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## Taxonomic and faunistic notes on Greek ants (Hymenoptera: Formicidae)

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**Abstract:** *Cataglyphis cretica* (FOREL, 1910) is raised to species rank and redescribed. The following synonymies are proposed: *Lepisiota nigra* (DALLA TORRE, 1893) = *Lepisiota splendens* KARAWAIEV, 1912 **syn. nov.**; *Camponotus boghossiani* FOREL, 1911 = *Camponotus boghossiani stenoticus* EMERY, 1915 **syn. nov.**; *Camponotus oertzeni* FOREL, 1889 = *Camponotus andrius* DALLA TORRE, 1893 **syn. nov.**, = *Camponotus oertzeni kappariensis* DALLA TORRE, 1893 **syn. nov.** Gynes of *Aphaenogaster aktaci* KIRAN & TEZCAN, 2008, *Temnothorax angustifrons* CSÖSZ, HEINZE & MIKÓ, 2015, *Temnothorax dessyi* (MENOZZI, 1936), *Temnothorax kemali* (SANTSCHI, 1934), *Temnothorax smyrnensis* (FOREL, 1911) and *Temnothorax solerii* (MENOZZI, 1936) are described for the first time. *Aphaenogaster aktaci* KIRAN & TEZCAN, 2008 and *Temnothorax kemali* (SANTSCHI, 1934) are new to Europe and Greece. New records for 10 species and an updated checklist of 315 species or morphospecies occurring in Greece is given.

**Key words:** redescription, new status, species new to Europe, species new to Greece, ants, Greece.

### INTRODUCTION

Ant fauna of Greece has been intensively studied in recent years. The first impulse for studies on Greek ant fauna was the publication of a checklist by LEGAKIS (2011). This paper, despite its several erroneous data, has become a base for further regional surveys. In recent years several other papers, including checklists of various Greek regions and taxonomic revisions, allowed to complement knowledge about ants biodiversity of this country (BOER 2013, BOROWIEC & SALATA 2012, 2013, 2014a, 2014b, 2017a, 2017b, 2018a, 2018b, 2018c, 2018d, 2018e, BRAČKO *et al.* 2016, CSÖSZ *et al.* 2015, 2018, SALATA & BOROWIEC 2015a, 2015b, 2015c, 2016, 2017, 2018a, 2018b, SALATA *et al.* 2018a, 2018b, 2019). In total, literature records and data provided in this paper lists from Greece at least 315 taxa with

certain occurrence (see updated list in supplement). Among them, 32 morphotypes are still unidentified and probably represent species new to the science and occurrence of 13 species recorded only generally from Greece need confirmation. This ranks Greek ant fauna as the richest in Europe. Despite the fact that these recent efforts helped to reveal the richness of Greek biodiversity, there are still some taxa that need further study. In this paper we provide data on distribution of some rare species and propose taxonomic changes within few genera. These changes should contribute in clarification of nomenclatural chaos and help in conducting more advanced research.

## MATERIAL AND METHODS

This paper based mostly on the material preserved in the Collection of Greek Ants housed in Lech Borowiec' private collection (DBET, Wrocław, Poland).

The images of the ant specimens included in this paper were taken using Nikon SMZ 1500 and Nikon SMZ 18 stereomicroscopes, a Nikon D5200 camera and Helicon Focus software. The images of type and non-type specimens, with assigned CASENT number, are available at Ant-Web ([www.AntWeb.org](http://www.AntWeb.org)). All given label data are in original spelling; a vertical bar (|) separates data on different rows and double vertical bars (||) separate labels.

Abbreviations:

<b>DBET</b>	Lech Borowiec collection, Wrocław, Poland;
<b>GB</b>	Gregor Bračko collection, University of Ljubljana, Slovenia;
<b>IEB</b>	Istituto di Entomologia "Guido Grandi," Bologna, Italy;
<b>MSNG</b>	Museo Civico di Storia Naturale, Genova, Italy;
<b>NHMC</b>	Natural History Museum of Crete, Heraklion, Greece;
<b>MHNG</b>	Museum d'Histoire Naturelle, Geneva, Switzerland;
<b>PW</b>	Petr Werner collection;
<b>SSC</b>	Sebastian Salata collection;
<b>UASK</b>	Schmalhausen Institute of Zoology of the National Academy of Sciences of Ukraine.

**g** – gyne, **m** – male, **w** – worker

Pilosity inclination degree applies to this used in HÖLLDOBLER and WILSON (1990). The adpressed (0–5°) hairs run parallel, or nearly parallel to the body surface. Decumbent hairs stand 10–15°, subdecumbent hairs stand 30°, suberect hairs stand 35–45°, and the erect hairs stand more than 45° from the body surface.

Measurements:

**EL** – eye length; measured along the maximum vertical diameter of eye;

**EW** – eye width; measured along the maximum horizontal diameter of eye;

**HL** – head length; measured in straight line from mid-point of anterior clypeal margin to mid-point of posterior margin in full-face view;

**HW** – head width; measured in full-face view directly above the eyes;

**ML** – mesosoma length; measured as diagonal length from the anterior end of the neck shield to the posterior margin of the propodeal lobe;

**PEH** – petiole height; the chord of ventral petiolar profile at node level is the reference line perpendicular to which the maximum height of petiole is measured;

**PEL** – petiole length; length of the petiolar node, measured in lateral view from petiolar spiracle to dorso-caudal corner of caudal cylinder;

**PNW** – mesosoma width; maximum width of: pronotum in workers and scutum in gynes, in dorsal view;

**PPH** – postpetiole height; maximum height of postpetiole in lateral view measured perpendicularly to a line defined by the linear section of the segment border between dorsal and ventral petiolar sclerite;

**PPL** – postpetiole length; maximum length of postpetiole in lateral view;

**PPW** – postpetiole width; maximum width of postpetiole in dorsal view;

**PSL** – propodeal spine length; measured from the center of the propodeal spiracle to the top of the propodeal spine in lateral view;

**PW** – petiole width; maximum width of petiole in dorsal view;

**SDL** – spiracle to declivity length; minimum distance from the center of the propodeal spiracle to the propodeal declivity;

**SL** – scape length; maximum straight line scape length excluding the articular condyle.

Indices:

**HI** – HW/HL \* 100;

**SI1** – SL/HL \* 100;

**SI2** – SL/HW \* 100;

**MI** – PNW/ML \* 100;

**EI1** – EW/EL \* 100;

**EI2** – EW/HL \* 100;

**PI** – PL/PH \* 100;

**PPI** – PPL/PPH \* 100;

**PSI** – PSL/SDL \* 100.

Nomenclature of male genitalia complies with KNADEN *et al.* (2005).

## RESULTS

### *Aphaenogaster aktaci* KIRAN & TEZCAN, 2008 (Figs. 1–6)

*Aphaenogaster aktaci* KIRAN & TEZCAN in KIRAN, AKTAÇ & TEZCAN, 2008: 690.

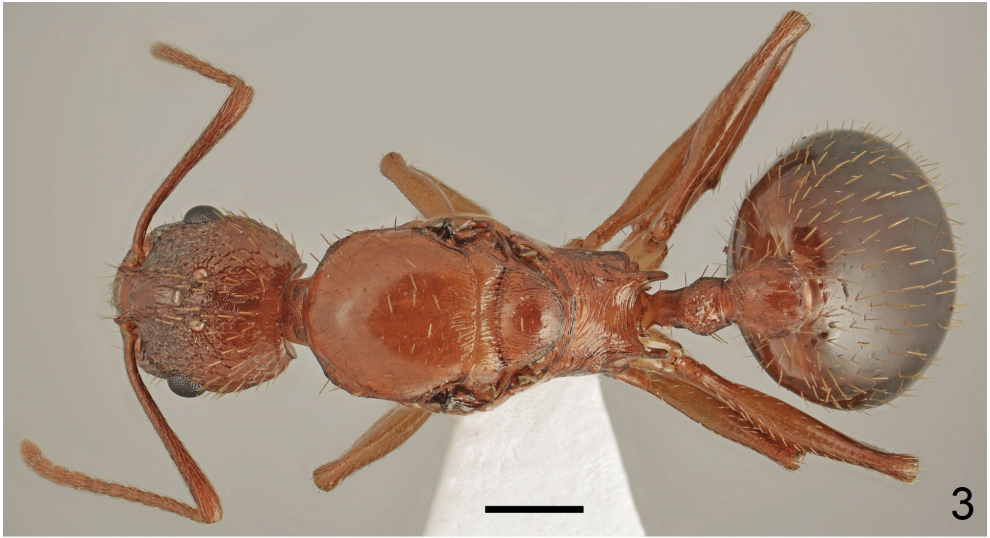
**New material: East Aegean Islands:** Lesbos, Argennos (39.35494 N/26.2661), 548 m, 12 VI 2015, 52w, leg. L. Borowiec (DBET); Lesbos, Ligona Valley (39.32734 N/26.21009), 229 m, 11 VI 2015, 1g, 51w, leg. L. Borowiec (DBET); Lesbos, Mt. Olympos (39.06958 N/26.34976), 814 m, 10 VI 2015, 2g, 130w, leg. L. Borowiec (DBET).

Comments: *Aphaenogaster aktaci* KIRAN & TEZCAN, 2008 was described from western Turkey, Izmir Province based on numerous workers. The species is new to Europe and Greece. KIRAN *et al.* (2008) placed this species in the *Aphaenogaster gibbosa* group sensu SCHULZ (1994), but in our opinion it belongs to the *A. splendida* group due to slimmer body, longer legs and antennae, more oval head and stronger sculpture of head than in any member of the *gibbosa* group (SALATA & BOROWIEC 2018a).

The gyne was unknown so far, so we give its description below:



Figs. 1–2. Worker of *Aphaenogaster aktaci*; (1) Dorsal, (2) Lateral. Scale bar = 1 mm (photo L. Borowiec).



Figs. 3–4. Gyne of *Aphaenogaster aktaci*; (3) Dorsal, (4) Lateral. Scale bar = 1 mm (photo L. Borowiec).

**Gyne** (n=3): HL:  $1.55 \pm 0.01$  (1.54-1.57); HW:  $1.35 \pm 0.03$  (1.31-1.37); SL:  $1.32 \pm 0.008$  (1.31-1.33); EL:  $0.39 \pm 0.03$  (0.36-0.43); EW:  $0.3 \pm 0.03$  (0.27-0.36); ML:  $2.6 \pm 0.09$  (2.56-2.72); PSL:  $0.6 \pm 0.02$  (0.59-0.62); SDL:  $0.3 \pm 0.004$  (0.3-0.31); PEL:  $0.8 \pm 0.05$  (0.79-0.89); PPL:  $0.51 \pm 0.01$  (0.49-0.52); PH:  $0.53 \pm 0.01$  (0.52-0.54); PPH:  $0.64 \pm 0.02$  (0.62-0.66); PNW:  $1.49 \pm 0.2$  (1.34-1.74); PEW:  $0.52 \pm 0.1$  (0.44-0.65); PPW:  $0.65 \pm 0.06$  (0.61-0.72); HI:  $87.0 \pm 1.7$  (85.1-88.3); SI1:  $85.3 \pm 0.9$  (84.4-86.2); SI2:  $98.1 \pm 2.8$  (96.5-101.3); MI:  $56.5 \pm 6.4$  (52.6-63.9); EI1:  $79.3 \pm 4.9$  (75.0-84.6); EI2:  $19.9 \pm 2.7$  (17.5-22.9); PI:  $129.1 \pm 9.2$  (120.0-138.5); PPI:  $97.0 \pm 5.2$  (90.9-100.0).



Figs. 5–6. Gyna of *Aphaenogaster aktaci*; (5) Head and antennae, (6) Head sculpture. Scale bar = 0.5 mm (photo L. Borowiec); Figs. 7–8. Worker of *Strumigenys membranifera*; (7) Dorsal, (8) Lateral (source AntWeb CASENT0922883, photo M. Esposito).

**Colour.** Whole body brown. Frons and gaster slightly darker (Figs 3–4). **Head.** Oval, lateral surfaces below eyes straight, gently rounded on the posterior edges, occipital margin of head convex (Fig. 6). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.25 times as long as length of the head. Antennal scape short, slightly curved, 0.8 times as long as length of the head, not exceeding beyond occipital margin of head, in apex gradually widened, its base with small teeth. Pedicel more than 2 times longer than wide; average 1.2 times longer than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide (Fig. 5). Surface of scape with very fine, short and sparse striae and sparse punctation; covered with thin, moderate dense, adpressed to decumbent setae, shorter than ½ of scape width. Mandibles triangular, with thick, longitudinal striae, shiny. Clypeus shiny with sparse, thick, longitudinal striae, area between striae with gentle microreticulation or smooth, shiny. Frontal carinae short, slightly extending across the fronts of the antennal fossae. Antennal fossa deep, with sparse roundly curved striae, area between striation smooth. Frontal lobes narrow, smooth with thick longitudinal striae. Head on the whole surface with thick, moderately dense, longitudinal reticulation, area between rugae with irregular, fine and thick rugae, shiny. Entire head bearing thick, suberect to erect, pale setae (Fig. 6). **Mesosoma.** Short, square, 1.7 times as long as head; in lateral view scutum slightly convex, scutellum located above scutum, and globular; propodeal spines triangular, long, with wide base, inclined at the 45° angle; dorsal surface of propodeum inclined towards its posterior surface (Fig. 3). Pronotum with longitudinal, horizontal, weak but dense striation, area between striae smooth or with microreticulation, shiny. Scutum with extremely fine and sparse microreticulation and shiny, only on its posterior edge with some short, longitudinal wrinkles; scutellum and axilla with longitudinal striation; scutum centre smooth or with extremely sparse and fine microreticulation; area between striae smooth and shiny; propodeum shiny, with dense transverse to irregular striation (Fig. 3). Anepisternum and katepisternum shiny with sparse and fine microreticulation; lateral edges with very dense, thick longitudinal striation. Mesosoma dorsum with sparse, thick, erect setae (Fig. 4). **Petiole.** Peduncle moderate, node with anterior and posterior faces convex, its dorsal surface wide and convex. On the whole surface covered by dense microreticulation and sparser thick, irregular striae and long, thick erect setae (Fig. 4). **Postpetiole.** In lateral view, regularly rounded, 0.8 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense microreticulation and sparser thick, irregular striae and long, thick erect setae (Fig. 4). **Gaster.** Smooth and shiny, bearing dense, long, suberect to erect, pale setae. (Figs 3–4).

*Camponotus boghossiani* FOREL, 1911 (Figs. 9–10)

*Camponotus boghossiani* FOREL, 1911: 357;

= *Camponotus boghossiani* var. *stenotica* EMERY, 1915: 7 (= *Camponotus kiesenwetteri* r. *angustatus* Forel, 1889: 261 not *Camponotus angustata* Mayr, 1870: 942) **syn. nov.**

**Type material.** *C. boghossiani*, syntype (w): Sp. *C. Boghossiani* | Forel || Typus || *C. Boghossiani* | type Forel| .... | dans bois (Forel) || S. G. Orthonofominnese || G. *Camponotus* | Mayr || Coll. A. Forel | ANTWEB | CASENT0910435 (MHNG); *C. stenoticus*, syntype (w): *C. boghossiani* | For. | var. *stenotica* | Em. | *C. kiesenwetteri* | it. *angustulus* | Forel | Creta (Cecconi) | Rettimo Monastiriou | ANTWEB | CASENT0905396 (MSG).

**Comparative material.** **Crete:** Heraklion Prov., Rouvas Gorge (35.14444 N/24.9061 E), 455 m, 24 IV 2014, 3w, leg. S. Salata (DBET); **Cyclades:** Naxos, Kouros (37.1788 N/25.4932 E), 68 m, 30 VI 2016, 2w (EtOH), leg. S. Salata (DBET); Naxos, Lionas (37.137 N/25.5855 E), 20 m, 4 VII 2016, 2w (pin) 3w (EtOH), leg. S. Salata (DBET); **Dodecanese:** Kos, Aspri Petra



9



10

Figs. 9–10. Worker of *Camponotus boghossiani*; (9) Dorsal, (10) Lateral. Scale bar = 1 mm (photo L. Borowiec).

(36.71857 N/26.9741 E), 236 m, 6 VII 2015, 1w, leg. S. Salata (DBET); Kos, Kardamena-Pili rd. loc. 2 (36.83822 N/27.15887 E), 133 m, 7 VII 2015, 2w (pin) 1w (EtOH), leg. S. Salata (DBET, SSC); Kos, Zia (36.84555 N/27.20493 E), 328 m, 7 VII 2015, 1w (EtOH), leg. S. Salata (SSC); Rhodes, Agios Nectarios Church (36.26574 N/28.0769 E), 160 m, 4 V 2015, 1w, leg. L. Borowiec (DBET); Rhodes, vic. Arhipoli loc. 2 (36.26546 N/28.06688 E), 194 m, 5 V 2015, 1w (pin) 1w (EtOH), leg. L. Borowiec (DBET); Rhodes, Apollona (36.25 N/27.91666 E), 372 m, 10 VII 2008, 3w, leg. L. Borowiec (DBET); Rhodes, Asklipio-



Laerma rd. (36.06666 N/27.91666 E), 169 m, 3 VII 2008, 1w, leg. L. Borowiec (DBET); Rhodes, Attavyros loc. 2 (36.19932 N/27.8187 E), 598 m, 6 V 2015, 1w (pin) 2w (EtOH), leg. L. Borowiec (DBET); Rhodes, Attavyros loc. 3 (36.20018 N/27.81451 E), 593 m, 6 V 2015, 3w (pin) 4w (EtOH), leg. L. Borowiec (DBET); Rhodes, Eleousa vic. (36.27223 N/28.03235 E), 245 m, 5 V 2015, 1w (pin) 1w (EtOH), leg. L. Borowiec (DBET); Rhodes, Epta Piges (36.25459 N/28.11378 E), 99 m, 4 V 2015, 1w, leg. L. Borowiec (DBET); Rhodes, Kiotari (36.03333N/27.95 E), 3 m, 2 VII 2008, 1w, leg. L. Borowiec (DBET); Rhodes, Maritsa vic. (36.35409 N/28.09219 E), 145 m, 8 V 2015, 1w (EtOH), leg. L. Borowiec (DBET); Rhodes, Petaloudes (36.33333 N/28.05 E), 192 m, 9 VII 2008, 2w, leg. L. Borowiec (DBET); Rhodes, Petaloudes (36.33567 N/28.06264 E), 240 m, 8 V 2015, 8w (EtOH), leg. L. Borowiec (DBET); Rhodes, road to Profitis Ilias loc. 2 (36.27618 N/27.97216 E), 522 m, 7 V 2015, 1w (EtOH), leg. L. Borowiec (DBET); Rhodes, road to Profitis Ilias loc. 3 (36.27233 N/27.96618 E), 553 m, 7 V 2015, 4w (EtOH), leg. L. Borowiec (DBET); Rhodes, road to Profitis Ilias loc. 4 (36.27368 N/27.95618 E), 589 m, 7 V 2015, 1g, 2w (pin) 3w (EtOH), leg. L. Borowiec (DBET); Rhodes, road to Profitis Ilias loc. 5 (36.27546 N/27.9415 E), 650 m, 7 V 2015, 2w (pin) 11w (EtOH), leg. L. Borowiec (DBET); **East Aegean Islands:** Lesbos, Ipsilometopo (39.32012 N/26.24461 E), 485 m, 11 VI 2015, 6w (EtOH), leg. L. Borowiec (DBET); Lesbos, Ligona Valley (39.32734 N/26.21009 E), 229 m, 11 VI 2015, 1w, leg. L. Borowiec (DBET); Lesbos, rd. Sykaminia-Vigla (39.35468 N/26.30483 E), 395 m, 12 VI 2015, 1g, 2w (pin) 9w (EtOH), leg. L. Borowiec (DBET); Samos, 1.7 km S of Agios Konstantinos (37.79064 N/26.83246 E), 285 m, 5 VI 2017, 2w (EtOH), leg. L. Borowiec (DBET); Samos, Drakei (37.76666 N/26.63333 E), 290 m, 8 VI 2013, 1w, leg. H.C. Wagner (DBET); Samos, 2.7 km SW of Drakei (37.73773 N/26.59555 E), 285 m, 4 VI 2017, 2w (EtOH), leg. L. Borowiec (DBET); Samos, 1.3 km S of Idroussa (37.76763 N/26.75136 E), 310 m, 7 VI 2017, 1w (EtOH), leg. L. Borowiec (DBET); Samos, 1 km NE of Kallithea (37.74111 N/26.5893 E), 300 m, 4 VI 2017, 2w (EtOH), leg. L. Borowiec (DBET); Samos, 400 m E of Kastania (37.75111 N/26.68886 E), 390 m, 6 VI 2017, 1w (EtOH), leg. L. Borowiec (DBET); Samos, 1.3 km S of Kastania (37.74216 N/26.69263 E), 350 m, 6 VI 2017, 1w (EtOH), leg. L. Borowiec (DBET); Samos, 1.1 km S of Kontakeika (37.79198 N/26.7495 E), 260 m, 7 VI 2017, 1w, leg. L. Borowiec (DBET); Samos, 500 m SW of Manolates (37.78207 N/26.8212 E), 380 m, 5 VI 2017, 1w (pin) 4w (EtOH), leg. L. Borowiec (DBET); Samos, Mili (37.67975 N/26.86006 E), 40 m, 3 VI 2017, 1w (pin) 1w (EtOH), leg. L. Borowiec (DBET); Samos, Nachtigallental (37.78333 N/26.81666 E), 50-100 m, 9 VI 2013, 1w, leg. H.C. Wagner (DBET); Samos, 1 km W of Platanos (37.74023 N/26.73481 E), 335 m, 6 VI 2017, 1w (pin) 4w (EtOH), leg. L. Borowiec (DBET); Samos, Vigla (37.7 N/26.63333 E), 15 m, 6 VI 2013, 2w, leg. H.C. Wagner (DBET); **Peloponnese:** Messinia, Taygetos Mts., 2 km W of Arachova (37.0357 N/22.1978 E), 680 m, 13 VI 2016, 2w (pin) 1w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., 0.6 km W of Artemisia (37.09877 N/22.22287 E), 660 m, 15 VI 2016, 2w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., 1.3 km S of Artemisia (37.08738 N/22.23378 E), 870 m, 17 VI 2016, 1w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., Chora Getson (36.94799 N/22.25466 E), 615 m, 14 VI 2016, 4w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., 1.4 km S of Chora Getson (36.93799 N/22.25276 E), 675 m, 14 VI 2016, 1w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., 2 km NW of Karveli (37.08415 N/22.19448 E), 410 m, 17 VI 2016, 4w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., Moni Dimiovis E of Eleochori (37.04164 N/22.19885 E), 780 m, 13 VI 2016, 2w (pin) 6w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., Rintomo Canyon E of Vorio (36.96363 N/22.25729 E), 600 m, 14 VI 2016, 1w (pin) 4w (EtOH), leg. L. Borowiec (DBET); Messinia, Taygetos Mts., Taygetos Mts., 1 km E of Saidona (36.88517 N/22.29499 E), 880 m, 20 VI 2016, 1w (EtOH),

leg. L. Borowiec (DBET); Messinia, Taygetos Mts., 0.4 km S of Vorio (36.95289 N/22.24142 E), 600 m, 14 VI 2016, 1w (pin) 2w (EtOH), leg. L. Borowiec (DBET).

Comments: *Camponotus stenoticus* was described by FOREL (1889) as *C. kiesenwetteri* r. *angustatus* (junior homonym of *C. angustata* MAYR, 1870). In the description, *C. angustulatus* FOREL, 1889 was distinguished from *C. kiesenwetteri* based on lack of blunt teeth on propodeum. EMERY (1915) suggested a replacement name and considered this taxon as a subspecies of *C. boghossiani* (*C. boghossiani* var. *stenotica*). In the same paper Emery suggested that, based on lack of morphological differences, *C. stenoticus* could be a junior synonym of *C. boghossiani*. After examination of type specimens of both taxa and material collected from Greece, we couldn't find any strong evidences to maintain their status as independent species. Therefore, we consider *C. stenoticus* as a junior synonym of *C. boghossiani*.

***Camponotus oertzeni*** FOREL, 1889 (Figs. 11–14)

*Camponotus rubripes* r. *oertzeni* FOREL, 1889: 263;

= *Camponotus oertzeni* var. *andrius* DALLA TORRE, 1893: 246 (= *Camponotus rubripes* r. *oertzeni* var. *andrius* FOREL, 1889: 265, unavailable name) **syn. nov.**

= *Camponotus oertzeni* var. *kappariensis* DALLA TORRE, 1893: 246 (= *Camponotus rubripes* r. *oertzeni* var. *kappariensis* FOREL, 1889: 264, unavailable name) **syn. nov.**

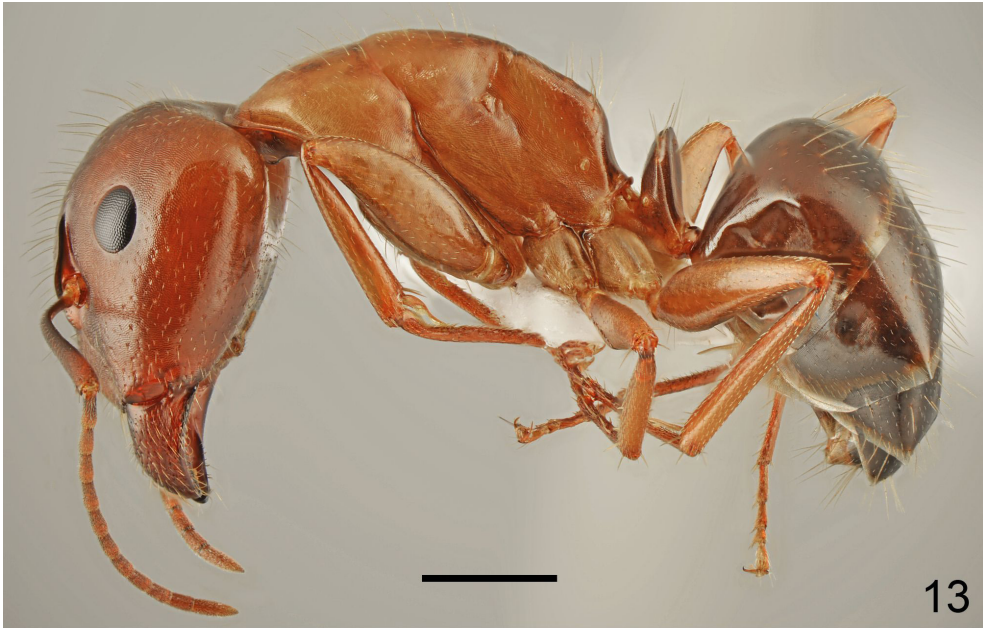
**Type material.** *Camponotus oertzeni*, syntype (w): *C. rubripes* | r. Oertzeni | Forel | Type | Samos Isl | b. Maratokampos | v. Oertzen | type || r. *C. Oertzeni* || Typus || Coll. A. Forel. || *oertzeni* | 161 || ANTWEB | CASENT0249625 (MHNG); *C. andrius*, syntype (w.): *C. oertzeni* | Forel | r. *andrius* | Ile Andros | leg. Oertzen || v. *Andrius* | Forel || Sp. 1. *Maculatus* | (Suite) Fabr. || r. 1. *Oertzeni* | (Suite) Forel || G. *Camponotus* || S. G. *Myrmentoma* | Suite For. || Typus || Coll. | A. Forel || ANTWEB | CASENT0910194 (MHNG); *C. andrius*, syntype (w): *C. oertzeni* | Forel | v. *andrius* | ... | Ile Andros | (v. Oertzen) || Typus || Coll. | A. Forel || *andrius* | 161 || ANTWEB | CASENT0910195 (MHNG); *C. kappariensis*, syntypes (2w): *rubripes* | *C. oertzeni* | Forel | v. *Kappariensis* | Ile Kappari | Sudlichen Sporaden | v. Oertzen || Typus || v. *Kappariensis* | Forel || Coll. | A. Forel || *kappariensis* 161 || ANTWEB | CASENT0910196 (MHNG).

**New material: East Aegean Islands:** Lesbos, 3.4 km NE of Skalochori (39.27923 N/26.10926 E), 292 m, 9 VI 2015, leg. L. Borowiec (DBET); Lesbos, Mt. Olympos (39.06958 N/26.34976 E), 814 m, 10 VI 2015, leg. L. Borowiec (DBET).

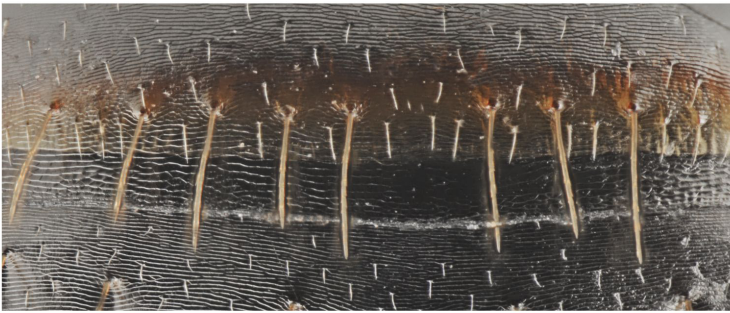
Comments: In their descriptions (FOREL 1889), *C. andrius* and *C. kappariensis* were compared with *C. jaliensis* and *C. oertzeni*. All taxa were differentiated based on differences in body colouration, type of setosity on mesosoma and presence of concave dorsum of propodeum. FOREL (1889) didn't notice that type specimens of *C. andrius* and *C. kappariensis* have a row of erect setae on the ventral edge of tibiae, what classify them as members of the *C. oertzeni* complex and distinguish them from *C. jaliensis*. Study on type specimens and collected material revealed that all features mentioned in descriptions of both taxa are very common within *C. oertzeni* populations. Moreover, we didn't find any strong features that allow to distinguish these taxa. Therefore, we consider *C. andrius* and *C. kappariensis* as junior synonyms of *C. oertzeni*. The problem may be to distinguish *C. oertzeni* from a very similar *C. aethiops* (LATREILLE). Both species are very variable in colour of body and appendices. In *C. aethiops* predominate populations with dark brown to almost black body and brown legs and antennae while in *C. oertzeni* predominate populations with brown body and reddish-yellow legs and antennae (Figs. 11–12). In *C. oertzeni* often occur pale



Figs. 11–12. Worker of *Camponotus oertzeni*; (11) Dorsal, (12) Lateral. Scale bar = 1 mm (photo L. Borowiec).



13



14



15

Figs. 13. Worker of *Camponotus oertzeni*, pale form lateral; Scale bar = 1 mm. Figs. 14–15. Setation of posterior margin of gastral tergites (14) *Camponotus oertzeni*, (15) *Camponotus aethiops* (photos L. Borowiec).

specimens with reddish-yellow head and mesosoma and yellowish legs (Fig. 13), while in *C. aethiops* the palest specimens are at most pale brown. The best distinguishing character is setation of posterior margin of gastral tergites. In *C. oertzeni* setae of short apical transverse row are very short, never extending to the apical margin of the tergite, often reaching at most

half length of apical marginal edge of the tergite (Fig. 14) while in *C. aethiops* setae of the short apical transverse row usually reach or even slightly exceed apical margin of the tergite (Fig. 15).

*C. oertzeni* appears to be common in Greece, recorded from Aegean Is., Crete, Cyclades, Dodecanese, Epirus, Ionian Islands, Macedonia, Sterea Ellas, and Thrace (FOREL 1889, EMERY 1908, 1915, FINZI 1928, 1939, MENOZZI 1936, COLLINGWOOD 1993, BOROWIEC & SALATA 2012, 2017a, 2017b, 2018a, 2018b, BRAČKO *et al.* 2016, SALATA & BOROWIEC 2016).

*Carebara oertzeni* (FOREL, 1886) (Figs. 16–17)

*Oligomyrmex oertzeni* FOREL, 1886: clxv.

**New material:** Sterea Ellas: Phthiotis, 19.5 km of Lamia, 1000 m, 17 VIII 1979, leg. J.T. Huber (MHNG).

Comments: Described from Elis province of Peloponnese (now Western Greece region). Recorded also from the European part of Turkey (KARAMAN & KIRAN 2017) and vicinity of Izmir (FOREL 1911). Recently recorded from Euboea island of Sterea Ellas region (BOROWIEC & SALATA 2018e). This is the fourth record of this very rare species.



Figs. 16–17. Major worker of *Carebara oertzeni*; (16) Dorsal, (17) Lateral. Scale bar = 1 mm (photo L. Borowiec).

*Cataglyphis cretica* (FOREL, 1910) **new status** (Figs. 18–29)

*Myrmecocystus cursor* var. *cretica* FOREL, 1910: 23 (= *Myrmecocystus cursor aenescens* var. *cretica* EMERY, 1906: 48, unavailable name);

= *Cataglyphis (Momocombus) cursor* st. *helenica* var. *dorica* SANTSCHI, 1929: 35 (unavailable name) **syn. nov.**

**Type material.** Syntype (w): *Myrmecocustus | cursor | aenescens | ver. cretica* Em. || Creta | (Cecconi) | Kufor|| CASENT0102116 | ANTWEB (MSNG).

**Material examined: Crete:** Chania Prov., Akrotiri Peninsula, 2 km E of Chorafakia (35.5679 N/24.12709 E), 20 IV 2016, 5w (EtOH), leg. G. Hebda (DBET); Chania Prov., Akrotiri Peninsula, Stavros (35.59051 N/24.07864 E), 20 IV 2016, 7w (EtOH), leg. G. Hebda (DBET); Chania Prov., Chania (35.509643 N/23.995999 E), 10 m, 15 V 2016, 3w, leg. L. Borowiec (DBET); Chania Prov., Greleska on the way to Agioi Theodoroi (35.31667 N/23.85 E), 1171 m, 19 VII 2013, 2w (EtOH), leg. S. Simaiakis (NHMC); Chania Prov., Omalos Plateau-Prases rd. (35.33333 N/23.85 E), 945 m, 3 V 2011, 1g, 1w, 1m, leg. A. Kuhn (DBET); Chania Prov., Therisso to Mt. Kaloros rd. loc. 1 (35.36667 N/23.98333 E), 1134 m, 19 VII 2013, 1w (EtOH), leg. S. Simaiakis (NHMC); Chania Prov., Therisso to Mt. Kaloros rd. loc. 2 (35.35 N/23.95 E), 1130 m, 4 X 2013 and 31 XII 2013, 4w (EtOH), leg. S. Simaiakis (NHMC); Heraklion Prov., Asimi (35.03333 N/25.08333 E), 258 m, 16 IV 2014, 7w (EtOH), leg. S. Salata (SSC); Heraklion Prov., Aposelemis (35.33333 N/25.33333 E), 7 m, 2 VIII 2000, 2w (EtOH), leg. A. Trichas (NHMC); Heraklion Prov., Kato Gouvas (35.33333 N/25.295 E), 0 m, 24 VII 2006, 1w (EtOH), leg. G. Bračko (GB); Heraklion Prov., Kato Gouvas beach (35.33333 N/25.28333 E), 0 m, 11 IV 2014, 3w (EtOH), leg. S. Salata (SSC); Heraklion Prov., Laguota (35.05 N/25.28333 E), 242 m, 25 IV 2014, 7w (EtOH), leg. S. Salata (SSC); Lasithi Prov., Hristos-Mathokotsana road (35.08333 N/25.56667 E), 703 m, 12 IV 2014, 23w (EtOH), leg. S. Salata (SSC); Lasithi Prov., above Kalimaki loc. 3 (35.11667 N/25.43333 E), 1240 m, 22 IV 2014, 5w (EtOH), leg. S. Salata (SSC); Lasithi Prov., Kato Symi loc. 1 (35.05 N/25.48333 E), 1206 m, 12 IV 2014, 25w (EtOH), leg. S. Salata (SSC); Lasithi Prov., Kato Symi loc. 2 (35.05 N/25.48333 E), 1021 m, 16 IV 2014, 26w (EtOH), leg. S. Salata (SSC); Lasithi Prov., Myrtos (35.03333 N/25.56667 E), 100 m, 23 VII 1999, 4w (EtOH), leg. M. Papadimitrakis (NHMC); Lasithi Prov., Myrtos (35.03333 N/25.56667 E), 100 m, 31 I 2000, 1w (EtOH), leg. E. Nikolakakis (NHMC); Lasithi Prov., Selakano (35.08333 N/25.55 E), 800 m, 23 VII 1999, 4w (EtOH), leg. M. Papadimitrakis (NHMC); Rethymno Prov., Ag. Joannis Forest loc. 1 (35.23333 N/24.4 E), 448 m, 6 V 2013, 2w, leg. L. Borowiec (DBET); Rethymno Prov., Kissos (35.18333 N/24.56667 E), 623 m, 9 V 2013, 4w (EtOH), leg. S. Salata (SSC); Rethymno Prov., road to Nida plateau (35.25 N/24.88333 E), 1166 m, 3 V 2014, 4w (EtOH), leg. S. Salata (SSC); Rethymno Prov., Plakias env. (35.189 N/24.402 E), 8 m, 22 V 2006, 4w, leg. A. Bezděčka & K. Tichá (PW).

**Diagnosis.** *Cataglyphis cretica* is a member of the *C. cursor* group characterized by uniformly dark body colouration and nodiform scale. From most of Mediterranean species it differs in lack of erect setae on scape and presence of at most 3-5 erect setae on the occipital margin of head and first gaster tergite (in most specimens erect setae are absent). The only known species with similar set of characters is *C. aenescens* (NYLANDER, 1849). Workers and gynes of *C. cretica* differ from *C. aenescens* in bigger body size and dull body sculpture. There also distinct differences in male genitalia between those two species. In *C. aenescens* median appendix of squamula is big and has a shape of widening distally shovel, while *C. cretica* has median appendix of squamula small and spherical (Figs. 26–29).

**Redescription.** Worker (n=15): HL:  $1.717 \pm 0.211$  (1.202-1.927); HW:  $1.437 \pm 0.203$  (0.968-1.661); SL:  $2.1 \pm 0.243$  (1.516-2.581); EL:  $0.446 \pm 0.05$  (0.339-0.516); EW:  $0.326 \pm 0.035$  (0.258-0.355); ML:  $2.716 \pm 0.302$  (1.984-3.0); PNW:  $1.258 \pm 0.18$  (0.911-1.478); HI:  $83.5 \pm 3.0$  (76.7-86.4); SI1:  $123.3 \pm 16.7$  (111.9-186.1); SI2:  $148.0 \pm 21.2$  (129.4-222.3); MI:  $113.8 \pm 3.6$  (107.3-119.3); EI1:  $73.3 \pm 3.5$  (68.8-80.9); EI2:  $19.0 \pm 0.8$  (18.3-21.5).



18



19

Figs. 18–19. Major worker of *Cataglyphis cretica*; (18) Dorsal, (19) Lateral. Scale bar = 1 mm (photo L. Borowiec).

**Colour.** Head, mesosoma and gaster bright brown to black. Antennae and legs bright brown, sometimes femora with darker centre (Figs. 18–19). **Head.** Square, 1.2 times as long as wide, lateral surfaces below and above eyes gently convex, posterior edges convex, occipital margin of head convex (Figs. 22–25). Anterior margin of the clypeus convex with shallow impression in central part. Eyes big, oval, 1.4 times as long as wide. Antennal scape long, in lateral view straight, 1.2 times as long as length of the head, in apex gradually widened, its base without tooth, funiculus long (Fig. 22). Surface of scape with very dense microsculpture, opalescent, covered with thin, moderate dense, adpressed setae. Mandibles rounded with thick sparse,



Figs. 20–21. Gyne of *Cataglyphis cretica*; (20) Dorsal, (21) Lateral. Scale bar = 1 mm (photo L. Borowiec).

longitudinal striae, shiny. Clypeus opalescent, with dense, fine microreticulation. Frontal carinae short, not extending beyond frontal lobes. Antennal fossa shallow, opalescent, with dense, fine microreticulation. Whole head opalescent, with dense, fine microreticulation (Fig. 25). The whole head surface covered by short, adpressed setae; sometimes occipital margin with a few (<3) long, thin erect setae. **Mesosoma.** Long, 2.2 times as long as wide; metanotal groove shallow. Pronotum convex on sides. In lateral view promesonotum slightly arched in profile, propodeum positioned lower than promesonotum, its dorsum and posterior side slightly convex (Fig. 19). Whole mesosoma opalescent, with dense, fine microreticulation (Figs. 18–19). Whole mesosoma covered by dense, short, adpressed microsetae. **Scale.** Squamiform, its anterior and posterior sides slightly convex, apex wide and convex, its surface opalescent, with dense, fine microreticulation and covered by dense, short, adpressed

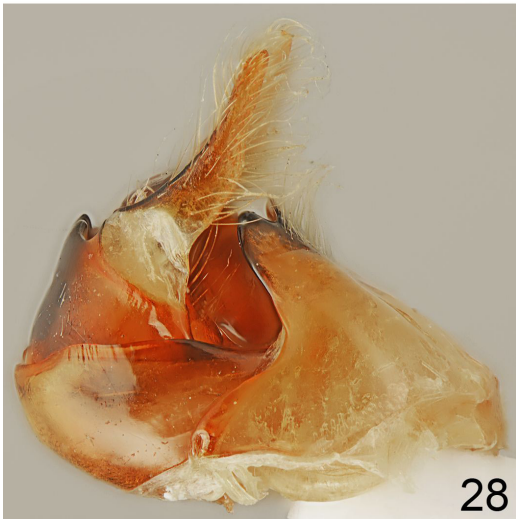




Figs. 22–23. Head and antennae of *Cataglyphis cretica*; (22) Worker, (23) Gyne. Scale bar = 1 mm (photo L. Borowiec).



Figs. 24–25. *Cataglyphis cretica*; (24) Male lateral, (25) Worker head sculpture. Scale bar = 1 mm (photo L. Borowiec).



Figs. 26–29. Male genitalia of *Cataglyphis cretica*; (26) Dorsal, (27) Ventral (28) Lateral (29) Latero-dorsal (photo L. Borowiec).

microsetae. **Gaster.** Shiny to slightly dull, with sparser microreticulation, bearing at most 5 erect, long setae and covered by sparse, short, adpressed microsetae (Figs. 18–19).

**Description.** **Gyne** (n=1). HL: 1.92; HW: 1.70; ML: 3.20; PNW: 1.48. **Colour.** Head, mesosoma and gaster bright brown, centre of head reddish brown with diffused borders. Antennae, femora and legs tibiae bright brown, apex of tibiae yellowish, tarsi yellowish (Figs. 20–21). **Body sculpture and setosity.** The same as in worker. **Head.** Square, 1.1 times as long as wide, lateral surfaces below and above eyes gently convex, posterior edges

convex, occipital margin of head convex (Figs. 23). Eyes big, oval, 1.5 times as long as wide. Antennal scape long, in lateral view straight, approximately as long as head, in apex gradually widened, its base without tooth, funiculus long (Fig. 23). Frontal carinae short, not extending beyond frontal lobes. Antennal fossa shallow. **Mesosoma**. Long, 2.2 times as long as wide; metanotal groove shallow. Pronotum convex on sides. In lateral view pronotum together with scale slightly arched in profile, scutellum slightly arched, propodeum positioned lower than promesonotum, its dorsum and posterior side slightly convex (Fig. 20-21). **Scale**. Squamiform, its anterior and posterior sides slightly convex, apex narrow and convex **Gaster**. Lacking setosity (Figs. 21).

*Redescription*. **Male** (n=1). HL: 1.55; HW: 1.37; ML: 3.12; PNW: 1.81. **Colour**. Head, mesosoma, gaster, antennal scapi, and femora black, tibiae brown with yellowish apex, antennal funiculus yellowish (Fig. 24). **Body sculpture and setosity**. The same as in worker. **Head**. Square, 1.1 times as long as wide, lateral surfaces below and above eyes gently convex, posterior edges convex, occipital margin of head convex (Figs. 24). Eyes big, oval, 1.2 times as long as wide. Antennal scape moderate, in lateral view straight, approximately as long as head, in apex gradually widened, its base without tooth, funiculus long (Fig. 24). Frontal carinae short, not extending beyond frontal lobes. Antennal fossa shallow. **Mesosoma**. Long, 1.7 times as long as wide; metanotal groove shallow. Pronotum convex on sides. In lateral view mesosoma arched in profile, only scutellum positioned above scutum and arched, propodeum positioned lower than promesonotum, its dorsum and posterior side slightly convex (Fig. 24). **Scale**. Squamiform, its anterior and posterior sides slightly convex, apex wide and convex **Gaster**. Lacking setosity (Fig. 24). Male genitalia as in figs. 26–29.

*Distribution*. Greece, Crete – endemic species.

*Biology*. A species associated with open, sunny and arid habitats with sandy soil. Nesting under stones or in soil. Very often located on dirty roads, seaside or in alpine zone. Monogynous colonies. Workers active during the day.

Comments: *Cataglyphis cretica*, based on limited material, was synonymized with *C. aenescens* by BOROWIEC & SALATA (2013). After re-examination of collected material, supplemented by further expeditions, and study on type specimens we discovered features that allow us to consider this taxon as a good species.

### *Lepisiota nigra* (DALLA TORRE, 1893) (Figs. 30–31)

*Acantholepis frauenfeldi* var. *nigra* DALLA TORRE, 1893: 171 (= *Acantholepis frauenfeldi* var. EMERY, 1878: 46).

= *Acantholepis frauenfeldi* var. *splendens* KARAVAIEV, 1912: 586, **syn. nov.**

**Type material**. *L. nigra*, syntype (w): var. *nigra* Emery || Is. Tremiti | S. Domino | Cecconi || ANTWEB | CASENT0905148 (MSG); *L. splendens*, syntypes (5w): v. *splendens* || КрИТЬ, Канеа, || ШЕБУНИН и Чеботарёв || 4204. | Coll. Karawajewi || *Acantholepis frauenfeldi* | Майр | v. *splendens* | Kar. typus (UASK).

Comments: KARAVAIEV (1912), in the description of *L. splendens*, mentioned the following features to distinguish it from *L. nigra*: more smooth and slender body surface, head shape and size of propodeal spines. Examination of type specimens and study on samples collected from different Cretan sites manifested wide variability within features mentioned by Karavaiev. Also, we didn't find any strong features that support an existence of two different species. Therefore we consider *L. splendens* as a junior synonym of *L. nigra*.



Figs. 30–31. Worker of *Lepisiota nigra*; (30) Dorsal, (31) Lateral. Scale bar = 1 mm (photo L. Borowiec).

***Proceratium algiricum*** FOREL, 1899 (Fig. 32)

*Proceratium (Sysphingta) algiricum* FOREL, 1899: 305.

*Proceratium mayri* FOREL, 1899: 306.

**New material: Epirus:** Philiates, 170 m, 5 V 1973, 2w, leg. I. Löbl (MHNG); Epirus, Aristi, 1w (MHNG); **Ionian Islands:** Korfu, Makrdhes, 380 m, 9 IV 1972, 1w, leg. Hauser (MHNG); Korfu, Spartylas, 420 m, 9 IV 1972, 1w, leg. Hauser (MHNG).

Comments: Described from Greece, Ionian Islands, Korfu under synonymic name *Proceratium mayri* FOREL. Further records are from Ionian Islands (BARONI URBANI 1977), Epirus (BARONI URBANI 1977), Macedonia (BOROWIEC & SALATA 2012) and Peloponnese (LEGAKIS 2011). Our material confirmed this rare species from Ionian Islands: Korfu and Epirus.

***Proceratium melinum*** (ROGER, 1860) (Fig. 33)

*Ponera melina* ROGER, 1860: 291.

*Sysphingta europaea* FOREL, 1886: clxiii.

**New material: Crete:** Iraklion prov., Analipsis, 20 m, 23 III 1982, 2w, leg. Hauser (MHNG); **Dodecanese:** Karpathos, Lefkos, 27 III 1977, 2w, leg. C. Besuchet & I. Löbl (MHNG); Rhodes, Profitis Ilias, 650 m, 11 IV 1977, 3w, leg. C. Besuchet (MHNG); **Peloponnese:** Achaia, Kastritsion, 16 III 1982, 3w, leg. Lienhard (MHNG); Peloponnese, Achaia, Patras, 22 III 1971, 3w, leg. I. Löbl (MHNG) ); **Peloponnese:** Lakonia, Sparta vic., 920 m, 20 V 1975, 1w, leg. Hauser (MHNG).

Comments: Described by FOREL (1886) from Elis prov. of Peloponnese under synonymic name *Sysphingta europaea* FOREL. Further recorded from Dodecanese (LEGAKIS 2011), Ionian Islands (EMERY 1898, BARONI URBANI 1977), Peloponnese and Sterea Ellas (LEGAKIS 2011). Records from Dodecanese and Peloponnese are general, without detailed locality. New to Crete and new precise records for Dodecanese and Peloponnese.

***Strumigenys membranifera*** EMERY, 1869 (Figs. 7–8)

*Strumigenys (Trichoscapa) membranifera* EMERY, 1869: 24.

**New material: Epirus:** Arta-Metsovo, Rodavgi, 700 m, 3 VI 1985, 1w (MHNG).

Comments: Recorded only generally from Greece by AGOSTI & COLLINGWOOD (1987). Our record is first certain for this country and new for Epirus.

***Temnothorax angustifrons*** CSÖSZ, HEINZE & MIKÓ, 2015 (Figs. 34–38)

*Temnothorax angustifrons* CSÖSZ, HEINZE & MIKÓ, 2015: 18.

**New material: East Aegean Islands:** Lesbos, Anemotia (39.24127 N/26.10958), 352 m, 8 VI 2015, 1g, 76w, leg. L. Borowiec (DBET); Lesbos, near Antissa (39.23841 N/25.99782), 74 m, 8 VI 2015, 4w, leg. L. Borowiec (DBET); Lesbos, Argennos (39.35494 N/26.2661), 548 m, 12 VI 2015, 3w, leg. L. Borowiec (DBET); Lesbos, Ipsilometopo (39.32012 N/26.24461), 485 m, 11 VI 2015, 40w, leg. L. Borowiec (DBET); Lesbos, Ligona Valley (39.32734 N/26.21009), 229 m, 11 VI 2015, 2g, 32w, leg. L. Borowiec (DBET); Lesbos, M. Pythariou (39.17322 N/25.96195 E), 99 m, 8 VI 2015, 2w, leg. L. Borowiec (DBET); Lesbos, Mt. Olympos (39.06958 N/26.34976), 814 m, 10 VI 2015, 31w, leg. L. Borowiec (DBET); Lesbos, 3.4 km NE of Skalochori (39.27923 N/26.10926), 292 m, 9 VI 2015, 3g,



Figs. 32–33. Worker in lateral view; (32) *Proceratium algiricum* (source AntWeb CASENT0907202, photo W. Ericson), (33) *Proceratium melinum* (source AntWeb CASENT0907204, photo E. Ortega).

62w, leg. L. Borowiec (DBET); Lesbos, Sykaminia (39.3586 N/26.2911 E), 305 m, 12 VI 2015, 27w, leg. S. Salata (DBET); Lesbos, rd. Sykaminia-Vigla (39.35468 N/26.30483 E), 395 m, 12 VI 2015, 3g, 89w, leg. S. Salata (DBET).

Comments: Recently described from several localities in western Turkey and only one Greek locality in Sterea Ellas (Csösz *et al.* 2015). Several new localities were recorded from Samos (BOROWIEC & SALATA 2018c). Nests were observed under moss on stones in shadow



Figs. 34–35. Worker of *Temnothorax angustifrons*; (34) Dorsal, (35) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).

places close to streams or under the canopy of trees. Numerous localities from Lesbos confirmed opinion by BOROWIEC & SALATA (2018c) that this is the commonest species of *Temnothorax nylander* group in the East Aegean Islands.

The gyne was unknown so far, so we give its description below:

**Gyne** (n=5): HL:  $0.73 \pm 0.03$  (0.69-0.75); HW:  $0.66 \pm 0.02$  (0.64-0.68); SL:  $0.47 \pm 0.02$  (0.45-0.49); EL:  $0.2 \pm 0.002$  (0.19-0.21); EW:  $0.16 \pm 0.004$  (0.156-0.164); ML:  $1.2 \pm 0.06$  (1.1-1.25); PSL:  $0.21 \pm 0.01$  (0.2-0.23); SDL:  $0.16 \pm 0.01$  (0.14-0.17); PEL:  $0.39 \pm 0.02$  (0.36-0.41); PPL:  $0.24 \pm 0.01$  (0.23-0.26); PEH:  $0.31 \pm 0.01$  (0.3-0.33); PPH:  $0.3 \pm 0.02$  (0.28-0.32); PNW:  $0.76 \pm 0.02$  (0.74-0.79); PEW:  $0.23 \pm 0.01$  (0.22-0.24); PPW:  $0.32 \pm 0.01$  (0.3-0.33); HI:  $90.0 \pm 2.3$  (86.8-92.9); SI1:  $64.1 \pm 1.8$  (62.2-66.4); SI2:  $71.3 \pm 2.6$  (68.2-75.0); MI:  $65.3 \pm 2.9$  (62.2-68.9); EI1:  $83.1 \pm 2.3$  (79.2-84.7); EI2:  $22.2 \pm 1.2$  (20.7-23.8); PI:  $131.9 \pm 3.3$  (128.2-136.1); PPI:  $75.4 \pm 2.8$  (73.7-80.0).

**Colour.** Whole body dark yellow to orange. Frons and malar area sometimes slightly darker (Figs. 36–37). **Head.** Trapezoid, lateral surfaces below eyes straight gently rounded on the





Figs. 36–38. Gyne of *Temnothorax angustifrons*; (36) Dorsal, (37) Lateral. Scale bar = 1 mm; (38) Head and antennae. Scale bar = 0.5 mm (photo L. Borowiec).

posterior edges, occipital margin of head convex (Fig. 38). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.3 times as long as length of the head. Antennal scape short, slightly curved, 0.6 times as long as length of the head, not reaching occipital margin of head, in apex gradually widened, its base without teeth. Pedicel more than 2 times longer than wide; average 1.2 times longer than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide (Fig. 38). Surface of scape with very fine, short and sparse striae and sparse reticulation; covered with thin, moderate dense, decumbent to erect setae, shorter than 1/3 of scape width. Mandibles oval, with sparse, longitudinal striae, shiny. Clypeus shiny with a few, thick, longitudinal striae at its anterior part, area between striae smooth, shiny. Frontal carinae short, slightly extending across the fronts of the antennal fossae. Antennal fossa deep, with sparse roundly curved striae, area between striation smooth. Frontal lobes narrow, smooth with thick longitudinal striae (Fig. 38). Head on the whole surface with moderate thick, dense, longitudinal and interrupted striation, area between striae with irregular, fine and thin rugae, shiny; genae with sculpture reduced or absent. Entire head bearing thick, suberect to erect, pale setae. **Mesosoma.** Short, square, 1.6 times as long as head; in lateral view its dorsum slightly convex; propodeal spines triangular, short, with wide base, inclined at the 45° angle; dorsal surface of propodeum inclined towards its posterior surface (Fig. 36). Pronotum with longitudinal, horizontal, weak but dense striation and reticulation, area between rugae smooth or with microreticulation, shiny. Scutum, scutellum and axilla with longitudinal striation, area between striae smooth or with sparse and fine microreticulation; centre of scutum, scutellum and axilla with reduced or absent sculpture; propodeum shiny, with sparse, thick reticulation on dorsum and weaker and denser sculpture on lateral sides (Figs. 36–37). Anepisternum and katapisternum shiny and smooth with dense and fine reticulation on lateral edges (Fig. 37). Mesosoma dorsum with sparse, thick, erect setae. **Petiole.** Peduncle short, node high and narrow, with anterior and posterior faces convex, its dorsal surface narrow and convex. On the whole surface covered by dense reticulation and sparser thick, irregular striae and long, thick erect setae. **Postpetiole.** In lateral view, regularly rounded, 0.75 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense reticulation and sparser thick, irregular striae and long, thick erect setae. **Gaster.** Smooth and shiny, bearing dense, long, suberect to erect, pale setae.

*Temnothorax dessyi* (MENOZZI, 1936) (Figs. 39–42, 53)

*Leptothorax* (s. str.) *dessyi* MENOZZI, 1936: 289.

**Type material:** syntype (w): Scarpanto | 24.iv.1934 | C. Menozzi || *Leptothorax* | *Dessyi* | Typus! Menoz. | Menozzi deter. (IEB).

**New material: Dodecanese:** Rhodes, n. Arhipoli loc. 2 (36.26546 N/28.06688 E), 194 m, 4 V 20156, 1w, leg. L. Borowiec (DBET); Rhodes, Attavyros loc. 2 (36.19932 N/27.8187 E), 598 m, 6 V 20156, 9w, leg. L. Borowiec (DBET); Rhodes, Attavyros loc. 3 (36.20018 N/27.81451 E), 593 m, 6 V 20156, 1g, 39w, leg. L. Borowiec (DBET); Rhodes, Petaloudes (36.33567 N/28.06264 E), 240 m, 8 V 20156, 1g, 39w, leg. L. Borowiec (DBET).

Comments: Described from Dodecanese, Karpathos (villaggio di Olimpo) based on two workers. Recently recorded from Peloponnese - Korinthia, Isthmia (BOROWIEC & SALATA 2017b). Nests were observed in deciduous and coniferous forests, under moss on stones or in rock crevices.

The gyne was unknown so far, so we give its description below:



39



40

Figs. 39–40. Worker of *Temnothorax dessyi*; (39) Dorsal, (40) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).

**Gyne** (n=2): HL: 0.88, 0.82; HW: 0.82, 0.74; SL: 0.49, 0.5; EL: 0.25, 0.23; EW: 0.16, 0.19; ML: 1.41, 1.34; PSL: 0.22, 0.2; SDL: 0.17, 0.16; PEL: 0.38, 0.37; PPL: 0.23, 0.23; PEH: 0.36, 0.3; PPH: 0.36, 0.3; PNW: 0.85, 0.79; PEW: 0.25, 0.23; PPW: 0.33, 0.3; HI: 93.5, 91.0; SII: 54.9, 61.0; SI2: 58.7, 67.0; MI: 60.5, 58.5; EI1: 66.7, 82.1; EI2: 18.5, 23.0; PI: 104.5, 125.0; PPI: 63.6, 75.7.

**Colour.** Whole body dark brown. Antennae and posterior part of malar area brighter (Figs. 41–42). **Head.** Trapezoid, lateral surfaces below eyes straight, gently rounded on the posterior edges, occipital margin of head straight (Fig. 53). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.3 times as long as length of the head. Antennal scape short, slightly curved, 0.6 times as long as length of the head, not reaching occipital margin of head, in



Figs. 41–42. Gyne of *Temnothorax dessyi*; (41) Dorsal, (42) Lateral. Scale bar = 1 mm (photo L. Borowiec).

apex gradually widened, its base without teeth. Pedicel more than 2 times longer than wide; average 1.2 times longer than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide. Surface of scape with very fine and sparse microreticulation; covered with thin, moderate dense, decumbent to suberect setae, shorter than 1/3 of scape width. Mandibles oval, with sparse, longitudinal striae, shiny. Clypeus shiny with a thick, longitudinal striae, area between striae smooth, shiny. Frontal carinae short, slightly extending across the fronts of the antennal fossae. Antennal fossa deep, with sparse roundly curved striae, area between striation with microreticulation and shiny. Frontal lobes narrow, smooth with thick longitudinal striae (Fig. 53). Lateral sides of frons with longitudinal reticulation,

its interior part with longitudinal striation; smooth in the centre; area between striation and reticulation with microreticulation; genae and malar area with reticulation, area between reticulation with microreticulation, shiny; temple and vertex with sparser and partly reduced longitudinal striation and reticulation, are between striae with microreticulation. Entire head bearing thin, adpressed setae; frons and occipital margin with additional thick, erect setae. **Mesosoma.** Short and low, square, 1.6 times as long as head; in lateral view its dorsum slightly convex; propodeal spines reduced, triangular, short, with wide base, with blunt apex; dorsal surface of propodeum inclined towards its posterior surface (Fig. 42). Pronotum with longitudinal, horizontal, weak but dense striation and reticulation, area between rugae with microreticulation, shiny. Scutum with longitudinal striation, reduced or absent on lateral sides; scutellum and axilla smooth and shiny; with sparse longitudinal striation on lateral sides; propodeum shiny, with sparse, thick reticulation on dorsum and weaker and denser sculpture on lateral sides (Fig. 41). Anepisternum and katepisternum shiny with horizontal striation and reticulation, smooth on lateral edges. Mesosoma dorsum with sparse, thick, erect setae. **Petiole.** Peduncle short, node low and narrow, with anterior and posterior faces straight, its dorsal surface narrow and convex. On the whole surface covered by dense reticulation and long, thick erect setae. **Postpetiole.** In lateral view, regularly rounded, 0.7 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense reticulation and long, thick erect setae. **Gaster.** Smooth and shiny, bearing sparse, long, suberect to erect, pale setae.

*Temnothorax kemali* (SANTSCHI, 1934) (Figs. 43–47)

*Leptothorax kemali* SANTSCHI, 1934: 277.

**New material: Dodecanese:** Rhodes, n. Arhipoli loc. 1 (36.26164 N/28.07164 E), 180 m, 5 V 2015, 5w, leg. L. Borowiec (DBET); Rhodes, n. Arhipoli loc. 2 (36.26546 N/28.06688 E), 194 m, 5 V 2015, 5w, leg. L. Borowiec (DBET); Rhodes, n. Eleousa (36.27223 N/28.03235 E), 245 m, 5 V 2015, 1w, leg. L. Borowiec (DBET); Rhodes, Attavyros loc. 2 (36.19932 N/27.8187 E), 598 m, 6 V 2015, 4w, leg. L. Borowiec (DBET); Rhodes, Petaloudes (36.33567 N/28.06264 E), 240 m, 8 V 2015, 2w, leg. L. Borowiec (DBET); **East Aegean Islands:** Lesbos, n. Anemotia (39.24127 N/26.10958 E), 352 m, 8 VI 2015, 8w (pin) 6w (EtOH), leg. L. Borowiec (DBET); Lesbos, Ipsilometopo (39.32012 N/26.24461 E), 485 m, 11 VI 2015, 4w, leg. L. Borowiec (DBET); Lesbos, Mt. Olympos (39.06958 N/26.34976 E), 814 m, 10 VI 2015, 2g, 20w (pin) 20w (EtOH), leg. L. Borowiec (DBET); Lesbos, 3.4 km NE of Skalochori (39.27923 N/26.10926 E), 292 m, 9 VI 2015, 4w (pin) 39w (EtOH), leg. L. Borowiec (DBET).

Comments: hitherto known only from the type locality Izmir in western Turkey. New to Greece and Europe. Nests were located under moss on stones, workers were observed on herbs, leaves of bushes and wooden barriers along tourist paths. It belongs to the *Temnothorax kemali* species-group as defined by SALATA and BOROWIEC (2019) which comprises also few undescribed species characterized by partly smooth head, distinct propodeal spines and obtuse top of petiole. Review of this group is under preparation.

The gyne was unknown so far, so we give its description below:

**Gyne** (n=2): HL: 0.77, 0.75; HW: 0.69, 0.69; SL: 0.49, 0.47; EL: 0.21, 0.23; EW: 0.18, 0.18; ML: 1.36, 1.28; PSL: 0.25, 0.25; SDL: 0.17, 0.16; PEL: 0.43, 0.41; PPL: 0.23, 0.21; PEH: 0.3, 0.29; PPH: 0.31, 0.3; PNW: 0.8, 0.79; PEW: 0.24, 0.25; PPW: 0.3, 0.26; HI: 89.3, 92.3; SII: 63.0, 63.2; SI2: 70.5, 68.5; MI: 59.0, 61.5; EII: 84.6, 78.6; EI2: 23.4, 24.2; PI: 136.8, 138.9; PPI: 77.8, 73.8.



Figs. 43–44. Worker of *Temnothorax kemali*; (43) Dorsal, (44) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).

**Colour.** Body orange; frons, malar area and vertex black tinted; gaster dark orange with bright spot on the anterior part of first tergite (Figs. 45–46). **Head.** Trapezoid, lateral surfaces below eyes straight, gently rounded on the posterior edges, occipital margin of head convex (Fig. 47). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.3 times as long as length of the head. Antennal scape short, slightly curved, 0.6 times as long as length of the head, not reaching occipital margin of head, in apex gradually widened, its base without teeth. Pedicel more than 2 times longer than wide; average 1.2 times longer



Figs. 45–47. Gyna of *Temnothorax kemali*; (45) Dorsal, (46) Lateral. Scale bar = 1 mm; (47) Head and antennae. Scale bar = 0.5 mm (photo L. Borowiec).

than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide. Surface of scape with very fine and sparse microreticulation; covered with thin, moderate dense, decumbent setae, shorter than 1/3 of scape width. Mandibles oval, with sparse, longitudinal striae, shiny. Clypeus shiny with thick, longitudinal striae, area between striae smooth, shiny. Frontal carinae short, slightly extending across the fronts of the antennal fossae. Antennal fossa deep, with sparse roundly curved striae, area between striation with microreticulation and shiny. Frontal lobes narrow, smooth with thick longitudinal striae (Fig. 47). Frons with longitudinal reticulation, its interior part with reticulation weaker; area between reticulation with microreticulation; genae and malar area with reticulation denser than on frons, area between reticulation with microreticulation, shiny; temple and vertex with sparse reticulation, are between striae with microreticulation. Entire head bearing thin, adpressed setae; frons and occipital margin with additional thick, erect setae. **Mesosoma.** Short and low, 1.8 times as long as head; in lateral view its dorsum slightly convex; propodeal spines moderate, triangular, with wide base and acute apex; dorsal surface of propodeum inclined towards its posterior surface. Pronotum with longitudinal, dense reticulation, area between rugae with microreticulation, shiny. Scutum with longitudinal striation, reduced or absent on lateral sides and centre; scutellum and axilla smooth and shiny; with sparse longitudinal striation on lateral sides; propodeum shiny, with dense, thick reticulation on dorsum and weaker and denser sculpture on lateral sides. Anepisternum and katepisternum shiny, with dense, longitudinal reticulation. Mesosoma dorsum with sparse, thick, erect setae. **Petiole.** Peduncle moderate, node low and wide, with anterior and posterior faces straight, its dorsal surface wide and slightly convex. On the whole surface covered by dense reticulation and long, thick erect setae. **Postpetiole.** In lateral view, regularly rounded, 0.8 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense reticulation and long, thick erect setae. **Gaster.** Smooth and shiny, bearing sparse, long, suberect to erect, pale setae.

*Temnothorax smyrnensis* (FOREL, 1911) (Figs. 48–52)

*Leptothorax bulgaricus* subsp. *smyrnensis* FOREL, 1911: 335.

**New material: Dodecanese:** Kos, Kardamena-Pili rd. loc. 2 (36.83822 N/27.15887 E), 133 m, 7 VII 2015, 1g, 5w, leg. S. Salata (DBET); Kos, Zia (36.84555 N/27.20493 E), 328 m, 7 VII 2015, 3w, leg. S. Salata (DBET); Kos, Zia-Ag. Dimitrios rd. loc. 2 (36.85047 N/27.21447 E), 301 m, 8 VII 2015, 3w, leg. S. Salata (DBET).

Comments: Described as *Leptothorax bulgaricus* ssp. *smyrnensis* FOREL, 1911 from Smyrna (now Izmir, western Turkey). Recently recorded as new to Europe and Greece from East Aegean Islands – Samos and raised to species rank (BOROWIEC & SALATA 2018c). New to Dodecanese.

The gyne was unknown so far, so we give its description below:

**Gyne** (n=1): HL: 0.72; HW: 0.72; SL: 0.47; EL: 0.21; EW: 0.16; ML: 1.27; PSL: 0.23; SDL: 0.14; PEL: 0.43; PPL: 0.23; PEH: 0.3; PPH: 0.33; PNW: 0.82; PEW: 0.26; PPW: 0.35; HI: 100.0; SII: 65.4; SI2: 65.4; MI: 64.1; EI1: 76.9; EI2: 22.7; PI: 130.0; PPI: 77.8.

**Colour.** Whole body dark brown. Antennae, mandibles and legs yellow; centre of femura Brown; base of first gastral tergite with dark yellow spot. (Figs. 50–51). **Head.** Trapezoid, lateral surfaces below eyes straight, gently rounded on the posterior edges, occipital margin of head convex (Fig. 52). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.3 times as long as length of the head. Antennal scape short, slightly curved, 0.65 times





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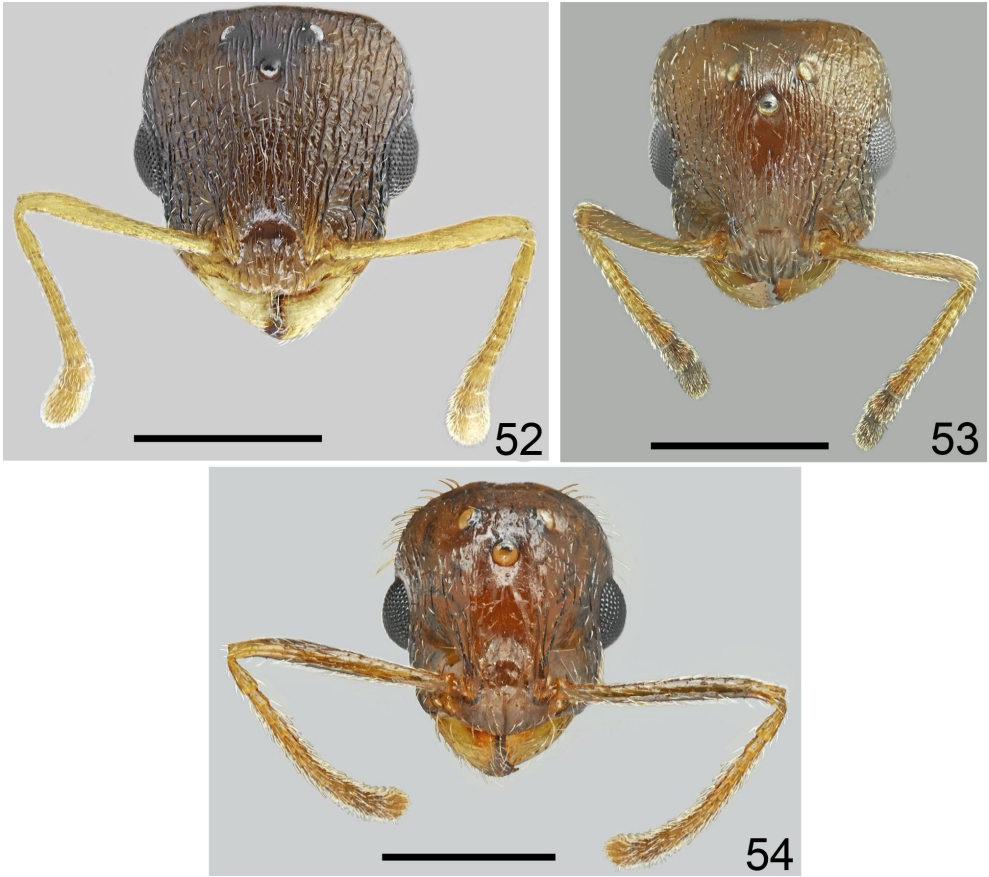
49

Figs. 48–49. Worker of *Temnothorax smyrnensis*; (48) Dorsal, (49) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).

as long as length of the head, not reaching occipital margin of head, in apex gradually widened, its base without teeth. Pedicel more than 2 times longer than wide; average 1.2 times longer than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide. Surface of scape with very fine and sparse microreticulation; covered with thin, moderate dense, adpressed to decumbent setae, shorter than 1/3 of scape width. Mandibles oval, with sparse, longitudinal striae, shiny. Clypeus shiny with thick, longitudinal striae, area between striae smooth, shiny. Frontal carinae short, slightly extending across the fronts of the antennal fossae. Antennal fossa deep, with sparse roundly curved striae, area between striation with microreticulation and shiny. Frontal lobes narrow, smooth with



Figs. 50–51. Gyne of *Temnothorax smyrnensis*; (50) Dorsal, (51) Lateral. Scale bar = 1 mm (photo L. Borowiec).



Figs. 52–54. Gyne head and antennae; (52) *Temnothorax smyrnensis*, (53) *Temnothorax dessyi*, (54) *Temnothorax solerii*. Scale bar = 0.5 mm (photo L. Borowiec).

thick longitudinal striae (Fig. 52). Head on the whole surface with longitudinal reticulation, sometimes interrupted; on frons more regular and weaker; on vertex sculpture reduced; area between rugae with microreticulation. Entire head bearing sparse, thick, erect setae. **Mesosoma.** Short and low, square, 1.8 times as long as head; in lateral view its dorsum convex; propodeal spines reduced, triangular, short, with wide base and acute apex; dorsal surface of propodeum inclined towards its posterior surface (Figs. 50–51). Pronotum with longitudinal, horizontal, weak but dense striation and reticulation, area between rugae with microreticulation, shiny. Scutum and axilla with longitudinal striation, absent on lateral sides; scutellum smooth and shiny; with sparse longitudinal striation on lateral sides; propodeum shiny, with sparse, thick reticulation on dorsum and weaker and denser sculpture on lateral sides. Anepisternum and katepisternum shiny with horizontal striation and reticulation, smooth on lateral edges. Mesosoma dorsum with sparse, thick, erect setae. **Petiole.** Peduncle short, node low and wide, with anterior and posterior faces straight, its dorsal surface wide and slightly convex. On the whole surface covered by dense reticulation and long, thick erect setae. **Postpetiole.** In lateral view, regularly rounded, 0.7 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense reticulation and long, thick erect setae. **Gaster.** Smooth and shiny, bearing sparse, long, suberect to erect, pale setae.



Figs. 55–56. Worker of *Temnothorax solerii*; (55) Dorsal, (56) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).

***Temnothorax solerii*** (MENOZZI, 1936) (Figs. 54-58)

*Leptothorax* (*Temnothorax*) *solerii* MENOZZI, 1936: 291.

Comments: Described from Karpathos from two workers. Recently recorded from 11 localities on this island (SALATA & BOROWIEC 2015b). Ants were collected only in coniferous forests while nests of its relative species *Temnothorax recedens* (NYLANDER) in Karpathos was collected only in deciduous forests.



Figs. 57–58. Gyne of *Temnothorax solerii*; (57) Dorsal, (58) Lateral. Scale bar = 1 mm (photo L. Borowiec).

The gyne was unknown so far, so we give its description below based on specimen from nest sample collected in Agnondia (35.59422 N/27.16741 E), 292 m, 18 V 2014, leg. S. Salata (DBET):

**Gyne** (n=1): HL: 0.82; HW: 0.72; SL: 0.63; EL: 0.23; EW: 0.18; ML: 1.44; PSL: 0.26; SDL: 0.16; PEL: 0.41; PPL: 0.23; PEH: 0.3; PPH: 0.3; PNW: 0.84; PEW: 0.25; PPW: 0.36; HI: 88.0; SI1: 77.0; SI2: 87.5; MI: 58.0; EI1: 78.6; EI2: 22.0; PI: 125.0; PPI: 77.8.

**Colour.** Whole body dark brown; antennae, mandibles and legs brown (Figs. 57–58). **Head.** Oval, lateral surfaces below eyes straight, gently rounded on the posterior edges, occipital margin of head convex (Fig. 54). Anterior margin of the clypeus gradually convex. Eyes big, oval, 0.3 times as long as length of the head. Antennal scape long, slightly curved, 0.8 times as long as length of the head, almost reaching occipital margin of head, in apex gradually widened, its base without teeth. Pedicel more than 2 times longer than wide; average 1.2



Figs. 59–61. Workers of *Temnothorax tergestinus* in lateral view; (59) Common in Greece dark form, (60) Rare in Greece bicolorous form (61) Infested yellow form from nest of dark form. Scale bar = 0.5 mm (photo L. Borowiec).

times longer than second segment of funiculus. Other funicular segments more than 1 ½ times longer than wide. Surface of scape with very fine and sparse punctation; covered with thin, dense, suberect to erect setae, shorter than 1/2 of scape width. Mandibles triangular, with sparse, longitudinal striae, shiny. Clypeus shiny with a few thick, longitudinal striae, area between striae smooth, shiny. Frontal carinae long, slightly extending across the eyes. Antennal fossa deep, smooth and shiny. Frontal lobes narrow, smooth with thick longitudinal striae. Frons and malar area with sparse, longitudinal and interrupted striae; genae, temples and vertex smooth and shiny. Entire head bearing sparse, thick, erect setae. **Mesosoma.** Short and low, square, 1.8 times as long as head; in lateral view its dorsum convex; propodeal spines moderate, triangular, short, with wide base and acute apex; dorsal surface of propodeum inclined towards its posterior surface (Figs. 57–58). Pronotum, scutum, axilla, scutellum, anepisternum and katapisternum smooth and shiny; with single, short striae on lateral sides; propodeum shiny, with sparse, thick reticulation on dorsum and weaker and denser sculpture on lateral sides. Mesosoma dorsum with sparse, thick, erect setae. **Petiole.** Peduncle short, node moderate and narrow, with anterior and posterior faces straight, its dorsal surface narrow and convex. On the whole surface covered by dense reticulation and long, thick erect setae. **Postpetiole.** In lateral view, regularly rounded, 0.6 times as long as wide, apical half with gently rounded sides. On the whole surface covered by dense reticulation and long, thick erect setae. **Gaster.** Smooth and shiny, bearing sparse, long, suberect to erect, pale setae.

#### *Temnothorax tergestinus* (FINZI, 1928) (Figs. 59–61)

*Leptothorax sordidulus* var. *tergestina* FINZI, 1928: 129.

**New material: Epirus:** Giannoti, 39.14318 N / 27.782 E, 945 m, 1g, 5w dark form, 9w yellow form.

Comments: *Temnothorax tergestinus* (FINZI, 1928) is a common species in mainland Greece, it was recorded from Epirus, Macedonia, Sterea Ellas, Peloponnese, Thessaly, and Thrace, mostly from mountain and submountain localities. In Greece predominate a dark form of this species with body mostly to completely brown to dark brown (Fig. 59), only in Macedonia we collected samples with distinctly bicoloured specimens similar to populations from Central Europe (Fig. 60). Surprisingly, in one nest of *Temnothorax tergestinus* observed in Epirus: Giannoti we found completely yellow specimens with characters of *Temnothorax nylanderi* group but differ from typical specimens of *T. tergestinus* not only in body colour but also in smaller size, smaller eyes and thinner propodeal spines (Fig. 61). At first glance they look like distinct species. We consulted this problem with S. Csősz, the expert in taxonomy of *T. nylanderi* group, and he informed us that he also observed similar sample collected in Dynaric Alps. He found in gaster of yellow form cysticercoids which suggests that the yellow forms are the result of a parasitic infection.

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## SUPPLEMENT

### Updated check-list of ants of Greece

(species or morphospecies collected or revised by authors in recent time marked with an asterisk\*)

Abbreviations: **AEG** – East Aegean Islands, **CRE** – Crete, **CYC** – Cyclades, **DOD** – Dodecanese, **EPI** – Epirus, **ION** – Ionian Islands, **MAC** – Macedonia, **PEL** – Peloponnese, **STE** – Sterea Ellas, **THE** – Thessaly, **THR** – Thrace, **?** – doubtful record from Greece or generally recorded from Greece but without precise locality, **(i)** – cosmopolitan, invasive or introduced species.

1. *Acropyga palearctica* MENOZZI\* – **CRE, DOD, PEL, STE, THE**
2. *Aenictus rhodiensis* MENOZZI\* – **AEG, DOD**
3. *Anergates atratulus* (SCHENCK)\* – **MAC, THR**
4. *Aphaenogaster aktaci* KIRAN & TEZCAN\* – **AEG**
5. *Aphaenogaster balcanica* (EMERY)\* – **AEG, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
6. *Aphaenogaster balcanicoides* BOER\* – **CRE**
7. *Aphaenogaster cecconii* EMERY\* – **CRE**
8. *Aphaenogaster charesi* SALATA & BOROWIEC\* – **DOD**
9. *Aphaenogaster epirotes* (EMERY)\* – **AEG, EPI, ION, MAC, PEL, STE, THE**
10. *Aphaenogaster* cf. *epirotis*\* – **ION, PEL, STE**
11. *Aphaenogaster festae* EMERY\* – **AEG, DOD, MAC, THR**
12. *Aphaenogaster finzii* MÜLLER\* – **MAC, PEL**
13. *Aphaenogaster gibbosa* (LATREILLE) – **?**
14. *Aphaenogaster graeca* SCHULZ\* – **MAC**
15. *Aphaenogaster jolantae* BOROWIEC & SALATA\* – **DOD**
16. *Aphaenogaster karpatica* BOER\* – **DOD**
17. *Aphaenogaster ledouxi* TOHMÉ – **?**
18. *Aphaenogaster lesbica* FOREL\* – **AEG**
19. *Aphaenogaster muelleriana* WOLF\* – **EPI, ION, MAC, PEL**
20. *Aphaenogaster olympica* BOROWIEC & SALATA\* – **DOD**
21. *Aphaenogaster radchenkoi* KIRAN, AKTAÇ & TEZCAN\* – **CYC**
22. *Aphaenogaster rugosoferruginea* FOREL\* – **CRE**
23. *Aphaenogaster sangiorgii* (Emery) – **ION**
24. *Aphaenogaster simonellii* EMERY\* – **CRE, DOD**
25. *Aphaenogaster splendida* (ROGER)\* – **CRE (i)**
26. *Aphaenogaster* cf. *splendida* sp. 1\* – **PEL**
27. *Aphaenogaster subcostata* VIEHMAYER\* – **AEG**
28. *Aphaenogaster subterranea* (LATREILLE)\* – **AEG, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**

29. *Aphaenogaster* cf. *subterranea* sp. 1\* – **CRE**
30. *Aphaenogaster* cf. *subterranea* sp. 2\* – **ION**
31. *Aphaenogaster* cf. *subterranea* sp. 3\* – **ION**
32. *Aphaenogaster* cf. *subterranea* sp. 4\* – **PEL, STE, THE**
33. *Aphaenogaster* cf. *subterranea* sp. 5\* – **MAC**
34. *Aphaenogaster* cf. *subterranea* sp. 6\* – **MAC**
35. *Aphaenogaster subterraneoides* EMERY\* – **AEG, CRE, CYC, DOD, ION**
36. *Bothriomyrmex communistus* SANTSCHI\* – **AEG, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
37. *Bothriomyrmex corsicus* SANTSCHI\* – **AEG, ION, MAC, PEL, THR**
38. *Camponotus (Camponotus) herculeanus* (LINNAEUS) – **MAC, STE**
39. *Camponotus (Camponotus) ligniperdus* (LATREILLE)\* – **EPI, ION, MAC, PEL, STE**
40. *Camponotus (Camponotus) vagus* (SCOPOLI)\* – **AEG, EPI, ION, MAC, PEL, STE, THE, THR**
41. *Camponotus (Myrmentoma) aegaeus* EMERY\* – **AEG, DOD, MAC, THR**
42. *Camponotus (Myrmentoma) atricolor* (NYLANDER)\* – **AEG, DOD, EPI, MAC, PEL, THR**
43. *Camponotus (Myrmentoma) boghossiani* FOREL\* – **AEG, CRE, CYC, DOD, PEL**
44. *Camponotus (Myrmentoma) candiotes* EMERY\* – **AEG, CRE, DOD**
45. *Camponotus (Myrmentoma) creticus* FOREL\* – **CRE, ION**
46. *Camponotus (Myrmentoma) dalmaticus* (NYLANDER)\* – **AEG, EPI, ION, MAC, PEL, STE, THE, THR**
47. *Camponotus (Myrmentoma) fallax* (NYLANDER)\* – **AEG, DOD, EPI, MAC, PEL, STE, THE, THR**
48. *Camponotus (Myrmentoma) gestroi* EMERY\* – **AEG, CYC, DOD, ION, MAC, PEL, STE, THE, THR**
49. *Camponotus (Myrmentoma) kiesenwetteri* (ROGER)\* – **AEG, CRE, CYC, DOD, ION, MAC, PEL, STE, THR**
50. *Camponotus (Myrmentoma) lateralis* (OLIVIER)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
51. *Camponotus (Myrmentoma) libanicus* ANDRÉ – **AEG, DOD**
52. *Camponotus (Myrmentoma) nitidescens* FOREL\* – **ION, PEL, STE**
53. *Camponotus (Myrmentoma) piceus* (LEACH)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
54. *Camponotus (Myrmentoma) cf. piceus* sp. 1\* – **ION, MAC**
55. *Camponotus (Myrmentoma) rebecca* FOREL\* – **CRE, DOD**
56. *Camponotus (Tanaemyrmex) aethiops* (LATREILLE)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
57. *Camponotus (Tanaemyrmex) baldaccii* EMERY\* – **AEG, CRE, DOD, STE**
58. *Camponotus (Tanaemyrmex) ceconii* EMERY – ?
59. *Camponotus (Tanaemyrmex) ionius* EMERY\* – **AEG, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**

60. *Camponotus (Tanaemyrmex) jaliensis* DALLA TORRE\* – **AEG, CRE, DOD, ION, MAC, STE**
61. *Camponotus (Tanaemyrmex) laconicus* EMERY\* – **PEL, STE**
62. *Camponotus (Tanaemyrmex) oertzeni* FOREL\* – **AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
63. *Camponotus (Tanaemyrmex) samius* FOREL\* – **AEG, CYC, DOD, MAC, PEL, STE, THR**
64. *Camponotus (Tanaemyrmex) sanctus* FOREL\* – **AEG, DOD**
65. *Camponotus (Tanaemyrmex) sannini* TOHMÉ & TOHMÉ\* – **MAC**
66. *Cardiocondyla bulgarica* FOREL\* – **AEG, DOD, MAC, THR**
67. *Cardiocondyla elegans* EMERY\* – **CRE, DOD, ION, MAC, PEL, STE**
68. *Cardiocondyla mauritanica* FOREL\* – **CRE, CYC, DOD (i)**
69. *Cardiocondyla nigra* FOREL – **CRE**
70. *Cardiocondyla stambuloffii* FOREL – **PEL**
71. *Carebara oertzeni* FOREL\* – **PEL, STE**
72. *Cataglyphis aenescens* (NYLANDER)\* – **AEG, CYC, MAC, PEL, STE**
73. *Cataglyphis cretica* (FOREL)\* – **CRE**
74. *Cataglyphis cf. cursor* sp. 1\* – **CRE**
75. *Cataglyphis nodus* (BRULLÉ)\* – **AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
76. *Cataglyphis viaticoides* (ANDRÉ)\* – **AEG, THR**
77. *Chalepoxenus muellerianus* (FINZI)\* – **CRE, EPI, ION, MAC, PEL, STE, THE**
78. *Chalepoxenus curtisetosus* (SALATA & BOROWIEC)\* – **AEG**
79. *Colobopsis truncata* (SPINOLA)\* – **AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
80. *Crematogaster erectepilosa* SALATA & BOROWIEC\* – **AEG, DOD**
81. *Crematogaster ionia* FOREL\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
82. *Crematogaster lorteti* FOREL – **AEG, MAC, STE, THE, THR**
83. *Crematogaster schmidti* (MAYR)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
84. *Crematogaster scutellaris* (OLIVIER) – ?
85. *Crematogaster sordidula* (NYLANDER)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
86. *Cryptopone ochracea* (MAYR)\* – **CRE, DOD, MAC, PEL**
87. *Dolichoderus quadripunctatus* (LINNAEUS)\* – **AEG, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
88. *Formica (Coptoformica) bruni* KUTTER\* – **MAC**
89. *Formica (Coptoformica) exsecta* NYLANDER – **MAC**
90. *Formica (Formica) lugubris* ZETTERSTEDT\* – **EPI, MAC**
91. *Formica (Formica) polycytena* FÖRSTER\* – **MAC**

92. *Formica (Formica) pratensis* RETZIUS\* – **MAC, THE, THR**
93. *Formica (Formica) rufa* LINNAEUS\* – **MAC, THR**
94. *Formica (Raptiformica) sanguinea* LATREILLE\* – **MAC, PEL, STE, THR**
95. *Formica (Serviformica) cinerea* MAYR\* – **EPI, MAC, THE, THR**
96. *Formica (Serviformica) clara* FOREL\* – **AEG, EPI, MAC, PEL, THE, THR**
97. *Formica (Serviformica) cunicularia* LATREILLE\* – **AEG, CRE, EPI, MAC, PEL, STE, THE, THR**
98. *Formica (Serviformica) fusca* LINNAEUS\* – **EPI, ION, MAC, PEL, STE, THR**
99. *Formica (Serviformica) gagates* LATREILLE\* – **AEG, EPI, MAC, PEL, STE, THE, THR**
100. *Formica (Serviformica) lemani* BONDROIT – **MAC**
101. *Formica (Serviformica) picea* NYLANDER – **MAC**
102. *Formica (Serviformica) rufibarbis* FABRICIUS\* – **AEG, CYC, EPI, MAC, PEL, STE, THE, THR**
103. *Formicoxenus nitidulus* (NYLANDER) – **?**
104. *Hypoponera eduardi* (FOREL)\* – **AEG, CRE, DOD, EPI, ION, MAC, PEL (i)**
105. *Hypoponera punctatissima* (ROGER) – **AEG, EPI, ION, MAC, STE, THE (i)**
106. *Lasius (Austrolasius) carniolicus* MAYR – **PEL**
107. *Lasius (Austrolasius) reginae* FABER\* – **PEL**
108. *Lasius (Cautolasius) flavus* (FABRICIUS)\* – **AEG, EPI, ION, MAC, PEL, STE, THE, THR**
109. *Lasius (Cautolasius) myops* FOREL\* – **MAC, THE, THR**
110. *Lasius (Cautolasius) myrmidon* MEI\* – **PEL, STE, THE**
111. *Lasius (Chthonolasius) bicornis* (FÖRSTER)\* – **MAC, PEL, STE**
112. *Lasius (Chthonolasius) citrinus* EMERY\* – **MAC**
113. *Lasius (Chthonolasius) distinguendus* (EMERY)\* – **MAC, PEL, STE, THR**
114. *Lasius (Chthonolasius) jensi* SEIFERT\* – **MAC, THE, THR**
115. *Lasius (Chthonolasius) meridionalis* BONDROIT – **MAC**
116. *Lasius (Chthonolasius) mixtus* (NYLANDER)\* – **EPI, ION, PEL**
117. *Lasius (Chthonolasius) nitidigaster* SEIFERT\* – **THE**
118. *Lasius (Chthonolasius) umbratus* (NYLANDER) – **CYC, DOD**
119. *Lasius (Chthonolasius) viehmeyeri* EMERY – **PEL**
120. *Lasius (Dendrolasius) fuliginosus* (LATREILLE)\* – **MAC, THR**
121. *Lasius (Lasius) alienus* (FÖRSTER)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
122. *Lasius (Lasius) bombycina* SEIFERT & GALKOWSKI\* – **AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
123. *Lasius (Lasius) brunneus* (LATREILLE)\* – **AEG, EPI, ION, MAC, PEL, STE, THE, THR**
124. *Lasius (Lasius) emarginatus* (OLIVIER)\* – **DOD, EPI, MAC, PEL, STE, THE**

125. *Lasius (Lasius) illyricus* ZIMMERMANN\* – CRE, EPI, ION, MAC, PEL, STE, THE, THR
126. *Lasius (Lasius) karpinisi* SEIFERT – STE
127. *Lasius (Lasius) lasioides* (EMERY)\* – AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR
128. *Lasius (Lasius) neglectus* VAN LOON, BOOMSMA & ANDRASFALVY\* – AEG, CYC, DOD, PEL, THR
129. *Lasius (Lasius) niger* (LINNAEUS)\* – MAC, THR
130. *Lasius (Lasius) platythorax* SEIFERT – MAC
131. *Lasius (Lasius) psammophilus* SEIFERT\* – CRE, DOD, THR
132. *Lasius (Lasius) tapinomoides* SALATA & BOROWIEC\* – CRE
133. *Lasius (Lasius) turcicus* SANTSCHI\* – AEG, CRE, CYC, DOD, EPI, MAC, PEL, THR
134. *Lepisiota frauenfeldi* (MAYR)\* – AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE, THR
135. *Lepisiota melas* (EMERY)\* – AEG, CRE, CYC, DOD, ION, MAC, PEL, STE, THE
136. *Lepisiota nigra* (DALLA TORRE)\* – CRE, PEL, STE
137. *Lepisiota syriaca* (ANDRÉ)\* – CRE, DOD, STE
138. *Leptanilla* sp. 1 – DOD
139. *Leptanilla* sp. 2 – DOD
140. *Leptanilla* sp. 3 – DOD
141. *Leptothorax acervorum* (FABRICIUS)\* – MAC, THR
142. *Leptothorax gredleri* MAYR – ?
143. *Leptothorax muscorum* (NYLANDER) – MAC
144. *Linepithema humile* (MAYR)\* – CRE, ION, PEL, STE
145. *Liometopum microcephalum* (PANZER)\* – AEG, EPI, ION, MAC, PEL, STE, THE, THR
146. *Manica rubida* (LATREILLE)\* – DOD, MAC, THE
147. *Messor* cf. *caducus* sp. 1\* – CRE
148. *Messor carpathous* MENOZZI\* – DOD
149. *Messor concolor* SANTSCHI\* – CRE
150. *Messor hellenius* AGOSTI & COLLINGWOOD\* – AEG, CRE, CYC, DOD, EPI, MAC, PEL, STE, THE, THR
151. *Messor ibericus* SANTSCHI\* – CRE, DOD, ION, MAC, PEL, THE
152. *Messor mcarthuri* SCHLICK *et al.* \* – CRE, DOD, AEG, MAC, THE, THR
153. *Messor oertzeni* FOREL\* – AEG, MAC, THR
154. *Messor ponticus* SCHLICK *et al.* \* – MAC
155. *Messor* cf. *semirufus* sp. 1\* – DOD, EPI, THR
156. *Messor structor* (LATREILLE)\* – EPI, PEL, STE, THE
157. *Messor wasmanni* KRAUSSE\* – AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR

158. *Monomorium bicolor* EMERY\* – CRE, DOD (i)
159. *Monomorium creticum* EMERY\* – CRE
160. *Monomorium monomorium* BOLTON\* – AEG, CRE, ION, EPI, MAC, PEL (i)
161. *Monomorium pharaonis* (LINNAEUS) – AEG, CRE, CYC, DOD, MAC (i)
162. *Monomorium subopacum* (F. SMITH)\* – AEG, CRE, DOD
163. *Myrmecina graminicola* (LATREILLE)\* – CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR
164. *Myrmica constricta* KARAVAIEV\* – MAC
165. *Myrmica deplanata* EMERY\* – MAC
166. *Myrmica gallienii* BONDROIT – MAC
167. *Myrmica hellenica* FINZI\* – ION, MAC, PEL, THE, THR
168. *Myrmica hirsuta* ELMES\* – PEL
169. *Myrmica karavaievi* (ARNOLDI) – MAC
170. *Myrmica lobicornis* NYLANDER\* – MAC, THE
171. *Myrmica lonae* FINZI\* – MAC, THR
172. *Myrmica pelops* SEIFERT\* – PEL, STE
173. *Myrmica ravasinii* FINZI – EPI
174. *Myrmica rubra* (LINNAEUS) – MAC
175. *Myrmica ruginodis* NYLANDER\* – EPI, MAC
176. *Myrmica rugulosa* NYLANDER\* – MAC
177. *Myrmica sabuleti* MEINERT\* – DOD, EPI, MAC, STE, THE, THR
178. *Myrmica scabrinodis* NYLANDER\* – ION, MAC, PEL, STE, THE, THR
179. *Myrmica schencki* VIERECK\* – MAC
180. *Myrmica specioides* BONDROIT\* – MAC, THR
181. *Myrmica sulcinodis* NYLANDER\* – MAC, STE, THE
182. *Myrmoxenus adlerzi* (DOUWES, JESSEN & BUSCHINGER) – MAC, PEL, STE
183. *Myrmoxenus gordiagini* RUZSKY\* – STE, THE
184. *Myrmoxenus kraussei* (EMERY) – CRE, MAC, THR
185. *Myrmoxenus ravouxi* (ANDRÉ)\* – EPI, MAC, STE, THE
186. *Myrmoxenus stumperi* (KUTTER) – PEL
187. *Nylanderia jaegerskioeldi* (MAYR)\* – CRE, ION, PEL, STE (i)
188. *Nylanderia vividula* (NYLANDER) – ? (i)
189. *Oxyopomyrmex krueperi* FOREL\* – CRE, DOD, MAC
190. *Oxyopomyrmex laevis* SALATA & BOROWIEC\* – CRE
191. *Oxyopomyrmex polybotesi* SALATA & BOROWIEC\* – DOD
192. *Pheidole balcanica* SEIFERT\* – CRE, EPI, ION, PEL
193. *Pheidole indica* MAYR\* – AEG, CRE, CYC, DOD, ION, PEL (i)
194. *Pheidole koshewnikovi* RUZSKY\* – AEG, CYC, DOD, PEL, STE
195. *Pheidole* cf. *megacephala* sp. 1\* – CRE

196. *Pheidole pallidula* (NYLANDER)\* – **PEL**
197. *Plagiolepis perperamus* SALATA, BOROWIEC & RADCHENKO\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
198. *Plagiolepis pygmaea* (LATREILLE)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
199. *Plagiolepis* sp. 1 (social parasite)\* – **AEG**
200. *Plagiolepis pallescens* FOREL\* – **AEG, CRE, CYC, DOD, ION, MAC, PEL, THE, THR**
201. *Plagiolepis xene* STÄRCKE\* – **AEG, EPI, ION, MAC**
202. *Polyergus rufescens* (LATREILLE) – **MAC**
203. *Ponera coarctata* (LATREILLE)\* – **EPI, ION, MAC, PEL, STE, THE, THR**
204. *Ponera testacea* EMERY\* – **ION, MAC, PEL, THE, THR**
205. *Prenolepis nitens* (MAYR)\* – **AEG, EPI, ION, MAC, PEL, STE, THE, THR**
206. *Proceratium algericum* FOREL\* – **EPI, ION, MAC, PEL**
207. *Proceratium melinum* (ROGER)\* – **DOD, ION, PEL, STE**
208. *Proceratium numidicum* SANTSCHI\* – **STE**
209. *Proformica oculatissima* (FOREL) – **MAC, STE**
210. *Proformica striaticeps* (FOREL)\* – **MAC, PEL**
211. *Solenopsis crivellarii* MENOZZI\* – **DOD**
212. *Solenopsis fugax* LATREILLE\* – **CRE, ION, MAC, THR**
213. *Solenopsis geminata* (FABRICIUS) – **ION (i)**
214. *Solenopsis latro* FOREL – **?**
215. *Solenopsis orbula* EMERY – **CRE, CYC**
216. *Solenopsis wolffi* EMERY – **STE**
217. *Stenamma debile* (FÖRSTER) – **CRE, CYC, ION, MAC, PEL, STE, THE**
218. *Stenamma striatum* EMERY\* – **EPI, MAC**
219. *Stigmatomma denticulatum* ROGER\* – **AEG, CRE, DOD, EPI, ION, PEL, THR**
220. *Stigmatomma impressifrons* EMERY – **PEL**
221. *Strongylognathus huberi dalmaticus* BARONI URBANI\* – **CRE, ION, PEL**
222. *Strongylognathus silvestrii* MENOZZI\* – **CRE, DOD, PEL**
223. *Strongylognathus testaceus* (SCHENCK) – **?**
224. *Strumigenys argiola* (EMERY) – **ION**
225. *Strumigenys baudueri* (EMERY) – **?**
226. *Strumigenys membranifera* EMERY – **EPI (i)**
227. *Strumigenys tenuipilis* EMERY – **ION**
228. *Strumigenys tenuissima* (BROWN) – **?**
229. *Tapinoma erraticum* (LATREILLE)\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
230. *Tapinoma festae* EMERY\* – **AEG, CRE, CYC, DOD, ION**



231. *Tapinoma simrothi* KRAUSSE\* – AEG, CRE, CYC, DOD, ION, MAC, PEL, STE, THE, THR
232. *Temnothorax aeolius* (FOREL)\* – AEG, CYC, DOD, MAC, STE, THR
233. *Temnothorax affinis* (MAYR)\* – AEG, CYC, ION, MAC, STE, THE, THR
234. *Temnothorax angulinodis* CSÖSZ, HEINZE & MIKÓ – PEL
235. *Temnothorax angustifrons* CSÖSZ, HEINZE & MIKÓ\* – AEG, STE
236. *Temnothorax antigoni* (FOREL)\* – AEG, DOD
237. *Temnothorax* cf. *anodontoides* sp. 1\* – PEL
238. *Temnothorax* cf. *anodontoides* sp. 2\* – PEL
239. *Temnothorax* cf. *anodontoides* sp. 3\* – PEL
240. *Temnothorax* cf. *anodontoides* sp. 4\* – PEL
241. *Temnothorax ariadnae* CSÖSZ, HEINZE & MIKÓ\* – CRE
242. *Temnothorax* cf. *aveli* sp. 1\* – EPI, ION, PEL, STE, THE
243. *Temnothorax* cf. *aveli* sp. 2\* – ION, PEL
244. *Temnothorax* cf. *aveli* sp. 3\* – AEG, PEL, STE, THE
245. *Temnothorax bulgaricus* (FOREL)\* – AEG, DOD, EPI, ION, MAC, PEL, STE, THE, THR
246. *Temnothorax clypeatus* (MAYR)\* – ION
247. *Temnothorax corticalis* (SCHENCK) – STE
248. *Temnothorax crasecundus* SEIFERT & CSÖSZ, HEINZE & MIKÓ\* – MAC, PEL, STE, THE, THR
249. *Temnothorax crassispinus* (KARAVAEV)\* – EPI, MAC, PEL, STE
250. *Temnothorax curtisetosus* SALATA & BOROWIEC\* – AEG
251. *Temnothorax crassistriatus* SALATA, BOROWIEC & TRICHAS\* – CRE
252. *Temnothorax daidalosi* SALATA, BOROWIEC & TRICHAS\* – CRE
253. *Temnothorax ikarosi* SALATA, BOROWIEC & TRICHAS\* – CRE
254. *Temnothorax incompletus* SALATA, BOROWIEC & TRICHAS\* – CRE
255. *Temnothorax minotaurosi* SALATA, BOROWIEC & TRICHAS\* – CRE
256. *Temnothorax proteii* SALATA, BOROWIEC & TRICHAS\* – CRE
257. *Temnothorax variabilis* SALATA, BOROWIEC & TRICHAS\* – CRE
258. *Temnothorax dessyi* (MENOZZI)\* – DOD, PEL
259. *Temnothorax exilis* (EMERY)\* – AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR
260. *Temnothorax* cf. *exilis* sp. 1\* – CYC, DOD, ION, STE
261. *Temnothorax flavicornis* (EMERY)\* – ION, MAC, PEL, THE
262. *Temnothorax graecus* (FOREL)\* – CYC, DOD, ION, MAC, PEL, STE, THE, THR
263. *Temnothorax* cf. *graecus* sp. 1\* – AEG
264. *Temnothorax helenae* CSÖSZ, HEINZE & MIKÓ\* – CYC, MAC, PEL, STE, THE, THR
265. *Temnothorax kemali* (SANTSCHI)\* – AEG, DOD
266. *Temnothorax* cf. *kemali* sp. 1.\* – ION, STE, THE

267. *Temnothorax laconicus* Csősz *et al.* \* – ION, PEL
268. *Temnothorax lichtensteini* (BONDROIT)\* – EPI, ION, MAC, STE, THE, THR
269. *Temnothorax lucidus* Csősz, HEINZE & MIKÓ – CRE
270. *Temnothorax cf. luteus* sp. 1\* – AEG, DOD
271. *Temnothorax melanocephalus* (EMERY)\* – ION, MAC, PEL, THE, THR
272. *Temnothorax cf. melanocephalus* sp. 1\* – THE
273. *Temnothorax morea* Csősz, SALATA & BOROWIEC\* – EPI, ION, PEL
274. *Temnothorax nigriceps* (MAYR) – ?
275. *Temnothorax cf. nigriceps* sp. 1\* – ION, MAC, THE
276. *Temnothorax cf. nylanderii* sp. 1\* – STE
277. *Temnothorax parvulus* (SCHENCK)\* – EPI, ION, MAC, PEL, STE, THR
278. *Temnothorax recedens* (NYLANDER)\* – AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR
279. *Temnothorax rogeri* EMERY\* – EPI, ION, PEL, STE
280. *Temnothorax rottenbergi* (EMERY) – ?
281. *Temnothorax semiruber* (ANDRÉ)\* – AEG, CRE, CYC, DOD, EPI, MAC, PEL, STE, THE, THR
282. *Temnothorax smyrnensis* FOREL\* – AEG, DOC
283. *Temnothorax cf. smyrnensis* (= *ionia* FOREL, 1911 unavailable name)\* – AEG, DOD
284. *Temnothorax solerii* (MENOZZI)\* – DOD
285. *Temnothorax sordidulus* (MÜLLER)\* – THE
286. *Temnothorax strymonensis* Csősz, SALATA & BOROWIEC\* – ION, MAC, PEL, THE, THR
287. *Temnothorax subtilis* Csősz, HEINZE & MIKÓ\* – CRE, PEL, THE, THR
288. *Temnothorax tauricus* (RUZSKY)\* – MAC, THE
289. *Temnothorax tergestinus* (FINZI)\* – EPI, MAC, PEL, THE, THR
290. *Temnothorax turcicus* (SANTSCHI)\* – MAC, THE, THR
291. *Temnothorax unifasciatus* (LATREILLE)\* – EPI, MAC, PEL, STE, THE, THR
292. *Tetramorium bicarinatum* (NYLANDER)\* – CRE (i)
293. *Tetramorium caespitum* (LINNAEUS)\* – EPI, MAC, PEL, THE
294. *Tetramorium chefteki* FOREL\* – AEG, CRE, ION, MAC, THE, THR
295. *Tetramorium diomedaeum* EMERY\* – AEG, CRE, DOD, EPI, ION, MAC, PEL, THE
296. *Tetramorium ferox* RUZSKY\* – AEG, CRE, CYC, DOD, ION, MAC, THR
297. *Tetramorium flavidulum* EMERY\* – MAC, STE, THE
298. *Tetramorium cf. flavidulum* sp. 1\* – AEG
299. *Tetramorium galaticum* MENOZZI\* – AEG
300. *Tetramorium hungaricum* RÖSZLER\* – MAC, STE, THE, THR
301. *Tetramorium hippocratis* AGOSTI & COLLINGWOOD\* – AEG, CRE, DOD, PEL, THR
302. *Tetramorium ferox* RUZSKY\* – AEG, CRE, CYC, DOD, ION, MAC, THR

303. *Tetramorium immigrans* SANTSCHI\* – **AEG, CRE, DOD, ION, MAC, PEL, STE, THE, THR (i)**
304. *Tetramorium impurum* (FÖRSTER)\* – **EPI, ION, MAC, PEL, STE, THE, THR**
305. *Tetramorium indocile* SANTSCHI\* – **CRE, DOD, MAC**
306. *Tetramorium kephalosi* SALATA & BOROWIEC\* – **AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR**
307. *Tetramorium* cf. *meridionale* sp. 1\* – **DOD**
308. *Tetramorium moravicum* KRATOCHVÍL\* – **EPI, MAC, PEL, STE, THE, THR**
309. *Tetramorium punctatum* SANTSCHI\* – **CRE**
310. *Tetramorium* cf. *punctatum* sp. 1\* – **AEG, CYC, DOD, ION, PEL, MAC, THR**
311. *Tetramorium* cf. *punicum* sp. 1\* – **AEG, CYC, STE, THE**
312. *Tetramorium rhodium* EMERY\* – **AEG, DOD**
313. *Tetramorium staerckei* KRATOCHVÍL, NOVÁK & SNOFLÁK\* – **AEG**
314. *Tetramorium sulcinode* SANTSCHI\* – **DOD**
315. *Trichomyrmex perplexus* (RADCHENKO)\* – **AEG, CRE, CYC, DOD, ION, MAC, PEL, STE, THE**

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