (*Catapodium tenellum* (L.) Trabut; *Nardurus lachenalii* (C.C. Gmelin) Gordon), *Vulpia bromoides* (L.) S.F. Gray, and its var. *genuina* P. Cont., *V. myuros* (L.) C.C. Gmelin, **Canary I., Madeira, Morocco.**

290. ***Tilletia caries*** (DC.) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 113, 1847. — *Uredo caries* DC., Fl. franç. **6**: 78, 1815. — Type on "froment" (= *Triticum aestivum*), France.

*Lycoperdon tritici* Bjerk., Kongl. Vetensk. Acad. Handl. **36**: 326, 1775 (nom. nud.). — *Tilletia tritici* (Bjerk.) R. Wolff, Brand des Getreide: 13, 1874 (n. v.). — *T. tritici* (Bjerk.) G. Winter, in Rabenhorst, Krypt.-Fl., 2 Aufl., **1**(1): 110, 1881.

*Uredo sitophila* Ditmar, in Sturm, Deutschlands Flora, Abt. III, Heft 3, Die Pilze Deutschlands, Nürnberg: 69, 1816. — *Caeoma sitophilum* (Ditmar) Link, in Linné's Species Plantarum, Ed. 4, **6**(2): 2, 1825. — *Tilletia sitophila* (Ditmar) J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**(3): 365, 1877. — Type on "Weizen" (= *Triticum aestivum*), Germany.

On *Poaceae: Aegilops, Agropyron, Arrhenatherum, Elymus, Secale, Sitanion, Triticum* spp.; cosmopolitan.

**AFR:** *Triticum aestivum* L. (*T. sativum* Lam.; *T. vulgare* Vill.), **Algeria, Egypt, Morocco, S. Africa.**

291. ***Tilletia cerebrina*** Ellis & Everh., J. Mycol. **3**: 56, 1887. — Type on *Deschampsia cespitosa* (L.) P. Beauv., USA, Rocky Mountains.

*Tilletia airae* A. Blytt, Forh. Vidensk.-Selsk. Christiania **1896**(6): 31, 1896. — Type on *Aira cespitosa* L. (= *Deschampsia cespitosa* (L.) P. Beauv.), Norway, Troms, Tromsøysund, Renøen [Reinøy], 3.VIII.1882, B. Esmark, O.

*Tilletia airina* Syd., Ann. Mycol. **35**: 259, 1937. — Type on *Aira caryophyllea*, Madeira, Plateau Paul da Serra, VIII.1936, G. Viennot-Bourgin, PC?; isotypes BPI 172338, 195150, H.U.V. 14984(!).

On *Poaceae: Aira* and *Deschampsia* spp.; Europe, N Africa, Asia, N America.

**AFR:** *Aira caryophyllea* L., **Madeira.**

292. ***Tilletia contraversa*** J.G. Kühn, in Rabenhorst, Fungi europaei exsiccati no. 1896, 1874; Hedwigia **13**: 188, 1874. — Type on *Triticum repens* L. (= *Elymus repens* (L.) Gould), Germany, Sachsen, near Halle, VII.1873, J. Kühn; isotypes in Rabenhorst, Fgi. eur. no. 1896, H.U.V. 2239(!).

*Uredo segetum* Pers. z *Uredo tritici-repentis* DC., in Poiret, Encyclopédie Méthodique. Botanique **8**: 227, 1808 (nom. nud.). — *Tilletia tritici-repentis* (DC.) Liro, Ann. Acad. Sci. Fenn., Ser. A, **42**: 77, 1938. (comb. illeg.). — On *Triticum repens* L. (= *Elymus repens* (L.) Gould), France.

*Tilletia calospora* Pass., Grevillea **5**: 47, 1876. — Type on *Alopecurus agrestis* L. (= *A. myosuroides* Hudson), Italy, Parma, VI.1875, G. Passerini, H.U.V. 9100(!). Topotypes in Rabenhorst, Fgi. eur. no. 2492; collected on VI.1877, H.U.V. 2250(!); Erb. Critt. Ital., Ser. 2, no. 1153, collected on VI.1880, H.U.V. 2249(!); Roumeguère, Fgi. sel. gall. exs. no. 1699, collected on VI.1881, H.U.V. 10294(!).

*Tilletia pancicii* Bubák & Ranoj., in Bubák, Z., Landw. Versuchswes. Oesterr. **1909**: 548, 1909. — Type on *Hordeum vulgare* L., Yugoslavia, W Serbia, Wladimirzi near Schabatz, 30.VI.1907, N. Ranojević, BPI(!).

*Tilletia contraversa* var. *elymi* Zaprom., Materiali po mikoflore Srednei Azii **1**: 17, 1926. — Type on *Elymus aralensis* (= *Leymus multicaulis*), Russia (?Kazakhstan), Lensinskij Uezd [Region].

*Tilletia elymicola* Lavrov, Sist. Zametki Mater. Gerb. Krylova Tomsk. Gosud. Univ. Kujbyseva **11**: 1, 1937. — Lectotype (design. by Ványky 1985: 134) on *Elymus multicaulis* Kar. & Kir. (= *E. aralensis* Regel), Kazakhstan, Turkestan, Suidun, 18.VII.1877, A. Regel, LE(!). Syntype on *E.*

*multicaulis*, Turkestan, Alatau, Kara-Czoku, VIII.1876, A. Regel, LE(!) (syn. by Vánky 1985: 134 & 1988: 367).

*Tilletia tritici* [subsp.] *nanifica* Wagner, Z. Pflanzenbau Pflanzenschutz **1**: 12, 1950 (nom. inval., without Latin diagnosis). — *Tilletia nanifica* (Wagner) Săvul., Phytopathol. Z. **25**: 306, 1956 (comb. illeg.). — On *Triticum aestivum* L. (syn. by Vánky 1985: 129).

*Tilletia prostrata* (Lavrov) Lavrov, Trudy Tomsk. Gosud. Univ., Ser. Biol., **110**: 243, 1951. — *T. contraversa* Kühn var. *prostrata* Lavrov, Sist. Zametki Mater. Gerb. Krylova Tomsk. Gosud. Univ. Kujbyseva **11**: 1, 1937. — Type on *Agropyron triticeum* (= *Eremopyrum triticeum*), Turkmenya [Turkmenistan], Gurjevsk Distr., near Kyzyl-Kuga, coll. Sumnevicz (n.v.) (syn. by Azbukina, Karatygin & Govorova 1995:157).

*Tilletia aegilopsidis* Golovin, Bot. Mater. Otd. Sporov. Rast. Bot. Inst. Komarova Akad. Nauk SSSR **8**: 110, 1952. — Type on *Aegilops triuncialis*, Uzbekistan, Tashkentsky Alatau Mts., near Nevits, 29.VI.1949, A. Pjatajeva (n.v.) (syn. by Azbukina, Karatygin & Govorova 1995:157).

*Tilletia brevifaciens* G.W. Fisch., Res. Stud. St. Coll. Wash. **20**: 11, 1952. — Type on *Agropyron intermedium* (Host) P. Beauv. (= *Elymus hispidus* (Opiz) Melderis), USA, Idaho, Orofino, VIII.1950, E. Horning; isotypes in Fischer, Gramin. smuts N. Amer. no. 292, H.U.V. 9940(!) (syn. by Della Torre 1962).

On *Poaceae: Aegilops, Agropyron, Alopecurus, Arrhenatherum, Beckmannia, Bromus, Critesion, Dactylis, Dasypyrum, Elymus, Festuca, Hordeum, Koeleria, Lolium, Secale, Trisetum, Triticum;* cosmopolitan, in cool and temperate areas.

**AFR:** *Critesion murinum* (L.) Á. Löve (*Hordeum murinum* L.), *C. murinum* subsp. *leporinum* (Link) Á. Löve (*H. leporinum* Link), **Algeria, Morocco, Tunisia.**

See also ***Tilletia trabutii.***

293. ***Tilletia courtetiana*** Har. & Pat., Bull. Mus. Hist. Nat. (Paris) **15**: 197, 1909. — Type on *Panicum proliferum* var. *longijubatum* (= *P. subalbidum*), Congo, Chad Chari-Baguirmi, Abougher, 25–31.VIII.1903, Chevalier 9636, PC; isotypes BPI 195154, HMAS, H.U.V. 12057(!).

On *Poaceae: Panicum* spp.; C Africa.

**AFR:** *Panicum subalbidum* Kunth (*P. longijubatum* (Stapf) Stapf; *P. proliferum* Lam. var. *longijubatum* Stapf), *P. dichotomiflorum* Michaux (*P. proliferum* Lam.), **Chad, Congo.**

294. ***Tilletia cynosuri*** Massenot, in Guyot, Malençon & Massenot, Rev. Pathol. Vég. Entomol. Agric. France **34**: 190, 1955. — Type on *Cynosurus effusus,* Morocco, zone forestière du sommet du Djebel Hebbri (Moyen Atlas), 28.VI.1935, G. Malençon, PC ?; isotype H.U.V. 15926(!).

On *Poaceae: Cynosurus effusus* Link; N Africa.

**AFR:** *Cynosurus effusus,* **Morocco.**

295. ***Tilletia dactyloctenii*** Vánky, Mycotaxon **54**: 232, 1995. — Type on *Dactyloctenium aegyptium,* India, Tamil Nadu, Mts. West Gates, Mt. Palmi Hills, E of Periyakulam, alt. c. 300 m, 28.I.1980, K. Vánky, H.U.V. 88871(!); isotype BPI.

On *Poaceae: Dactyloctenium aegyptium* (L.) P. Beauv.; Africa, S Asia.

**AFR:** *Dactyloctenium aegyptium,* **Sudan.**

296. ***Tilletia ehrhartae*** P.H.B. Talbot, Bothalia **7**: 110, 1958. — Type on *Ehrharta calycina,* South Africa, Cape Prov., Clanwilliam Distr., Lambert's Bay, Nature Reserve, 26.X.1956, R. Story 6006, PREM 41604; isotype H.U.V. 2278(!).

On *Poaceae: Ehrharta calycina* Sm.; S Africa, Australia.

**AFR:** *Ehrharta calycina,* **S. Africa.**

297. ***Tilletia elymandrae*** Vienn.-Bourg., Rev. Pathol. Vég. Entomol. Agric. France **37**: 176, 1958. — Type on *Elymandra androphila,* Guinea (French), near Boké, XI.1956, Jacques-Félix, PC; isotype H.U.V. 15802(!).

On *Poaceae: Elymandra androphila* Stapf; W Africa. Known only from the type collection.

**AFR:** *Elymandra androphila,* **Guinea.**

298. ***Tilletia elytrophori*** Dennis, Kew Bull. **1950**: 170, 1950. — Type on *Elytrophorus africanus,* S Rhodesia [Zimbabwe], Hartley Distr., Poole, 15.V.1948, coll. ?, K; isotypes IMI, H.U.V. 18274(!).

On *Poaceae: Elytrophorus africanus* Schweick; S Africa. Known only from the type collection.

**AFR:** *Elytrophorus africanus,* **Zimbabwe.**

299. ***Tilletia eragrostidis*** G.P. Clinton & Ricker, in Ricker, J. Mycol. **11**: 111, 1905. — Type on *Eragrostis glomerata* (Walt.) L.H. Dewey, USA, Mississippi, Yazo City, 8.IX.1904, S.M. Tracy, BPI 172896(!); isotypes BPI 172894, BPI 172897, H.U.V. 15350(!).

On *Poaceae: Eragrostis* spp.; Africa, Australasia, N America.

**AFR:** *Eragrostis aspera* (Jacq.) Nees, *E. caespitosa* Chiov., **Kenya, Zambia.**

300. ***Tilletia festiva*** Syd. & P. Syd., Ann. Mycol. **10**: 84, 1912 (February). — Type on *Ammochloa subacaulis* (= *A. palestina*), Algeria, Ued-Biskra, N of Biskra, III.1908, G. Schweinfurth.

*Tilletia sydowii* Sacc. & Trotter, in Saccardo, Syll. Fung. **21**: 519, 1912 (March 15). — Type on *Ammochloa subacaulis* (= *A. palestina*), Algeria, Ued-Biskra, N of Biskra, III.1908, G. Schweinfurth.

On *Poaceae: Ammochloa palestina* Boiss. (*A. subacaulis* Balansa); N Africa, SW Asia.

**AFR:** *Ammochloa palestina,* **Algeria.**

301. ***Tilletia fusca*** Ellis & Everh., J. Mycol. **3**: 55, 1887. — Type on *Festuca microstachys* Nutt. (= *Vulpia microstachys* (Nutt.) Benth.), USA, Washington, Rocky Mt. Region (no further data), BPI 173160; isotype WSP 64042.

*Tilletia vulpiae* Magnus, Verh. K. K. Zool.-Bot. Ges. Wien **49**: 89, 1899. — Type on *Vulpia pseudomyuros* (= *V. myuros*), Kurdistan, Erbil, Kuh-Sefin Mt, near Schaklava, 900 m, 17.V.1893, J. Bornmüller; isotypes in Bornmüller, Iter Persico-turcicum 1892–93, no. 19, H.U.V. 2434(!) (syn. by Durán & Fischer 1961: 66).

*Tilletia vulpiae* f. *myuros* Gonz. Frag., Bol. Soc. Esp. Hist. Nat. **17**: 80, 1917. — Type on *Vulpia myuros,* Morocco, Gurugú near Melilla, V.1915, A. Caballero.

*Tilletia narduri* Nagorny, Vestn. Tiflissk. Bot. Sada **51**: 24, 1920. — Type on *Nardurus* sp., Russia, Nakhichevan ASSR, Darry-dagh Mt, 23.V.1914, Yu. N. Woronow, LE(!) (syn. by Durán & Fischer 1961: 66).

*Tilletia narduri* Unamuno, Bol. Soc. Espan. Hist. Nat. **33**: 37, 1933 (later homonym). — Type on *Nardurus lachenalii* Godron (= *Micropyrum tenellum*), Morocco, Chechaouen [Xauen], near Yebel Jesana, 23.VI.1930, P.F. Quer, BPI 173620; isotype BPI 195163 (syn. by Durán & Fischer 1961: 66).

*Tilletia fahrendorffii* Vienn.-Bourg., Rev. Pathol. Vég. Entomol. Agric. France **25**: 157, 1938 (as "*fahrendorfii*"). — Type on *Vulpia bromoides,* and its var. *genuina,* Madeira, marshes near Pic Arriero and Pic Ruivo, 1400–1800 m, VIII.1936, G. Viennot-Bourgin, PC; isotype H.U.V. 12921(!).

*Tilletia dacamarae* Unamuno, Mauritania **1940**: 132, 1940. — Type on *Avellinia michelii,* Morocco, Sok-et Tuin (Beni Hadifa), 1700 m, 17.VI.1927, P.F. Quer, PC(!) (syn. by Durán & Fischer 1961: 66).

On *Poaceae: Avellinia, Festuca, Lolium, Micropyrum, Nardurus,* and *Vulpia* spp.; cosmopolitan.

**AFR:** *Avellinia michelii* (Savi) Parl. (*Festuca michelii* (Savi) Bertol.; *Vulpia michelii* (Savi) Reichenb.), *Micropyrum tenellum* (L.) Link (*Nardurus lachenalii* (C.C. Gmelin) Godron), *Vulpia bromoides* (L.) S.F. Gray, *V. bromoides* var. *genuina* P. Cont., *V. myuros* (L.) C.C. Gmelin (*Festuca myuros* L.; *V. pseudomyuros* Soy.), **Canary I., Ethiopia, Madeira, Morocco.**

302. ***Tilletia haynaldiae*** Maire, Mém. Soc. Sci. Nat. Maroc. **15**: 58, 1926. — Type on *Haynaldia villosa* (L.) Schur (= misnamed *H. hordeacea,* det. Maire, 1936: 47), Morocco, Grand Atlas Mts., Tizi-n-Ougdal, Mt. Aouljdid, above Ouinimsen, alt. c. 2000 m, July, coll. R. Maire.

On *Poaceae: Haynaldia hordeacea* (Coss. & Dur.) Hack.; N Africa. Known only from the type collection.

**AFR:** *Haynaldia hordeacea,* **Morocco.**

303. ***Tilletia horrida*** Takah., Bot. Mag. (Tokyo) **10**: 20, 1896. — *Neovossia horrida* (Takah.) Padwick & Khan, Mycol. Pap. **10**: 2, 1944. — Type on *Oryza sativa,* Japan, Kyoto, 1895.

On *Poaceae: Oryza sativa* L., *O. rufipogon* Griff., tropics, in most of rice-cultivating countries.

**AFR:** *Oryza sativa,* **Senegal.**

304. ***Tilletia hyparrheniae*** L. Ling, Sydowia **7**: 151, 1953. — Type on *Hyparrhenia subplumosa,* Sierra Leone, Musaia, 15.XII.1946, F.C. Deighton M2553, IMI 11370; isotype BPI 173467.

On *Poaceae: Hyparrhenia subplumosa* Stapf; W Africa. Known only from the type collection.

**AFR:** *Hyparrhenia subplumosa,* **Sierra Leone.**

305. ***Tilletia indica*** Mitra, Ann. Appl. Biol. **18**: 178, 1931. — *Neovossia indica* (Mitra) Mundk., Trans. Brit. Mycol. Soc. 24: 313, 1940. — Type on *Triticum vulgare* (= *T. aestivum*), India, Punjab, at Karnal, IV.1930, Abdur Rahman Khan, HCIO; isotypes IMI 32546, K, H.U.V. 17964(!). Topotype on IV.1954, B.S. Bajaj; isotopotypes in Indian Ustil. no. 11, H.U.V. 3568(!).

On *Poaceae: Triticum* spp. It is known as partial- or Karnal bunt of wheat.

**AFR:** *Triticum aestivum* L. (*T. vulgare* Vill.), **S. Africa.**

306. ***Tilletia kenyana*** Vánky, Mycotaxon **89**: 80, 2004. — Type on *Eragrostis caespitosa,* Kenya, Makueni, alt. 3500 feet, 16.I.1960, A. Bogdan, IMI 80374; isotype H.U.V. 18141.

On *Poaceae: Eragrostis caespitosa* Chiov.; Africa. Known only from the type locality.

**AFR:** *Eragrostis caespitosa,* **Kenya.**

307. ***Tilletia laevis*** J.G. Kühn, in Rabenhorst, Fungi europaei exsiccati no. 1697, 1873; Hedwigia, **12**: 152, 1873. — Type on "Sommerweizen" (= *Triticum aestivum*), Germany, Bayern, Egern, 29.VIII. and 1.IX.1872, J. Kühn, in Rabenhorst, Fgi. eur. no. 1697. The isotypes (in H.U.V. 2305! and UPS!) contain, in addition to smooth-walled spores, reticulate *T. caries* and *T.* × *intermedia* types, even within the same sorus. This, together with the unusual variability in size, form and colour of the smooth-walled spores suggests a hybrid origin.

*Erysibe foetida* Wallr., Flora Cryptogamica Germaniae, Pars 2, 4: 213, 1833 (nom. nov. illegit. pro *Caeoma sitophilum* (Ditmar) Link, et pro *Uredo caries* DC., i.e., *Tilletia caries*). — *Tilletia foetida* (Wallr.) Liro, Suomen Maanviljelystaloudellinen Koelaitos, Vuosikirja 1915-1916, Helsinki: 27, 1920 (comb. illeg.). — On *Triticum vulgare* (= *T. aestivum*).

*Ustilago foetens* Berk. & M.A. Curtis, in Ravenel, Fgi. Carol. exs., Ser. 5, no. 100, 1860 (nom. nud.); in Berkeley, Grevillea **3**: 59, 1874 (as "*faetens*"). — *Tilletia foetens* (Berk. & M.A. Curtis) J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**(3): 365, 1877. — Type on *Triticum vulgare* (= *T. aestivum*), USA, Carolina; isotypes in Ravenel, Fgi. Carol. exs., Ser. 5, no. 100, UPS(!).

On *Poaceae: Elymus, Hordeum, Secale, Sitanion, Triticum;* cosmopolitan.

**AFR:** *Triticum aestivum* L. (*T. sativum* Lam.; *T. vulgare* Vill.), **Algeria, Egypt, Ethiopia, Libya, Morocco, S. Africa, Zimbabwe.**

308. ***Tilletia lyei*** Vánky, Mycotaxon **89**: 64, 2004. — Type on *Brachypodium flexum,* Kenya, Kitale Distr., Mt. Elgon, "2–3 km below the parking place on the northern Mt. Elgon Road, in edge of road in forest", alt. c. 3000 m, 19.I.1969, coll. K.A. Lye 1508, H.U.V. 19980(!); isotype MHU.

On *Poaceae: Brachypodium flexum* Nees; Africa. Known only from the type locality.

**AFR:** *Brachypodium flexum,* **Kenya.**

*Tilletia lyei* differs from other *Tilletia* species of *Brachypodium* especially by the low, blunt ornamentation of the spores.

309. ***Tilletia mauritiana*** Vánky, Mycotaxon **81**: 377, 2002. — Type on *Brachiaria umbellata* (confirmed C.E. Hubbard), Mauritius, sine loco et die, coll. P.O. Wiehe D134, comm. 22.II.1939, IMI 42344; isotype H.U.V. 19021(!).

On *Poaceae: Brachiaria umbellata* (Trin.) W.D. Clayton (*Panicum umbellatum* Trin.; *P. nossibense* Steud.); Africa.

**AFR:** *Brachiaria umbellata,* **Madagascar, Mauritius.**

310. ***Tilletia montemartinii*** Canonaco, Boll. Stud. Inform. Reale Giardino Colon. **14**: 35, 1936. — Type on *Cynodon glabratus* (= *Cynodon dactylon*), Eritrea, Addichè, 1934.

*Tilletia cynodontis* Vánky, Mycotaxon **78**: 294, 2001. — Type on *Cynodon plectostachyum,* Ethiopia, Alamata, XI.1955, R.B. Stewart D-225, BPI 172310(!) (syn. by Vánky 2006: 61).

On *Poaceae: Cynodon* spp.; NE Africa.

**AFR:** *Cynodon dactylon* (L.) Pers. (*C. glabratus* Steud.), *C. plectostachyum* (K. Schum.) Pilg., **Eritrea, Ethiopia.**

311. ***Tilletia oplismeni-cristati*** Pat. & Hariot ex Vánky, Mycotaxon **89**: 62, 2004. — *T. oplismeni-cristati* Pat. & Har., in Durán & Fischer, 1961: 87, nom. illeg. (no type indicated; ICBN 37.1). — Type on *Oplismenus burmannii* (Retz.) P. Beauv., Mexico, c. 1 km E of Hotel Villa Blanca, Capilla de Taxte, off Hwy 40, 24.X.1976, R. Durán & P.M. Gray, H.U.V. 14046(!); isotype WSP 68372. Paratype: ibidem, 10.X.1978, R. Durán et P.M. Gray, H.U.V. 14046(!); isoparatype WSP 68614.

On *Poaceae: Oplismenus* spp.; C Africa, N & C America.

**AFR:** *Oplismenus* sp., **Malawi.**

312. ***Tilletia perotidis*** Thirum. & Pavgi, Sydowia **6**: 392, 1952. — Type on *Perotis indica* L., India, Bihar, Patna, 21.X.1951, M.J. Thirumalachar & M.S. Pavgi, HCIO 20122.

On *Poaceae: Perotis* spp.; C Africa, S Asia.

**AFR:** *Perotis patens* Gand., **Malawi.**

313. ***Tilletia salzmannii*** Maire, in Maire & Werner, Mém. Soc. Sci. Nat. Maroc. **45**: 47, 1937. — Type on *Koeleria salzmannii* (= *Lophochloa salzmanii*), Morocco, Moyen-Atlas, Plateau d'Ito, alt. c. 1450 m, VII.1921, R. Maire, MPU; isotype H.U.V. 13106(!).

On *Poaceae: Lophochloa salzmanii* (Boiss. & Reuter) H. Scholz (*Koeleria salzmannii* Boiss. & Reuter); N Africa.

**AFR:** *Lophochloa salzmanii,* **Morocco.**

In the original description of *T. salzmannii*, the spores measure 14–18 µm. These results could not be confirmed by study of the type specimen under standard conditions (spores in lactophenol, gently heated to boiling point).

314. ***Tilletia separata*** J. Kunze ex G. Winter, Rabenhorst Krypt.-Fl., 2 Aufl., **1**(1): 111, 1881. — *T. separata* J. Kunze, in Kunze, Fgi. sel. exs. no. 29, 1876 (nom. nud.). — Type on *Apera spica-venti,* Germany, Sachsen, Wolferode near Eisleben, VIII.1875, J. Kunze; isotypes in Kunze, Fgi. sel. exs. no. 29, H.U.V. 2384(!).

*Tilletia madeirensis* Syd., Ann. Mycol. **35**: 259, 1937. — Type on *Aira praecox,* Madeira, slopes of Arriero and Ruivo Mts., VIII.1936, G. Viennot-Bourgin, PC; isotype H.U.V. 14986(!).

On *Poaceae: Aira praecox* L., *Apera spica-venti* (L.) P. Beauv.; Europe, Africa.

**AFR:** *Aira praecox* L., **Madeira.**

315. ***Tilletia sphaerococca*** (Wallr.) A.A. Fisch. Waldh., Bull. Soc. Imp. Naturalistes Moscou **40**: 255, 1867. — *Uredo segetum* ε *Uredo decipiens* Pers., Synopsis Methodica Fungorum: 225, 1801. — *Uredo decipiens* (Pers.) Strauss, Ann. Wetterauischen Ges. Gesammt. Naturk. **2**: 111, 1810 (nomen illegit. as *U. caricis* Pers., 1801, is included). — *Erysibe sphaerococca* Wallr. α *agrostidis* Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 213, 1833. — *Uredo sphaerococca* (Wallr.) Rabenh., Deutschlands Kryptogamen-Flora, 1 Pilze: 4, 1844. — *Ustilago sphaerococca* (Wallr.) J.G. Kühn, Die Krankheiten der Kulturgevächse: 51, 1859. — *Tilletia decipiens* (Pers.) Körn., Hedwigia **16**: 30, 1877 (February). — *T. decipiens* (Pers.) J. Schröt., in Cohn, Beitr. Biol. Pfl. **2**(3): 364, 1877 (after June; comb. superfl.). — On "*Agrostis pumila* L., varietati morbosae *Agr. vulgaris*" (= *A. tenuis* Sibth., comp. Lindeberg 1959: 74, = *A. capillaris* L.).

*Tilletia caries* (DC.) Tul. var. β *agrostidis* Auersw., in Rabenhorst, Fungi europaei exsiccati no. 700, 1864 (nom. nud.); Hedwigia **3**: 75, 1864. (nom. nud.). — On *Agrostis vulgaris* With. (= *A. capillaris* L.), Germany, Leipzig, VII, B. Auerswald, in Rabenhorst, Fgi. eur. no. 700, H.U.V. 2422(!).

On *Poaceae: Agrostis* spp.; cosmopolitan.

**AFR:** *Agrostis alba* L. var. *stenantha* Maire & Trav., *A. castellana* Boiss. & Reuter, *A. pourretii* Willd. (*A. pallida* DC.; *A. salmantica* (Lag.) Kunth), **Morocco.**

316. ***Tilletia sporoboli*** Vánky, Mycotaxon **74**: 194, 2000. — Type on *Sporobolus festivus,* Zimbabwe, Midlands Prov., 15 km NW of Zvishavane, alt. c. 1020 m, 1.III.1999, C. & K. Vánky 18880(!); isotypes BPI 746883, IMI 380468, S.

On *Poaceae: Sporobolus festivus* A. Rich.; S Africa. Known only from the type locality.

**AFR:** *Sporobolus festivus,* **Zimbabwe.**

317. ***Tilletia tanzanica*** Vánky, Mycotaxon **81**: 385, 2002. — Type on *Dactyloctenium giganteum,* Tanzania, without closer data, intercepted by the Australian Quarantine Services, J. Strickland, C.P.I. 59680, in a seed consignment, DAR 23495(!).

On *Poaceae: Dactyloctenium giganteum* Fisher & Schweick.; Africa. Known only from the type collection.

**AFR:** *Dactyloctenium giganteum,* **Tanzania.**

318. ***Tilletia trabutii*** Jacz., Bull. Soc. Mycol. France **9**: 50, 1893. — Type on *Hordeum murinum* (= *Critesion murinum* subsp. *glaucum*), Algeria, El-Guerrah, 29.IV.1892, L. Trabut, LEP(!).

*Tilletia hordei* Körn., Hedwigia **16**: 30, 1877. — Lectotype on *Hordeum* (design. by Lindeberg 1959: 70) *fragile* Boiss. (= *Psathyrostachys fragilis* (Boiss.) Nevski), Persia (= Iran), Mt. Pir Omar Gudrun, alt. c. 1500 m, H.K. Haussknecht; isolectotype H.U.V. 7229(!).

*Tilletia hordeina* Ranoj., Ann. Mycol. **12**: 398, 1914. — Type on *Hordeum maritimum* Stokes (= *Critesion marinum* (Huds.) Á. Löve), Rep. of Macedonia, Kumanovo Distr., near Stracin, VI.1913, N. Ranojević, Herb. Ranojević; isotype in LEP(!). Durán & Fischer (1961: 48) considered it to be *T. lolii,* Vánky (1988: 367) as *T. contraversa.*

On *Poaceae: Critesion* (*Hordeum*) and *Psathyrostachys* (*Hordeum*) spp.; Europe, Africa, Asia, Australia.

**AFR:** *Critesion murinum* (L.) Á. Löve (*Hordeum murinum* L.), *C. murinum* subsp. *glaucum* (Steud.) W.A. Weber (*Hordeum murinum* subsp. *glaucum* (Steud.) Tzvelev; *H. glaucum* Steud.), *C. murinum* subsp. *leporinum* (Link) Á. Löve (*Hordeum murinum* subsp. *leporinum* (Link) Arcangeli; *H. leporinum* Link), **Algeria, Morocco.**

Pascoe *et al*. (2005) used molecular phylogenetic and morphological criteria to show that the smut on *Critesion* in Australia is not the same as *Tilletia contraversa,* and that its correct name is *T. trabutii.* Carris *et al.* (2007) confirmed this.

319. ***Tilletia trachypogonis*** Durán, *Ustilaginales* of Mexico: 162, 1987. — Type on *Trachypogon secundus* (Presl) Scribner, Mexico, Morelos, 18 km NW of Cuautlixco, 10 km NW of Oaxtepec-Cocoyoc turnoff towards Tepoztlan, off Hwy. 115, alt. c. 1524 m, 10.XI.1978, R. Durán & P.M. Gray, WSP 67748; isotype H.U.V. 14048(!).

On *Poaceae: Trachypogon* spp.; Africa, N America (Mexico).

**AFR:** *Trachypogon spicatus* (L. fil.) Kuntze, **Malawi, Zambia.**

320. ***Tilletia transvaalensis*** Zundel, Mycologia **23**: 299, 1931. — Type on *Eragrostis aspera,* South Africa, Transvaal, Zebediela Distr., Mucklenburg, 6.VI.1913 (on the label 6.VI.1930), G.W. Wearing, PREM 25463; isotypes BPI 173907, BPI 195171, HCIO 10144, H.U.V. 15416(!).

*Tilletia bangalorensis* Pavgi & Thirum., in Thirumalachar & Pavgi, Mycopathol. Mycol. Appl. **7**: 285, 1956. — Type on *Eragrostis tenuifolia* Hochst. ex Steud., India, Bangalore, 15.X.1952, H.C. Govindu, HCIO 20998(!); isotypes IMI, BPI, H.U.V. 16002(!) (syn. by Durán & Fischer 1961: 113, confirmed).

On *Poaceae: Eragrostis* spp.; S Africa, S Asia.

**AFR:** *Eragrostis aspera* (Jacq.) Nees, **S. Africa.**

321. ***Tilletia verrucosa*** Cooke & Massee, in Cooke, Grevillea **17**: 16, 1888. — Type on *Panicum coloratum,* Mozambique, between Lupata and Tete, coll. Kirk, K; isotypes BPI 195172(!), WSP 34697(!).

On *Poaceae: Panicum* spp.; S Africa.

**AFR:** *Panicum coloratum* L., *P. virgatum* L., **Mozambique.**

322. ***Tilletia viennotii*** Syd., Ann. Mycol. **35**: 258, 1937. — Type on *Briza maxima,* Portugal, Madeira Island, Grand Curral, VIII.1936, G. Viennot-Bourgin, PC; isotype BPI 173917, H.U.V. 2205(!).

On *Poaceae: Briza maxima* L.; Africa, Australia.

**AFR:** *Briza maxima,* **Madeira, S. Africa.**

323. ***Tilletia vittata*** (Berk.) Mundk., Trans. Brit. Mycol. Soc. **24**: 312, 1940. — *Ustilago vittata* Berk., Gard. Chron. **1853**: 148, 1853. — *Neovossia vittata* (Berk.) Shetty & Safeeulla, Indian Phytopathol. **33**: 399, 1980. — Type on "Oplismenoid grass" (= *Oplismenus compositus,* det. C.E. Hubb.), India, Bihar, Parasnath, alt. c. 4000 ft, before 1854, coll. Hooker.

*Tilletia vittata* (Berk.) Mundk. var. *burmannii* Mishra, Mycologia **49**: 260, 1957. — Type on *Oplismenus burmannii,* India, Bihar, Netarhat, alt. c. 3500 ft, J.N. Mishra, HCIO; isotypes BPI, IMI 68168, H.U.V. 17470(!) (syn. by Durán & Fischer 1961: 117, confirmed).

On *Poaceae: Oplismenus* spp.; Africa, S Asia, N America.

**AFR:** *Oplismenus burmannii* (Retz.) P. Beauv., *O. compositus* (L.) P. Beauv., *O. hirtellus* (L.) P. Beauv., **Ethiopia, Guinea, Uganda.**

**XLI.** ***TOLYPOSPORELLA*** G.F. Atk., Bull. Cornell Univ. **3**(1): 16, VI.1897.

**Sori** on leaves or leaf sheaths of plants in *Poaceae* and maybe *Eriocaulaceae.* **Spores** with thickened outer walls, firmly agglutinated into spore balls. **Spore germination** results in a branched septate basidium with single pleurogenous basidiospores.

Six species of *Tolyposporella* are known of which two in Africa.

Type: *T. chrysopogonis.*

324. ***Tolyposporella chrysopogonis*** G.F. Atk., Bull. Cornell Univ. **3**(1): 16, 1897. — Type on *Chrysopogon nutans* (L.)

Benth., USA, Alabama, Auburn, autumn, Duggar (no special collection designated).

On *Poaceae: Chrysopogon* and *Sorghastrum* spp.; C Africa, N America (USA).

**AFR:** *Sorghastrum stipoides* (Kunth) Nash, **Uganda.**

325. ***Tolyposporella eriocaulonis*** Vienn.-Bourg., Bull. Soc. Bot. France **104**: 273, 1957 (as "*Tolytosporella*"). — Type on *Eriocaulon afzelianum*, Guinea (French), near Kindia, I.1957, G. Viennot-Bourgin

On *Eriocaulaceae: Eriocaulon afzelianum* Witskr.; Africa (Guinea). Known only from the type locality.

**AFR:** *Eriocaulon afzelianum* Witskr., **Guinea.**

No specimen was found in Herb. Viennot-Bourgin in PC. Generic position is uncertain.

326. ***Tolyposporella rhytachnes*** Vienn.-Bourg., Rev. Pathol. Vég. Entomol. Agric. France **37**: 167, 1958. — Type on *Rhytachne minor,* Guinea (French), near Kindia, Foulaya, I.1957, G. Viennot-Bourgin, PC; isotype H.U.V. 15804(!).

On *Poaceae: Rhytachne minor* Pilg.; W Africa. Known only from the type collection.

**AFR:** *Rhytachne minor,* **Guinea.**

**XLII.** ***TRANZSCHELIELLA*** Lavrov, Trudy Biol. Naučno-Issl. Inst. Tomsk. Gosud. Univ. **2**: 29, 1936.

**Sori** on stems or on aborted inflorescence branches of plants in *Poaceae,* superficial, covered by brown, powdery spore mass, naked or with an ephemeral peridium. Infection systemic. **Spores** solitary, brown, operculate or not, usually small. **Spore germination** results in phragmobasidia.

Seventeen species of *Tranzscheliella* are recognised of which seven are also from Africa.

Type: *T. otophora* (= *T. williamsii*).

327. ***Tranzscheliella amplexa*** (Syd.) Vánky, Mycotaxon **89**: 109, 2004. — *Ustilago amplexa* Syd., Ann. Mycol. **22**: 278, 1924. — Type on *Diplachne fusca,* Egypt, Belbes in the delta of Nile River, V.1880, G. Schweinfurth; isotypes Thümen, Mycoth. univ. no. 1818, H.U.V. 3854(!).

On *Poaceae: Diplachne fusca* P. Beauv. ex Roem. & Schult.; N Africa.

**AFR:** *Diplachne fusca,* **Egypt.**

328. ***Tranzscheliella hypodytes*** (Schltdl.) Vánky & McKenzie, Smut Fungi of New Zealand: 156, 2002. — *Caeoma hypodytes* Schltdl., Fl. Berol., Pars 2. Cryptogamia: 129, 1824. — *Ustilago hypodytes* (Schltdl.) Fries, Syst. Myc., etc., **3** (sect. 2): 518, 1832. — *Erysibe hypodytes* (Schltdl.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 216, 1833. — *Uredo hypodytes* (Schltdl.) Desm., Ann. Sci. Nat. Bot., Sér. 2, **13**: 182, 1840. — *Cintractia hypodytes* (Schltdl.) Maire, Bull. Soc. Bot. France **53**: CXCVIII, 1906. — Lectotype (design. by Hirschhorn, 1947: 74) on *Elymus arenarius* L. (= *Leymus arenarius* (L.) Hochst.), Germany, near Berlin, X.1884, P. Sydow; isolectotypes in Rabenhorst, Fgi. eur. no. 3201, H.U.V. 3784(!).

*Ustilago hypodytes* var. *lolii* Thüm., in Thümen, Herb. myc. oecon. no. 162, 1874. — Type on *Lolium perenne* L., Great Britain, Norfolk, King's Lynn, VII.1873, C.B. Plowright; isotypes in Thümen, Herb. myc. oecon. no. 162, H.U.V. 3872(!).

*Ustilago sporoboli* Ellis & Everh., Bull. Torrey Bot. Club **24**: 282, 1897 (later homonym; not *U. sporoboli* Tracy & Earle, 1896: 211). — *Ustilago funalis* Ellis & Everh., Bull. Torrey Bot. Club **24**: 457, 1897. — Type on *Sporobolus cryptandrus* Gray, USA, Colorado, foothills of the Rocky Mountains, VII.1895, J.C. Cowen.

*Ustilago nummularia* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **1**: 59, 1902. — Type on *Stipa*? sp., Argentina, La Plata, II.1900, C. Spegazzini, LPS 3619; isotypes IMI 62965, H.U.V. 17973(!).

*Ustilago stipicola* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **1**: 59, 1902. — Lectotype (design. by Vánky 1985: 215) on *Stipa filiculmis* Delile, Argentina, Buenos Aires Prov., Sierra de Curá-malal, XII.1899, C. Spegazzini, LPS 3658(!).

*Ustilago dactylidis* Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 136, 1917. — Type on *Dactylis glomerata* subsp. *hispanica,* Algeria, near Alger, Pointe Pescade, sea coast, VIII.1916, R. Maire; isotype BPI 194445(!) (syn. by Vánky 2007: 60).

*Ustilago athenae* Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 139, 1917. — Type on *Oryzopsis miliacea* (L.) Bentham (= *Piptatherum miliaceum* (L.) Cosson), Greece, Athens, Acropolis, 5.VII.1906, R. Maire, in Soc. Française, 1933, Exs. Ch. Duffour no. 7085; isotype H.U.V. 12935(!).

*Ustilago agrestis* Syd., Ann. Mycol. **22**: 278, 1924. — *Ustilago spegazzinii* Hirschh. var. *agrestis* (Syd.) G.W. Fisch. & Hirschh., Mycologia **37**: 242, 1945. — Lectotype (design. by Lindeberg 1959: 119) on *Triticum repens* L. (= *Elymus repens* (L.) Gould), Germany, Lichterfelde near Berlin, VI.1896, P. Sydow; isolectotypes in Sydow, Ust. no. 106 (as *U. hypodytes*), H.U.V. 3806(!).

*Ustilago bromi-erecti* Cif., Ann. Mycol. **29**: 51, 1931. — Type on *Bromus erectus* Huds., Austria, Nieder-Österreich, Haschberg near Klosterneuburg, VII.1925, K. Keissler; isotypes in Zillig, Ust. Eur. no. 54 (as *U. hypodytes*), H.U.V. 3851(!).

*Ustilago sumnevicziana* Lavrov, Trudy Biol. Naučno- Issl. Inst. Tomsk. Gosud. Univ. **2**: 21, 1936. — Type on *Atropis distans* (L.) Grieseb. (= *Puccinellia distans* (L.) Parl.), USSR [Russia] (no special collection designated).

*Ustilago spegazzinii* Hirschh., Notas Mus. La Plata, Bot. **4**: 415, 1939. — Type on *Stipa neesiana* Trin. & Rupr., Argentina, La Plata, 25.XI.1937, E. Hirschhorn, Herb. Hirschhorn no. 25.

*Ustilago hypodytes* f. *sporoboli* Zambett., Bull. Soc. Mycol. France **95**: 412, 1980('1979') (nom. inval., no Latin dg.; ICBN 36.1). — On *Sporobolus pyramidalis,* Congo, Kikoka, I.1909, Vanderyst, BR 410.

*Ustilago custanaica* Lavrov, Trudy Tomsk. Gosud. Univ., Ser. Biol., **110**: 177, 1951. — Type on *Poa pratensis,* Russia, W Siberia, near the towns Custanaj and Acmolinsk. No type designated (types not found).

On *Poaceae: Achnatherum, Agropyron, Ammophila, Aneurolepidium, Arrhenatherum, Brachypodium, Bromus,* ?*Calamagrostis,* ?*Dactylis, Danthonia, Dichelachne, Distichlis, Elymus, Festuca, Glyceria, Haynaldia, Hesperochloa, Hilaria, Hordelymus, Hordeum, Leymus, Lolium, Lygeum, Melica, Oryzopsis, Panicum, Phalaris, Phleum, Piptochaetium, Poa, Puccinellia, Secale, Sitanion, Sporobolus, Stipa,* and *Trisetum* spp.; cosmopolitan.

**AFR:** *Brachypodium ramosum* (L.) Roem. & Schult., *Dactylis glomerata* L. subsp. *hispanica* (Roth) Nyman, *Elymus repens* (L.) Gould (*Agropyron repens* (L.) P. Beauv.), *Haynaldia hordeacea* (Coss. & D. R.) Hook., *Lygeum spartum* L., *Phalaris coerulescens* Desf., *Sporobolus pyramidalis* P. Beauv., **Algeria, Kenya, Libya, Morocco, Tunisia.**

329. ***Tranzscheliella laevispora*** Vánky, Mycotaxon **89**: 82, 2004. — Type on *Sporobolus agrostoides,* Kenya, Thomson's Fall Schoob, alt. c. 7500 ft, 28.VII.1950, R.W. Barney, H.U.V. 15444(!).

On *Sporobolus agrostoides* Chiov. (*S. filipes* Napper); Africa. Known only from the type collection.

**AFR:** *Sporobolus agrostoides,* **Kenya.**

330. ***Tranzscheliella macrochloae*** (Pat.) Vánky, Mycotaxon **85**: 3, 2003. — *Ustilago macrochloae* Pat., Bull. Soc. Mycol. France **22**: 199, 1906. — *Sphacelotheca macrochloae* (Pat.) Maire, Bull. Soc. Hist. Nat. Afrique N. **7**: 279, 1916. — Type on *Stipa* (*Macrochloa*) *tenacissima,* Tunisia, El Haffey, 25.III.1891, N. Patouillard 112, FH; isotypes PC, H.U.V. 14996(!).

On *Poaceae: Stipa tenacissima* L. (*Macrochloa tenacissima* (L.) Kunth); N Africa.

**AFR:** *Stipa tenacissima,* **Algeria, Libya, Morocco, Tunisia.**

331. ***Tranzscheliella sparti*** (Massenot) Vánky, Mycotaxon **85**: 4, 2003. — *Ustilago sparti* Massenot, in Guyot, Malençon & Massenot, Rev. Pathol. Vég. Entomol. Agric. France **34**: 215, 1955. — Lectotype (design. by Vánky 1994: 376) on *Lygeum spartum,* Tunisia, near Hadjeb-el-Aioun, 1.X.1953, L. Guyot, PC; isolectotype H.U.V. 15938(!). Syntype near Kasserine, 2.X.1953, L. Guyot.

*Ustilago lygei* Rabenh., Unio. Itin. Crypt.: 4, 1866 (n. v.; nom. nud.). — *Cintractia lygei* (Rabenh.) Maire, Bull. Soc. Bot. France **53**: CXCVIII, 1906 (comb. invalid.). — On *Lygeum spartum.*

On *Poaceae: Lygeum spartum* L.; N Africa.

**AFR:** *Lygeum spartum,* **Algeria, Libya, Morocco, Tunisia.**

332. ***Tranzscheliella stipae-barbatae*** (Maire) Vánky, Mycotaxon **106**: 138; 2008. — *Ustilago stipae-barbatae* Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 139, 1917. — *Cintractia stipae-barbatae* (Maire) Maire, in Maire & Werner, Mém. Soc. Sci. Nat. Maroc. **45**: 44, 1937. — Lectotype on *Stipa* (design. by Vánky 1985: 256) *barbata,* Morocco, Taourirt, 4.VI.1916, L. Ducellier, Herb. Maire 4226, MPU(!). Syntype on *Stipa gigantea,* Algeria, Miliana, near the top of Zaccar Rharbi, 12.VII.1917, R. Maire, Herb. Maire 4810, MPU(!).

On *Poaceae: Stipa barbata* Desf., *S. gigantea* Link (*Macrochloa arenaria* (Brot.) Kunth), *S. pennata* L.; N Africa, Asia.

**AFR:** *Stipa barbata, S. gigantea,* **Algeria, Morocco.**

333. ***Tranzscheliella williamsii*** (Griffiths) Dingley & Versluys, New Zealand J. Bot. **15**: 477, 1977. — *Sorosporium williamsii* Griffiths, Bull. Torrey Bot. Club **29**: 296, 1902. — *Ustilago williamsii* (Griffiths) Lavrov, Trudy Biol. Naučno- Issl. Inst. Tomsk Gosud. Univ. **2**: 22, 1936. —*Ustilago williamsii* (Griffiths) G.W. Fisch. & Hirschh., Mycologia **37**: 253, 1945 (comb. superfl.). — Type on *Stipa richardsoni* Link, USA, Wyoming, Big Horn Mts., VIII.1898, T.A. Williams & D. Griffiths; isotypes in Griff., W. Amer. fgi. no. 306, H.U.V. 1081(!).

*Ustilago appendiculata* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **12**: 288, 1909. — *Tranzscheliella appendiculata* (Speg.) Lavrov, Trudy Biol. Naučno- Issl. Inst. Tomsk. Gosud. Univ. **2**: 30, 1936. — Type on *Stipa chrysophylla* E. Desv., Argentina, Cacheuta Mt, near Mendoza, II.1908, C. Spegazzini, LPS 3004(!) (syn. by Fischer & Hirschhorn 1945: 253).

*Tranzscheliella otophora* Lavrov, Trudy Biol. Naučno- Issl. Inst. Tomsk Gosud. Univ. **2**: 26, 1936. — *Ustilago otophora* (Lavrov) Gutner, Golovnevye Griby: 52, 1941. — Lectotype (design. by Vánky 1985: 256) on *Stipa pennata* L., Turkmeniya, Firjoza, VI.1924, coll. Chernvakovskaya (syn. by Vánky 1985:256).

On *Poaceae: Austrostipa, Oryzopsis,* and *Stipa;* cosmopolitan.

**AFR:** *Stipa lagascae* Roem. & Schult., **Morocco.**

**XLIII.** ***TRICHOCINTRACTIA*** M. Piepenbr., Canad. J. Bot. **73**: 1095, 1995.

**Sori** in scattered spikelets of *Cyperaceae* (*Rhynchospora*), forming swollen, sac-like bodies, covered by a thick, whitish, fungal peridium, opened on its distal part, filled with a dark brown, dusty mass of spores. From the soral base, groups of long, smooth, thick-walled sterile cells radiate into the spore mass. **Spores** when young in globose groups, later single, brown, without red or violet tint, ornamented. **Spore germination** results in phragmobasidia producing basidiospores or hyphae.

*Trichocintractia* is a monotypic genus.

Type: *T. utriculicola.*

334. ***Trichocintractia utriculicola*** (Henn.) M. Piepenbr., Canad. J. Bot. **73**: 1095, 1995. — *Cintractia leucoderma* (Berk.) Henn. forma *utriculicola* Henn., Hedwigia **34**: 336, 1895. — *C. utriculicola* (Henn.) G.P. Clinton, J.

Mycol. **8**: 143, 1902. — Type on *Rhynchospora gigantea* Link, Brazil, Prov. Sta. Catharina, Blumenau, coll. A. Möller.

*Ustilago conglobata* Cooke (? nom. herb.) on *Rhynchospora aurea,* without locality, 11.XII.1885, Clarke, K(!).

*Cintractia axicola* (Berk.) Cornu forma *spicularum* Juel, Bih. Kongl. Svenska Vetensk.-Akad. Handl. **23**(10): 7, 1897. — *C. spicularum* (Juel) Racib., Bull. Int. Acad. Sci. Cracovie, Cl. Sci. Math. Nat. **1909**: 353, 1909. — Type on *Rhynchospora* sp., Brazil, Porto Alegre, 7.XI.1892, C.A.M. Lindman (syn. by Zundel 1953:38).

On *Cyperaceae: Rhynchospora* spp.; cosmopolitan, especial on its principal host *R. corymbosa* (L.) Britton, in the tropics.

**AFR:** *Rhynchospora corymbosa* (*R. aurea* Vahl), *R. spectabilis* Hochst., **Ivory Coast, Madagascar, Uganda.**

**XLIV.** ***UROCYSTIS*** Rabenh. ex Fuckel, nom. cons., Jahrb. Nassauischen Vereins Naturk. **23–24**: 41, 1870.

**Sori** mostly in leaves and stems, sometimes in flowers or seeds, less often in roots of both mono- and dicotyledonous host plants, as brown or blackish brown streaks, spots, swellings or galls containing a mass of spore balls, usually powdery. Infection usually systemic. **Spore balls** persistent, composed of one to several, dark, fertile spores, surrounded by paler and smaller sterile cells. **Spore germination** of *Tilletia*-type. **Anamorph** present in some species.

The known number of *Urocystis* species is 170, of which 24 occur in Africa.

Type: *U. occulta.*

335. ***Urocystis antipolitana*** Magnus, Verh. Bot. Sec. 52 Versammlung Deutsch. Nat. Baden **52**: 214, 1879. — *Tuburcinia antipolitana* (Magnus) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 63, 1922. — Type on *Anemone coronaria,* France, Alpes-Maritimes Dépt., near Cannes, Antibes, in the garden of "Villa Thuret", 10.XI.1878, C.V. Naudin PC(!).

On *Ranunculaceae: Anemone* (Sect. *Anemone*) spp.; Mediterranean region (S Europe, N Africa).

**AFR:** *Anemone coronaria* L., **Egypt, Tunisia.**

336. ***Urocystis asphodeli*** (Massenot) Vánky, Mycotaxon **38**: 271, 1990. — *Tuburcinia asphodeli* Massenot, in Guyot, Malençon & Massenot, Rev. Pathol. Vég. Entomol. Agric. France **34**: 196, 1955. — Type on *Asphodelus* ?*cerasiferus* Gay (*A.* ?*ramosus* L., det. Ch. Sauvage), Morocco, Moyen Atlas Mts., Aguelmane Sidi Ali, 7.VI.1934, G. Malençon, PC(!).

On *Liliaceae: Asphodelus* ?*ramosus* L. (*A.* ?*cerasiferus* Gay); N Africa. Known only from the type collection.

**AFR:** *Asphodelus* ?*ramosus,* **Morocco.**

337. ***Urocystis bolivari*** Bubák & Gonz. Frag., in Bubák, Bol. Soc. Espań. Hist. Nat. **22**: 205, 1922. — *Tuburcinia bolivari* (Bubák & Gonz. Frag.) Gonz. Frag., in Ciferri, Nuovo Giorn. Bot. Ital., N.S. **40**: 267, 1933. — *T. occulta* (Wallr.) Liro [var.] *bolivari* (Bubák & Gonz. Frag.) Cif., Ist. Bot. Univ. Lab. Critt. Pavia Quad. **27**: 319, 1963 (comb. illeg., no rank indicated; ICBN 35.1). — Type on *Lolium perenne* L., Spain, Toledo Prov., Algodor, 26.V.1921, J. Hernández, BPI(!), MA(!).

*Tuburcinia lolii* Kawecka-Starmachowa, Spraw. Komis. Fizyogr. **73**: 181, 1939. — Type on *Lolium perenne* L., Poland, S of Kraków, Czerniec near Łącko, 1937, T. Stachyra.

On *Poaceae: Lolium* spp.; Europe, N Africa, Asia, Australasia (AU, NZ).

**AFR:** *Lolium rigidum* Gaud., **Tunisia.**

338. ***Urocystis bulbinellae*** (P.H.B. Talbot) Vánky *et al.,* in Vánky, Mycotaxon **106**: 154, 2008.

*Thecaphora bulbinellae* P.H.B. Talbot, Bothalia **7**: 111, 1958. — Type on *Bulbinella setosa* (= *B. nutans*), South Africa, Pretoria, Struben's Valley, 24.VI.1957, J. Toxopeus, PREM 41745; isotype H.U.V. 21442(!).

On *Asphodelaceae* (*Liliaceae* s. lat.): *Bulbinella nutans* (Thunb.) T. Durand & Schinz (*B. robusta* Kunth; *B. setosa* (Willd. ex Schult. f.) T. Durand & Schinz; *Antheriscus setosus* Willd. ex Schult. f.); S Africa.

**AFR:** *Bulbinella nutans,* **S. Africa.**

339. ***Urocystis ceratocephali*** Zambett. ex Vánky, Mycotaxon **33**: 370, 1988. — *Tuburcinia ceratocephali* Zambett., Bull. Soc. Mycol. France **86**: 655, 1971 (invalid name, no Latin diagnosis). — Type on *Ceratocephalus falcatus,* Algeria, Sétif, IV.1933, Champagne, MPU, Herb. Maire 10839(!); isotypes PC, H.U.V. 13100(!). Paratypes on *Ceratocephalus falcatus,* Turkmeniya, Chardzou Region, Kerkinsk Raion, roadside between Kerki and Kizyl-Ayak, 25.III.1960, O. Nasyrov, LE, PC, H.U.V. 5293(!).

On *Ranunculaceae: Ceratocephalus falcatus* (L.) Pers. (*Ranunculus falcatus* L.); N Africa, Asia.

**AFR:** *Ceratocephalus falcatus,* **Algeria.**

340. ***Urocystis corsica*** (Mayor & Terrier) Vánky, Publ. Herb. Univ. Uppsala **9**: 12, 1982. — *Sorosporium corsicum* Mayor & Terrier, Rev. Mycol. (Paris) **24**: 391, 1959. — *Tuburcinia corsica* (Mayor & Terrier) Guyot & Massenot, in Guyot, Malençon & Massenot, Rev. Mycol. (Paris) **34**: 208, 1969. — Type on *Stipa tortilis* (= *S. capensis*), Corsica, near Ile-Rousse, VIII.1957, E. Mayor.

On *Poaceae: Stipa capensis* Thunb. (*S. tortilis* Desf.); S Europe, N Africa, Asia.

**AFR:** *Stipa capensis*, **Morocco, Tunisia.**

341. ***Urocystis eriospermi*** (Syd.) Zundel, *Ustilaginales* of the World: 315, 1953. — *Tuburcinia eriospermi* Syd., Ann. Mycol. 22: 237, 1924. — Type on *Eriospermum latifolium,* South Africa, W Cape Prov., Stellenbosch, VI.1923, P.A. van der Bijl 1142, STEU, Herb. van der Bijl(!); isotype H.U.V. 18179(!).

On *Liliaceae: Eriospermum* spp.; S Africa.

**AFR:** *Eriospermum latifolium* Jacq., *E. pubescens* Jacq., *Eriospermum* sp., **S. Africa.**

342. ***Urocystis ficariae*** (Liro) Moesz, Budapest és környékének gombái: 137, 1942. — *Caeoma ficariae* "Schltdl." sensu Unger, Die Exantheme der Pflanzen, etc.,: 133, 344 & 420, 1833 (non sensu orig., q.e. *Uromyces ficariae* Lév.; comp. Lindeberg 1959: 86). — *Tuburcinia ficariae* "(Unger)" Liro, Ann. Univ. Fenn. Abo., Ser. A, 1: 67, 1922. — *Urocystis ficariae* "(Unger)" Zundel, Ustil. World: 316, 1953. — *U. ficariae* "(Unger)" Henderson, Notes Roy. Bot. Gard. Edinb. **21**: 241, 1955. — Lectotype (designated by Lindeberg 1959: 87) on *Ranunculus ficaria,* Germany, Sachsen, Schmilka, near Schandau, V.1899, G. Wagner; isolectotypes in Sydow, Ust. no. 340, H.U.V. 2697(!).

On *Ranunculaceae: Ranunculus* (*Ficaria*) spp.; Europe, N Africa, Asia, N America.

**AFR:** *Ranunculus ficaria* L. subsp. *ficariiformis* Rouy & Fouc., **Morocco.**

For comments on authorship of *Urocystis ficariae,* see Vánky (1994: 291).

343. ***Urocystis gladiolicola*** Ainsw., Trans. Brit. Mycol. Soc. **32**: 257, 1949. — *Tuburcinia gladiolicola* (Ainsw.) Cif., Ist. Bot. Univ. Lab. Critt. Pavia Quad. **27**: 295, 1963. — Type on *Gladiolus* sp. (cult.), England, Cornwall, Stoke Climsland, VI.1944, A. Beaumont, PPL(!); isotypes K, NY [non *Uredo gladioli* Requien in Duby, Botanicon Gallicum, etc. Ed. 2, Pars 2: 901, Paris 1830; *Erysibe arillata* Wallr. ⊠ *gladioli* Wallr., Flora Cryptogamica Germaniae, Sect. 2, **4**: 211, 1833, = *Puccinia gladioli* (Requien) Castagne (comp. Linder, in Hotson, Mycologia **34**: 398, 1942); nec *Urocystis gladioli* Smith, Gard. Chron. II. **6**: 421, 1876; *Tuburcinia gladioli* ("Requien") Liro, Ann. Univ. Fenn. Abo. A.**1**(1): 37, 1922, = *Papulospora gladioli* ("Requien") Dodge & Laskaris, = *Papulospora dodgei* Conners (comp. Linder, in Hotson, Mycologia **34**: 398, 1942)].

On *Iridaceae: Gladiolus* and *Crocus* spp.; Europe, S Africa, Asia, Australia, N America.

**AFR:** *Gladiolus* sp., **S. Africa.**

344. ***Urocystis jaapiana*** Sacc., Ann. Mycol. **13**: 137, 1915. — Type on *Ruscus aculeatus,* Italy, Brescia, Gardone at the lake Lago di Garda, 23.V.1912, O. Jaap, PAD(!).

On *Liliaceae: Ruscus aculeatus* L., *R. hypophyllum* L.; S Europe, N Africa.

**AFR:** *Ruscus aculeatus, R. hypophyllum,* **Algeria.**

345. ***Urocystis johansonii*** (Lagerh.) Magnus, Verh. Bot. Vereins Prov. Brandenburg **37**: 94, 1896. — *Urocystis junci* Lagerh. β *johansonii* Lagerh., Bot. Not. **1888**: 201, 1888. — *Tuburcinia johansonii* (Lagerh.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 34, 1922. — *T. luzulae* (J. Schröt.) Liro var. *johansonii* (Lagerh.) Cif., Ist. Bot. Univ. Lab. Critt. Pavia Quad. **27**: 308, 1963 (comb. illeg., no rank indicated). — Lectotype (design. by Lindeberg 1959: 89) on *Juncus bufonius,* Sweden, Småland, Sunnansjö Par., Ö. Thorsås, 18.VII.1887, C.J. Johanson, S; isolectotypes H.U.V. 2793(!) and in Vestergren, Micr. rar. sel. no. 11, H.U.V. 2792(!).

On *Juncaceae: Juncus bufonius* L.; Europe, N Africa. Probably not rare but overlooked.

**AFR:** *Juncus bufonius,* **Morocco.**

346. ***Urocystis leersiae*** Vánky, in Vánky & Guo, Acta Mycol. Sinica, Suppl. **I**: 231, 1987('1986'). — Type on *Leersia hexandra,* China, Yunnan Prov., Xishuangbanna Reg., near the village Mamushu, alt. c. 1300 m, 22.IX.1985, L. Guo & K. Vánky, HMAS 50024; isotypes BP, S, H.U.V. 11666(!) and in Vánky, Ust. exs. no. 586.

On *Poaceae: Leersia hexandra* Sw.; Africa, E Asia.

**AFR:** *Leersia hexandra,* **Ethiopia, Uganda.**

347. ***Urocystis leimbachii*** Örtel, Irmischia **1**: 4, 1881(1882). — *Tuburcinia leimbachii* (Örtel) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 81, 1922. — Neotype (design. by H. & I. Scholz, 1988: 361) on *Adonis aestivalis* L., Germany, Thuringia, Badra near Sonderhausen, VI.1891, G. Örtel, B; isoneotypes in Sydow, Ust. no. 136, H.U.V. 2829(!); Baenitz, Herb. eur., H.U.V. 2830(!). Toponeotypes in Rabenhorst, Fgi. eur. no. 3904 (17.VI.1892), H.U.V. 2831(!); Sydow, Mycoth. germ. 19 (VI.1903), H.U.V. 2832(!); Vestergren Micr. rar. sel. no. 1521 (3.VII.1903), H.U.V. 2833(!). [The type on *Adonis aestivalis* L., Germany, Sachsen, Numburg, near Auleben, 7.VI.1881, G. Örtel, is probably lost (H. & I. Scholz, 1988: 361)].

*Urocystis anemones* (Pers.: Pers.) G. Winter var. *adonis* Milovtzova, 1937: 7. — Type on *Adonis vernalis* L., Ukraine, Charkov Prov., Lubny Distr., "Opytnaja Stantzija", 15.VI.1930, V. Vergovski.

On *Ranunculaceae: Adonis* spp.; Europe, N Africa, Asia.

**AFR:** *Adonis annua* L., **Morocco.**

348. ***Urocystis magica*** Pass., **s. lat.**, in Thümen, Mycotheca universalis no. 223, 1875. — *Tuburcinia magica* (Pass.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**(1): 49, 1922. — Type on *Allium magicum* (= *A. nigrum*), Italy, Parma, V.1875, G. Passerini; isotypes in Thümen, Mycoth. univ. no. 223, H.U.V. 2855(!); in Rabenhorst, Fgi. eur. no. 2100, H.U.V. 2854(!).

*Urocystis cepulae* Frost, in Farlow, Annual Rep. Secretary Mass. State Board Agric. **24**: 175, 1877. — *Tuburcinia cepulae* (Frost) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**(1): 47, 1922. — Type on *Allium cepa* L., USA, Connecticut, Westport, Green's Farm, 1876, S.B. Sherwood.

*Urocystis colchici* (Schltdl.) Rabenh. f. *allii-subhirsuti* Beltrani, in Thümen, Mycoth. univ. no. 1219, 1878. — Type on *Allium subhirsutum* L., Italy, Sicily, Licata, III.1878, V. Beltrani; isotypes in Thümen, Mycoth. univ. no. 1219, H.U.V. 2863(!).

*Urocystis allii* Schellenb., Beitr. Krypt. Schweiz **3**: 141, 1911. — *Tuburcinia allii* (Schellenb.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**(1): 50, 1922. — Type on *Allium oleraceum* L., Switzerland, Vaud Kt., Montagny near Yverdon, VI.1909, D. Cruchet, LAU (comp. Zogg 1986: 120).

*Tuburcinia oblonga* Massenot, Rev. Mycol. (Paris) **18**: 53, 1953. — *Urocystis oblonga* (Massenot) Zogg, Cryptogamica Helvetica **16**: 120, 1986('1985'). — Type on *Allium vineale* L., France, Manche Dépt., Carteret, 29.XII.1952, M. Massenot.

On *Liliaceae: Allium* spp.; cosmopolitan.

**AFR:** *Allium nigrum* L. (*A. magicum* DC.), *A. roseum* L., **Tunisia.**

349. ***Urocystis muscaridis*** (Niessl) Moesz, A Kárpát-medence üszöggombái: 199, 1950. — *Polycystis colchici* (Schltdl.) Lév. var. *muscaridis* Niessl, Österr. Bot. Z. **11**: 328, 1861. — *Tuburcinia muscaridis* (Niessl) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 44, 1922. — *Urocystis muscaridis* (Niessl) Zundel, Ustilaginales of the World: 327, 1953 (comb. superfl.). — Type on *Muscari comosum* (L.) Mill., Austria, Nieder-Österreich, Döbling.

*Urocystis colchici* (Schltdl.) G. Winter f. *muscari* Bizzozero, Flora veneta crittogamica 1, Padova: 130, 1855. — Type on *Muscari racemosum* (= *M. neglectum*), Italy, Veneto, G. Bizzozero.

*Urocystis colchici* "Strauss" f. *muscari-comosi* Thüm., Verh. K.K. Zool.-Bot. Ges. Wien **24**: 485, 1874 (nom. nud). — Type on *Muscari comosum* (L.) Mill., Austria, Hollenburg, F. Thümen.

On *Liliaceae: Muscari* spp.; Europe, N Africa, Asia.

**AFR:** *Muscari neglectum* Guss. ex Ten. (*M. racemosum* (L.) Lam. & DC.), **Tunisia.**

350. ***Urocystis mustaphae*** Maire, in Maire, Mycoth. Bor.-Afric. no. 134, 1914; Bull. Soc. Hist. Nat. Afrique N. **7**: 151, 1915. — Type on *Clematis cirrhosa,* Algeria, El-Quettar, 9.II.1913, Hadj Mustapha Brichi; isotypes in Maire, Mycoth. Bor.-Afric. no. 134, BPI 182285, 182286, H.U.V. 12095(!).

*Tuburcinia atragenes* Liro, Ann. Acad. Sci. Fenn., Ser. A, **42**(1): 184, 1938 (invalid name, no Latin diagnosis); Mycotheca fennica, Die Etiketten, no. 301–600: 111, 1939. — *Urocystis atragenes* (Liro) Zundel, Ustilaginales of the World: 310, 1953. — Lectotype (design. by Zundel 1953: 310) on *Clematis alpina* (L.) Mill., Switzerland, Graubünden Kt., Ober-Engadin, 9.VIII.1880, G. Winter, H(!).

On *Ranunculaceae: Clematis* spp.; Europe, N Africa.

**AFR:** *Clematis cirrhosa* L., *C. vitalba* L., **Algeria, Morocco.**

351. ***Urocystis occulta*** (Wallr.) Rabenh. ex Fuckel, Jahrb. Nassauischen Vereins Naturk. **23–24**: 41, 1870. — *Erysibe occulta* Wallr. α *secales* Wallr., Flora Cryptogamica Germaniae, Sect. 2, **4**: 212, 1833. — *Polycystis occulta* (Wallr.) Schltdl., Bot. Zeitung (Berlin) **10**: 602, 1852. — *Ustilago occulta* (Wallr.) Rabenh., in Rabenhorst, Herb. viv. myc. no. 1898, 1854. — *Urocystis occulta* (Wallr.) Rabenh., in Rabenhorst, Herb. viv. myc., ed. 2, no. 393, 1857; Bot. Zeitung (Berlin) **15**: 96, 1857 (all invalid names, the genus *Urocystis* having been validly published first, in 1870). — *Tuburcinia occulta* (Wallr.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 12, 1922. — Type on *Secale cereale,* Germany, Thüringen, F.G. Wallroth.

*Uredo parallela* Berk., in Hooker, English flora **5**(2): 375, 1836. — *Polycystis parallela* (Berk.) Fries, Summa veget. Scandinaviae, etc.: 516, 1849 (n. v.). — *P. parallela* (Berk.) Berk. & Broome, Ann. Mag. Nat. Hist., Ser. **2**: 464, 1850 (comb. superfl.). — *Urocystis parallela* (Berk.) A.A. Fisch. Waldh., Jahrb. Wiss. Bot. **7**: 107, 1870. — Type on *Secale cereale,* England, Kensington, 15.VI.1800, J. Sowerby.

*Tuburcinia hordei* Cif., Ann. Mycol. **29**: 13, 1931. — *Urocystis hordei* (Cif.) Zundel, Ustilaginales of the World: 320, 1953. — Type on "*Hordeum distichum* L." (= misnamed *Secale cereale,* det. K. Vánky 1991: 166), Italy, Avellino, summer 1892, A.N. Berlese; isotypes in Briosi & Cavara, Fgi. paras. no. 206 (sub *Urocystis occulta* on *Hordeum distichum*), H.U.V. 14761(!) (syn. by Vánky 1991: 166).

On *Poaceae: Secale cereale* L.; cosmopolitan.

**AFR:** *Secale cereale,* **S. Africa.**

352. ***Urocystis ornithogali*** Körn., in Fischer von Waldheim, Ann. Sci. Nat. Bot. **4**: 240, 1877('1876'); Aperçu Syst. Ustil.: 41, 1877. — *Tuburcinia ornithogali* (Körn.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**: 45, 1922. — *T. ornithogali* (Körn.) S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 95, 1935 (later homonym). — Lectotype (design. by Vánky 1985: 172) on *Ornithogalum umbellatum* L., Germany, Rheingau, vineyard near Ockenheim, 7.VI.1874, F. Körnicke, H.U.V. 2895(!); isolectotypes in Fuckel, Fl. rhenana no. 1842.

*Urocystis hypogaea* Körn., in Fuckel, Jahrb. Nassauischen Vereins Naturk. **29–30**: 9, 1876 (nom. nud.). — *Tuburcinia hypogaea* (Körn.) S. Ito, Trans. Sapporo Nat. Hist. Soc. **15**: 115, 1936 (comb. illeg.). — On *Ornithogalum umbellatum*, Germany, near Bonn, F.A. Körnicke.

On *Liliaceae: Gagea* and *Ornithogalum* spp.; Europe, S Africa.

**AFR:** *Ornithogalum glaucum* Salisb., **S. Africa.**

353. ***Urocystis ornithoglossi*** (Syd.) Zundel, Bothalia **3**: 312, 1938. — *Tuburcinia ornithoglossi* Syd., Ann. Mycol. **33**: 233, 1935. — Type on *Ornithoglossum glaucum,* South Africa, Boshof, Smitskraal, 21.IX.1911, O. F. S., PREM 1888; isotype H.U.V. 18189(!).

On *Liliaceae: Ornithoglossum glaucum* Salisb. (*O. viride* (L. fil.) Aiton); S Africa.

**AFR:** *Ornithoglossum glaucum,* **S. Africa.**

354. ***Urocystis poae*** (Liro) Padwick & Khan, Mycol. Pap. **10**: 2, 1944. — *Tuburcinia poae* Liro, Ann. Univ. Fenn. Abo.,

Ser. A, **1**: 22, 1922. — Lectotype (design. by Lindeberg 1959: 95) on *Poa pratensis* L., Sweden, Gotland, Bro Par., Eriks, VII.1898, T. Vestergren; isolectotypes in Vestergren, Micr. rar. sel. no. 278 (as *Urocystis ulei*), H.U.V. 10575(!).

On *Poaceae: Poa* spp.; cosmopolitan.

**AFR:** *Poa annua* L. var. *rivulorum* (Maire & Trab.) Litt. & Maire, **Morocco.**

355. ***Urocystis ranunculi*** (Lib.) Moesz, A Kárpát-Medence üszöggombái: 213, 1950. — *Sporisorium ranunculi* Lib., Plantae cryptogamicae quas in Arduenna collegit, Ed. 2, no. 195, 1832. — *Tuburcinia ranunculi* (Lib.) Liro, Ann. Univ. Fenn. Abo., Ser. A, **1**(1): 69, 1922. — Type on *Ranunculus repens* L., France, Ardennes Dépt.; isotypes in Libert, Pl. crypt. Ard. Ed. 2, no. 195 (as *Sporisorium ranunculi*), H.U.V. 9265(!).

*Tuburcinia ranunculi-muricati* Vienn.-Bourg., Bull. Soc. Mycol. France **84**: 500, 1968. — Type on *Ranunculus muricatus* L., Iran, Gilan Prov., Bandar-e Pahlavi, V.1967, Mirkamali, IRAN; isotype H.U.V. 15122(!) (syn. by Vánky 1991: 492).

On *Ranunculaceae: Ranunculus* spp.; cosmopolitan.

**AFR:** *Ranunculus asiaticus* L., *R. bulbosus* L. subsp. *aleae* (Willk.) Rony & Fouc. (*R. aleae* Willk.), *R. macrophyllus* Desf., *R. paludosus* Poiret (*R. flabellatus* Desf.; *R. chaerophyllos* sensu Coste), *R. cortusifolius* Willd., *R. macrophyllus* Desf., *R. rupestris* Guss., *Ranunculus* sp., **Algeria, Canary I., Ethiopia, Libya, Morocco, Tunisia.**

356. ***Urocystis scillae*** (Cif.) Denchev & Kakish., Mycotaxon **75**: 220, 2000. — *Tuburcinia scillae* Cif., Atti Ist. Bot. Univ. Pavia, Ser. 3, **1**: 79, 1924 (nom. illeg.; ICBN 35.1); Fl. Ital. Crypt. Pars I. Fungi, Fasc. **17**: 130, 1938. — *Urocystis scillae* (Cif.) Săvul., Ustilaginales der Rumänischen Volksrepublik: 80, 1955 (comb. illegit.). — Type on *Scilla bifolia* L., Italy, Torino, coll. P. Voglino,

On *Hyacinthaceae* (*Liliaceae* s. lat.): *Scilla* spp.; Europe, N Africa, Asia.

**AFR:** *Scilla autumnalis* L., **Tunisia.**

357. ***Urocystis thaxteri*** Vánky, Mycologia **31**: 579, 1939. — Type on *Hypoxis acuminata,* South Africa, Orange Free State Prov., Golden Gate Highlands National Park, c. 25 km E of Clarens, alt. c. 2020 m, 28.XII.1996, C. & K. Vánky, H.U.V. 18403(!); isotypes in Vánky, Ust. exs. no. 1039 (as *Urocystis hypoxis*). Paratypes on *Hypoxis costata,* South Africa, Transvaal Prov., Pretoria Distr., Irene, 1.III.1927, coll. I.B. Pole-Evans, PREM 21108, H.U.V. 18188(!); on *Hypoxis galpinii,* South Africa, KwaZulu-Natal Prov., 9 km N of Mooiriver, alt. c. 1570 m, 1.I.1997, C. & K. Vánky, H.U.V. 18436(!); isoparatypes in Vánky, Ust. exs. no. 1040 (as *Urocystis hypoxis*); and on *Hypoxis rigidula,* South Africa, KwaZulu-Natal Prov., The Swamp Nature Reserve, 2 km N of Pevensey, alt. c. 1550 m, 8.I.1997, C. & K. Vánky, H.U.V. 18437(!), PREM.

On *Amaryllidaceae* (*Hypoxidaceae*): *Hypoxis* spp.; S Africa.

**AFR:** *Hypoxis acuminata* Baker, *H. angustifolia* Lam., *H. costata* Baker, *H. floccosa* Baker, *H. galpinii* Baker, *H. hemerocallidea* Fisch. & Mey (*H. rooperi* S. Moore), *H. kraussiana* Buching. ex Krauss, *H. rigidula* Baker, *Hypoxis* sp., **S. Africa.**

358. ***Urocystis tritici*** Körn., Hedwigia **16**: 33, 1877. — Type on *Triticum vulgare,* Australia, New Holland, coll. R. Schomburgk.

On *Poaceae: Triticum* spp.; cosmopolitan, but restricted to warm areas.

**AFR:** *Triticum aestivum* L. (*Triticum vulgare* Vill.), *T. dicoccum* Schrank, *T. durum* L., *T. turgidum* L., **Algeria, Egypt, S. Africa, Tunisia, Uganda.**

**XLV.** ***USTANCIOSPORIUM*** Vánky, Mycotaxon **70**: 31, 4.III.1999, emend. M. Piepenbr., Nova Hedwigia **70**: 330, 2000.

**Sori** in spikelets of plants in *Cyperaceae,* surrounding the tip of the axis of sterile flowers, filling them with a black, initially agglutinated, later powdery mass of spores; sterile fungal stroma and peridium lacking. **Spores** single or in balls, yellowish or reddish brown, slightly flattened, often with a hyaline appendage; spore wall usually uneven, ornamented (foveolate). **Spore germination** results in phragmobasidia whose basidial cells form basidiospores or conjugate.

Twenty species of *Ustanciosporium* are known of which seven occur in Africa.

Type: *U. rhynchosporae.*

359. ***Ustanciosporium kuwanoanum*** (Togashi & Y. Maki) Vánky, Mycotaxon **81**: 425, 2002. — *Sorosporium kuwanoanaum* Togashi & Y. Maki, Ann. Phytopathol. Soc. Japan **10**: 139, 1940. — Type on *Bulbostylis barbata* Kunth, Japan, Prov. Chikuzen, Fukuoka, 5.X.1938, K. Kuwano; isotype H.U.V. 11716(!).

*Thecaphora africana* H. Scholz, Willdenowia **11**: 106, 1981. — Type on *Rikliella kernii,* Togo, Circ. Dapaon (Dapango), N of Timbou, 12.X.1977, H. Ern, B. Leunberger, H. & U. Scholz and W. Schwarz, B(!) (syn by Vánky 2002: 425).

*Sorosporium apparaoi* G.K. Rao, Indian J. Mycol. Pl. Pathol. **12**: 84, 1982. — Type on *Kyllinga triceps* Rottb. (nom. illeg.; = *Cyperus triceps* Endl.), India, Andhra Pradesh, Hyderabad, Agricultural College Campus, 9.X.1969, G.K. Rao, IMI 143450, isotype H.U.V. 17970(!) (syn. by Vánky 2002: 425).

On *Cyperaceae: Bulbostylis* (*Abildgaardia, Fimbristylis*), *Cyperus* (*Kyllinga*), and *Rikliella* (*Scirpus*) spp.; Africa, E Asia.

**AFR:** *Bulbostylis hispidula* (Vahl) R. Haines (*Fimbristylis hispidula* (Vahl) Kunth), *Cyperus amabilis* Vahl, *Rikliella kernii* (Raym.) J. Rayn. (*Scirpus kernii* Raym.), **S. Africa, Togo, Zimbabwe.**

360. ***Ustanciosporium malawicum*** (Kukkonen & Gjærum) M. Piepenbr., Nova Hedwigia **70**: 342, 2000. — *Cintractia malawica* Kukkonen & Gjærum, Norw. J. Bot.

**24**: 93, 1977. — Type on *Scleria nyasensis,* Nyasaland [Malawi], Mt. Malosa, XII.1896, Mr. Whyte, IMI 59812; isotype K.
On *Cyperaceae: Scleria nyasensis* C.B. Clarke; C Africa.
**AFR:** *Scleria nyasensis,* **Malawi, Uganda.**

361. ***Ustanciosporium montagnei*** (Tul. & C. Tul.) M. Piepenbr., Begerow & Oberw., Mycologia **91**: 496, 1999. — *Ustilago montagnei* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 88, 1847. — *Microbotryum montagnei* (Tul. & C. Tul.) Lév., Ann. Sci. Nat. Bot. Sér. 3, **8**: 372, 1847. — *Cintractia montagnei* (Tul. & C. Tul.) Magnus, Verh. Bot. Vereins Prov. Brandenburg **37**: 79, 1895(1896). — Type on *Schoenus* sp. (= *Sch. laxus* Poiret, = *Rhynchospora glauca;* comp. Lindeberg 1959: 124), Algeria, La Calle, 2.VIII.1841, M.C. Durieu de Maisonneuve, PC.
*Cintractia montagnei* (Tul. & C. Tul.) Magnus var. *minor* Ling, Mycologia **42**: 508, 1950. — *Ustilago montagnei* Tul. & C. Tul. var. *minor* (Ling) B. Lindeb., Symb. Bot. Upsal. **16**: 125, 1959. — Type on *Rhynchospora alba* (L.) Vahl, Gruziya [Georgia], Caucasus, Kobuleti near Batumi [Batum], 9.IX.1917, M. Woronow, BPI. Paratype on *Rhynchospora alba,* Czech Rep., Bohemia, near Chlum, 26.VIII.1933, L. & A. Hilitzer; isoparatypes in Kavina & Hilitzer, Crypt. Cechoslov. exs. no. 114 (as *Cintractia montagnei*) H.U.V. 9425(!).
*Ustilago taubertiana* Henn., Bot. Jahrb. Syst. **17**: 525, 1893. — *Cintractia taubertiana* (P. Henn.) G.P. Clinton, J. Mycol. **8**: 142, 1902. — Type on *Rhynchospora tenuis* Willd., Brasilia, Minas Geraes, coll. Glaziou 20034, comm. Taubert. (comp. Ling 1950: 506–507).
On *Cyperaceae: Rhynchospora* spp.; cosmopolitan.
**AFR:** *Rhynchospora angolensis* Turrill, *R. barossiana* Guogl., *R. glauca* Vahl, **Algeria, S. Africa, Uganda.**

362. ***Ustanciosporium retinosporum*** (Kukkonen & Gjærum) M. Piepenbr., Nova Hedwigia **70**: 349, 2000. — *Cintractia retinospora* Kukkonen & Gjærum, Norw. J. Bot. 24: **95**, 1977. — Type on *Scleria greigiifolia*, Uganda, Bukoto, Masaka, outskirts of Jubiya Forest, alt. c. 1140 m, 25.IV.1971, K.A. Lye 5988, O; isotypes H, HBG, MHU, NPPI, H.U.V. 19978(!).
On *Cyperaceae: Scleria greigiifolia* (Ridl.) C.B. Clarke; C Africa.
**AFR:** *Scleria greigiifolia,* **Uganda.**

363. ***Ustanciosporium rhynchosporae*** Vánky, Mycotaxon **70**: 31, 1999. — Type on *Rhynchospora rugosa,* South Africa, KwaZulu-Natal Prov., Drakensberg Mts., Loteni Nature Reserve, 1 km W of the Camp site, alt. c. 1620 m, 6.I.1997, C & K. Vánky, H.U.V. 18400(!), isotypes PREM, BPI and in Vánky, Ust. exs. no. 1042.
On *Cyperaceae: Rhynchospora* spp.; C & S Africa.
**AFR:** *Rhynchospora angolensis* Turrill, *R. rugosa* (Vahl) S. Gale, **S. Africa, Uganda.**

364. ***Ustanciosporium scleriae-lithospermi*** (Thirum.) M. Piepenbr., Nova Hedwigia **70**: 352, 2000. — *Cintractia scleriae-lithospermi* Thirum., Lloydia **13**: 173, 1950. — Type on *Scleria lithosperma* (L.) Sw. var. *roxburghii* Thwaites, India, Mysore, Lakkavalli, 15.VIII.1945, M.J. Thirumalachar, HCIO 18800; isotypes BPI 172129, 195032, 195040, IMI 38396, H.U.V. 15467(!).
On *Cyperaceae: Scleria* spp.; NE Africa, S Asia.
**AFR:** *Scleria hispidula* Hochst. ex A. Rich., **Ethiopia.**

365. ***Ustanciosporium scleriicola*** (Cant.) M. Piepenbr., Nova Hedwigia **70**: 352, 2000. — *Cintractia scleriicola* Cant., Bull. Soc. Mycol. France **64**: 169, 1948. — Type on *Scleria centralis* (= *S. melanomphala*), French Equatorial Africa [Central African Republic], Yalinga, Oubangui, 20.VIII.1921, G. le Testu, PC; isotypes BPI 195041, H.U.V. 12881(!).
On *Cyperaceae: Scleria* spp.; Africa.
**AFR:** *Scleria melanomphala* Kunth (*S. centralis* Cherm.; *S. macrantha* Boeck.), *S. lagoensis* Boeck., *Scleria* sp., **Cameroon, C. African Rep., Ethiopia.**

**XLVI.** ***USTILAGO*** (Pers.) Roussel, Flore du Calvados, Ed. **2**: 47, 1806.

**Sori** in various parts of the hosts in *Poaceae,* at maturity bursting and exposing usually powdery, sometimes agglutinated, blackish or olive-brown spore mass; sterile cells absent. **Spores** single, small to medium-sized, brown, without a violet tint, usually ornamented (verruculose, echinulate, irregularly verrucose-reticulate, etc.), rarely smooth. **Spore germination** results in phragmobasidia bearing terminal and lateral basidiospores (sporidia) or infection hyphae.

Nearly 200 species of *Ustilago* are known of which 61 occur in Africa.

Type: *U. hordei.*

366. ***Ustilago acroceratis*** Vánky, Mycotaxon **78**: 293, 2001. — Type on *Acroceras macrum,* Rhodesia, Salisbury [= Zimbabwe, Harare], 17.II.1932, J.C. Hopkins (as *Ustilago rabenhorstiana*), IMI 42546(!); isotype H.U.V. 19150(!).
On *Poaceae: Acroceras macrum* Stapf; Africa.
**AFR:** *Acroceras macrum,* **Ethiopia, S. Africa, Zimbabwe.**

367. ***Ustilago aeluropodis*** (Trotter) Vánky, Publ. Herb. Ustil. Vánky **1**: 11, 1985. — *Sphacelotheca aeluropodis* Trotter, in Saccardo & Trotter, Ann. Mycol. **11**: 413, 1913 (as "*aeluropi*"). — *Crozalsiella aeluropodis* (Trotter) Maire, Bull. Soc. Hist. Nat. Afrique N. **8**: 141, 1917. — Type on *Aeluropus repens* (= *A. lagopoides*), Tripolitania (= Libya), Misurata, Bu Sceifa, in "sebkha", 15.IV.1913, A. Trotter.
*Sorosporium aeluropodis* S. Ahmad, Mycol. Pap. **64**: 10, 1956 (as "*aeluropidis*"). — Type on *Aeluropus lagopoides,* Pakistan, Karachi, 28.XII.1951, S. Ahmad 7000, IMI 57438(!) (syn. by Vánky 2004: 112).
On *Poaceae: Aeluropus* spp.; S Europe, N Africa, C & S Asia.

**AFR:** *Aeluropus lagopoides* (L.) Trin. ex Thwaites (*A. repens* (Desf.) Parl.), *A. littoralis* (Gouan) Parl., **Algeria, Libya.**

368. ***Ustilago affinis*** Ellis & Everh., in Cockerell, Bull. Torrey Bot. Club **20**: 297, 1893. — Type on *Stenotaphrum americanum* (= *S. secundatum*), Jamaica, Mandeville.

*Ustilago americana* Speg., Anales Mus. Nac. Buenos Aires, Ser. 2, **6**: 207, 1899. — Type on *Stenotaphrum glabrum* (= *S. dimidiatum*), Argentina, La Plata, II.1890, and Uruguay, near Montevideo, winter 1893, J.A. Arechavaleta (no type designated).

*Ustilago stenotaphri* Massee, Bull. Misc. Inform. **1899**: 184, 1899 (non *U. stenotaphri* McAlpine, 1895, nec *U. stenotaphri* Henn., 1898). — Type on *Stenotaphrum glabrum* (= *S. dimidiatum*), Island of Bermuda, coll. Cummins, NY(!).

On *Poaceae: Stenotaphrum* spp.; in tropics and subtropics, cosmopolitan.

**AFR:** *Stenotaphrum dimidiatum* (L.) Brongn. (*S. glabrum* Trin.), *S. secundatum* (Walt.) Kuntze (*S. americanum* Schrank), **Mauritius, Reunion, S. Africa, Uganda.**

369. ***Ustilago aldabrensis*** M. Piątek & Vánky, Mycol. Progr. **6**: 214, 2007. — Type on *Dactyloctenium ctenioides,* Africa, Seychelles, Aldabra Island, between Anse Var and settlement beach, 9.VIII.1973, R. Hnatiuk 731138, K(M) 134330(!).

On *Poaceae: Dactyloctenium ctenioides* (Steud.) Bosser; Africa. Known only from the type locality.

**AFR:** *Dactyloctenium ctenioides,* **Seychelles.**

370. ***Ustilago aschersoniana*** A.A. Fisch. Waldh., Hedwigia **18**: 12, 1879. — Type on *Festuca memphitica* (= *Cutandia memphitica*), N Africa, in the Libyan desert, small oasis, "Garten von El-Qacr", 13.IV.1876, P. Ascherson, BPI 157341.

*Ustilago cutandiae-memphiticae* Maire, Ann. Mycol. **4**: 334, 1906; Bull. Soc. Bot. France **53**: CXCVII, 1906. — Type on *Cutandia memphitica,* Algeria, Oasis of Ain-Sefra, foot of the sand dunes at the springs, 16.IV.1906, R. Maire, ?MPU; isotypes in Sydow, Ust. no. 353, H.U.V. 3251(!), Vestergren Microm. rar. sel. no. 1211, H.U.V. 3252(!) (syn. in Zundel 1953: 141, confirmed).

*Ustilago apscheronica* Uljan., Trudy Inst. Bot. (Baku) **15**: 81, 1950. — Neotype (design. by Vánky 1988: 371) on "*Scleropoa rigida* (L.) Grieseb." (= misnamed *Cutandia memphitica;* det. K. Vánky), Azerbaydzhan, near Baku, at the village SH.U.V.elyan, 21.V.1947, V.I. Uljanishchev, LEP(!), isolectotype H.U.V. 12355(!) (syn. by Vánky 1988: 371).

On *Poaceae: Cutandia memphitica* (Sprengel) K. Richter (*Festuca memphitica* (Sprengel) Coss.; *C. scleropoides* Wilk.); N Africa, Asia.

**AFR:** *Cutandia memphitica,* **Algeria, Egypt, Libya, Tunisia.**

371. ***Ustilago austroafricana*** Vánky & C. Vánky, in Vánky, Mycotaxon **73**: 138, 1999 (as "*austro-africana*"). — Type on *Enneapogon cenchroides,* Zimbabwe, Midlands Prov., 13 km SW of Zwishawane, alt. c. 950 m, 2.III.1999, C. & K. Vánky, H.U.V. 18885(!); isotypes BPI 746393, and in Vánky, Ust. exs. no. 1062. Paratype on *E. cenchroides,* South Africa, Mpumalanga Prov., Drakensberg Mts., c. 34 km NNE of Ohrigstad, alt. c. 1110 m, 22.I.1997, C. & K. Vánky, H.U.V. 18210(!); isoparatype PREM.

On *Poaceae: Enneapogon cenchroides* (Roem. & Schult.) C.E. Hubb.; S Africa.

**AFR:** *Enneapogon cenchroides,* **S. Africa, Zimbabwe.**

372. ***Ustilago avenae*** (Pers. : Pers.) Rostrup, Overs. Kongel. Danske Vidensk. Selsk. Forh. Medlemmers Arbeider **1890**: 13, 1890 (March). — *Uredo segetum* Pers. γ *avenae* Pers., Tentamen Dispositionis Methodicae Fungorum: 57, 1797. — *U. segetum* Pers. γ *Uredo avenae* Pers. : Pers., Synopsis Methodica Fungorum: 224, 1801. — *U. carbo* DC. γ *avenae* (Pers. : Pers.) DC., Fl. franç. **6**: 76, 1815. — *Erysibe vera* Wallr. γ *avenae* (Pers. : Pers.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 217, 1833. — *Ustilago segetum* var. *avenae* (Pers. : Pers.) Brunaud, Actes Soc. Linn. Bordeaux, vol. 32, Sér. 4, **2**: 163, 1878. — *U. segetum* var. *avenae* (Pers. : Pers.) J.L. Jensen, Kornsortens Brand (Anden Meddelelse), Kjøbenhavn: 61, 1888 (comb. superfl.). — *U. avenae* (Pers. : Pers.) J.L. Jensen, in Kellerman & Swingle, Annual Rep. Kans. Agr. Exp. Sta. **2**: 215, 1890 (June). — Type on *Avena* [*sativa* L.], Europe.

For synonyms such as *Erysibe vera* Wallr. δ *holci-avenacei* Wallr., *Ustilago perennans* Rostrup, *U. medians* Biedenk., *U. arrhenatheri* Ferle, *U. decipiens* ("Wallroth") Liro, *U. nigra* Tapke, *U. aegilopsidis* Picb., *U. haynaldiae* Becer., see Vánky (1994: 350).

On *Poaceae: Aegilops, Arrhenatherum, Avena, Dasypyrum* (*Haynaldia*), *Hordeum* spp.; cosmopolitan. It is not rare on cultivated oats and barley.

**AFR:** *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl, *Avena abyssinica* Hochst., *A. algeriensis* Trab., *A. barbata* Pott. ex Link, *A. byzantina* K. Koch, *A. fatua* L., *A. longissima* D.R., *A. sativa* L. (*A. orientalis* Schreb.),, *A. sterilis* L., *A. strigosa* Schreber, *Hordeum* sp., **Algeria, Angola, Egypt, Eritrea, Ethiopia, Kenya, Libya, Morocco, S. Africa, Tunisia, Zimbabwe.**

373. ***Ustilago bahuichivoensis*** Durán, Mycologia **62**: 1102, 1970. — Type on *Pennisetum pringlei* Leeke, Mexico, Chihuahua, 1 mi. E of Bahuichivo, 13.X.1969, J.F. Hennen, WSP 58559, isotype H.U.V. 14508(!).

*Ustilago beckeropsidis* Zambett., Bull. Soc. Mycol. France **95**: 406, 1980('1979') (nom. inval., no type indicated; ICBN/Vienna, Art. 37.1). — Syntypes on *Beckeropsis uniseta* (= *Pennisetum unisetum*), Congo 1913, H.J.R. Vanderyst. The holotype is probably lost, it is not in BR or in PC. Paratypes: Sierra Leone, 8.I.1951, T.S. Jones,

IMI 45383(!), and Sudan, 17.X.1952, J.K. Jackson, IMI 51127(!) (syn. by Ványky 2003: 16).

On *Poaceae: Pennisetum* spp.; Africa, N America.

**AFR:** *Pennisetum unisetum* (Nees) Benth. (*Beckeropsis uniseta* (Nees) K. Schum.), **Congo, Sierra Leone, Sudan.**

374. ***Ustilago bouriquetii*** Maubl. & Roger, in Roger, Bull. Soc. Mycol. France **50**: 327, 1934. — Type on *Stenotaphrum complanatum* (= *S. dimidiatum*), Madagascar, Nanisana, 1931, G. Bouriquet, PC(!).

*Sphacelotheca mauritiana* Zundel, Mycologia **36**: 405, 1944. — Type on *Stenotaphrum secundatum* (Walt.) Kuntze. (= misnamed *S. dimidiatum,* det. K. Ványky), Mauritius, near Reduit, about 1941, E.F.S. Shepherd, BPI 178071(!) (syn. by Ványky 1996: 107).

*Sorosporium stenotaphri* Vienn.-Bourg., Ann. Inst. Natl. Agron. **47**: 23, 1963 (nom. nov. superfl. pro *Ustilago bouriquetii*). — Type on *Stenotaphrum glabrum* (= *S. dimidiatum,* Madagascar, Tamatave Reg., Ivoloina, 24.III.1962, G. Viennot-Bourgin, PC; isotype H.U.V. 15986(!) (syn. by Ványky 1996: 107).

On *Poaceae: Stenotaphrum dimidiatum* (L.) Brongn. (*S. complanatum* Schrank; *S. glabrum* Trin.; *S. madagascariense* Kunth); S Africa.

**AFR:** *Stenotaphrum dimidiatum,* **Madagascar, Mauritius, Reunion, S. Africa.**

375. ***Ustilago bromivora*** (Tul. & C. Tul.) A.A. Fisch. Waldh., Bull. Soc. Nat. Moscow **40**: 252, 1867. — *Ustilago carbo* (DC.) Tul. & C. Tul. α *vulgaris* Tul. & C. Tul. d *bromivora* Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 81, 1847. — *Yenia bromivora* (Tul. & C. Tul.) Liou, Contr. Inst. Bot. Natl. Acad. Peiping **6**: 45, 1949. — Lectotype (design. by Lindeberg 1959: 112) on *Bromus secalinus* L., Austria, Tirol, Hoedic, F. Unger.

*Ustilago lorentziana* Thüm., Flora **63**: 30, 1880. — Type on *Hordeum compressum* Grieseb., Argentina, Quinta del Colegio, near Conception del Uruguay, XI.1876, P.G. Lorentz, H.U.V. 9123(!); isotypes in Thümen, Mycoth. univ. no. 1711, H.U.V. 3487(!).

*Cintractia patagonica* Cooke & Massee, in Cooke, Grevillea **18**: 34, 1889. — *Ustilago patagonica* (Cooke & Massee) Cif., Ann. Mycol. **26**: 32, 1928. — *U. patagonica* (Cooke & Massee) Lavrov, Trudy Tomsk. Gosud. Univ., Ser. Biol., **110**: 215, 1951 (comb. superfl.). — Type on *Bromus unioloides* (= *B. catharticus*), Argentina, N Patagonia, Bahia Blanca, G. Claraz.

*Ustilago holwayi* Dietel, Bot. Gaz. (Crawfordsville) **18**: 253, 1893. — Type on *Hordeum pratense* Hudson (= *H. secalinum* Schreber), USA, California, Camp Badgu, 3.VII.1892, E.W.D. Holway; isotypes in Sydow, Ust. no. 9, H.U.V. 3498(!).

*Ustilago hordeicola* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **12**: 289, 1909. — Type on *Hordeum jubatum* L., Argentina, N Patagonia, Río S. Cruz, III.1903.

*Ustilago brachypodii-distachyi* Maire, Bull. Soc. Hist. Nat. Afrique N. **10**: 46, 1919. — Type on *Brachypodium distachyon,* Algeria, on the rocks of Télemly, V.1917, R. Maire.

*Ustilago bromi-arvensis* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 93, 1924. — Type on *Bromus arvensis* L., Finland, Nyland, Tikkurila, obtained by artificial inoculation with spores from Denmark, T.J. Hintikka & J.I. Liro.

*Ustilago bromi-mollis* Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**(1): 94, 1924. — Type on *Bromus mollis* (= *B. hordeaceaeus*), Finland, Åland, Sottunga, Föglö, Mosshaga, 14.VII.1919, T. Putkonen.

*Ustilago jamalainenii* Liro, Ann. Acad. Sci. Fenn., Ser. A, **42**(1): 544, 1938 (nomen illeg., no Latin diagnosis), Mycotheca Fennica, Die Etiketten, no. 301–600, Helsinki: 107, 1939. — Type on *Triticum repens* L. (= *Elymus repens* (L.) Gould), Finland, Ostrobottnia australis, Ylistaro, Experiment Station, 18.VII.1933, E. Jamalainen.

*Sorosporium maroccanum* Unamuno, Mauritania **1940**: 103, 1940. — Type on *Aristida adscensionis* L. (= misnamed *Brachypodium distachyon,* det. K. Ványky), Morocco, near Axdir, at the mouth of the river Isli, 15.V.1927, P.F. Quer, MA 10964(!) (syn. by Ványky 2001: 311).

*Ustilago trachyniae* Uljan., in Karyagin & Uljanishchev, Dokl. Akad. Nauk Azerb. SSR **4**: 490, 1948. — Type on *Trachynia beludshistanica,* Beludshia Britannica [Baluchistan = Pakistan], near Mand, 8.IV.1943, V.I. Uljanishchev (type lost by fire?; syn. by Ványky 2007: 61).

*Ustilago grossheimii* Uljan., Trudy Inst. Bot. (Baku) **15**: 74, 1950. — Neotype (design. by Ványky 1988: 403) on *Bromus diandrus* Roth (*B. gussonei* Parl.; *Zerna gussonei* (Parl.) A. Grossh.; *Bromus rigidus* var. *gussonei* (Parl.) Coss.), Azerbaydzhan, near the village Pirshagi, not far from Baku, 21.VI.1936, V.I. Uljanishchev, H.U.V. 12311(!) (see also Ványky 1988: 403).

*Ustilago zernae* Uljan., Trudy Inst. Bot. (Baku) **15**: 78, 1950. — Type on *Zerna rubens* (L.) Grossh. (= *Bromus rubens*), Azerbaydzhan, near Baku, 28.V.1927, V.I Uljanishchev.

*Ustilago compacta* G.W. Fisch., Res. Stud. St. Coll. Wash. **20**: 8, 1952. — Type on *Lolium multiflorum* Lam., USA, Oregon, 1932, BPI 159673–75(!) (comp. Ványky 1992: 424).

*Sorosporium lavrovianum* Smarods, Fgi. latv. exs. no. 1308, 1956 (invalid name, label typewritten); Latv. Vals. Univ. Zināt. 49, Ser. Biol. **2**: 154, 1963. — Type on *Clinelymus sibiricus* (L.) Nevski (= *Elymus sibiricus* L.), Latvia, Stende, in experimental fields (cult.), 24.VI.1954, J. Škipsna; isotypes in Smarods, Fgi. latv. exs. no. 1308, H.U.V. 3485(!).

*Ustilago pospelovii* Uljan., Nov. Sist. Nizh. Rast. **68**: 144, 1968. — Type on *Clinelymus sibiricus* (L.) Nevski (= *Elymus sibiricus* L.), Kirgiziya, N. Tien-Shan Mts., alt. c. 3100 m, VIII.1957, I.A. Assorina, LE(!).

On *Poaceae: Agropyron, Austrofestuca, Brachypodium, Bromus* (incl. *Zerna*), *Critesion, Elymus* (incl. *Clinelymus*),

*Festuca, Hordeum, Lolium, Sitanion, Trachynia* spp.; cosmopolitan.

**AFR:** *Brachypodium distachyon* (L.) P. Beauv., *Bra. retusum* (Pers.) P. Beauv. (*Bra. ramosum* (L.) Roem. & Schult.), *Bromus brevis* Nees ex Steud., *Bro. catharticus* Vahl (*Bro. willdenowii* Kunth; *Bro. unioloides* (Willd.) Kunth), *Bro. fasciculatus* C. Presl, *Bro. hordeaceus* L. (*Bro. mollis* L.), *Bro. lanceolatus* Roth (*Bro. macrostachys* Desf.), *Bro. madritensis* L., *Bro. rigidus* Roth (*Bro. maximus* Desf.), *Bro. rubens* L., *Bro. sterilis* L., *Bro. tectorum* L., *Bromus* sp., **Algeria, Canary I., Egypt, Ethiopia, Libya, Morocco, S. Africa, Tunisia.**

Because of the lack of a critical, comparative study of this group of smut fungi, the synonyms enumerated above must be considered as tentative only. The name, *Ustilago bullata* Berk. was used by most recent mycologists in a broad sense for the floral, bullate smut of *Agropyron, Brachypodium, Bromus, Elymus, Festuca, Hordeum, Lolium,* and *Sitanion* species. Vánky (2001: 301) demonstrated that *U. bullata* (with type on *Elymus scaber* (R. Br.) Á. Löve, in New Zealand) differs specifically from the other similar smuts, for which the name *Ustilago bromivora* (Tul. & C. Tul.) A.A. Fisch. Waldh. is available.

376. ***Ustilago crameri*** Körn., Verh. Naturhist. Vereins Preuss. Rheinl. Westphalens **29**: 192, 1872; Körn., in Fuckel, Jahrb. Nassauischen Vereins Naturk. **27–28**: 11, 1873. — Type on *Setaria italica,* Switzerland, near Zürich, Strickhof, experimental field, IX.1871, C. Cramer, cultivated by F. Körnicke in Germany, Poppelsdorf near Bonn, IX.1873, H.U.V. 7297(!); isotypes in Fuckel, Fgi. rhenani exs. no. 2511, H.U.V. 9285(!); Rabenhorst, Fgi. eur. no. 1900, H.U.V. 3561(!); Thümen, Herb. myc. oecon. no. 108, H.U.V. 9284(!).

On *Poaceae: Setaria* spp.; cosmopolitan.

**AFR:** *Setaria italica* (L.) P. Beauv. (*S. germanica* P. Beauv.), **S. Africa.**

377. ***Ustilago ctenioides*** Vánky, Mycotaxon **59**: 94, 1996. — Type on *Dactyloctenium ctenioides,* Island of Reunion, St. Gilles, clearing in a *Casuarina* forest at "Hermitage", 6.VI.1974, Th. Cadet, H.U.V. 17117(!).

On *Poaceae: Dactyloctenium* spp.; S Africa.

**AFR:** *Dactyloctenium ctenioides* (Steud.) Bosser, *D. giganteum* Fischer & Schweick., **Reunion, Zambia, Zimbabwe.**

378. ***Ustilago cynodonticola*** Vánky, R.G. Shivas & A. Witt, in Vánky, Mycotaxon **89**: 58, 2004. — Type on *Cynodon dactylon,* South Africa, KwaZulu-Natal Prov., c. 30 km NE of Newcastle, alt. c. 1270 m, 23.XII.2002, R.G. Shivas, A. Witt & K. Vánky, H.U.V. 20150; isotypes in PREM, BRIP 39698 and in Vánky, Ust. exs. no. 1190. Paratypes on *Cynodon bradleyi,* South Africa, Transvaal, Ermelo, 2.III.1927, M. Henrici, PREM 21111, H.U.V. 20269; *Cynodon dactylon,* South Africa, Cape Prov., Somerset-East, 1877, coll. P. MacOwan, H.U.V. 3577(!); isoparatypes in Thümen, Mycoth. univ. no. 1418 (as *Ustilago carbo*); North-Western Prov., Pretoria, Botanical Garden, alt. c. 1735 m, 7.XII.2002, coll. R.G. Shivas & K. Vánky, BRIP 39697, H.U.V. 20151, PREM; *Cynodon incompletus,* South Africa, Eastern Cape Prov., c. 30 km S of Alice, Doubledrift Nature Reserve, alt. c. 540 m, 15.XII.2002, coll. R.G. Shivas, A. Witt & K. Vánky, BRIP 39700, H.U.V. 20153, PREM.

On *Poaceae: Cynodon* spp.; S Africa.

**AFR:** *Cynodon bradleyi* Stent, *C. dactylon* (L.) Pers., and *C. incompletus* Nees, **S. Africa.**

379. ***Ustilago cynodontis*** (Henn.) Henn., Bull. Herb. Boissier **1**: 114, 1893. — *U. segetum* ("Bulliard") Ditmar var. *cynodontis* Henn., Bot. Jahrb. Syst. **14**: 369, 1892. — Type on *Cynodon dactylon*, Abyssinia [Ethiopia], Eritrea, "Amba" [= mount] near Gheleb, alt. c. 2200 m, 13.IV.1891, G. Schweinfurth.

*Ustilago carbo* (DC.) Tul. & C. Tul. [var.] *cynodontis* Pass., in Erb. Critt. Ital., Ser. 2, no. 450, 1871. — *U. cynodontis* (Pass.) Curzi, in Curzi & Barbaini, Atti Ist. Bot. Univ. Pavia, Ser. 3, **3**: 153, 1927 (later homonym, not (Henn.) Henn.). — Type on *Cynodon dactylon,* Italy, Parma, IX.1870, G. Passerini; isotypes in Erb. Critt. Ital., Ser. 2, no. 450, H.U.V. 7298(!).

*Sporisorium agropyri* Bag & D.K. Agarwal, Indian Phytopathol. **54**: 219, 2001. — Type on "*Agropyron strigosum* L." (= misnamed *Cynodon dactylon,* det. K. Vánky 2004: 113), India, W Bengal, Kalimpong, IV.1999, M.K. Bag, HCIO 43167; isotype H.U.V. 20277(!) (syn. by Vánky 2004: 113).

On *Poaceae: Cynodon* spp., especially on its principal host, *C. dactylon* (L.) Pers.; cosmopolitan.

**AFR:** *Cynodon aethiopicus* Clayton & Harlan, *C. dactylon* (*C. glabratus* Steud.), *C. incompletus* Nees (*C. hirsutus* Stent), *C. nlemfuensis* Vanderyst, *C. plectostachyus* (K. Schum.) Pilger, **Algeria, Angola, Canary I., Egypt, Eritrea, Ethiopia, Kenya, Liberia, Libya, Madagascar, Madeira, Malawi, Morocco, Mozambique, Nigeria, S. Africa, Sudan, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.**

380. ***Ustilago dactyloctenii*** Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 48, 1895. — Type on *Dactyloctenium aegyptium,* coll. Stuhlmann, BPI 194463(!).

*Ustilago ehrhartana* Zundel. Mycologia **35**: 164, 1943. — Type on *Ehrharta erecta* Louv. var. *natalensis* Stapf (= misnamed *Dactyloctenium* cf. *australe,* det. K. Vánky 2005: 263), South Africa, Natal, Ingwavuma Distr., 29.XI.1938, O. West 915, PREM 30501; isotype H.U.V. 18190(!) (syn. by Vánky 2005: 263).

On *Poaceae: Dactyloctenium* spp.; Africa.

**AFR:** *Dactyloctenium aegyptium* (L.) P. Beauv., *D. australe* Steud., *D. geminatum* Hack., *Dactyloctenium* sp., **Kenya, Mozambique, S. Africa, Tanzania, Zanzibar.**

381. ***Ustilago dactyloctenii-gigantei*** Vánky, Mycotaxon **81**: 387, 2002. — Type on *Dactyloctenium giganteum,* Zimbabwe, Matabeleland North Prov., 227 km NW of Bulawayo, Gwayi River, alt. c. 1000 m, 5.III.1999, C. & K. Vánky, H.U.V. 19492(!). Paratypes: Matabeleland North Prov., Hwange National Park, Shumba Picnic Area, alt. c. 1100 m, 7.III.1999, C. & K. Vánky, H.U.V. 19493(!); Matabeleland North Prov., 86 km NNE of Kamativi, alt. c. 800 m, 18.III.1999, C. & K. Vánky, H.U.V. 19494(!).

On *Poaceae: Dactyloctenium giganteum* Fisher & Schweick; S Africa.

**AFR:** *Dactyloctenium giganteum,* **Zimbabwe.**

382. ***Ustilago dactylocteniophila*** Henn., Hedwigia Beibl. **38**: (66), 1899. — Type on *Dactyloctenium mucronatum* Willd. (= *D. aegyptium*), Brazil, Rio de Janeiro, Museumspark, III.1895, E. Ule 1064, B, HBG 12062; isotypes in Rabenhorst, Fgi. eur. no. 4205, H.U.V. 3603(!).

On *Poaceae: Dactyloctenium aegyptium* (L.) P. Beauv.; Africa, S America.

**AFR:** *Dactyloctenium aegyptium,* **Ghana, Nigeria.**

383. ***Ustilago davisii*** Liro, Ann. Acad. Sci. Fenn., Ser. A, **17**: 80, 1924. — *Ustilago longissima* (Sow. ex Schltdl.) Meyen var. *macrospora* Davis, in Ellis & Everhart, N. Amer. fgi. no. 3235, 1895 (nom. nud.); J.J. Davis, 1897(1898): 174; non *U. macrospora* Desmazières, 1851; nec *U. macrospora* Farl., 1887. — Type on *Glyceria "fluitans"* (= misnamed *G. septentrionalis* Hitchc., det. Lindeberg 1959: 122), USA, Wisconsin, Racine, VII.1894, J.J. Davis; isotypes in Ellis & Everhart, N. Amer. fgi. no. 3235, H.U.V. 9313(!).

On *Poaceae: Glyceria* spp.; Europe, N Africa, E Asia, Australia, N America.

**AFR:** *Glyceria fluitans* (L.) R.Br., *G. plicata* (Fr.) Fr., **Morocco.**

384. ***Ustilago deformis*** L. Ling, Sydowia **7**: 152, 1953. — Type on *Sporobolus patulus* (= *S. paniculatus*), Sierra Leone, summit of Picket Hill, 18.XI.1951, T.S. Jones, IMI 48887; isotypes BPI 195248, H.U.V. 17416(!).

On *Poaceae: Sporobolus* spp.; Africa, S Asia.

**AFR:** *Sporobolus paniculatus* (Trin.) Th. Dur. & Schinz (*S. patulus* Hack.), **Sierra Leone.**

385. ***Ustilago delicata*** L. Ling, Sydowia **7**: 153, 1953 (as "*delicatus*"). — Type on *Tricholaena delicatula* Stapf & C.E. Hubb. (= misnamed *Melinis nerviglumis,* det. K. Vánky, confirmed by L. Pauwels, BR), Congo, Gungu Prov., Nyungu, I.1914, H. Vanderyst 3230, BR 1313(!) (as *Ustilago tricholaena* Henn. var. *congoensis* Beeli, nom. herb.); isotype BPI 168337. Paratype on *Tricholaena delicatula* (= misnamed *Melinis repens*, det. K. Vánky; or perhaps *M. nerviglumis,* det. L. Pauwels, BR), Congo, Gungu Prov., Taka, I.1914, H. Vanderyst 3382, BR 1314(!).

On *Poaceae: Melinis* (*Rhynchelytrum*); C Africa.

**AFR:** *Melinis ambigua* Hack., *M. nerviglumis* (Franch.) Zizka (*Rhynchelytrum nerviglume* (Franch.) Chiov.; *Tricholaena congoensis* Franch.), *Melinis repens* (Willd.) Zizka, **Congo, Malawi.**

386. ***Ustilago drakensbergiana*** Vánky, Mycotaxon **70**: 24, 1999. — Type on *Digitaria tricholaenoides,* South Africa, KwaZulu-Natal Prov., Drakensberg Mts., Cobham Nature Reserve, near Camp site, alt. c. 1620 m, 7.I.1997, C. & K. Vánky, H.U.V. 18456(!); isotypes PREM and in Vánky, Ust. exs. no. 1046.

On *Poaceae: Digitaria tricholaenoides* Stapf; Africa. Known only from the type collection on this endemic host plant.

**AFR:** *Digitaria tricholaenoides,* **S. Africa.**

387. ***Ustilago dregeana*** Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 83, 1847. — Type on "Gramen morbosum" (= *Danthonia* s. lat., det. K. Vánky), South Africa, Western Cape Prov., Cape of Good Hope, coll. Drege 9467, PC(!).

On *Poaceae: Pentaschistis, Pseudopentameris,* and *Danthonia* s. lat.; S Africa.

**AFR:** *Pentaschistis curvifolia* (Schrad.) Stapf (*Danthonia curvifolia* Schrad.), *Pseudopentameris macrantha* (Schrad.) Conert (*Danthonia macrantha* Schrad.), and *Danthonia* s. lat. sp., **S. Africa.**

The host plant of the type of *Ustilago dregeana* is neither *Cynodon dactylon* (L.) Pers., nor *Eragrostis porosa* Nees, as was given in the literature, but it is a *Danthonia* s. lat. (comp. Vánky 1997: 155).

388. ***Ustilago dregeanoides*** Vánky & C. Vánky, in Vánky, Mycotaxon **65**: 177, 1997. — Type on *Merxmuellera stricta* (*Danthonia stricta*), South Africa, Western Cape Prov., 13 km SE of Stellenbosch, Jonkershoek Mts., Boland Trail, near Kleinplaas Dam, alt c. 360 m, 6.XII.1996, C. & K. Vánky, H.U.V. 18050(!); isotypes PREM, BPI and in Vánky, Ust. exs. no. 1048.

On *Poaceae: Merxmuellera stricta* (Schrad.) Conert (*Danthonia stricta* Schrad.); S Africa. Known only from the type collection.

**AFR:** *Merxmuellera stricta,* **S. Africa.**

389. ***Ustilago elegans*** Griffiths, Bull. Torrey Bot. Club **29**: 292, 1902. — Type on *Chloris elegans* (= *C. virgata*), USA, Arizona, Cochise, X.1900, D. Griffiths, BPI 160338(!); isotypes in Griff., W. Amer. fgi. no. 309, H.U.V. 19955(!).

*Ustilago liebenbergii* Zundel, Mycologia **35**: 165, 1943. — Type on *Chloris virgata,* South Africa, Transvaal, Wolmaransstad Distr., Vlakfontein, VII.1932, L.C.C. Liebenberg, PREM 26412 & 24412; isotypes BPI 162512, H.U.V. 15374(!) (syn. by Vánky 2006: 36).

On *Poaceae: Chloris* spp.; S Africa, N America.

**AFR:** *Chloris virgata* Sw. (*C. elegans* H.B.K.), **S. Africa.**

390. ***Ustilago eleusinis*** Kulk., Ann. Appl. Biol. (India) **9**: 184, 1922. — *Melanopsichium eleusinis* (Kulk.) Mundk. & Thirum., Mycol. Pap. **16**: 1, 1946. — Type on *Eleusine coracana,* India, Bombay Presidency [Maharshtra State], Kolhapur State, Malkapur, X.1918, G.S. Kulkarni, HCIO 100093; isotypes IARI, IMI. Topotype: 26.X.1920, HCIO 22662, H.U.V. 17336(!).

*Ustilago pavginensis* Gandhe, Smuts of Maharashtra. Doctoral Thesis, University of Poona: 34, 1978 (invalidly published, typewritten; ICBN Art. 29). — On *Eleusine coracana,* India, Maharashtra State, Kolhapur, 15.X.1976, V.A. Kambale, HCIO 33480; H.U.V. 17545(!) (syn. by Vánky 2007: 27).

On *Poaceae: Coelachyrum* and *Eleusine* spp.; Africa, Asia.

**AFR:** *Eleusine coracana* (L.) Gaertn., *Eleusine* sp., **Kenya, Sudan.**

391. ***Ustilago fingerhuthiae*** Syd., Ann. Mycol. **33**: 230, 1935. — Type on *Fingerhuthia africana,* South Africa, Transvaal, Pretoria, 31.I.1911, PREM 1085; isotype H.U.V. 18195(!).

On *Poaceae: Fingerhuthia africana* Lehm.; S. Africa.

**AFR:** *Fingerhuthia africana,* **S. Africa.**

392. ***Ustilago gabonensis*** Vánky, Mycotaxon **95**: 39, 2006. — Type on *Phacelurus gabonensis,* Gabon, Moyen Ogooué, Ndjolé, c. 100 km SW of Libreville, 10.I.1972, M.G. Gilles, H.U.V. 20999(!).

On *Poaceae: Phacelurus gabonensis* (Steud.) Clayton (*Jardinea gabonensis* Steud.; *Rhytachne gabonensis* (Steud.) Hack.); Africa. Known only from the type locality.

**AFR:** *Phacelurus gabonensis,* **Gabon.**

393. ***Ustilago hitchcockiana*** Zundel, Mycologia **29**: 585, 1937. — Type on *Cynodon dactylon,* Kenya, Nairobi, 26.IX.1929, A.S. Hitchcock 25142, BPI 160889; isotype BPI 188935.

On *Poaceae: Cynodon* spp.; E Africa.

**AFR:** *Cynodon dactylon* (L.) Pers., *C. nlemfuensis* Vanderyst, and its var. *robustus* Clayton & Harlan, *C. plectostachyus* (K. Schum.) Pilger, **Kenya, Tanzania.**

394. ***Ustilago hordei*** (Pers. : Pers.) Lagerh., Mitt. Bad. Bot. Vereins **1889**: 70, 1889 (March) (as "*Ustilago hordei* (Rabenhorst)")( nom. cons.); not *Ustilago hordei* Bref., 1888: 1593, q.e. *U. tritici*, and nomen ambiguum (see *U. tritici*). — *Uredo segetum* Pers. α *hordei* Pers., Tentamen Dispositionis Methodicae Fungorum: 57, 1797. — *U. segetum* Pers. α *Uredo hordei* Pers. : Pers., Synopsis Methodica Fungorum: 224, 1801. — *U. carbo* DC. α *hordei* (Pers. : Pers.) DC., Fl. franç. **6**: 76, 1815. — *Erysibe vera* α *hordei* (Pers. : Pers.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 217, 1833. — *Ustilago segetum* (Pers.) Roussel var. *hordei* (Pers. : Pers.) Rabenh., Herbarium vivum mycologicum, ed. 2, no. 397, 1856. — *U. segetum* (Pers.) Roussel var. *hordei* (Pers. : Pers.) Brunaud, Actes de la Société Linnéenne de Bordeaux, Vol. 32, Ser. 4, **2**: 163, 1878 (comb. superfl.). — Type on *Hordeum* [*distichon* vel *vulgare*], Europe.

For synonyms such as *Reticularia segetum* Bull., *Ustilago segetum* (Pers.) Roussel var. *hordei, U. avenae* (Pers. : Pers.) Rostrup var. *levis* Kellerman & Swingle, *U. kolleri* Wille, *U. dura* Appel & Gassner, *U. arrhenatheri* Schellenb., *U. rostrupii* Kitunen, see Vánky (1994: 360).

On *Poaceae: Agropyron, Arrhenatherum, Avena, Bromus, Elymus, Hordeum, Secale, Sitanion;* cosmopolitan.

**AFR:** *Avena algeriensis* Trab., *A. sativa* L., *A. sterilis* L., *Hordeum distichon* L., *H. vulgare* L. (*H. hexastichum* L.), **Algeria, Egypt, Ethiopia, Eritrea, Malawi, Morocco, S. Africa, Tunisia, Zimbabwe.**

The name *Ustilago hordei* (Pers. : Pers.) Lagerh. (1889: 70) is a later homonym of *U. hordei* Bref. (1888: 1593), which is a different fungus, *U. tritici.* The valid name of this smut would be *Ustilago jensenii* Rostrup (1890: 12; comp. also Nannfeldt, in Lindeberg 1959: 159). The well-known binomial *U. hordei* is conserved (ICBN/Vienna: 435).

395. ***Ustilago induta*** Syd., Ann. Mycol. **37**: 199, 1939. — Type on *Chloris breviseta,* Sierra Leone, Njala, 12.XI.1930, F.C. Deighton 311, IMI 43068(!), BPI 162017(!).

*Sorosporium chloridicola* Beeli, Bull. Jard. Bot. État **8**: 7, 1922 (not *Ustilago chloridicola* Henn. 1898). — Type on *Chloris polydactyla* (L.) Sw. (= misidentified *Chloris virgata,* det. J. Bosser, BR), Congo, Kinshasa, 1.VI.1916, H. Vanderyst, BR 1328(!); isotype BPI 195122(!) (syn. by Vánky 2006: 36).

On *Poaceae: Chloris* spp.; C & W Africa.

**AFR:** *Chloris breviseta* Benth., *C. virgata* Sw., **Congo, Sierra Leone.**

Spore balls in *Sorosporium chloridicola*, reported by Beeli (1922: 7), are results of insect work.

396. ***Ustilago jardineae*** (Zambett.) Vánky, Mycotaxon **95**: 39, 2006. — *Cintractia jardineae* Zambett., Bull. Soc. Mycol. France **95**: 408, 1980('1979'). — Type on *Jardinea gabonensis* (= *Phacelurus gabonensis*), Congo, "Mission Congo Belge" (no further data), BR 258 (lost).

On *Poaceae: Phacelurus gabonensis* (Steud.) Clayton (*Rhytachne gabonensis* (Steud.) Hack.; *Jardinea gabonensis* Steud.); Africa. Known only from the type locality.

**AFR:** *Phacelurus gabonensis,* **Congo.**

397. ***Ustilago kamerunensis*** Syd. & P. Syd., Bot. Jahrb. Syst. **45**: 262, 1911. — Type on *Pennisetum* sp., Cameroon, Djutitsa's, XII.1908, Ledermann.

On *Poaceae: Pennisetum* spp.; Africa.

**AFR:** *Pennisetum purpureum* Schumacher (*P. benthamii* Steud.), *Pennisetum* sp., **Cameroon, Congo, Kenya, Rwanda, Uganda.**

398. ***Ustilago lolii*** Magnus, Hedwigia **49**: 93, 1909. — Type on *Lolium temulentum,* Egypt, Alexandria, 13.IV.1908, J. Bornmüller, HBG.

On *Poaceae: Lolium temulentum* L.; N Africa, Asia, N America.

**AFR:** *Lolium temulentum,* **Egypt.**

399. ***Ustilago mauritiana*** Vánky, Mycotaxon **81**: 420, 2002. — Type on *Phragmites mauritianus,* Zambia, Lusaka Prov., 186 km ENE of Lusaka, alt. c. 770 m, 27.IV.2001, C. & K. Vánky, H.U.V. 19641(!); isotypes in Vánky, Ust. exs. no. 1129. Paratype: Zambia, Southern Prov., 125 km SE of Kafue, alt. c. 870 m, 30.IV.2001, C. & K. Vánky, H.U.V. 19642(!).

On *Poaceae: Phragmites mauritianus* Kunth; C Africa. Known only from the type collections.

**AFR:** *Phragmites mauritianus,* **Zambia.**

400. ***Ustilago maydis*** (DC.) Corda, Icones Fungorum Hucusque Cognitorum **5**: 3, 1842. — *Uredo maydis* DC., Fl. franç. **6**: 77, 1815. — *Erysibe maydis* (DC.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 215, 1833. — *Mycosarcoma maydis* (DC.) Bref., Unters. Gesammtgeb. Mykol. **15**: 53, 1912. — Type on *Zea mays,* France.

For synonyms, such as *Lycoperdon zeae* Beckm., *Uredo segetum* Pers. δ *mays-zeae* DC., *Uredo* [subgen.] *Ustilago zeae* Schwein., *Caeoma zeae* Link, and *Ustilago euchlaenae* Arcang., see Vánky (1994: 366).

On *Poaceae: Euchlaena* and *Zea;* cosmopolitan.

**AFR:** *Zea mays* L. (cult.), **Angola, Cameroon, Canary I., Egypt, Eritrea, Ivory Coast, Libya, Malawi, Morocco, S. Africa, Uganda.**

401. ***Ustilago microchloae*** Syd., P. Syd. & Butler, Ann. Mycol. **4**: 427, 1906. — Type on *Microchloa setacea* (= *M. indica*), India, Mysore, Bilikere, 15.IX.1903, E.J. Butler 445, HCIO 445; isotype H.U.V. 16452(!).

On *Poaceae: Microchloa indica* (L. fil.) P. Beauv. (*M. setacea* R. Br.); C Africa, S Asia.

**AFR:** *Microchloa indica,* **Ghana, Ivory Coast, Senegal, Togo.**

402. ***Ustilago monermae*** Maire, Bull. Soc. Hist. Nat. Afrique N. **12**: 191, 1921. — Type on *Monerma cylindrica* (= *Hainardia cylindrica*), Numidia [= Algeria], Constantine, Djebel–Ouach, 24.VI.1920, R. Maire, MPU, Herb. Maire 7160(!).

*Ustilago nagornyi* Uljan., Trudy Inst. Bot. (Baku) **15**: 82, 1950. — Lectotype (design. by Vánky 1991: 162) on *Lepturus incurvus* (= *Parapholis incurva*) Azerbaydzhan, Shirvan Prov., delta of the Kura River at the Caspian Sea, 11.V.1948, I. Shipanova, BAK(!) (syn. by Vánky 1991: 162).

On *Poaceae: Hainardia, Lepturus, Monerma, Parapholis* spp.; N Africa, Asia.

**AFR:** *Hainardia cylindrica* (Willd.) W. Greuter (*Monerma cylindrica* (Willd.) Coss. & Durieu; *Lepturus cylindricus* (Willd.) Trin.), *Parapholis incurva* (L.) C.E. Hubb. (*Lepturus incurvus* (L.) Druce.), **Algeria, Libya.**

403. ***Ustilago nuda*** (J.L. Jensen) Kellerman & Swingle, An. Rep. Kans. Agr. Exp. Sta. **2**: 277, 1890 (June). — *U. segetum* (Pers.) Roussel var. *hordei* (as "*Hordii*") Rostrup & J.L. Jensen f. *nuda* J.L. Jensen, Kornsortens Brand (Anden Meddelelse), Kjøbenhavn: 61, 1888 (nom. nud.). — *U. nuda* (J.L. Jensen) Rostrup, Tidsskr. Landoekon., Ser. 5, **8**: 745, 1889. — Type on *Hordeum,* Denmark.

*Ustilago nuda* (J.L. Jensen) Kellerman & Swingle var. *foliicola* Trotter, in Saccardo & Trotter, Ann. Mycol. **11**: 415, 1913. — Type on *Hordeum vulgare,* Tripolitania [Libya].

On *Poaceae: Avena* and *Hordeum* spp., artificially also on *Agropyron* (comp. Nielsen 1978); cosmopolitan.

**AFR:** *Avena sativa* L., *Hordeum vulgare* L. (*H. hexastichum* L.), **Egypt, Ethiopia, Libya, Morocco, S. Africa, Zimbabwe.**

404. ***Ustilago operta*** Syd., P. Syd. & Butler, Ann. Mycol. **4**: 426, 1906. — *Sphacelotheca operta* (Syd., P. Syd. & Butler) Zundel, Ustil. World: 187, 1953. — Type on *Panicum villosum* Lamk. (= *Brachiaria villosa* (Lamk.) A. Camus), India, Coimbatore, Mts. Nilgiri Hills, Ootacamund [= Ooty], 1.X.1901, C.A. Barber, HCIO 448; isotype H.U.V. 16454(!).

On *Poaceae: Brachiaria* spp.; N Africa, S Asia.

**AFR:** *Brachiaria obtusiflora* (Hochst. ex A. Rich.) Stapf, **Sudan.**

405. ***Ustilago pappophori*** Pat., Bull. Soc. Mycol. France **22**: 199, 1906. — *Sphacelotheca pappophori* (Pat.) Zundel, Bothalia **3**: 300, 1938; also in Ustil. World: 104, 1953. — Type on *Pappophorum scabrum,* Algeria, oasis Adrar between In-Salah and Ahaggar, 1905, R. Chudeau, FH; isotype BPI 165184(!).

*Ustilago pappophori* Pat. var. *magdalensis* Hirschh., Darwinia **3**: 398, 1939. — *Ustilago magdalensis* (Hirschh.) Hirschh., Anales Soc. Ci. Argent. **133**: 217, 1942. — Type on *Pappophorum subbulbosum* Arech. (= *P. mucronulatum* Nees), Argentina, Buenos Aires, Magdalena, XI.1935, E. Hirschhorn, Herb. Spegazzini, LPS 3073 (n.v.) (syn. by Zundel 1953: 104, and Hirschhorn 1986: 131).

*Ustilago pappophori* Syd., Ann. Mycol. **24**: 265, 1926 (later homonym, not *Ustilago pappophori* Pat., 1906). — Type on *Pappophorum scabrum,* South Africa, Klein Karas, 11.XI.1923, Dinter (syn. by Zundel 1953: 104).

On *Poaceae: Enneapogon* and *Pappophorum* spp.; Africa, S Asia, S America.

**AFR:** *Enneapogon desvauxii* P. Beauv. (*E. brachystachyus* (Jaub. & Spach) Stapf; *Pappophorum wrightii* S. Wats.), *Pappophorum scabrum* Kunth (*Enneapogon scaber* Lehm.), **Algeria, Chad, Tunisia, S. Africa.**

406. ***Ustilago penniseti-purpurei*** Vánky, Mycotaxon **95**: 44, 2006. — Type on *Pennisetum purpureum,* Congo, c. 100 km S of Léopoldville [= Kinshasa], Kisantu, 8.V.1913, H. Vanderyst 376, BR; isotype H.U.V. 21039(!).

On *Poaceae: Pennisetum purpureum* Schumach. (*P. benthamii* Steud.); C Africa. Known only from the type collection.

**AFR:** *Pennisetum purpureum,* **Congo.**

407. ***Ustilago pentaschistidis*** Vánky, Mycotaxon **95**: 42, 2006. — Type on *Pentaschistis pallida,* South Africa, Western Cape Prov., Cederberg Mts., Driehoek, alt. 915 m, 12.X.2004, R. Berndt, PREM; isotype H.U.V. 20880(!).

On *Poaceae: Pentaschistis pallida* (Thunb.) Linder; S Africa. Known only from the type collection.

**AFR:** *Pentaschistis pallida,* **S Africa.**

408. ***Ustilago phrygica*** Magnus, Bull. Herb. Boissier **3**: 574, 1903. — Type on *Elymus crinitus* (= *Taeniatherum caput-medusae*), Turkey, Anatolia [ancient Phrygia], Sultandagh Mt., near Akscheher [Wilajet Konia], alt. c. 1500 m, VI.1899, J. Bornmüller 2057, HBG.

*Ustilago hordei-criniti* Barbarin, in Zaprometov, Materialy po mikoflore Srednei Azii **2**: 21, 1928. — Type on *Hordeum crinitum* (Schreber) Desf. (= *Taeniatherum caput-medusae*), Central Asia, Kazakhstan, Turkestan city, 1912, I. Barbarin; as well as further 3 collections (no type designated) (syn. by Nielsen 1992: 581).

*Ustilago tuberculata* Golovin, Bot. Mater. Otd. Sporov. Rast. Bot. Inst. Komarova Akad. Nauk SSSR **8**: 107, 1952. — Type on *Aegilops cylindrica* Host, Uzbekistan, Pachtalyk-kul near Namangan, 5.VI.1925, and on *Aegilops squarrosa* L., Uzbekistan, Moujan sovchos, 8.V.1941, P.N. Golovin (no type designated) (syn. by Nielsen 1992: 581).

*Ustilago mesatlantica* Malençon & Massenot, in Guyot, Malençon & Massenot, Rev. Mycol. (Paris) **34**: 214, 1969. — Type on *Aegilops* ?*triuncialis,* Morocco, Moyen Atlas Mts., Afennourir near Aïn Kahla, alt. c. 2000 m, 22.VIII.1962, G. Malençon (syn. by Nielsen 1992: 581).

On *Poaceae: Aegilops* and *Taeniatherum* (artificially also on some *Agropyron, Elymus,* and *Hordeum* spp.); S Europe, N Africa, Asia.

**AFR:** *Aegilops* ?*triuncialis* L., *Taeniatherum caput-medusae* (L.) Nevski (*Elymus caput-medusae* L.; *E. crinitus* Schreber), **Morocco.**

409. ***Ustilago rickeri*** G.P. Clinton, North American Flora **7**: 11, 1906 (as "*rickerii*"). — Type on *Panicum paspalodes* (=*Setaria geminata*), Cuba, Batabano, 13-20.III.1906, A.S. Hitchcock, comm. P.L. Ricker, BPI 166090(!); isotype BPI 166091(!).

*Ustilago panici-geminati* Viégas, Bragantia **4**: 745, 1944.1. — Type on *Panicum geminatum* (= *Setaria geminata*), Brazil, Prov. Paríba, Alagoínha, Exp. Sta. Alagoínha, III.1940, J. Deslandes 6881, IACM; isotypes HCIO 11660(!), H.U.V. 15422(!).

*Ustilago paspalidicola* Zambett., in Travaux dédiés à Viennot-Bourgin: 416, 1977 (invalidly published, no type indicated; ICBN 37.1). — On *Paspalidium geminatum* (= *Setaria geminata*), Senegal, Dakar, 25.IV.1971, coll. Miege (not found in PC; identified with help of the description and the beautiful illustration of the sori).

On *Poaceae: Setaria geminata* (Fosk.) Valdkamp (*Paspalidium geminatum* (Forssk.) Stapf; *Panicum geminatum* Forssk.; *Panicum paspalodes* Pers.); Africa, S Asia, S America, Antilles.

**AFR:** *Setaria geminata,* **Senegal.**

410. ***Ustilago schlechteri*** Henn., Hedwigia **34**: 325, 1895. — Type on *Sporobolus* sp. (= misnamed *Enneapogon* cf. *scoparius,* det. K. Vánky), South Africa, Transvaal, Naboomfontein, alt. c. 4300 ft., 23.V.1895, R. Schlechter. Type destroyed in Berlin, 1943. Neotype (designated by Vánky 2003: 232) collected in 1894 by Schlechter (= topotype), BPI 166237(!).

On *Poaceae: Enneapogon scoparius* Stapf; S Africa.

**AFR:** *Enneapogon scoparius,* **S. Africa.**

411. ***Ustilago schmidtiae*** Vánky, Mycotaxon **62**: 135, 1997. — Type on *Schmidtia pappophoroides,* Africa, Kenya, Makueni, alt. c. 3500 feet, I.1960, coll. A.V. Bogdan, H.U.V. 17383(!); isotypes Herb. Dept. Agric., Nairobi 3150, IMI 82029.

On *Poaceae: Enneapogon* and *Schmidtia* spp.; C Africa, Australasia.

**AFR:** *Schmidtia pappophoroides* Steud. ex J.A. Schmidt, **Kenya.**

412. ***Ustilago schoenefeldiae*** Vánky, Mycotaxon **65**: 179, 1997. — Type on *Schoenefeldia gracilis,* Chad, c. 50 km N of Abéché, 30 km S of Biltine, 9.X.1935, M. Murat 26, H.U.V. 11605.

On *Poaceae: Schoenefeldia gracilis* Kunth; C Africa. Known only from the type collection.

**AFR:** *Schoenefeldia gracilis,* **Chad.**

413. ***Ustilago scitaminea*** Syd., Ann. Mycol. **22**: 281, 1924 (nom. cons. prop.). — *Sporisorium scitamineum* (Syd.) M. Piepenbr., M. Stoll & Oberw., Mycol. Progr. **1**: 75, 2002. — Lectotype (design. by Vánky 1991: 492) on *Saccharum officinarum,* E India, Bhagalpur, Bengal, 26.VIII.1907, E.J. Butler, H.U.V. 4454(!); isotypes in Sydow, Ust. no. 384 (as *Ustilago sacchari*). Syntypes: Java, Djatibarang, 1898, M. Raciborski, in Sydow, Ust. no. 406 (as *Ustilago sacchari*), H.U.V. 4455(!); E India, Pusa, 20.II.1913, E.J. Butler, in Sydow, Fgi. exot. exs. no. 119 (as *Ustilago sacchari*), H.U.V. 4456(!).

*Ustilago amadelpha* Syd., P. Syd. & Butler, Ann. Mycol. **10**: 249, 1912 (nom. rejic. prop.). — Type on "*Andropogon* sp." = misnamed *Saccharum* sp., India, Bengal, Muzaffarpur Distr., Awapur, 15.IV.1911, E.J. Butler 1425, HCIO

1425; isotype H.U.V. 16373(!) (syn. by Vánky 2004: 114).

*Sphacelotheca miscanthi* W.Y. Yen, Contr. Inst. Bot. Natl. Acad. Peiping **4**: 193, 1937. — *Sporisorium miscanthi* (W.Y. Yen) L. Guo, Mycosystema **3**: 82, 1990. — Type on *Miscanthus anomalus* Steud., China, Shan-tung Prov., Island of Yang-matao, Chefoo, 22.V.1935, T.N. Liou 8410 (syn. by Wang 1963: 59, confirmed).

*Ustilago scitaminea* Syd. var. *sacchari-barberi* Mundk., Kew Bull. **10**: 529, 1939. — Type on *Saccharum barberi* Jeswiet, India, Rajasthan State, Partabgarh, 11.III.1934, B.B. Mundkur, HCIO(!), IMI (syn. by Vánky 2000: 159).

*Ustilago scitaminea* Syd. var. *sacchari-officinarum* Mundk., Kew Bull. **10**: 530, 1939. — Type on *Saccharum officinarum,* Philippines, Los Baños, 27.II.1917, O.A. Reinking, BPI 60442(!) (syn. by Vánky 2000: 159).

On *Poaceae: Imperata, Miscanthus, Saccharum* (*Erianthus*) spp.; almost in all tropical and subtropical countries where sugarcane is cultivated.

**AFR:** *Saccharum giganteum* (Walt.) Pers. (*Erianthus giganteus* (Walt.) Muhl.; *E. saccharoides* Michaux), *S. officinarum* L. (sugarcane), **Mauritius, S. Africa, Zimbabwe.**

414. ***Ustilago sladenii*** Pole-Evans, Ann. Bolus Herb. **1**: 115, 1915. — Type on ?*Ehrharta* sp., South Africa, Western Cape Prov., Garies, 1910–1911, H.H.W. Pearson 6728, PREM 8409; isotype H.U.V. 18249(!).

On *Poaceae: Ehrharta* sp.; S Africa.

**AFR:** *Ehrharta calycina* Sm., *Ehrharta* sp., **S. Africa.**

415. ***Ustilago sparsa*** Undrew., Bull. Torrey Bot. Club **24**: 86, 1897. — Type on *Dactyloctenium aegyptium,* USA, Alabama, Auburn, XI.1895, L.M. Underwood & F. Earle, BPI 166545; isotypes in Ravenel, Fgi. Amer. no. 790.

On *Poaceae: Dactyloctenium* spp.; Africa, Asia, Australia, N America.

**AFR:** *Dactyloctenium aegyptium* (L.) P. Beauv., *D. giganteum* Fischer & Schweick., **Gambia, S. Africa, Zimbabwe.**

416. ***Ustilago sporoboli-indici*** L. Ling, Mycol. Pap. **11**: 7, 1945. — Type on *Sporobolus indicus,* China, Szechwan Prov., Chengtu, 12.IX.1940, L. Ling, IMI 501; isotype H.U.V. 14063(!). Topotype collected on 1.X.1940, L. Ling, BPI 196293(!).

*Entyloma sporoboli* Castellani & Graniti, in Graniti, Nuovo Giorn. Bot. Ital., N.S., **57**: 252, 1950. — Type on *Sporobolus indicus* var. *laxus,* Eritrea, Seraé, Mai Felasi, 24.X.1938, F.Di Martino, FL (syn. by Ling 1953: 154, confirmed).

On *Poaceae: Sporobolus* spp.; Africa, E Asia, Philippines.

**AFR:** *Sporobolus africanus* (Poir.) Robyns & Tournay (*S. capensis* (Willd.) Kunth), *S. indicus* (L.) R. Br. var. *laxus* Nees, *S. pyramidalis* P. Beauv., **Eritrea, S. Africa, Uganda, Zambia.**

417. ***Ustilago striiformis*** (Westend.) Niessl, **s. lat.,** Hedwigia **15**: 1, 1876. — *Uredo striiformis* ("*striaeformis*") Westend., Bull. Acad. Roy. Sci. Belgique **18**: 406, 1851. — *Tilletia striiformis* (Westend.) Sacc., Michelia **1**: 8, 1877 (ex errore ut *Tilletia striiformis* (Westend.) "Niessl"). — *T. striiformis* (Westend.) G. Winter, in Rabenhorst, Krypt.-Fl., 2 Aufl., **1**(1): 108, 1881 (comb. superfl.). — Lectotype (design. by Zundel 1953: 205) on *Holcus lanatus,* Belgium, "environs de Courtrai", G.D. Westendorp; isolectotypes in Westend., Herb. crypt. Belg. no. 677, H.U.V. 9453(!).

For synonyms, such as *Ustilago salweyi* Berk. & Broome, *Uredo* (*Ustilago*) *longissima* Sowerby var. *megalospora* Riess, *Tilletia debaryana* A.A. Fisch. Waldh., *T. milii* Fuckel, *Ustilago denotarisii* A.A. Fisch. Waldh., *Tilletia alopecurivora* Ule, *T. avenae* Ule, *T. brizae* Ule, *Ustilago washingtoniana* Ellis & Everh., *U. poarum* McAlpine, *T.* ? *airae-caespitosae* Lindroth [Liro], *T. corcontica* Bubák, *Ustilago festucarum* Liro, *U. bromina* Syd., *U. striaeformis* f. *agrostis-palustris* W.H. Davis, *U. striaeformis* f. *phlei-pratensis* W.H. Davis, *U. striiformis* f. *hierochloae-odoratae* Săvul. & Rayss, *U. johnstonii* Cif., *U. kairamoi* Liro, *U. clintoniana* W.H. Davis, *U. poae-annuae* W.H. Davis, *U. poae-pratensis* W.H. Davis, *U. poae* S. Ito, *U. jaczevskyana* Lavrov var. *jaczevskyana, U. jaczevskyana* var. *sibirica* Lavrov, *U. triseti* Liro, *U. anthoxanthi* Liro, *U. linearis* "(Dozy & Molkenboer)" Cif., *U. loliicola* Cif., *U. taenia* Cif., *U. poae-bulbosae* Săvul., *U. poae-nemoralis* Vienn.-Bourg., see Vánky (1994: 376–378).

In addition: *Ustilago duriusculae* L. Guo, Mycosystema **25**: 162, 2006. — Type on "*Carex duriuscula* C.A. Mey. subsp. *rigescens* (Franch.) S.Yun Ling & Y.C. Tang" (= *Poaceae,* det. M. Lutz, in Vánky 2008:157), China, Qinghai Prov., Minhe, Langtang, alt. 2580 m, 9.VIII.2004, L. Guo & W. Li 2698, HMAS 95452; isotype H.U.V. 20951(!). Paratype on "*Carex* sp." (= *Poaceae*), China, Xinjiang [Uygur] Auton. Reg., Hejing, Gongnaisi, alt. c. 2050 m, 26.VIII.2003, L. Guo & H.C. Zhang 2246, HMAS 95453; isoparatype H.U.V. 20952(!) (syn. by Vánky & M. Lutz, in Vánky 2008: 157).

On *Poaceae: Agropyron, Agrostis, Alopecurus, Ammophila, Anthoxanthum, Arrhenatherum, Avena, Avenula, Beckmannia, Brachypodium, Briza, Bromus, Calamagrostis, Cynosurus, Dactylis, Deschampsia, Elymus, Festuca, Helictotrichon, Hierochloë, Holcus, Hordeum, Hystrix, Koeleria, Lolium, Melica, Milium, Muhlenbergia, Phalaris, Phleum, Poa, Polypogon, Puccinellia, Sesleria, Setaria, Sitanion, Trisetum;* cosmopolitan.

**AFR:** *Dactylis glomerata* L., *Helictotrichon turgidulum* (Stapf) Sweick., *Poa timoleontis* Heldr. ex Boiss., *Polypogon viridis* (Gouan) Breistr. (*Agrostis verticillata* Vill.), **Ethiopia, Madeira, S. Africa.**

418. ***Ustilago suddiana*** (Spooner) Vánky, Mycotaxon **81**: 426, 2002. — *Sphacelotheca suddiana* Spooner, Kew Bull. **39**: 463, 1984. — Type on *Suddia sagittifolia,* Sudan, Jonglei, 1982, J.M. Lock 82/21, K; isotype H.U.V. 12097(!).

On *Poaceae: Suddia sagittifolia* Renvoize; Africa.

**AFR:** *Suddia sagittifolia,* **Sudan, Uganda.**

419. ***Ustilago syntherismae*** (Schwein.) Peck, Annual Rep. New York State Mus. **27**: 103, 1875. — *Caeoma* (*Uredo*) *syntherismae* Schwein., Trans. Amer. Philos. Soc., N.S., **4**: 290, 1834. — *Sorosporium syntherismae* (Schwein.) Farl., in Farl. & Seym., Host Index N. Amer. fgi.: 152, 1891. — Type on *Syntherisma* sp. (= *Digitaria* sp.), USA, Carolina.

*Ustilago rabenhorstiana* J.G. Kühn, Hedwigia **15**: 4, 1876. — Type on *Panicum sanguinale* L. f. *sativa* (= *Digitaria sanguinalis*), Germany, Halle a./S., J. Kühn; isotypes in Rabenhorst, Fgi. eur. no. 2099, H.U.V. 4755(!).

*Ustilago destruens* Schltdl. var. *digitariae* Sacc., Nuovo Giorn. Bot. Ital. **8**: 167, 1876. — Type on *Digitaria sanguinalis,* Italy, Verona, Tregnago, IX.1874, C. Massalongo.

*Ustilago cesatii* A.A. Fisch. Waldh., Aperçu Syst. Ustil.: 25, 1877 (nom. nov. superfl. pro *Uredo syntherismae* Schw.). — Type on *Andropogon* sp. and *Digitaria* sp. (no type designated).

*Ustilago cordobensis* Speg., Anales Soc. Ci. Argent. **12**: 64, 1881. — *Sphacelotheca cordobensis* (Speg.) H.S. Jacks., J. Dept. Agricult. Porto Rico **14**:298, 1930. — *S. cordobensis* (Speg.) Cif., Ark. Bot. **23 A** (14): 16, 1931 (comb. superfl.). — *Sporisorium cordobense* (Speg.) Vánky, Mycotaxon **74**: 208, 2000. — Type on "*Panicum jaboncillo*" Hieron., nom. nud. (= *Digitaria insularis;* comp. Speg. 1909: 288), Argentina, near Cordoba, coll. Hieronymus, LPS 3007 (syn. by Vánky 2003: 33).

*Ustilago digitariicola* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **1**: 57, 1902. — Type on *Digitaria sanguinalis,* Argentina, La Plata, II.1902, C. Spegazzini.

*Ustilago cacheutensis* Speg., Anales Mus. Nac. Buenos Aires, Ser. 3, **12**: 293, 1909. — Type on *Panicum leucophaeum* (= *Digitaria insularis*), Argentina, near Mendoza, Cacheuta, I.1909, C. Spegazzini (syn. by Spegazzini 1925: 153, as *U. cordobensis*).

*Ustilago eleusines* Syd., Ann. Mycol. **27**:421, 1929 (later homonym, not *U. eleusines* Kulkarni 1922). — *Ustilago sydowiana* Mundk., Trans. Brit. Mycol. Soc. **24**: 333, 1940 (nom. nov.). — Type on "*Eleusine indica* Gaertn." (= misidentified *Digitaria* sp., det. K. Vánky), China, Kiangsu [= Jiangsu] Prov., Nanking, X.1928, F.L. Tai 2249, B (lost); lectotype (design. by Vánky 2007:27) BPI 160347(!) (syn. by Vánky 2007: 27).

*Ustilago belgiana* Zundel, Mycologia **36**: 401, 1944. — Lectotype (design. by Vánky 1999: 140) on *Digitaria horizontalis,* Congo, Kinshasa, 16.XII.1926, D.H. Linder, Flora of tropical Africa no. 1614, BPI 157969(!); isolectotypes BPI 157967(!) & 157970(!), H.U.V. 18717(!). Syntypes on *Digitaria ischaemum,* China, Anhwei Prov., Chiu Hua Shan, Ch'ing Yang Hsien, Sha Kann, 24.X.1932, S.Y. Cheo 1393 (BPI 157966!, BPI 157968!), Cheo 1394 (BPI 157971!, HCIO 25243!, H.U.V. 15406!), and Cheo 1395 (as on *Digitaria* sp.), BPI 157965(!) (syn. by Vánky 1999: 140).

*Sphacelotheca digitariae-pedicellaris* Mishra, Mycologia **49**: 259, 1957. — Type on *Digitaria pedicellaris* (Trin.) Prain (= *D. granularis* (Trin.) Henr.), India, Bihar, Nonihat, 29.VIII.1955, J.N. Mishra, HCIO 25281; isotypes H.U.V. 17282(!), IMI 68183 (syn. by Vánky 1999: 140). On *Poaceae: Digitaria* spp.; cosmopolitan.

**AFR:** *Digitaria ciliaris* (Retz.) Koeler, *D. gazensis* Rendle, *D. horizontalis* Willd., *D. ischaemum* (Schreber) Muhl. (*Panicum glabrum* (Schrader) Gaudin), *D. nuda* Schumach., *D. sanguinalis* (L.) Scop., *D. ternata* (A. Rich.) Stapf, *D. thouaresiana* (Fluegge) A. Camus, *D. velutina* (Forssk.) P. Beauv., *Digitaria* sp., **Cape Verde I., Congo, Egypt, Ethiopia, Kenya, S. Africa, Uganda, Zambia, Zimbabwe.**

420. ***Ustilago tragana*** Zundel, Mycologia **35**: 166, 1943. — Type on *Tragus berteronianus* (not *T. racemosus* (L.) All., as originally given), South Africa, Transvaal, Potgietersrust Distr., about III.1936, I.B. Pole-Evans, PREM 28708(!); isotype H.U.V. 18250(!). Paratype PREM 28784(!); isoparatype H.U.V. 18251(!).

*Ustilago tragi* Mundk., Indian J. Agric. Sci. **14**: 50, 1944. — Type on *Tragus biflorus* (Roxb.) Schult., India, Madras, Coimbatore, 24.XI.1917, P.V. Somayajulu, HCIO 10006(!); isotypes BPI 194481, FH (ex Herb. Coimbatore, no. 969), H.U.V. 17348 (syn. by Mundkur & Thirumalachar 1952: 38, confirmed).

On *Poaceae: Tragus* spp.; Africa, S Asia.

**AFR:** *Tragus berteronianus* Schult., **S. Africa, Zambia, Zimbabwe.**

421. ***Ustilago trichoneurana*** Zundel, Mycologia **35**: 166, 1943. — Type on *Trichoneura grandiglumis,* South Africa, Transvaal, Pretoria Distr., Edendale, 28.XI.1929, A.O.D. Mogg, PREM 22844; isotypes BPI 188950, H.U.V. 18201(!).

On *Poaceae: Trichoneura grandiglumis* (Nees) Ekman; S Africa.

**AFR:** *Trichoneura grandiglumis,* **S. Africa.**

422. ***Ustilago trichophora*** (Link) Körn., Hedwigia **16**: 36, 1877 (as "*Ustilago trichophora* Kze."). — *Caeoma trichophorum* Link, in Linné's Species Plantarum, Ed. 4, **6**(2): 3, 1825. — *Uredo* (*Ustilago*) *trichophora* (Link) Kunze, in Holl, Flora **13**: 369, 1830. — *Ustilago carbo* □ *columellifera* b *trichophora* (Link) Tul. & C. Tul., Ann. Sci. Nat. Bot., Sér. 3, **7**: 81, 1847. — Type on *Panicum colonum* (= *Echinochloa colonum*), Egypt, C.G. Ehrenberg.

For synonyms, such as *Ustilago sphaerogena* Burrill, *U. crus-galli* Tracy & Earle, *U. panici-frumentacei* Bref., *Cintractia seymouriana* Magnus, *Ustilago globigena* Speg., *U. holubii* Syd., *U. crus-galli* Tracy & Earle var. *minor* Zundel, *Sphacelotheca almorae* A. Krishna & R.A. Singh, see Vánky (1994: 382).

On *Poaceae: Echinochloa* spp.; cosmopolitan.

**AFR:** *Echinochloa colonum* (L.) Link (*Panicum colonum* L.), *E. crus-galli* (L.) P. Beauv. (*Panicum crus-galli* L.), *E. holubii* (Stapf) Stapf, *E. pyramidalis* (Lam.) Hitchc. & Chase, **Egypt, Morocco, Nigeria, Zambia, Zimbabwe, S. Africa.**

423. ***Ustilago triraphidis*** Vánky, Mycotaxon **78**: 282, 2001. — Type on *Triraphis schinzii,* Zambia, Southern Prov., Nkala, between Namwala and Ngoma, near Kafu National Park, 18.IV.1960, B.L. Mitchell (as "smut on *Aristida adscensionis*"), IMI 89818(!) ex Plant Pathology Herbarium, Northern Rhodesia no. 3582; isotype H.U.V. 18966(!).

On *Poaceae: Triraphis schinzii* Hack.; Africa. Known only from two collections.

**AFR:** *Triraphis schinzii,* **Zambia.**

424. ***Ustilago tritici*** (Pers. : Pers.) Rostrup, Overs. Kongel. Danske Vidensk. Selsk. Forh. Medlemmers Arbeider, **1890**: 15, 1890 (March). — *Uredo segetum* Pers. β *tritici* Pers., Tentamen Dispositionis Methodicae Fungorum: 57, 1797. — *U. segetum* Pers. β *Uredo tritici* Pers. : Pers., Synopsis Methodica Fungorum: 224, 1801. — *U. carbo* DC. β *tritici* (Pers. : Pers.) DC., Fl. franç. **6**: 76, 1815. — *Erysibe vera* Wallr. β *tritici* (Pers.: Pers.) Wallr., Flora Cryptogamica Germaniae, Pars 2, **4**: 217, 1833. — *Ustilago segetum* ("Bulliard") Roussel var. *tritici* (Pers. : Pers.) Brunaud, Actes Soc. Linn. Bordeaux, vol. 32, Ser. 4, **2**: 163, 1878. — *U. segetum* (Pers.) Roussel var. *tritici* (Pers. : Pers.) Rostrup & J.L. Jensen, in Jensen, Kornsortens Brand (Anden Meddelelse), Kjøbenhavn: 61, 1888. — Type on "*Triticum hybernum* et *aestivum*", [Central Europe].

For synonyms, such as *Ustilago passerinii* A.A. Fisch. Waldh., *U. ehrenbergiana* A.A. Fisch. Waldh., *U. hordei* Bref., *U. schumanniana* Henn., *U. vavilovii* Jacz., *U. ugamica* Golovin, *U. tritici* (Pers. : Pers.) Rostrup [forma] *foliicola* Henn., see Vánky (1994: 383).

On *Poaceae: Aegilops, Agropyron,* ?*Lolium, Secale, Triticum;* under laboratory conditions (comp. Nielsen 1978, 1992) also on *Dasypyrum, Elymus, Eremopyrum, Hordeum,* and *Taeniatherum;* cosmopolitan.

**AFR:** *Aegilops bicornis* (Forssk.) Jaub. & Spach, *A. triuncialis* L., *Triticum aestivum* L. (*T. sativum* Lam.; *T. vulgare* Vill.), *T. durum* Desf., *T. spelta* L., *T. turgidum* L., **Egypt, Eritrea, Ethiopia, Kenya, Malta, Morocco, S. Africa, Tunisia, Uganda, Zimbabwe.**

425. ***Ustilago valentula*** Syd., Ann. Mycol. **35**: 24, 1937. — Type on *Chloris acicularis* Lindl. (= *Enteropogon acicularis* (Lindl.) Lazarides), Australia, New South Wales, between Warren and Collie, I.1936, L.R. Fraser 194, MEL; isotypes BPI 169382, BRIP 8041, IMI 44467, H.U.V. 17962(!).

*Ustilago enteropogonis* Vánky, Mycotaxon **81**: 378, 2002. — Type on *Enteropogon ramosus* B.K. Simon, Australia, New South Wales, Bedgerebong, "Tresta", 26.III.1982, J. Bollinger & I. McGowen, DAR 41433; isotype H.U.V. 19540(!) (syn. by Vánky 2005: 264).

On *Poaceae: Chloris* and *Enteropogon* spp.; Africa, S Asia, Australia.

**AFR:** *Chloris pycnothrix* Trin., **Ethiopia.**

426. ***Ustilago vastatoria*** Massee, Bull. Misc. Inform. **1911**: 224, 1911. — Type on *Panicum* sp., French W Africa [Lower Sahara in C Africa; = Chad], Baghirmi, between Massema and Abongher, 29.–31.VIII.1903, Chevalier 9638, K; isotype BPI 194458(!).

On *Poaceae: Panicum* sp.; C Africa. Known only from the type collection.

**AFR:** *Panicum* sp., **Chad.**

The host identity of *U. vastatoria* could not be verified as healthy plants are lacking in the isotype collections.

**XLVII.** ***VANKYA*** Ershad, Rostaniha **1**: 66, 2000.

**Sori** on leaves of plants in *Liliaceae* s. str. (and *Hyacinthaceae*), forming pustules or swellings, filled with blackish brown, powdery spore mass, lacking peridium and columella. **Spores** single, olive-brown, without violet tint or pale yellow, orange or rusty colour. **Sterile cells** present between the spores. **Spore germination** results in phragmobasidia.

Three species of *Vankya* are known of which one also in Africa.

Type: *V. ornithogali.*

427. ***Vankya ornithogali*** (J.C. Schmidt & Kunze) Ershad, Rostaniha **1**: 66, 2000. — *Uredo ornithogali* J.C. Schmidt & Kunze, Deutschl. Schwämme in getrockneten Exemplaren, Lief. **9**: 5, 1819. — *Ustilago ornithogali* (J.C. Schmidt & Kunze) Magnus, Hedwigia **14**: 19, 1875. — *U. ornithogali* (J.C. Schmidt & Kunze) J.G. Kühn, in Rabenhorst, Fgi. eur. no. 1996, 1875. — Type "in *Ornithogalis*" (= *Gagea* cf. *lutea* (L.) Ker-Gawler, Liro 1924: 114 & 526), Germany; isotypes in Schmidt & Kunze, Deutschl. Schwämme no. 217, H.U.V. 13280(!).

*Caeoma ornithogali* Schltdl., Flora Berolensis, Pars 2. Cryptogamia: 125, 1824. — Lectotype (design. by Braun 1979: 410) on *Ornithogalum pratense* Pers. (= *Gagea* cf. *pratensis* (Pers.) Dumort), Germany, Berlin, HAL (syn. by Schlechtendal 1826: 239).

*Ustilago ornithogali* J. Schröt., in Schneider, Jahresber. Schles. Ges. Vaterl. Cult. **46**: 142, 1869 (nom. nud.).

*Ustilago umbrina* J. Schröt., Abh. Schles. Ges. Vaterl. Cult., Abth. Naturwiss. **1869/72**: 3, 1869. — Lectotype (design. by Vánky 1985: 225) on *Gagea pratensis* (Pers.) Dumort, Germany, Silesia, Breslau [now Poland, Wrocław], Botanical Garden, V.1869, H.U.V. 9327(!); isolectotypes in Schneider, Herb. schles. Pilze no. 180.

*Ustilago heterospora* Niessl, Verh. Naturf. Vereins Brünn **10**: 158, 1872. — Lectotype (design. by Vánky 1985: 226) on *Gagea bohemica* (Zauschner) Schultes & Schultes fil., Czech Rep., near Brünn [= Brno], spring, G. von Niessl.

On *Liliaceae: Gagea* spp.; Europe, N Africa, Asia.

**AFR:** *Gagea dutoitii* Maire, *G. fistulosa* (Ramond ex DC.) Ker-Gawler subsp. *liotardii* (Sternb.) Maire (*G. liotardii* (Sternb.) Schultes & Schultes fil.), **Morocco.**

## Doubtful, excluded or invalidly published taxa

***Entyloma commelinae*** Vienn.-Bourg., Annales de l'Institut National Agronomique **47**: 21, 1963. — Type on *Commelina* sp., Madagascar, Tananarive, at the Lake Itasy, III.1962, G. Viennot-Bourgin, PC(!).

On *Commelinaceae: Commelina* sp. Known only from the type collection.

**AFR:** *Oleandra articulata* Sw., **Madagascar.**

It is a doubtful smut fungus (comp. Vánky 1994: 360).

***Entyloma oleandrae*** Henn., Hedwigia **34**: 326, 1895. — Type on *Oleandra articulata,* South Africa, Natal, Inauda, coll. Wood, comm. G. Hieronymus; isotype BPI 176120(!).

On *Polypodiaceae* (*Filices*): *Oleandra articulata* Sw., S Africa. Known only from the type collection.

**AFR:** *Oleandra articulata,* **S. Africa.**

Zundel (1953: 262) consider it a doubtful smut, probably because of the unusual host plant.

***Farysia trichopterygis*** (Massee) Zundel, Ustil. World: 211, 1953. — *Ustilago trichopterygis* Massee, Bull. Misc. Inform. **1911**: 224, 1911. — Type on *Trichopteryx hordeiformis,* N. Nigeria, Lokoja, coll. J.M. Dalziel 276, IMI 90030.

On *Poaceae: Loudetia* and *Trichopteryx* spp.; Africa.

**AFR:** *Loudetia hordeiformis* (Stapf) C.E. Hubb. (*Trichopteryx hordeiformis* Stapf), *L. phragmitoides* (Peter) C.E. Hubb., *L. simplex* (Nees) C.E. Hubb. (*Trichopteryx simplex* (Nees) Engl.), **Uganda, Zambia.**

This is an *Ustilaginoidea* sp. (anamorphic *Hypocreales, Ascomycota*), excluded by Vánky (1997: 161).

***Sorosporium aristidae-amplissimae*** Beeli, Bull. Jard. Bot. État **8**: 7, 1922. — Type on "*Aristida amplissima* Trin. & Rupr. var. *lembaensis* Vanderyst" (= misnamed *Loudetia simplex,* det. J. Bosser), Congo [Democratic Rep. of Congo], Leopoldville, Kinshasa, VI.1916, coll. R.P.H. Vanderyst (18). Holotype BR(!).

On *Poaceae: Loudetia simplex* (Nees) C.E. Hubb.

**AFR: Congo.**

It is an *Ustilaginoidea* sp. (anamorphic *Hypocreales, Ascomycota*), excluded by Vánky (1997: 161), based also on the remarks on the herbarium sheath of the type specimen in BR, by L. Ling, and J. Walker.

***Sphacelotheca hyparrheniae*** (Beeli) Zambett. f. ***major*** Zambett., Bull. Soc. Mycol. France **95**: 412, 1980('1979') (nom. inval., no Latin diagnosis; ICBN/Vienna, Art. 36.1). — On *Hyparrhenia* sp., Belgian Congo.

On *Poaceae: Hyparrhenia* sp.; Africa.

**AFR:** *Hyparrhenia* sp., **Congo.**

***Tolyposporium chloridis*** Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C: 49, 1895. — *Tolyposporidium chloridis* (Henn.) Thirum. & Neerg., Friesia **11**: 180, 1978('1977'). — Type on *Chloris abyssinica,* Africa, "Steppe am Papyrussumpf", coll. Volkens 456.

On *Poaceae: Chloris abyssinica* Hochst.; Africa.

**AFR:** *Chloris abyssinica, C. gayana* Kunth, **S. Africa, Tanzania.**

According to Zundel (1938: 319), this is a hyphomycete.

***Tolyposporium volkensii*** Henn., in Engler, Pflanzenwelt Ost-Afrikas, etc., C,: 49, 1895. — Type on *Sorghum* sp., Tanzania, Marangu, im Stationsgarten, V.1893, coll. G.L.A. Volkens 296, HBG, K.

On *Poaceae: Sorghum* sp., Africa.

**AFR:** *Sorghum* sp., **Tanzania.**

It is *Cerebella sorghi-vulgaris* Subram., anamorphic ascomycete, excluded by Mason (1926: 286).

***Ustilago aneilemae*** S. Ito, Trans. Sapporo Nat. Hist. Soc. **14**: 89, 1935. — Type on *Aneilema keisak* Hassk., Japan, Honshu, Kozuke Prov. [= Tochigi Pref.], Kawachi-gun, Hongo-mura, Aza Isooka, 11.IX.1932, coll. T. Watanabe & T. Yamada, SAPA; isotype H.U.V. 12340(!).

On *Commelinaceae: Aneilema, Commelina, Murdannia* spp.; Africa, Asia.

**AFR:** *Commelina diffusa* Burm. fil., *C. latifolia* Hochst. ex A. Rich., *C. spectabilis* B.C. Clarke, *Commelina* sp., **Rwanda, Tanzania, Uganda, Zimbabwe.**

The taxonomic position of *U. aneilemae* is uncertain. Patil M.S. (1997) found that spore germination results in 2–3-septate basidium, each cell producing 1-celled sporidia on sterigmata, 4–4.5 µm in diam. R. Bauer (pers. comm.) found that ultrastructural characters are of an ascomycete type.

***Ustilago catherinae*** Zambett., Bull. Soc. Mycol. France **95**: 408, 1980('1979') (nom. inval., no type indicated; ICBN/Vienna, Art. 37.1). On *Setaria sulcata* and *S. schevalieri,* Congo, in herb. BR.

On *Poaceae: Setaria sulcata* Raddi, *S. schevalieri* Stapf; Africa.

**AFR:** *Setaria sulcata, S. schevalieri,* **Congo.**

Based on the original description it is potentially a good species.

***Ustilago dactylicola*** Speg., Anales Mus. Nac. Hist. Nat. Buenos Aires **26**: 118, 1915. — Type on *Phoenix dactylifera,* Senegal, Dakar, 19.VI.1913, C. Spegazzini, LPS 3209(!).

On *Arecaceae: Phoenix dactylifera* L.

**AFR:** *Phoenix dactylifera,* **Senegal.**

Only conidia, possibly of an *Aspergillus* sp. and some chlamydospores were observed in the type specimen, badly damaged by insects. It is certainly not a smut fungus (excluded by Vánky 2009: 322).

***Ustilago danthoniae*** Kalchbr., Grevillea **11**: 18, 1882. — Type on *Danthonia papposa* (= *Merxmuellera papposa*), South Africa, Eastern Cape Prov., near Alice, Lovedale, Evangelical Mission, Chumiberg Mt. (Hogsback Mt.), coll. T. Buchanan.

On *Poaceae: Merxmuellera papposa* (Nees) Conert (*Danthonia papposa* Nees); Africa.

**AFR:** *Merxmuellera papposa,* **S. Africa.**

It is not likely a smut, discussed in detail by Vánky (1997: 173).

***Ustilago digitariae*** (Kunze) Winter, Rabenhorst Krypt.-Fl., 2 Aufl., **1**(1): 88, 1881. — *Uredo digitariae* Kunze, in Holl, Flora **13**: 369, 1830. — *Sphacelotheca digitariae* (Kunze) G.P Clinton & Zundel, in Zundel, Mycologia **31**: 586, 1939 (as "nom. nov."). — *Sorosporium digitariae* (Kunze) Padwick, Mycol. Pap. **17**: 8, 1946. — Type on *Digitaria setigera,* Island of Madeira, leg. F. Holl (type not located).

On *Poaceae: Digitaria setigera* Roth ex Roem. & Schult.; Africa.

**AFR:** *Digitaria setigera,* **Madeira.**

It is not known what it is (comp. Vánky 1990: 477). *Digitaria setigera* does not occur in Madeira.

***Ustilago globulifera*** Sacc. & Trotter, in Bresadola & Saccardo, Bull. Soc. Roy. Bot. Belgique **38**(2): 159 + Pl. C, fig. 1, 1899. — Type on *Andropogoneae* ? (= *Trichopteryx* cf. *hordeiformis,* det. A.S. Hitchcock), Congo, coll. Dewèvre, BPI 160501(!) & 160502(!).

On *Poaceae: Trichopteryx* cf. *hordeiformis* Stapf; Africa.

**AFR:** *Trichopteryx* cf. *hordeiformis,* **Congo.**

It is a *Ustilaginoidea* sp., anamorphic *Hypocreales, Ascomycota,* excluded by Zundel, on the label of the type, confirmed by Vánky (2000:212).

***Ustilago oplismeni*** Vienn.-Bourg., Annales de l'Institut National Agronomique **45**: 9, 1959. — Type on *Oplismenus humboldtianus* (= *O. burmannii*), Guinea (French), near Roka, I.1957, G. Viennot-Bourgin.

On *Poaceae: Oplismenus burmannii* (Retz.) P. Beauv. (*O. humboldtinanus* Nees); Africa (Guinea). Known only from the type locality.

It is a *Ustilaginoidea* sp., anamorphic *Hypocreales, Ascomycota* (excluded by Vánky 2004: 63).

428. ***Ustilago setariae-aureae*** Henn. in Wildeman, Ann. Mus. Congo Belge, Sér. 5, Bot. **2**: 86, 1907. — Type on *Setaria aurea* Hochst. ex A. Braun (= *S. sphacelata* (Schumach.) Stapf & C.E. Hubb. var. *aurea* (Hochst. ex A. Braun) W.D. Clayton), Congo, Prov. Leopoldville, Dembo, VI. 1906, H. Vanderyst B28, BR(!); isotypes BPI 166389(!), 166390(!) & 194472(!).

On *Poaceae: Setaria sphacelata* (Schumach.) Stapf & C.E. Hubb. var. *aurea* (Hochst. ex A. Braun) W.D. Clayton (*S. aurea* Hochst. ex A. Braun); Africa.

**AFR:** *Setaria sphacelata* var. *aurea,* **Congo.**

It is a *Ustilaginoidea* sp., anamorphic *Hypocreales, Ascomycota* (excluded by Vánky 1999: 160).

***Ustilago trabutiana*** Sacc., Syll. fung. **9**: 282, 1891. — Type on *Dracaena draco,* Algeria, leg. Trabut.

On *Dracaenaceae: Dracaena draco* L.; N Africa.

**AFR:** *Dracaena draco*, **Algeria.**

According to Zundel (1953: 209) it is likely not a smut.

***Ustilago welwitschiae*** Bres., in Saccardo, Bol. Soc. Broter. **11**: 68, 1893. — Type on *Welwitschia mirabilis,* Portugal, Coimbra, Botanical Garden, VII.1893, A. Moller, Fl. lusit. exs. no. 1213 (it), H.U.V. 5797(!).

On *Welwitschiaceae: Welwitschia mirabilis* Hook. fil.; Europe, Africa.

**AFR:** *Welwitschia mirabilis,* **Angola.**

It is *Aspergillus niger* van Tieghem var. *phoenicis* (Corda) Al-Mussallam, anamorphic *Emericella, Ascomycota* (excluded by Zundel 1938: 318; Al-Musallam 1980: 57; and Vánky 1988: 372).

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