

The Pyraloidea (Lepidoptera) fauna in the Liberian Nimba Mountains, West Africa, at the end of the dry season

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ABSTRACT

During a moth diversity survey, 106 species of Pyraloidea were collected in March and April 2017 in the Nimba Mountains (East Nimba Nature Reserve and Mount Gangra) in Liberia. In total, 86 species were identified and for another ten species identification was provided to the genus level only. Seventy six of the 86 species are new records for Liberia. The majority of species (54) are purely Afrotropical, nine species are cosmopolitan, while the remaining species are Palaetropic in their distribution pattern. It is estimated that the present research endeavour reflects no more than 30% of pyraloid diversity in the region and future collecting efforts may increase the species list three-fold.

KEYWORDS: Pyraloidea, moths, Afrotropical, Liberia, biodiversity, biogeography, checklist, protected areas.

INTRODUCTION

The Mount Nimba massif, including Mount Gangra, is located on the border of Guinea, Côte d'Ivoire and Liberia (Fig. 1). It rises abruptly more than a thousand meters above the surrounding hills. The vertical zonation ranges from humid lowland Guinean forest through Guinean montane forest to grasslands on the top making the mountains a biodiversity hotspot in West Africa (e.g. Coe 1975; Lamotte 1998; Lamotte & Roy 2003).

The second and the third authors conducted a moth diversity survey as part of the Environmental and Social Impact Assessment for ArcelorMittal, Liberia, on Mount Gangra, supplemented with a comparative study in the East Nimba Nature Reserve in March and April 2017 (Sáfián 2017). The survey focused on larger moth species, but also on certain groups of Microheterocera, including Pyraloidea.

Although the butterflies (Rhopalocera) of the Liberian Nimba Mountains were extensively studied (Sáfián 2014), previously only a short list of moths (Heterocera) was compiled by Boireau (2010), who listed only five species of Pyraloidea,

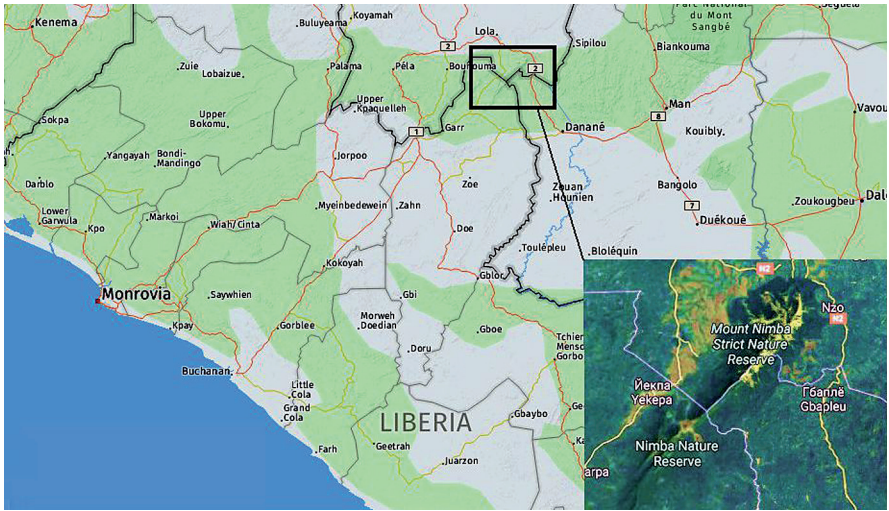


Fig. 1: Nimba Nature Reserve in Liberia.



Fig. 2: The main Nimba ridge, with upland forests on the higher slopes and secondary grassland on the ridge (a substantial proportion of the ridge line have been removed by LAMCO, an international mining company, which was active in the 1970–80s). Mount Richard Molard, the highest peak of the Nimba Mountains, situated at the Guinea–Côte d'Ivoire border is also visible in the background.

one unidentified species in the family Pyralidae and four species of the Crambidae (three of them were identified to the species level and all of them were also recorded during the current project). Thus, the present paper could be seen as the first checklist of the Pyraloidea fauna from the Nimba Mountains, as well as from Liberia, listing 96 species, with 86 being fully identified and 10 identified to the genus level only.

MATERIAL AND METHODS

East Nimba Nature Reserve

The majority of the material was collected inside the East Nimba Nature Reserve (ENNR), a strictly protected area managed by a committee with delegates from the Forestry Development Authority, ArcelorMittal, Liberia, the Fauna and Flora International, and the fringing local communities. The ENNR is basically constituting the southern (Liberian) section of the main Nimba Massif covered by lowland, upland and in the highest altitude small patches of sub-montane rainforest, also by secondary grassland and regenerating scrub, where former mining activities removed the topsoil and ore on the main ridge and various other sites also at lower altitudes (Fig. 2). Survey sites were selected along the main access road (informally known as Cellcom Road named after the telecommunication masts on the ridge) at the edge of rainforest at 700, 750, between 1000–1100 m above sea level and one site on the main ridgeline in the depression right below the Cellcom tower (1300 m).

Mount Gangra

Mount Gangra is a more or less isolated undisturbed mountain west of Mount Nimba near town Yekepa (connected only to Mount Yuelliton), part of the West Nimba, which is a group of individual mountains interspersed with lowland forest areas between Yekepa and the Guinean border in the North and West and Sanniquellie in the South. Mount Gangra reaches 978 m a.s.l. and is covered mainly by secondary upland forest and scrub around the summit, with dense rainforest on the slopes further downhill (Figs 3, 4). Mining commenced on Mount Gangra virtually at the time of collecting, causing large clearances of natural vegetation and an open pit on the northeastern slope.

Sampling localities on Mt Gangra were: GAT – Gangra Summit, 7°32'45.82"N 8°38'9.36"W, elev. 975 m; GAW – Gangra West, 7°33'29.73"N 8°38'16.40"W, elev. 648 m.

Collecting and preservation methods

In total, 817 specimens of Pyraloidea were collected using artificial light sources, including 250W blended bulb (Wolfram and Mercury vapour light) (Fig. 5), set against a white cotton sheet and powered from a portable Honda EU10i generator, and portable bucket (light) trap, equipped with 8W UV cold cathode light, powered by a 12V dry gel battery. All collected specimens were laid on cotton-wool mattresses and dried on silica gel in air-tight plastic boxes (Fig. 6).



Figs 3, 4: (3) The summit of Mount Gangra in West Nimba; (4) the summit area of Mount Gangra in West Nimba, covered by secondary upland forest, mining exploration and proposed mining are seriously altering the habitat.



Figs 5, 6: (5) Moth collecting, using 250W blended bulb on the summit of Mt Gangra; (6) preservation of Pyraloidea specimens that were dried on cotton-wool mattresses and labelled outside on each mattress, allowing immediate access and easy identification of the material.

Systematics and identification

For identification we used the most comprehensive websites AfroMoths (De Prins & De Prins 2018), African Moths (Goff 2018), as well as various publications, including Lewvanich (1981), Agassiz (2012), Leraut (2013) and Mally *et al.* (2015). Systematics and nomenclature follow the Global Information System on Pyraloidea provided by Nuss *et al.* (2003–2018). New records for Liberia are asterisked in the below checklist.

ANNOTATED CHECKLIST

Family Crambidae

Subfamily Acentropinae

Eoophyla capensis (Hampson, 1906)

(Fig. 7)

Material examined: Liberia: ENNR 700, 23.iii.2017 (2 ex.); ENNR 700, 26–30.iii.2017 (4 ex.); ENNR 750, 10.iii.2017 (2 ex.); ENNR 1000–1100, 29.iii.2017 (5 ex.); GAT, 21.iii.2017 (3 ex.); GAW, 16–19.iii.2017 (4 ex.); GAW, 23.vii.2017 (5 ex.).

Distribution: Afrotropical: Angola, Cameroon, Ethiopia, Kenya, Liberia, Malawi, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Parapoynx fluctuosalis (Zeller, 1852)*

Material examined: Liberia: GAW, 23.iii.2017 (2 ex.).

Distribution: Afrotropical: Botswana, Burkina Faso, The Comoros, DR Congo, Ethiopia, Guinea, Kenya, Madagascar, Mauritius, Morocco, Mozambique, Namibia, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe; Australasian: Australia, Fiji, Guam, Hawaii; Neotropical: Galapagos Islands, Puerto Rico; Oriental: India, Malaysia, Myanmar, Sri Lanka, Taiwan; Palaearctic: China, Italy (Sardinia), Japan, Morocco, Portugal, Spain, Tunisia, United Kingdom (De Prins & De Prins 2018).

Subfamily Crambinae

Pseudocatharylla nemesis Bleszynski, 1964*

(Fig. 10)

Material examined: Liberia: GAW, 20.iii.2017 (3 ex.).

Distribution: Afrotropical: Côte d'Ivoire (De Prins & De Prins 2018).

Scirpophaga sp.

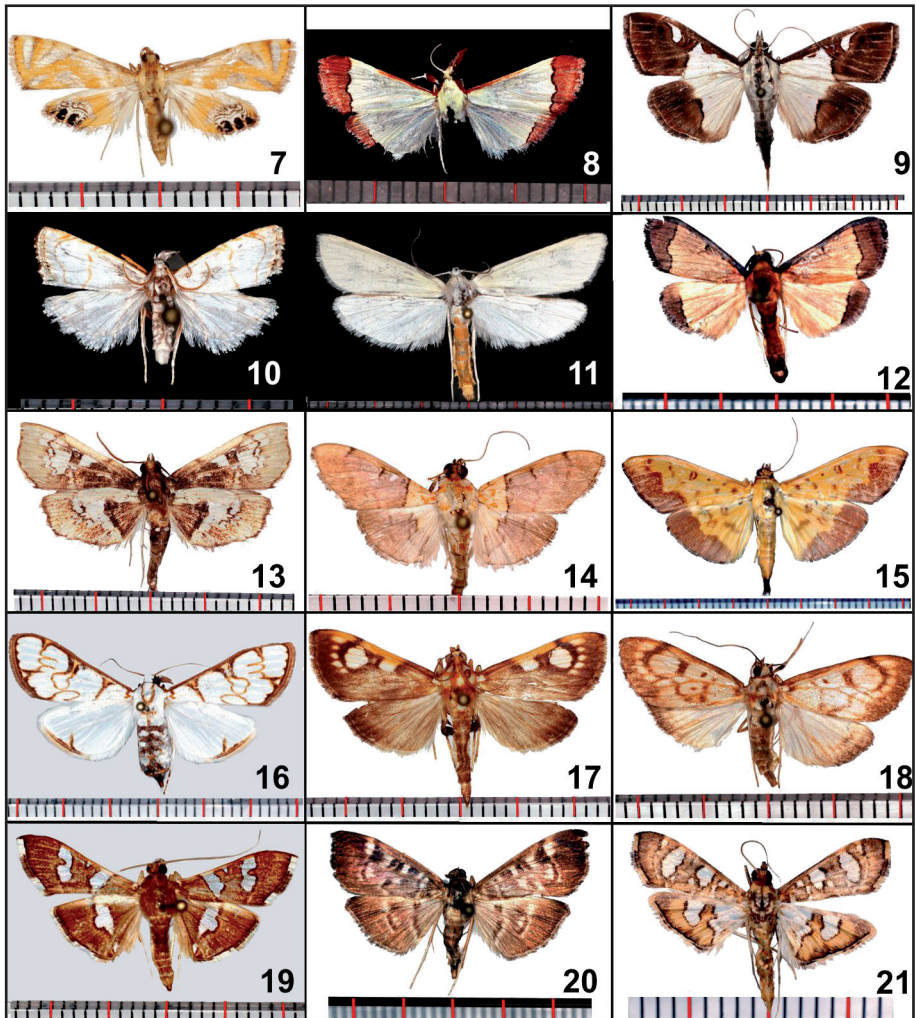
(Figs 11, 70)

Material examined: Liberia: GAW, 23.iii.2017 (2 ex.).

Calamotropha diodonta (Hampson, 1919)*

Material examined: Liberia: GAW, 20.iii.2017 (1 ex.).

Distribution: Afrotropical: Nigeria (De Prins & De Prins 2018).



Figs 7–21: Pyraloidea species: (7) *Eoophyla capensis*, (8) *Autocharis fessalis*, (9) *Viettessa bethalis*, (10) *Pseudocatharylla nemesis*, (11) *Scirpophaga* sp., (12) *Noorda* sp., (13) *Thliptoceras fenestratum*, (14) *Agrotera rufitinctalis*, (15) *Botyodes asialis*, (16) *Cirrhochrista grabczewskyi*, (17) *Chalcidoptera contraria*, (18) *Chalcidoptera thermographa*, (19) *Desmia incomposita*, (20) *Dichrocrocis fuscoalbalis*, (21) *Glyphodella flavibrunnea*.

Subfamily Odontiinae
Autocharis fessalis (Swinhoe, 1886)*
 (Figs 8, 67, 68)

Material examined: Liberia: GAW, 16–21.iii.2017 (2 ex.).

Distribution: Afrotropical: DR Congo, Seychelles, South Africa, United Arab Emirates, Yemen; Oriental: Bhutan, India, Pakistan (De Prins & De Prins 2018).

Viettessa bethalis (Viette, 1958)*
 (Fig. 9)

Material examined: Liberia: ENNR 1000–1100, 29.iii–2.iv.2017 (2 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, Madagascar, Malawi (De Prins & De Prins 2018).

Subfamily Glaphyriinae
Noorda sp.
 (Fig. 12)

Material examined: Liberia: ENNR 1000–1100, 29.iii.2017 (1 ex.).

Subfamily Pyraustinae
Cryptosara caritalis (Walker, 1859)*

Material examined: Liberia: GAW, 19.iii.2017 (2 ex.); ENNR 1000–1100, 19.iii–2.iv.2017 (5 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, Ghana, Mauritius, Sierra Leone, Togo (De Prins & De Prins 2018).

Hyalobathra dictatrix Meyrick, 1934*

Material examined: Liberia: GAW, 23.iii.2017 (1 ex.).

Distribution: Afrotropical: The Comoros, DR Congo, Ethiopia, Madagascar (De Prins & De Prins 2018).

Isocentris filalis (Guenée, 1854)*

Material examined: Liberia: GAW, 23.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, The Comoros, Congo, DR Congo, Madagascar, Mauritius, Mozambique, La Réunion, Seychelles, Togo; Australasian: Australia; Oriental: Indonesia, Malaysia and Taiwan (De Prins & De Prins 2018).

Pioneabathra olesialis (Walker, 1859)*

Material examined: Liberia: ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: The Comoros, Congo, DR Congo, The Gambia, Mozambique, Oman, Seychelles, South Africa, Yemen, Zambia; Australasia: Australia; Oriental: India, Sri Lanka (De Prins & De Prins 2018).

Pyrausta phoenicealis (Hübner, 1818)*

Material examined: Liberia: ENNR 700, 29.iii.2017 (1 ex.).

Distribution: Afrotropical: The Comoros, DR Congo, The Gambia, Madagascar, Mauritius, Namibia, La Réunion, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, United Arab Emirates; Australasia: Australia; Nearctic: USA; Neotropical: Brazil, Colombia, Dominican Republic; Oriental: India, Taiwan; Palearctic: China, Europe, Japan, Turkey (De Prins & De Prins 2018).

Thliptoceras fenestratum Aurivillius, 1910*

(Fig. 13)

Material examined: Liberia: GAT, 23.iii.2017 (1 ex.); ENNR 700, 26–29.iii.2017 (3 ex.).

Distribution: Afrotropical: Rwanda, Tanzania (De Prins & De Prins 2018).

Subfamily Spilomelinae

Agathodes musivalis Guenée, 1854*

Material examined: Liberia: ENNR 700, 28–30.iii.2017 (2 ex.); ENNR 1000–1100, 2.iv.2017 (2 ex.).

Distribution: Afrotropical: Malawi, Mauritius, Mozambique, La Réunion, Somalia, South Africa, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Agrotera citrina Hampson, 1899*

Material examined: Liberia: GAW, 12.iii.2017 (2 ex.); ENNR 700, 26–30.iii.2017 (5 ex.); ENNR 1000–1100, 31.iii–2.iv.2017 (5 ex.).

Distribution: Afrotropical: Ghana, Malawi, Mozambique, Sierra Leone, Tanzania, Uganda, Zimbabwe (De Prins & De Prins 2018).

Agrotera rufitinctalis Hampson, 1917*

(Fig. 14)

Material examined: Liberia: GAW, 23–25.iii.2017 (2 ex.); ENNR, 1000–1100, 2–4.iv.2017 (3 ex.).

Distribution: Afrotropical: Malawi, Rwanda, Uganda, Zimbabwe (De Prins & De Prins 2018).

Bocchoris inspersalis (Zeller, 1852)*

Material examined: Liberia: ENNR 1000–1100, 12.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Equatorial Guinea, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia, Nigeria, La Réunion, Saudi Arabia, Seychelles, Sierra Leone, Somalia, South Africa, Tanzania, Yemen, Zambia, Zimbabwe; Oriental: S. China, India, Indonesia (Java), South Japan, Malaysia, Myanmar, Sri Lanka (De Prins & De Prins 2018).

Botyodes asialis Guenée, 1854*

(Fig. 15)

Material examined: Liberia: ENNR 1000–1100, 31.iii.2017 (1 ex.).**Distribution:** Afrotropical: Cameroon, DR Congo, Equatorial Guinea, Madagascar, La Réunion, Rwanda, Sierra Leone, South Africa, Zimbabwe; Australasian: Australia, Fiji; Oriental: India, Indonesia, Philippines, Sri Lanka (De Prins & De Prins 2018).*Bradina admixtalis* (Walker, 1859)**Material examined: Liberia:** ENNR 700, 28–30.iii (5 ex.); ENNR 1000–1100, 31.iii–4.iv.2017 (6 ex.).**Distribution:** Afrotropical: British Indian Ocean Territory, Cameroon, The Comoros, DR Congo, Ghana, Kenya, Liberia, Madagascar, Malawi, Maldives, Mozambique, La Réunion, South Africa, Tanzania, Uganda, Zimbabwe (De Prins & De Prins 2018).*Cadarena pudoraria* (Hübner, 1825)*

(Fig. 36)

Material examined: Liberia: ENNR 700, 26–30.iii.2017 (3 ex.); ENNR 750, 10.iii.2017 (3 ex.); ENNR 1000–1100, 29.iii–4.iv.2017 (5 ex.).**Distribution:** Afrotropical: Angola, Cameroon, The Comoros, DR Congo, Equatorial Guinea, Ethiopia, Gabon, The Gambia, Ghana, Kenya, Madagascar, Malawi, Nigeria, Rwanda, La Réunion, Seychelles, Sierra Leone, South Africa, São Tomé and Príncipe, Tanzania, Uganda, Zambia, Zimbabwe; Oriental: India (De Prins & De Prins 2018).*Chalcidoptera contraria* Gaede, 1917*

(Figs 17, 71)

Material examined: Liberia: ENNR 700, 27–28.iii.2017 (2 ex.).**Distribution:** Afrotropical: Cameroon, DR Congo, Togo (De Prins & De Prins 2018).*Chalcidoptera thermographa* Hampson, 1912*

(Figs 18, 72)

Material examined: Liberia: GAT, 21–22.iii.2017 (2 ex.).**Distribution:** Afrotropical: DR Congo, Ethiopia, South Africa, Zambia, Zimbabwe (De Prins & De Prins 2018).*Cirrhochrista grabczewskyi* E. Hering, 1903*

(Fig. 16)

Material examined: Liberia: ENNR 1000–1100, 31.iii–4.iv.2017 (4 ex.).

Distribution: Afrotropical: Cameroon, Ghana, Nigeria, South Africa, Zimbabwe (De Prins & De Prins 2018).

Desmia incomposita (Bethune-Baker, 1909)*

(Fig. 19)

Material examined: Liberia: ENNR 1000–1100, 29.iii–2.iv.2017 (2 ex.).

Distribution: Afrotropical: DR Congo, The Gambia, Nigeria (De Prins & De Prins 2018).

Diaphania indica (Saunders, 1851)*

Material examined: Liberia: ENNR 1000–1100, 2.iv.2017 (1 ex.).

Distribution: Afrotropical: British Indian Ocean Territory, Cameroon, Cape Verde, The Comoros, DR Congo, Ethiopia, The Gambia, Kenya, Madagascar, Malawi, Maldives, Mauritius, Mozambique, Namibia, Oman, La Réunion, Rwanda, Saint Helena, Saudi Arabia, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, United Arab Emirates, Yemen, Zimbabwe; Australasian: Australia, Fiji, Marquesas, Tahiti; Nearctic: USA (Florida); Oriental: India, Indonesia (Borneo, Java), New Guinea, Sri Lanka; Palaearctic: China, Japan, Korea, Spain (Canary Islands) (De Prins & De Prins 2018).

Diasemiopsis ramburialis (Duponchel, 1834)*

Material examined: Liberia: ENNR 700, 26–27.iii.2017 (2 ex.); ENNR 750, 10.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Ethiopia, Mozambique, Namibia, La Réunion, Seychelles, South Africa, Zimbabwe; Australasian: Fiji, New Zealand, Australia; Palaearctic: Portugal (Azores) (De Prins & De Prins 2018).

Dichocrocis fuscoalbalis (Hampson, 1898)*

(Fig. 20)

Material examined: Liberia: ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: DR Congo, Sierra Leone (Goff 2018).

Duponchelia fovealis Zeller, 1847*

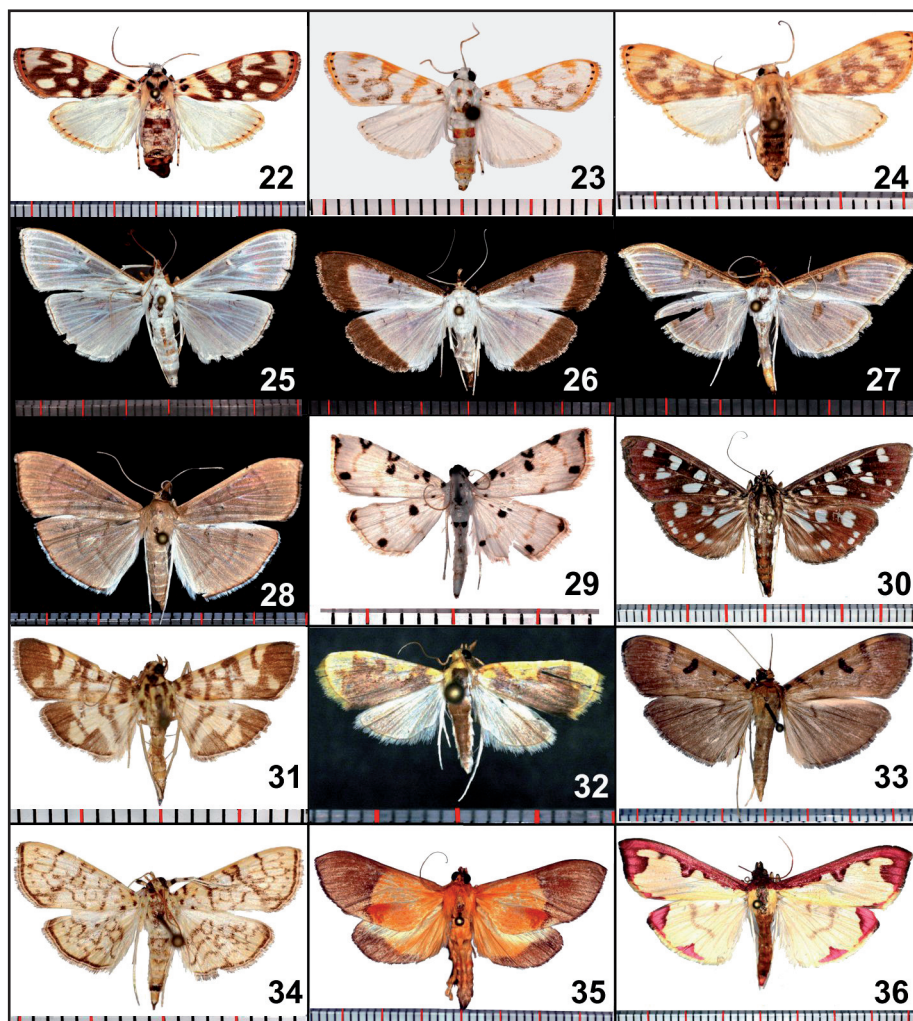
Material examined: Liberia: GAW, 16–23.iii.2017 (6 ex.); ENNR 1000–1100, 31.iii–2.iv.2017 (6 ex.).

Distribution: Afrotropical: British Indian Ocean Territory, Cameroon, Cape Verde, Congo, DR Congo, Egypt, The Gambia, Kenya, Madagascar, Mauritania, Mozambique, Oman, La Réunion, Saudi Arabia, Seychelles, South Africa, United Arab Emirates, Yemen; Nearctic: USA; Palaearctic: Mediterranean (De Prins & De Prins 2018).

Duponchelia lanceolalis (Guenée, 1854)*

Material examined: Liberia: ENNR 750, 10.iii.2017 (4 ex.); ENNR 1000–1100, 12.iii–2.iv.2017 (10 ex.).

Distribution: Afrotropical: Ethiopia, Kenya, Rwanda, South Africa, Tanzania, Zimbabwe (De Prins & De Prins 2018).



Figs 22–36: Pyraloidea species: (22) *Obtusipalpis pardalis*, (23) *Obtusipalpis* sp., (24) *Obtusipalpis citrina*, (25) *Palpita bonjongalis*, (26) *Palpita elealis*, (27) *Palpita metallata*, (28) *Poliobotys ablactalis*, (29) *Pycnarmon cribrata*, (30) *Pygospila tyres*, (31) *Pardomima phalaromima*, (32) *Sameodesma xanthocraspia*, (33) *Syllepte glebalis*, (34) *Haritalodes polycymalis*, (35) *Phostria hesusalis*, (36) *Cadarena pudoraria*.

Eporidia dariusalis Walker, 1859

(Fig. 40)

Material examined: Liberia: ENNR 750, 10.iii.2017 (2 ex.); ENNR 1000–1100, 14.iii–4.iv.2017 (44 ex.).**Distribution:** Afrotropical: Cameroon, Congo, DR Congo, Equatorial Guinea, Ghana, Liberia, Sierra Leone, Togo (De Prins & De Prins 2018).*Ghesquierellana hirtusalis* (Walker, 1859)***Material examined: Liberia:** ENNR 1000–1100, 14.iii–4.iv.2017 (11 ex.).**Distribution:** Afrotropical: The Comoros, DR Congo, Ethiopia, The Gambia, Madagascar, Malawi, Mozambique, Namibia, La Réunion, Sierra Leone, South Africa, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).*Glyphodella flavibrunnea* (Hampson, 1899)*

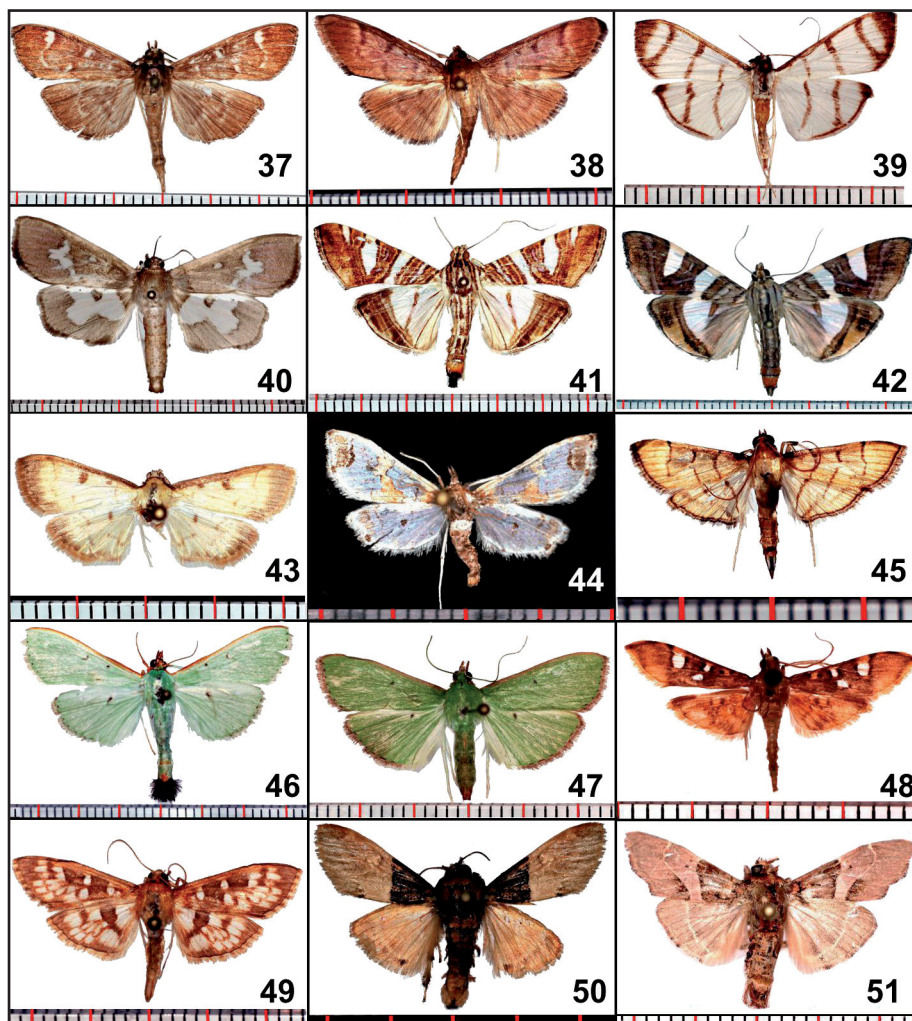
(Fig. 21)

Material examined: Liberia: ENNR 1000–1100, 29.iii.2017 (3 ex.).**Distribution:** Afrotropical: DR Congo, Madagascar, Sierra Leone, South Africa (De Prins & De Prins 2018).*Glyphodes argyraspides* (Tams, 1941)***Material examined: Liberia:** GAW, 20.iii.2017 (1 ex.).**Distribution:** Afrotropical: The Gambia, Sierra Leone, Uganda (De Prins & De Prins 2018).*Glyphodes bicolor* (Swainson, 1821)***Material examined: Liberia:** ENNR 1000–1100, 12.iii–4.iv.2017 (5 ex.).**Distribution:** Afrotropical: Angola, DR Congo, Mozambique, South Africa, Tanzania, Uganda, Zimbabwe; Oriental: India, S. China, Malaysia, Thailand; Australasian: Australia, New Guinea (De Prins & De Prins 2018).*Glyphodes bitriangulalis* Gaede, 1917*

(Fig. 42)

Material examined: Liberia: ENNR 750, 10.iii.2017 (2 ex.); ENNR 1000–1100, 29–31.iii.2017 (3 ex.).**Distribution:** Afrotropical: South Africa, Zimbabwe (De Prins & De Prins 2018).*Glyphodes onychinalis* (Guenée, 1854)***Material examined: Liberia:** ENNR 1000–1100, 14.iii–2.iv.2017 (4 ex.).

Distribution: Afrotropical: DR Congo, Côte d'Ivoire, Ethiopia, Madagascar, Oman, Saudi Arabia, Sierra Leone, South Africa, Yemen; Oriental: India, Indonesia (Borneo), Japan, Malaysia, Myanmar, Sri Lanka, Hong Kong, Thailand; Australasian: Australia, New Zealand; Nearctic: USA (California) (De Prins & De Prins 2018).



Figs 37–51: Pyraloidea species: (37) *Syllepte ovalis*, (38) *Syllepte sarronalis*, (39) *Zebronia phenice*, (40) *Eporidia dariusalis*, (41) *Glyphodes shafferorum*, (42) *Glyphodes bitriangularis*, (43) *Herpetogramma basalis*, (44) *Leucinodes pseudorbonalis*, (45) *Marasmia trapezalis*, (46) *Parotis squamitibialis*, (47) *Parotis* sp., (48) *Prophantis smaragdina*, (49) *Samea* sp., (50) *Barbutodes albizziae*, (51) *Barbutodes lantzi*.

Glyphodes pyloalis Walker, 1859*

Material examined: Liberia: ENNR 700, 23.iii.2017 (3 ex.); ENNR 1300, 31.iii.2017 (4 ex.).

Distribution: Afrotropical: DR Congo, Equatorial Guinea, Mozambique; Oriental: S. China, Japan, India, Indonesia, Sri Lanka, Taiwan; Nearctic: North America (De Prins & De Prins 2018).

Glyphodes shafferorum Viette, 1987*

(Fig. 41)

Material examined: Liberia: GAW, 20.iii.2017 (1 ex.); ENNR 1000–1100, 2.iv.2017 (1 ex.).

Distribution: Afrotropical: The Comoros, Madagascar, Mauritius, La Réunion (De Prins & De Prins 2018).

Glyphodes stolalis Guenée, 1854*

Material examined: Liberia: GAT, 18–25.iii.2017 (3 ex.); GAW, 16–19.iii.2017 (11 ex.); ENNR 700, 23–27.iii.2017 (9 ex.); ENNR 750, 10.iii.2017 (3 ex.); ENNR 1000–1100, 12–29.iii.2017 (18 ex.); ENNR 1300, 31.iii.2017 (7 ex.).

Distribution: Afrotropical: Cameroon, The Comoros, DR Congo, The Gambia, Kenya, Madagascar, La Réunion, Seychelles, South Africa, Uganda, Zimbabwe; Australasia: Australia; Oriental: S. China, India, Indonesia (Sulawesi), Sri Lanka, Thailand; Palaearctic: Japan, Taiwan (De Prins & De Prins 2018).

Haritalodes polycymalis (Hampson, 1912)*

(Fig. 34)

Material examined: Liberia: GAW, 19.iii.2017 (1 ex.); ENNR 1000–1100, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Angola, Côte d'Ivoire, DR Congo, Guinea, Kenya, Madagascar, Malawi, Mozambique, Sierra Leone, South Africa, Tanzania, Uganda (Mally *et al.* 2015).

Haritalodes derogata (Fabricius, 1775)*

Material examined: Liberia: ENNR 1000–1100, 31.iii–2.iv.2017 (2 ex.).

Distribution: Paleotropical, penetrates into Palearctic. Afrotropical: The Comoros, DR Congo, The Gambia, Ghana, Madagascar, Malawi, Maldives, Nigeria, La Réunion, Seychelles, South Africa, Tanzania, Zambia, Zimbabwe; Australasia: Australia, Fiji, Papua New Guinea, Samoa, Solomon Islands; Oriental: Andaman Islands, China (Hong Kong), India, Indonesia (Bali), Malaysia, Myanmar, Singapore, Sri Lanka, Vietnam; Palaearctic: China, Japan, Russia (E. Siberia) (De Prins & De Prins 2018).

Herpetogramma basalis (Walker, 1866)*

(Figs 43, 73)

Material examined: Liberia: ENNR 1000–1100, 29.iii.2017 (2 ex.).

Distribution: Afrotropical: Kenya, La Réunion, Seychelles, South Africa; Australasia: Australia; Palaearctic: Canary Islands, China, Japan; Oriental: India, Indonesia, Sri Lanka (De Prins & De Prins 2018).

Leucinodes pseudorbonalis Mally, Korycinska, Agassiz,
Hall, Hodgetts & Nuss, 2015*

(Fig. 44)

Material examined: Liberia: ENNR 700, 23.iii.2017 (1 ex.).

Distribution: Afrotropical: Angola, Senegal, Uganda (Mally *et al.* 2015).

Marasmia trapezalis (Guenée, 1854)*

(Fig. 45)

Material examined: Liberia: ENNR 1000–1100, 31.iii.2017 (2 ex.).

Distribution Afrotropical: Cameroon, DR Congo, Egypt, The Gambia, Kenya, Madagascar, Mauritius, Nigeria, Oman, La Réunion, Saint Helena, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe; Australasia: Australia, Fiji, Palau, Polynesia; Neotropical: Dominican Republic, Mexico, Peru; Oriental: S. China, India, Indonesia (Sulawesi), Papua New Guinea, Sri Lanka (De Prins & De Prins 2018).

Maruca vitrata (Fabricius, 1787)*

Material examined: Liberia: ENNR 1000–1100, 16–31.iii.2017 (3 ex.).

Distribution: Afrotropical: Angola, Benin, Burkina Faso, Cameroon, Cape Verde, DR Congo, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia, Niger, Nigeria, Oman, La Réunion, Seychelles, Sierra Leone, Somalia, South Africa, Tanzania, Uganda, United Arab Emirates, Zambia, Zimbabwe; Neotropical, Oriental and Australian regions (De Prins & De Prins 2018).

Marwitzia dichocrocis (Hampson, 1913)

Material examined: Liberia: GAT, 18.iii.2017 (1 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Côte d'Ivoire, Ghana, Liberia, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Nosophora panaresalis (Walker, 1859)*

Material examined: Liberia: ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: DR Congo (De Prins & De Prins 2018).

Notarcha quaternalis (Zeller, 1852)*

Material examined: Liberia: GAT, 21.iii.2017 (1 ex.).

Distribution: Afrotropical: Botswana, The Comoros, DR Congo, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Mauritius, Mozambique, La Réunion, Seychelles, Sierra Leone, South Africa, Tanzania, Zimbabwe; Australasia: Australia; Oriental: India; Palaeartic: Iran (De Prins & De Prins 2018).

Obtusipalpis citrina Druce, 1902*

(Fig. 24)

Material examined: Liberia: GAT, 21.iii.2017 (1 ex.); ENNR 1000–1100, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, The Gambia, Nigeria (Goff 2018).

Obtusipalpis pardalis Hampson, 1896*

(Fig. 22)

Material examined: Liberia: ENNR 750, 10.iii.2017 (2 ex.); ENNR 1000–1100, 13.iii–4.iv.2017 (15 ex.).

Distribution: Afrotropical: DR Congo, Ethiopia, Gabon, Kenya, Mozambique, Namibia, South Africa, Tanzania, Zambia, Zimbabwe (Goff 2018).

Obtusipalpis sp.

(Fig. 23)

Material examined: Liberia: ENNR 1000–1100, 14.iii–4.iv.2017 (9 ex.).

Omiodes indicata (Fabricius, 1775)*

Material examined: Liberia: GAW, 23.iii.2017 (1 ex.).

Distribution: Afrotropical: British Indian Ocean Territory, Cameroon, Cape Verde, The Comoros, Congo, DR Congo, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Mauritius, Namibia, Nigeria, La Réunion, Saudi Arabia, Seychelles, Sierra Leone, South Africa, Tanzania, Uganda, Zimbabwe; Nearctic: North America; Neotropical: Antilles, Brazil, Dominican Republic, French Guiana, Guyana, Puerto Rico, Surinam; Oriental: Andaman Islands, W. China, India, Indonesia (Java), Malaysia (Sarawak), Myanmar, Singapore, Sri Lanka (De Prins & De Prins 2018).

Orphanostigma abruptalis (Walker, 1859)*

Material examined: Liberia: GAW, 20.iii.2017 (2 ex.); ENNR 700, 27–29.iii.2017 (2 ex.).

Distribution: Afrotropical: Equatorial Guinea, Ghana, Kenya, Mauritius, Nigeria, Rwanda, La Réunion, Senegal, Seychelles, Sierra Leone, Somalia, Yemen, Zambia, Zimbabwe; Australasia: Australia, Fiji; Oriental: Andaman Islands, India, Myanmar, Sri Lanka (De Prins & De Prins 2018).

Palpita bonjongalis (Plötz, 1880)*

(Figs 25, 74)

Material examined: Liberia: ENNR 750, 10.iii.2017 (1 ex.); ENNR 1000–1100, 29–31.iii.2017 (2 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, South Africa (De Prins & De Prins 2018).

Palpita elealis (Walker, 1859)*

(Fig. 26)

Material examined: Liberia: ENNR 1000–1100, 12.iii–4.iv.2017 (12 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, Cote d'Ivoire, The Gambia, Ghana, Sierra Leone, South Africa, Zambia, Zimbabwe (De Prins & De Prins 2018).

Palpita metallata (Fabricius, 1781)

(Fig. 27)

Material examined: Liberia: GAT, 23.iii.2017 (1 ex.); ENNR 1000–1100, 29–31.iii.2017 (2 ex.).

Distribution: Afrotropical: Angola, Cameroon, The Comoros, DR Congo, The Gambia, Ghana, Kenya, Liberia, Nigeria, Sierra Leone, South Africa, Tanzania, Uganda (De Prins & De Prins 2018).

Palpita vitrealis (Rossi, 1794)

Material examined: Liberia: ENNR 750, 10.iii.2017 (1 ex.); ENNR 1000–1100, 2–4.iv.2017 (2 ex.).

Distribution: Afrotropical: Cape Verde, Central African Republic, The Comoros, DR Congo, Ethiopia, The Gambia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Mauritius, La Réunion, Seychelles, South Africa, Tanzania, Uganda, Yemen, Zambia; Australasia: Australia; Oriental: South Asia; Palaearctic: S. Europe, Japan, Portugal (Madeira), Spain (Canary Islands) (De Prins & De Prins 2018).

Parotis squamitibialis (Strand, 1912)*

(Figs 46, 77)

Material examined: Liberia: ENNR 700, 18.iii.2017 (2 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo (De Prins & De Prins 2018).

Parotis sp.

(Figs 47, 76)

Material examined: Liberia: GAW, 16–23.iii.2017 (4 ex.); GAT, 21–25.iii.2017 (1 ex.); ENNR 700, 23–30.iii.2017 (9 ex.); ENNR 750, 10.iii.2017 (3 ex.); ENNR 1000–1100, 12.iii–4.iv.2017 (12 ex.); ENNR 1300, 31.iii.2017 (5 ex.).

Pardomima phalaromima (Meyrick, 1933)*

(Figs 31, 75)

Material examined: Liberia: GAW, 16–23.iii.2017 (7 ex.); GAT, 18–21.iii.2017 (3 ex.); ENNR 700, 23–30.iii.2017 (9 ex.); ENNR 750, 10.iii.2017 (3 ex.); ENNR 1000–1100, 12.iii–2.iv.2017 (6 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Angola, Cameroon, Congo, DR Congo, Côte d’Ivoire, Equatorial Guinea, Ghana, Guinea, Kenya, Malawi, Nigeria, Sierra Leone, Tanzania (De Prins & De Prins 2018).

Phostria hesusalis (Walker, 1859)*

(Fig. 35)

Material examined: Liberia: ENNR 1300, 31.iii.2017 (3 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, Equatorial Guinea, Ghana, Nigeria, Sierra Leone, Togo (De Prins & De Prins 2018)

Poliobotys ablactalis (Walker, 1859)*

(Fig. 28)

Material examined: Liberia: ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Angola, Cameroon, DR Congo, Côte d’Ivoire, The Gambia, Kenya, Lesotho, Madagascar, Mozambique, La Réunion, Seychelles, Uganda, Zambia; Australasia: Australia; Oriental: China (Hong Kong), South-East Asia (De Prins & De Prins 2018).

Prophantis smaragdina (Butler, 1875)*

(Fig. 48)

Material examined: Liberia: GAW, 20–23.iii.2017 (2 ex.); GAT, 18–25.iii.2017 (6 ex.); ENNR 700, 20–30.iii.2017 (14 ex.); ENNR 1000–1100, 14.iii–4.iv.2017 (19 ex.).

Distribution: Afrotropical: Cameroon, The Comoros, Congo, DR Congo, Côte d’Ivoire, Equatorial Guinea, Eritrea, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Nigeria, La Réunion, Sierra Leone, South Africa, Tanzania, Uganda, Yemen, Zimbabwe (De Prins & De Prins 2018).

Pycnarmon cribrata (Fabricius, 1794)*

(Fig. 29)

Material examined: Liberia: GAW, 18–23.iii.2017 (2 ex.); ENNR 750, 10.iii.2017 (1 ex.); ENNR 1000–1100, 2–4.iv.2017 (2 ex.).

Distribution: Afrotropical: DR Congo, Kenya, Madagascar, Malawi, Mozambique, Sierra Leone, South Africa, Zambia, Zimbabwe; Oriental: S. China, India, Indonesia (Java, Sulawesi), Sri Lanka, Taiwan (De Prins & De Prins 2018).

Pycnarmon sexpunctalis (Hampson, 1912)*

Material examined: Liberia: GAW, 18–23.iii.2017 (2 ex.).

Distribution: Afrotropical: DR Congo, Nigeria, Sierra Leone (De Prins & De Prins 2018).

Pygospila tyres (Cramer, 1780)*

(Fig. 30)

Material examined: Liberia: ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Côte d'Ivoire, Malawi, Nigeria, Sierra Leone, South Africa, Zimbabwe; Oriental: China (Hong Kong), India, Thailand; Australasia: Australia (De Prins & De Prins 2018).

Samea sp.

(Fig. 49)

Material examined: Liberia: GAW, 18–23.iii.2017 (5 ex.).

Sameodes cancellalis (Zeller, 1852)*

Material examined: Liberia: ENNR 1000–1100, 29.iii.2017 (1 ex.).

Distribution: Afrotropical: British Indian Ocean Territory, Cameroon, The Comoros, DR Congo, The Gambia, Ghana, Madagascar, Malawi, La Réunion, Seychelles, Sierra Leone, South Africa, Yemen, Zambia, Zimbabwe; Australasia: Australia; Oriental: India, Indonesia (Java, Sulawesi), Sri Lanka (De Prins & De Prins 2018).

Sameodesma xanthocraspia (Hampson, 1913)*

(Fig. 32)

Material examined: Liberia: ENNR 750, 10.iii.2017 (1 ex.); GAW, 23.iii.2017 (1 ex.).

Distribution: Afrotropical: DR Congo, Ghana, South Africa, Zimbabwe (De Prins & De Prins 2018).

Stemorrhages sericea (Drury, 1773)

Material examined: Liberia: ENNR 700, 27.iii.2017 (1 ex.); ENNR 1000–1100, 31.iii–2.iv.2017 (2 ex.).

Distribution: Afrotropical: Angola, Cameroon, The Comoros, DR Congo, The Gambia, Ghana, Liberia, Madagascar, Malawi, Mauritius, Mozambique, La Réunion, Seychelles, Sierra Leone, South Africa, Sudan, São Tomé and Príncipe, Tanzania, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Syllepte butlerii (Dewitz, 1881)*

Material examined: Liberia: GAT, 21.iii.2017 (2 ex.); ENNR 1000–1100, 31.iii–4.iv.2017 (2 ex.).

Distribution: Afrotropical: Angola, Cameroon, DR Congo, Equatorial Guinea, Sierra Leone, Zambia (De Prins & De Prins 2018).

Syllepte glebalis (Lederer, 1863)*

(Fig. 33)

Material examined: Liberia: ENNR 1000–1100, 29.iii–4.iv.2017 (11 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Côte d’Ivoire, Madagascar, Nigeria, Sierra Leone, Zambia, Zimbabwe (De Prins & De Prins 2018).

Syllepte oviialis (Walker, 1859)*

(Fig. 37)

Material examined: Liberia: GAT, 21–25.iii.2017 (3 ex.); GAW, 16–23.vii.2017 (6 ex.); ENNR 700, 23–30.iii.2017 (8 ex.); ENNR 750, 10.iii.2017 (3 ex.); ENNR 1000–1100, 12.iii–4.iv.2017 (27 ex.); ENNR 1300, 31.iii.2017 (4 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Côte d’Ivoire, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Mozambique, La Réunion, South Africa, São Tomé and Príncipe, Tanzania, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Syllepte sarronalis (Walker, 1859)*

(Fig. 38)

Material examined: Liberia: GAT, 23–27.iii.2017 (3 ex.).

Distribution: Afrotropical: The Gambia, Sierra Leone (De Prins & De Prins 2018).

Synclera traducalis (Zeller, 1852)*

Material examined: Liberia: GAT, 18.iii.2017 (2 ex.); ENNR 700, 26–27.iii.2017 (3 ex.); ENNR 1300, 31.iii.2017 (5 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, Côte d’Ivoire, Egypt, Equatorial Guinea, Ethiopia, The Gambia, Madagascar, Mozambique, Namibia, La Réunion, Saudi Arabia, Seychelles, Senegal, South Africa, Tanzania, United Arab Emirates, Yemen, Zimbabwe; Oriental: India, Malaysia, New Guinea, Sri Lanka; Palearctic: Cyprus, Israel, Lebanon, Spain (Canary Islands), Syria (De Prins & De Prins 2018).

Terastia africana Sourakov, 2015*

Material examined: Liberia: ENNR 700, 23.iii.2017 (2 ex.).

Distribution: Afrotropical: Cameroon, DR Congo, The Gambia, Kenya, Malawi, Rwanda, Seychelles, Zimbabwe (De Prins & De Prins 2018).

Ulopeza conigeralis Zeller, 1852*

Material examined: Liberia: GAW, 20–25.vii.2017 (10 ex.); ENNR 1000–1100, 29–31.iii.2017 (4 ex.).

Distribution: Afrotropical: Cameroon, Congo, DR Congo, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Ghana, Malawi, Mozambique, Nigeria, Sierra Leone, South Africa, Tanzania, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Zebronia phenice (Cramer, 1782)

(Fig. 39)

Material examined: Liberia: ENNR 750, 10.iii.2017 (1 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Angola, Cameroon, The Comoros, DR Congo, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, The Gambia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Nigeria, La Réunion, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Tanzania, Uganda, Zambia, Zimbabwe (De Prins & De Prins 2018).

Family Pyralidae

Subfamily Pyralinae

Barbutodes albizziae (Tams, 1941)*

(Figs 50, 78)

Material examined: Liberia: GAW, 20–23.iii.2017 (3 ex.).

Distribution: Afrotropical: Côte d'Ivoire (Leraut 2013).

Barbutodes lantzi Leraut, 2013*

(Figs 51, 79)

Material examined: Liberia: GAW, 20.iii.2017 (2 ex.); ENNR 700, 23–27.iii.2017 (4 ex.).

Distribution: Afrotropical: DR Congo, Côte d'Ivoire (Leraut 2013).

Cassouodes camptoceralis (Hampson, 1906)*

(Figs 52, 82)

Material examined: Liberia: GAW, 19.iii.2017 (1 ex.); ENNR 1000–1100, 29–31.iii.2017 (2 ex.).

Distribution: Afrotropical: Nigeria (Hampson 1906), Côte d'Ivoire (Leraut 2013).

Episindris albimaculalis Ragonot, 1891*

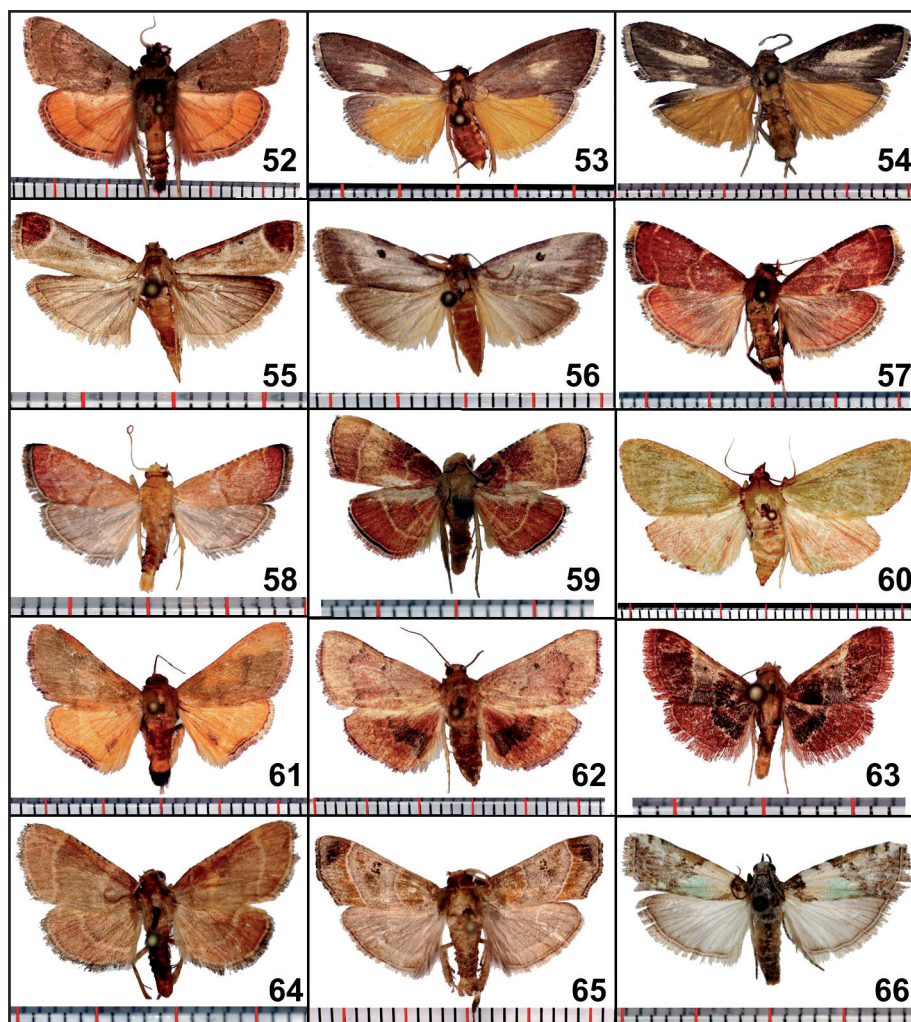
(Figs 53, 80)

Material examined: Liberia: GAT, 24–25.iii.2017 (4 ex.).

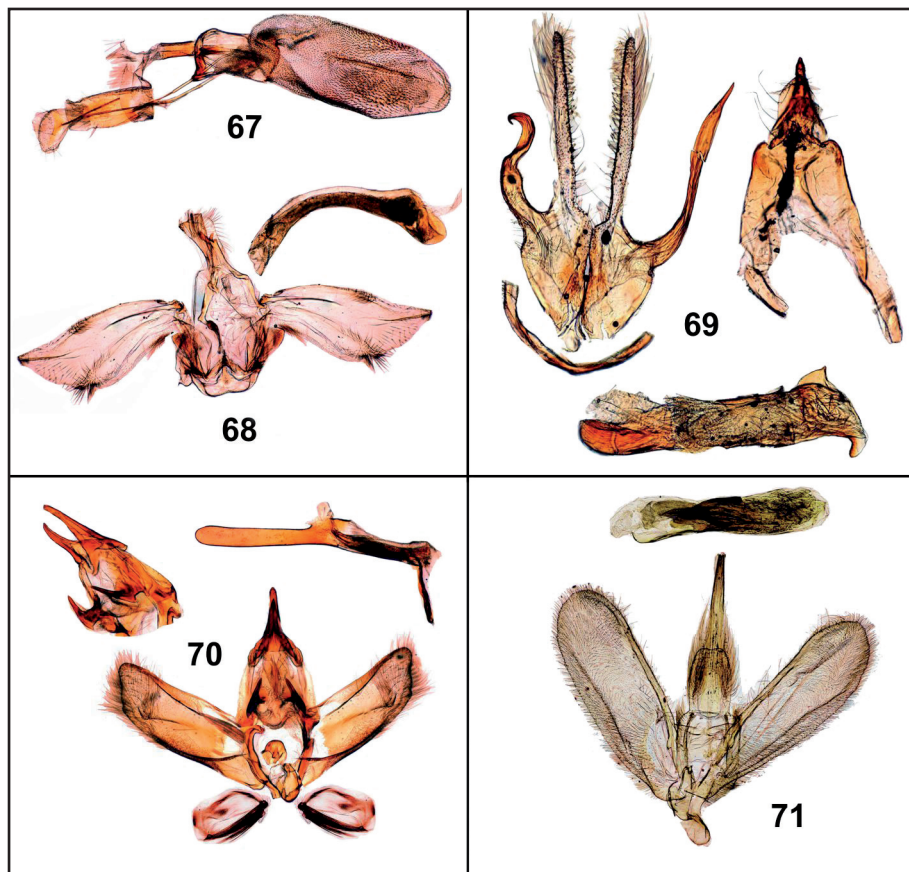
Distribution: Afrotropical: Mozambique (Leraut 2013).

Goateria sp.

(Figs 55, 89)

Material examined: Liberia: ENNR 1000–1100, 19–31.iii.2017 (9 ex.); GAW, 20.iii.2017 (2 ex.).

Figs 52–66: Pyraloidea species: (52) *Cassouodes camptoceralis*, (53) *Episindris albimaculalis*, (54) *Sindris* sp., (55) *Goateria* sp., (56) *Haplosindris* sp., (57) *Mabokia delicatalis*, (58) *Mabokia boudinotalis*, (59) *Maradana yapoensis*, (60) *Lantzina prasinalis*, (61) *Lantzina* sp., (62) *Lantzina rufalis*, (63) *Lantzodes subpurpuralis*, (64) *Nussodes abidjanalis*, (65) *Sacada* sp., (66) *Gaana* sp.



Figs 67–71: Genitalia of Pyraloidea: (67) *Autocharis fessalis* (female), (68) *Autocharis fessalis* (male), (69) *Pseudocatharylla nemesis* (male), (70) *Scirpophaga* sp. (male), (71) *Chalcidoptera contraria* (male).

Haplosindris sp.

(Figs 56, 81)

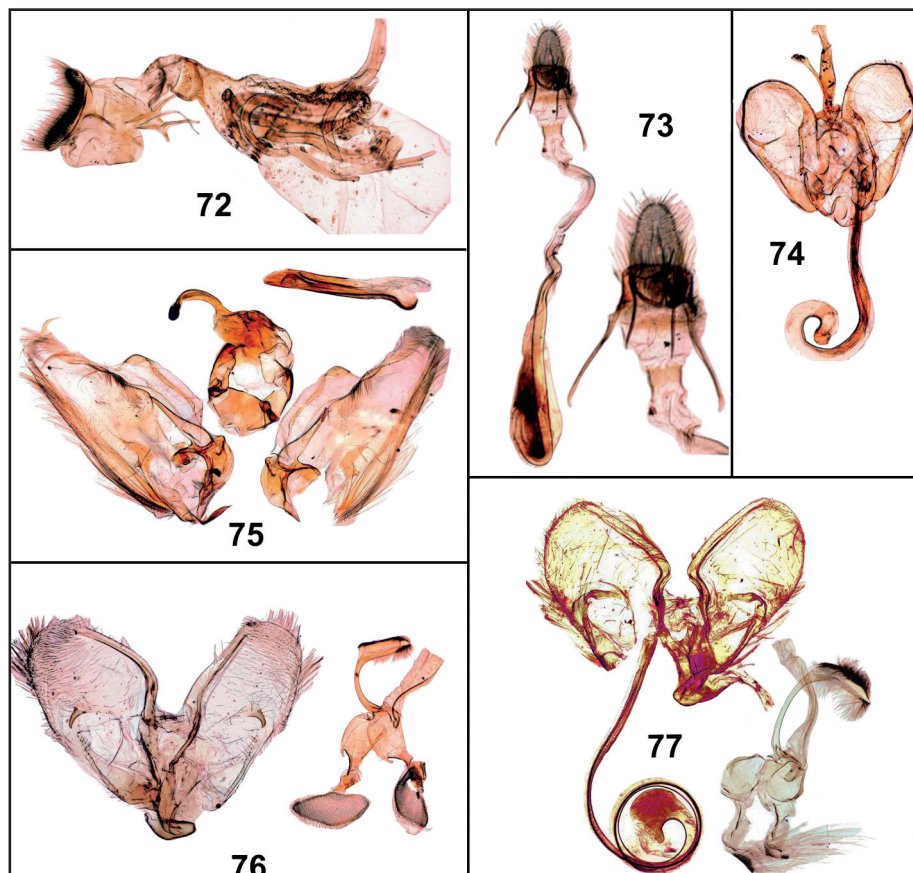
Material examined: Liberia: GAW, 19.iii.2017 (1 ex.); ENNR 1000–1100, 31.iii.2017 (1 ex.).

Mabokia delicatalis Leraut, 2013*

(Fig. 57)

Material examined: Liberia: GAT, 18–25.iii.2017 (7 ex.); GAW, 16–23.iii.2017 (10 ex.); ENNR 700, 23–30.iii.2017 (11 ex.); ENNR 1000–1100, 12.iii–4.iv.2017 (33 ex.).

Distribution: Afrotropical: Côte d’Ivoire (Leraut 2013).



Figs 72–77: Genitalia of Pyraloidea: (72) *Chalcidoptera thermographa* (female), (73) *Herpetogramma basalis* (female), (74) *Palpita bonjongalis* (male), (75) *Pardomima phalaromima* (male), (76) *Parotis* sp. (male), (77) *Parotis squamitibialis* (male).

Mabokia boudinotalis Leraut, 2013*

(Fig. 58)

Material examined: Liberia: GAW, 20.iii.2017 (2 ex.); ENNR 700, 26.iii.2017 (2 ex.).

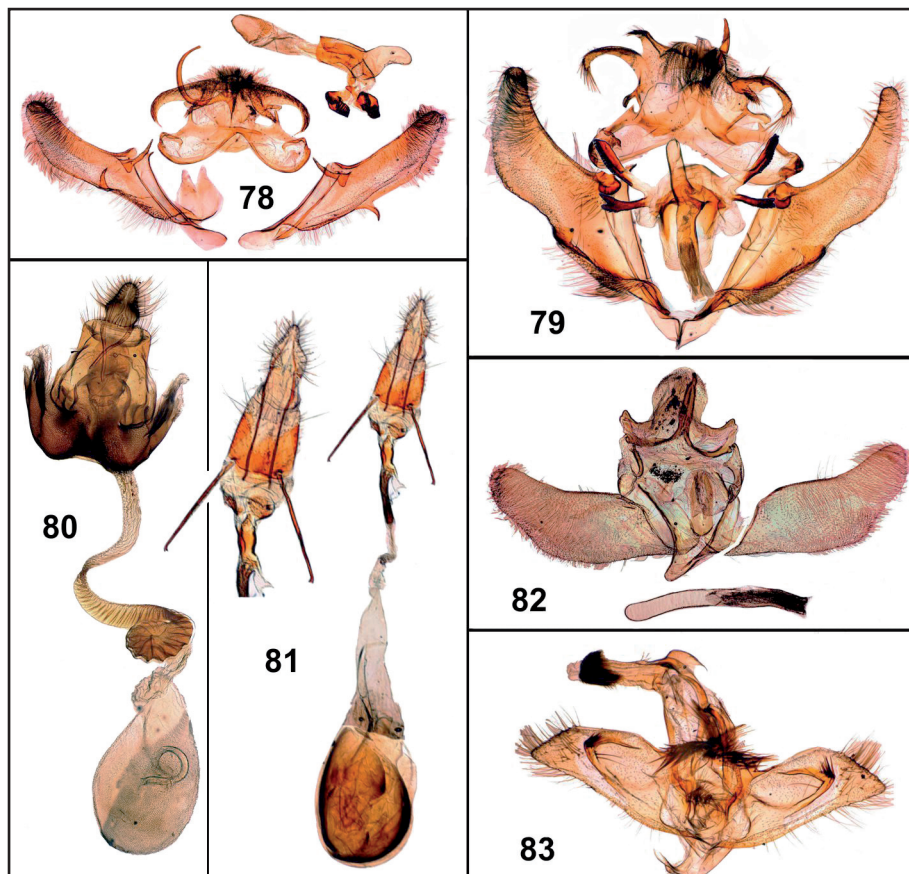
Distribution: Afrotropical: Central African Republic (Leraut 2013).

Maradana yapoensis Leraut, 2013*

(Figs 59, 86)

Material examined: Liberia: GAW, 20.iii.2017 (1 ex.); ENNR 700, 26.iii.2017 (1 ex.); ENNR 1000–1100, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Côte d'Ivoire (Leraut 2013).



Figs 78–83: Genitalia of Pyraloidea: (78) *Barbutodes albizziae* (male), (79) *Barbutodes lantzi* (male), (80) *Episindris albimaculalis* (female), (81) *Haplosindris* sp. (female), (82) *Cassouodes camptoceralis* (male), (83) *Sindris* sp. (male).

Lantzina prasinalis Hampson, 1906*

(Figs 60, 87, 88)

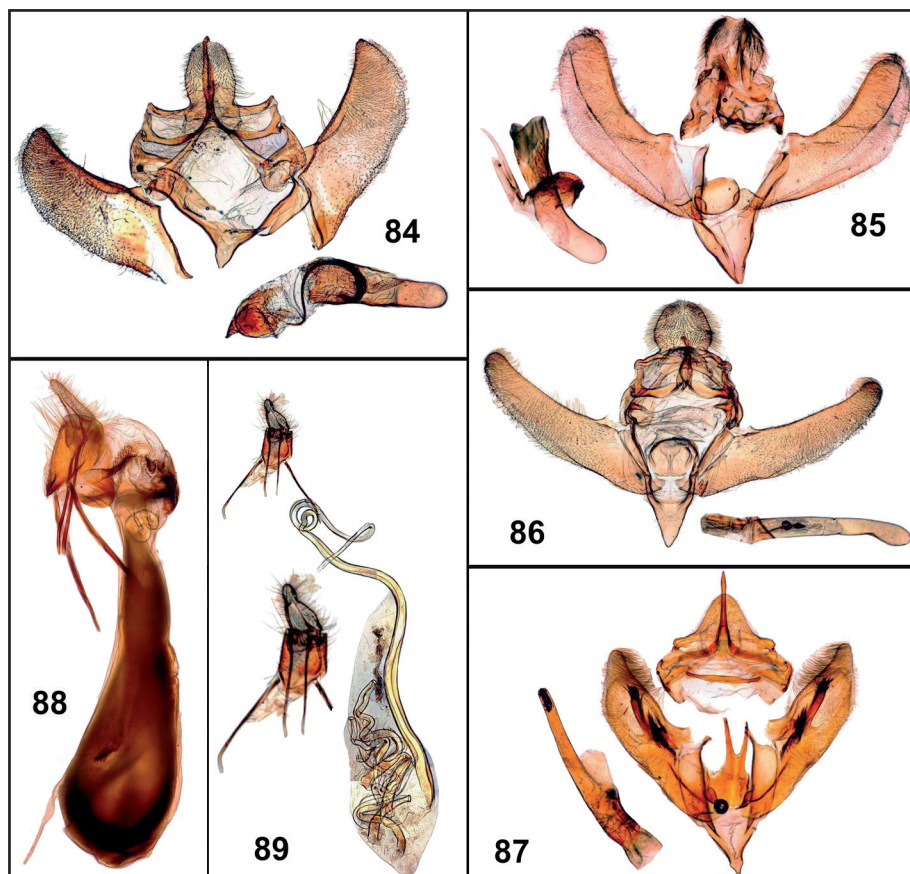
Material examined: Liberia: GAT, 21–25.iii.2017 (53 ex.); GAW, 16–23.iii.2017 (35 ex.); ENNR 700, 23–30.iii.2017 (5 ex.); ENNR 750, 10.iii.2017 (2 ex.); ENNR 1000–1100, 12.iii–4.iv.2017 (8 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

Distribution: Afrotropical: Côte d’Ivoire (Leraut 2013).

Lantzina hodeberti Leraut, 2013*

Material examined: Liberia: ENNR 1000–1100, 28.iii.2017 (1 ex.).

Distribution: Afrotropical: Côte d’Ivoire (Leraut 2013).



Figs 84–89: Genitalia of Pyraloidea: (84) *Lantzodes subpurpuralis* (male), (85) *Sacada* sp. (male), (86) *Maradana yapoensis* (male), (87) *Lantzina prasinalis* (male), (88) *Lantzina prasinalis* (female), (89) *Goateria* sp. (female).

Lantzina rufalis Leraut, 2013*

(Fig. 62)

Material examined: Liberia: ENNR 1000–1100, 28.iii.2017 (2 ex.).

Distribution: Afrotropical: Côte d’Ivoire (Leraut 2013).

Lantzodes subpurpuralis Leraut, 2013*

(Figs 63, 84)

Material examined: Liberia: GAW, 20–23.iii.2017 (2 ex.); ENNR 750, 10.iii.2017 (1 ex.); ENNR 1000–1100, 28–31.iii.2017 (2 ex.).

Distribution: Afrotropical: Côte d’Ivoire (Leraut 2013).

Nussodes abidjanalis Leraut, 2013*

(Fig. 64)

Material examined: Liberia: GAW, 16.iii.2017 (1 ex.); ENNR 1000–1100, 16.iii–2.iv.2017 (2 ex.).**Distribution:** Afrotropical: Côte d'Ivoire (Leraut 2013).*Sacada* sp.

(Figs 65, 85)

Material examined: Liberia: ENNR 700, 28–29.iii.2017 (5 ex.).*Sindris* sp.

(Figs 54, 83)

Material examined: Liberia: ENNR 750, 10.iii.2017 (1 ex.); ENNR 1000–1100, 29–31.iii.2017 (6 ex.).

Subfamily Phycitinae

Gaana sp.

(Fig. 66)

Material examined: Liberia: GAW, 19–21.iii.2017 (4 ex.); ENNR 1300, 31.iii.2017 (1 ex.).

DISCUSSION AND CONCLUSION

Altogether, 96 Pyraloidea species were collected at the end of the dry season in the Liberian Nimba Mountains (March and early April), with 10 identified to genus only. Moreover, this collection includes at least another 10 unidentified taxa, which are not mentioned in this article. In general, the resultant list of pyraloid moths in Liberia is quite expected and characteristic for West African countries.

Previously, only 12 species were recorded in Liberia, viz. *Bradina admixtalis*, *Eoophyla capensis*, *Eporidia dariusalis*, *Leucinodes africanus* Mally, Korycinska, Agassiz, Hall, Hodgetts & Nuss, 2015, *Marwitzia dichocrocis*, *Palpita metallata*, *Palpita vitrealis*, *Parapoynx stagnalis* (Zeller, 1852), *Zebronia phenice* (Mally et al. 2015; De Prins & De Prins 2018). *Cadarena pudoraria*, *Diaphania indica* and *Stemorrhages sericea* were found in the Nimba Mountains by Boireau (2010).

All other 76 species are new country records for Liberia. The most abundant are *Lantzina prasinalis*, *Mabokia delicatalis*, *Prophantis smaragdina*, *Pardomima phalaromima*, *Glyphodes stolalis*, *Eporidia dariusalis*, summing up to 36.4% of all collected specimens.

The number of species at the catching sites is proportional to the number of specimens (Table 1), with only one deviation at the GAT site, which is explained by the long series of *Lantzina prasinalis* (53 ex.) collected just there.

During the same season in the Niger Valley in the Guinea savanna belt in Southern Mali in 2014 only 17 species of Pyraloidea were recorded, indicating that

Table 1. Statistics of Pyraloidea moths in the sites of the East Nimba Nature Reserve.

Catching site	Species number	Specimens number	Catching period	Number of nights
GAT	18	114	18–25.iii.17	7
GAW	40	153	16–25.iii.17	11
ENNR 700	28	120	23–31.iii.17	7
ENNR 750	19	37	10.iii.17	1
ENNR 1000–1100	56	352	12.iii–4.iv.17	15
ENNR 1300	18	41	31.iii.17	1

the Pyraloidea fauna of the Nimba Mountains and probably the rainforests in the Liberian subregion of the Upper Guinea forests is significantly richer. The species richness of Pyraloidea, observed in the Nimba Mountains during only one month, is even higher than in Southern Mali after a full year of systematic collecting (79 species) (Poltavsky *et al.* 2018). Extrapolating the faunistic diversity of Mali to Liberia, we can assume that in the area of Nimba and Gangra mountains we collected no more than 30% of local Pyraloidea species. Respectively, one may expect at least 300 species of Pyraloidea to be caught in the future in this region.

Nine African species in the subfamily Pyralinae were recorded for the first time after their original description: *Barbutodes lantzi* (DR Congo, Côte d’Ivoire), *Epi-sindris albimaculalis* (Mozambique), *Mabokia boudinotalis* (Central African Republic), *M. delicatalis*, *Maradana yapoensis*, *Lantzina prasinalis*, *L. hodeberti*, *L. rufalis*, *Lantzodes subpurpuralis*, *Nussodes abidjanalis* (Côte d’Ivoire) (Leraut 2013).

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