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

Abstract: *Cataglyphis cretica* (Forel, 1910) is raised to species rank and redescribed. The following synonymies are proposed: *Lepisiota nigra* (Dalla Torre, 1893) = *Lepisiota splendens* Karavaiev, 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* CsősZ, 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 are given.

Key words: redescriptions, 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 LéGakis (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, Bracko et al. 2016, Csősz 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). All given label data are in original spelling; a vertical bar (|) separates data on different rows and double vertical bars (||) separate labels.

Abbreviations:
- **DBET**  Lech Borowiec collection, Wrocław, Poland;
- **GB**  Gregor Bračko collection, University of Ljubljana, Slovenia;
- **IEB**  Istituto di Entomologia “Guido Grandi,” Bologna, Italy;
- **MSNG**  Museo Civico di Storia Naturale, Genova, Italy;
- **NHMC**  Natural History Museum of Crete, Heraklion, Greece;
- **MHNG**  Museum d’Histoire Naturelle, Geneva, Switzerland;
- **PW**  Petr Werner collection;
- **SSC**  Sebastian Salata collection;
- **UASK**  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, Aktac & 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 ± 0.01 (1.54-1.57); HW: 1.35 ± 0.03 (1.31-1.37); SL: 1.32 ± 0.008 (1.31-1.33); EL: 0.39 ± 0.03 (0.36-0.43); EW: 0.3 ± 0.03 (0.27-0.36); ML: 2.6 ± 0.09 (2.56-2.72); PSL: 0.6 ± 0.02 (0.59-0.62); SDL: 0.3 ± 0.004 (0.3-0.31); PEL: 0.8 ± 0.05 (0.79-0.89); PPL: 0.51 ± 0.01 (0.49-0.52); PH: 0.53 ± 0.01 (0.52-0.54); PPH: 0.64 ± 0.02 (0.62-0.66); PNW: 1.49 ± 0.2 (1.34-1.74); PEW: 0.52 ± 0.1 (0.44-0.65); PPW: 0.65 ± 0.06 (0.61-0.72); HI: 87.0 ± 1.7 (85.1-88.3); SI1: 85.3 ± 0.9 (84.4-86.2); SI2: 98.1 ± 2.8 (96.5-101.3); MI: 56.5 ± 6.4 (52.6-63.9); EI1: 79.3 ± 4.9 (75.0-84.6); EI2: 19.9 ± 2.7 (17.5-22.9); PI: 129.1 ± 9.2 (120.0-138.5); PPI: 97.0 ± 5.2 (90.9-100.0).
Figs. 5–6. Gyne 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 punctuation; 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 rounded 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 Forl., 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 (MSNG).

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
Figs. 9–10. Worker of *Camponotus boghossianii*; (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, Maritsa vic. (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, 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 (36.27233 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); Rhodes, 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 Droutassia (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, 1.3 km S of Kastania (37.74111 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, 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, 1.3 km S of Kastania (37.74216 N/26.69263 E), 350 m, 6 VI 2017, 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); 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 Artemis (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., 1 km E of Saidona (36.88517 N/22.29499 E), 880 m, 20 VI 2016, 1w (EtOH),
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 (= Camopotus 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.


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).
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).


**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).](image)

**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) | Kufer|| CASENT0102116 | ANTWEB (MSNG).

**Material examined.** Crete: Chania Prov., Akrotiri Peninsula, 2 km E of Chorafákia (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., Omalo Plateau-Prases rd. (35.3333 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 (35.3333 N/25.295 E), 0 m, 24 VII 2006, 1w (EtOH), leg. G. Bračko (GB); Heraklion Prov., Kato Gouvas beach (35.3333 N/25.28333 E), 0 m, 11 IV 2014, 3w (EtOH), leg. S. Salata (SSC); Heraklion Prov., Lagou (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/25.555 E), 800 m, 23 VII 1999, 4w (EtOH), leg. M. Papadimitrakis (NHMC); Rethymno Prov., Ag. Joannis Forest loc. 1 (35.23333 N/24.44 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 IV 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 ± 0.211 (1.202-1.927); HW: 1.437 ± 0.203 (0.968-1.661); SL: 2.1 ± 0.243 (1.516-2.581); EL: 0.446 ± 0.05 (0.339-0.516); EW: 0.326 ± 0.035 (0.258-0.355); ML: 2.716 ± 0.302 (1.984-3.0); PNW: 1.258 ± 0.18 (0.911-1.478); HI: 83.5 ± 3.0 (76.7-86.4); SI1: 123.3 ± 16.7 (111.9-186.1); SI2: 148.0 ± 21.2 (129.4-222.3); MI: 113.8 ± 3.6 (107.3-119.3); EI1: 73.3 ± 3.5 (68.8-80.9); EI2: 19.0 ± 0.8 (18.3-21.5).
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,
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).
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.

*Leptisota 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.**


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.*
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 Csősz, Heinze & Mikó, 2015 (Figs. 34–38)

Temnothorax angustifrons Csősz, 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, Ligon 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,
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 (Csősz et al. 2015). Several new localities were recorded from Samos (Borowiec & Salata 2018c). Nests were observed under moss on stones in shadow.

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).
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 nylanderi group in the East Aegean Islands.

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

**Gyne** (n=5): HL: 0.73 ± 0.03 (0.69-0.75); HW: 0.66 ± 0.02 (0.64-0.68); SL: 0.47 ± 0.02 (0.45-0.49); EL: 0.2 ± 0.002 (0.19-0.21); EW: 0.16 ± 0.004 (0.156-0.164); ML: 1.2 ± 0.06 (1.1-1.25); PSL: 0.21 ± 0.01 (0.2-0.23); SDL: 0.16 ± 0.01 (0.14-0.17); PEL: 0.39 ± 0.02 (0.36-0.41); PPL: 0.24 ± 0.01 (0.23-0.26); PEH: 0.31 ± 0.01 (0.3-0.33); PPH: 0.3 ± 0.02 (0.28-0.32); PNW: 0.76 ± 0.02 (0.74-0.79); PEW: 0.23 ± 0.01 (0.22-0.24); PPW: 0.32 ± 0.01 (0.3-0.33); HI: 90.0 ± 2.3 (86.8-92.9); SI1: 64.1 ± 1.8 (62.2-66.4); SI2: 71.3 ± 2.6 (68.2-75.0); MI: 65.3 ± 2.9 (62.2-68.9); EI1: 83.1 ± 2.3 (79.2-84.7); EI2: 22.2 ± 1.2 (20.7-23.8); PI: 131.9 ± 3.3 (128.2-136.1); PPI: 75.4 ± 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 katepisternum shiny and smooth with dense and fine reticulation on lateral edges (Fig. 37). Mesosoma dorsum with sparse, thick, erect setae. **Petrole.** 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.
**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; SI1: 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
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 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); Rhodes, Ipsilometopo (39.24127 N/26.10958 E), 352 m, 8 VI 2015, 8w (pin) 6w (EtOH), leg. L. Borowiec (DBET); Lesbos, n. Anemotia (39.24127 N/26.10958 E), 352 m, 8 VI 2015, 8w (pin) 6w (EtOH), 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; SI1: 63.0, 63.2; SI2: 70.5, 68.5; MI: 59.0, 61.5; EI1: 84.6, 78.6; EI2: 23.4, 24.2; PI: 136.8, 138.9; PPI: 77.8, 73.8.
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. 43–44. Worker of *Temnothorax kemali*; (43) Dorsal, (44) Lateral. Scale bar = 0.5 mm (photo L. Borowiec).
Figs. 45–47. Gyne 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 roundedly 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; PW: 0.82; PEW: 0.26; PPW: 0.35; HI: 100. 0; SI1: 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 femora 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
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 courved 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).
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 micorreticulation, 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.
Temnothorax solerii (Menozzi, 1936) (Figs. 54-58)

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.

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.
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 bicolours 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 punctuation; 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 katepisternum 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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REFERENCES


SUPPLEMENT

Updated check-list of ants of Greece
(species or morphospecies collected or revised by authors in recent time marked with an asterisk*)


1. Acropyga paleartica MENOZZI* – CRE, DOD, PEL, STE, THE
2. Aenictus rhodiensis MENOZZI* – AEG, DOD
3. Anergates atratulus (SCHENCK)* – MAC, THR
4. Aphaenogaster aktaci KIRAN & TECAN* – AEG
5. Aphaenogaster balcanica (EMERY)* – AEG, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR
6. Aphaenogaster balcanicoides BOER* – CRE
7. Aphaenogaster ceconii EMERY* – CRE
8. Aphaenogaster charesi SALATA & BOROWIEC* – DOD
10. Aphaenogaster cf. epirotes* – 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 karpathica BOER* – DOD
17. Aphaenogaster ledouxi TOHME – ?
18. Aphaenogaster lesbica FOREL* - AEG
19. Aphaenogaster muelleriana WOLF* – EPI, ION, MAC, PEL
20. Aphaenogaster olympica BOROWIEC & SALATA* – DOD
21. Aphaenogaster radchenkoi KIRAN, AKTAÇ & TECAN* – CYC
22. Aphaenogaster rugosoferruginea FOREL* – CRE
23. Aphaenogaster sangiorgii (Emery) – ION
25. Aphaenogaster splendida (ROGER)* – CRE (i)
26. Aphaenogaster cf. splendida sp. 1* – PEL
27. Aphaenogaster subcostata VIEHMEYER* – 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
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) boghossianii Forel* – AEG, CRE, CYC, DOD, PEL
44. Camponotus (Myrmentoma) candiates 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
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) ceccionii 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) laonicus 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 (Brullè)* – 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 curtisetusos (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 schmidtii (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) polyctena 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* – 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
110. *Lasius (Cautolasius) myricon* 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) vielmeyeri* 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
Lasius (Lasius) illyricus Zimmermann* – CRE, EPI, ION, MAC, PEL, STE, THE, THR

Lasius (Lasius) karpinisi Seifert – STE

Lasius (Lasius) lasioides (Emery)* – AEG, CRE, CYC, DOD, EPI, ION, MAC, PEL, STE, THE, THR

Lasius (Lasius) neglectus Van Loon, Boomsma & Andrasfalvy* – AEG, CYC, DOD, PEL, THR

Lasius (Lasius) niger (Linnaeus)* – MAC, THR

Lasius (Lasius) platythorax Seifert – MAC

Lasius (Lasius) psammophilus Seifert* – CRE, DOD, THR

Lasius (Lasius) tapinomoides Salata & Borowiec* – CRE

Lasius (Lasius) turcicus SantSchi* – AEG, CRE, CYC, DOD, EPI, MAC, PEL, THE

Lepisiota frauenfeldi (Mayr)* – AEG, CRE, DOD, EPI, ION, MAC, PEL, STE, THE

Lepisiota melas (Emery)* – AEG, CRE, CYC, DOD, ION, MAC, PEL, STE, THE

Lepisiota nigra (Dalla Torre)* – CRE, PEL, STE

Leptanilla sp. 1 – DOD

Leptanilla sp. 2 – DOD

Leptanilla sp. 3 – DOD

Leptothorax acervorum (Fabricius)* – MAC, THR

Leptothorax gredleri Mayr – ?

Leptothorax muscorum (Nylander) – MAC

Linepithema muscorum (Nylander) – MAC

Liometopum microcephalum (Panzer)* – AEG, EPI, ION, MAC, PEL, STE, THE, THR

Manica rubida (Latreille)* – DOD, MAC, THE

Messor cf. caducus sp. 1* – CRE

Messor carpathous Menozzi* – DOD

Messor concolor SantSchi* – CRE

Messor hellenius Agosti & Collingwood* – AEG, CRE, CYC, DOD, EPI, MAC, PEL, STE, THE, THR

Messor ibericus SantSchi* – CRE, DOD, ION, MAC, PEL, THE

Messor mcarthuri Schlick et al.* – CRE, DOD, AEG, MAC, THE, THR

Messor oertzeni Forel* – AEG, MAC, THR

Messor ponticus Schlick et al.* – MAC

Messor cf. semirufus sp. 1* – DOD, EPI, THR

Messor structor (Latreille)* – EPI, PEL, STE, THE

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
164. *Myrmica constricta* Karavaiev* – MAC
165. *Myrmica deplanata* Emery* – MAC
166. *Myrmica gallienii* Bondroit – MAC
168. *Myrmica hirsuta* Elmes* – PEL
169. *Myrmica karavaievi* (Arnoldi) – MAC
171. *Myrmica lona* Finzi* – MAC, THR
172. *Myrmica pelops* Seifert* – PEL, STE
173. *Myrmica ravaesii* Finzi – EPI
174. *Myrmica rubra* (Linnaeus) – MAC
175. *Myrmica ruginodis* Nylander* – EPI, MAC
176. *Myrmica ruginosa* Nylander* – MAC
179. *Myrmica schencki* Viereck* – MAC
180. *Myrmica specioides* Bondroit* – MAC, THR
182. *Myrmoxenus adlerzi* (Douveres, Jessen & Busching) – MAC, PEL, STE
184. *Myrmoxenus krussei* (Emery) – CRE, MAC, THR
186. *Myrmoxenus stumpertii* (Kutter) – PEL
187. *Nylanderia jaegerskioeldi* (Mayr)* – CRE, ION, PEL, STE (i)
188. *Nylanderia vividula* (Nylander) – ? (i)
189. *Oxyopomyrmez krueiperi* Forel* – CRE, DOD, MAC
190. *Oxyopomyrmez laevis* Salata & Borowiec* – CRE
191. *Oxyopomyrmez 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
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257. *Temnothorax dessyi* (Menozzi)* – DOD, PEL
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276. *Temnothorax cf. nylanderi* sp. 1* – STE
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279. *Temnothorax rogeri* Emery* – EPI, ION, PEL, STE
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