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Ants of Greece – additions and corrections (Hymenoptera: Formicidae)

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Abstract. Below we present additions to our earlier contribution to the knowledge of the ants of Greece. The following taxonomic changes are proposed: *Aphaenogaster rugosoferruginea* Forel, 1889 is raised to the species rank, *Lasius illyricus* Zimmermann, 1935 and *Temnothorax rogeri* Emery, 1869 are excluded from synonyms and treated as good species. The following new synonyms are proposed: *Camponotus sanctus* Forel, 1904 = *Camponotus maculatus* subsp. *symiensis* Forel, 1910, = *Camponotus* (*Tanaemyrmex*) *compressus* var. *cosensis* Finzi, 1939; *Cataglyphis nodus* (Brullé, 1833) = *Cataglyphis bicolor* var. *rufiventris* Emery, 1925; *Cataglyphis aenescens* (Nylander, 1849) = *Myrmecocystus cursor* var. *hellenicus* Forel, 1886, = *Myrmecocystys cursor* var. *cretica* Forel, 1910. *Temnothorax rogeri* and *Aphaenogaster rugosoferruginea* are redescribed, gynes of *Aphaenogaster rugosoferruginea* and *Oxyopomyrmex krueperi* Forel, 1911 are described for the first time and characters distinguished *Lasius illyricus* from *Lasius emarginatus* are given. *Camponotus honaziensis* Karaman & Aktaç, 2013, *Lasius illyricus* Zimmermann, 1935, *Myrmica hirsuta* Elmes, 1978, *Oxyopomyrmex santschii* Forel, 1904 and *Strongylognathus huberi dalmaticus* Forel, 1874 are recorded from Greece for the first time and first certain record of *Tapinoma madeirense* Forel, 1895 is given, 28 species are excluded from list of Greek ants. New faunistic data for 36 other species are given. Revised check-list of Greek ants reports 278 species, 19 of them without a formal name.

Key words: entomology, faunistics, taxonomy, synonymy, new records, redescriptions, Hymenoptera, Formicidae, Greece.

INTRODUCTION

Within one year that has passed since the publication of our critical list of ants Greece (Borowiec & Salata 2012) we had the opportunity to complete three new collecting trips to Greece, receive a portion of material amassed by other collectors,

study not previously studied species and to compare our materials with type specimens presented on the AntWeb (http://antweb.org/) website. As a result, we decided to correct some of the identifications, make a list of species new to the fauna of Greece, discuss the status of some infraspecific taxa, and provide a number of new faunistic data for different geographical regions of Greece.

METHODS

The photographs were made using Nikon SMZ 1500 stereomicroscope, Nikon D5200 photo camera and Helicon Focus software.

Abbreviations for Greek provinces: Ep – Epirus, Ma – Macedonia, Pe – Peloponnese, St – Sterea Ellas, Th – Thessaly.

Abbreviations for measurements:

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

EW – eye width; measured the maximum width of eye (diameter perpendicular to EL);

HI – head index: HW/HL x 100;

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

HW – head width; measured below the eyes in full-face view;

MaDe – number of dents on masticatory border of mandible;

M6 – length of apical segment of maxillary palp;

ML – mesosoma length; measured as diagonal length (1) from the anterior end of the neck shield to the posterior margin of the propodeal lobe (workers); (2) from the most anterior point of scutum to the posteriori margin of the propodeal lobe (queens); in profile view;

MH – mesosoma height; measured from the upper edge of mesonotum to the lowest point of the mesopleuron margin; in profile view;

nBH – number of standing hairs (>20 μm) counted in full-face view from mid-point of occiptial margin to the upper edge of eye (refers to only one half of head);

nHHT – number of standing hairs (>20 μm) on the external edge of the hind tibia;

nHS - number of standing hairs (>20 μm) on the external edge of the scape seen in the dorsal view;

nUH - number of standing hairs (>20 μm) on the underside of head (lateral profile) counted for one half of head;

PDCL – average pubescence distance on clypeus; length of clypeus measured from mid-point of internal margin of clypeus to external, most lateral edge of clypeus divided by number of hairs crossing of touching measuring line;

PEH – petiole height; maximum height of petiole in dorsal view;

PEL – petiole length; maximum length of petiole in dorsal view;

PPH – postpetiole height; maximum height of postpetiole in dorsal view;

PPL – postpetiole length; maximum length of postpetiole in dorsal view;

SL – maximum straight-line length of scape;

SPBA – maximum distance between outer margins of spines measured at the base;

SPI – spine index: HW/SPSP;
SPSP – propodeal spine length; measured from the internal-bottom edge of the propodeal spiracle to the top of the propodeal spine;
SPWI – maximum distance between outer margins of spines measured at the top;
UHL – length of the longest of extending hairs on the underside of head;
SI – spine index: SL/HW x 100;
UHL/HL – UHL/HL x 100.
Explanation of used description:
HW: 981 ±99,4 (1103-737) mean HW: average: 981± standard deviation: 99,4 (maximum value: 1103 – minimum value: 737).
All lengths are in micrometers.

NEW RECORDS AND REDESCRIPTIONS

Aphaenogaster epirotes (Emery, 1895)

Stenamma (*Aphaenogaster*) *epirotes* Emery, 1895: 304.

New material: **Peloponnese**: W Argolida, n. Skotini, 37°47.544 N/22°24.872 E, 27 VIII 2013, 910 m, L. Borowiec; **Peloponnese**: W Argolida, n. Karia loc. 1, 37°38.332 N/22°33.051 E, 2 IX 2013, 697 m, L. Borowiec; **Peloponnese**: Arkadia, Kardaras, 37°37.728 N/22°18.006 E, 3 IX 2013, 982 m, L. Borowiec.

Distribution in Greece: Aegean Is., Ionian Is., mainland (Ma). First record for Peloponnese.

Aphaenogaster finzii Müller, 1921

Aphaenogaster pallida ssp. *finzii* Müller, 1921: 47.

New material: **Peloponnese**: W Argolida, n. Karia loc. 2 , 37°37.720 N/22°32.872 E, 2 IX2013, 844 m, L. Borowiec.

Distribution in Greece: recorded only from Macedonia. First record for Peloponnese.

Aphaenogaster subterraneoides Emery, 1881

Aphaenogaster pallida var. *subterraneoides* Emery, 1881: 534.
Aphaenogaster lesbica: Borowiec & Salata 2012: 469 (specimens from Crete, misidentification).

New material: **Ionian Is.**: Korfu, Pandokrator, 39°44.850 N/19°51.824 E, 7 VI 2013, 736 m, L. Borowiec.

Distribution in Greece: Aegean Is., Cyclades, Dodecanese, Ionian Is. Our material confirmed its occurrence on Ionian Islands.

Comments: due to misinterpretation of this taxon in Agosti and Collingwood (1987 a, b) work on Balkan ants we misidentified specimens collected on Crete as *Aphaenogaster lesbica*. In fact according to the syntype presented on AntWeb (http://www.antweb.org/specimenImages.do?name=casent0904155&project=allantwebants) they belong to *Aphaenogaster subterraneoides*, a species widespread on Greek islands but not recorded from Crete.

Aphaenogaster rugosoferruginea Forel, 1889 new status

Aphaenogaster splendida r. *rugosoferruginea* Forel, 1889: 260.

New material: **Crete**: Rethymno Prov., road to Preveli Beach loc. 1, 35°10.913 N/24°27.890 E, 7 V 2013, 58 m, L. Borowiec; Frati, 7 V 2013, 297 m, L. Borowiec; Rethymno Prov., Gerakari, 35°11.339 N/24°34.155 E, 9 V 2013, 751 m, L. Borowiec; Rethymno Prov., Antonios Spilia Gorge, 35°15.245 N/24°34.220 E, 11 V 2013, 342 m, L. Borowiec; Rethymno Prov., Palelimnos, 35°18.706 N/24°25.103 E, 15 V 2013, 262 m, L. Borowiec; Rethymno Prov., Ag. Joannis Forest loc. 2, n. Ag. Joannis, 35°14.126 N/24°24.578 E, 17 V 2013, 439 m, L. Borowiec. See also Borowiec & Salata 2012: 466; a total of 33 prepared specimens were examined, including 5 gynes.

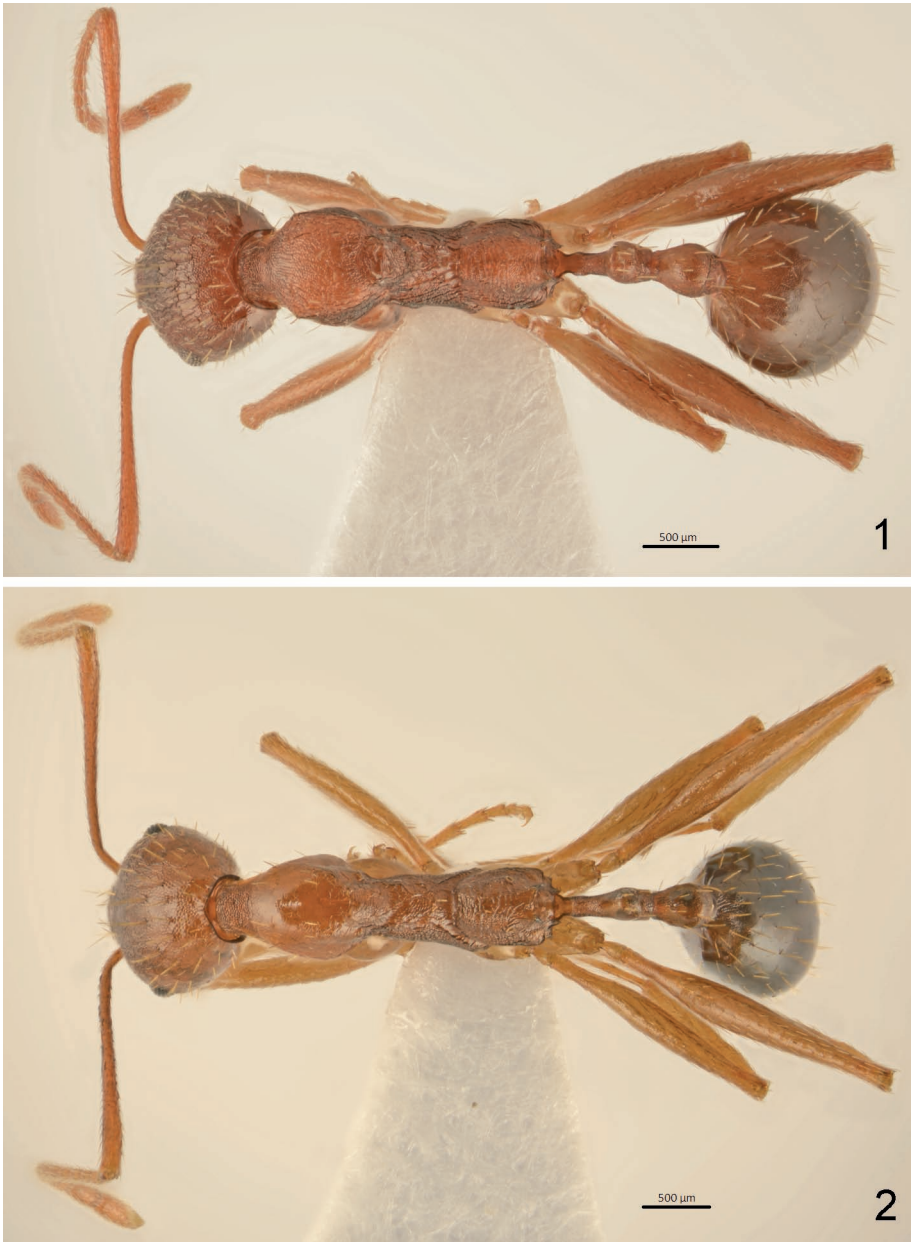
Comments: *Aphaenogaster splendida* r. *rugosoferruginea* Forel, 1889 was described from Crete, Lasithi Plateau. Emery (1908, 1921) and Bolton (1995) treated is as a subspecies. In our check-list of Greek ants (Borowiec & Salata 2012) we noted this taxon as species without formal nomenclatorial act. Although we have not examined the type *A. rugosoferruginea* but based on a good original description and the fact that in Crete (terra typica for *Aphaenogaster splendida* r. *rugosoferruginea* Forel, 1889) we collected only one taxon of *A. splendida* group, in our opinion it is a distinct species, with workers well distinguished from *A. splendida* (Roger, 1859) in sculpture, coloration and gyne morphology. Thus we propose species rank for this taxon. Below we redescribed workers and for the first time described gyne of *A. rugosoferruginea* and compared this species with worker and gyne of *A. splendida*.

Description of worker

Workers (n=28): HL:1117 ± 66.3 (1224-981); HW: 860.2 ± 51.3 (964-760); SL: 1330 ± 72.2 (1439-1150); ML: 1585.8 ± 103.9 (1794-1336); SPSP: 244.8 ± 36.3 (383-190); PEL: 514.5 ± 37.7 (570-436); PPL: 330.7 ± 36 (391-246); PEH: 303.8 ± 17.4 (346-268); PPH: 275.7 ± 21 (318-235); SPBA: 226.9 ± 20.4 (268-196); SPWI: 244.5 ± 20.2 (285-213); HI: 77.1 ± 2.7 (84.2-72.4); SI:154.8 ± 6.6 (168.5-141).

Head and thorax rusty-yellow to rusty-brown, head on frontal face sometimes with darker spot of diffused borders, margins of pronotal and mesonotal segments often infuscate. Abdomen brown with paler yellowish brown base and posterior margin of each sternite. Mandibles, antennae and legs yellow (figs. 1, 3).

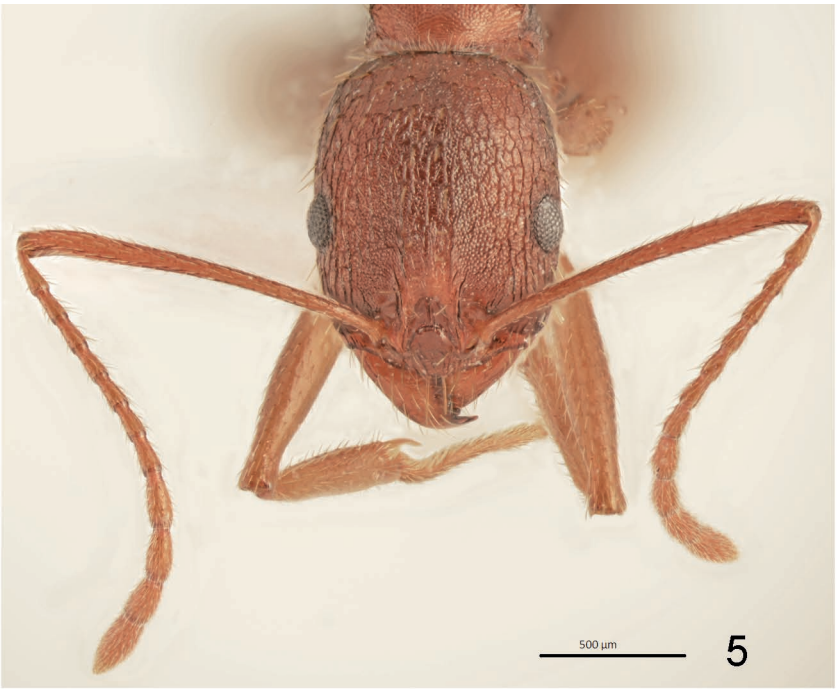
Head approximately 1.3 times as long as wide, not bulging behind eyes, softly converging posterad, without vertexal corners, hind margin straight (fig. 7). Anterior



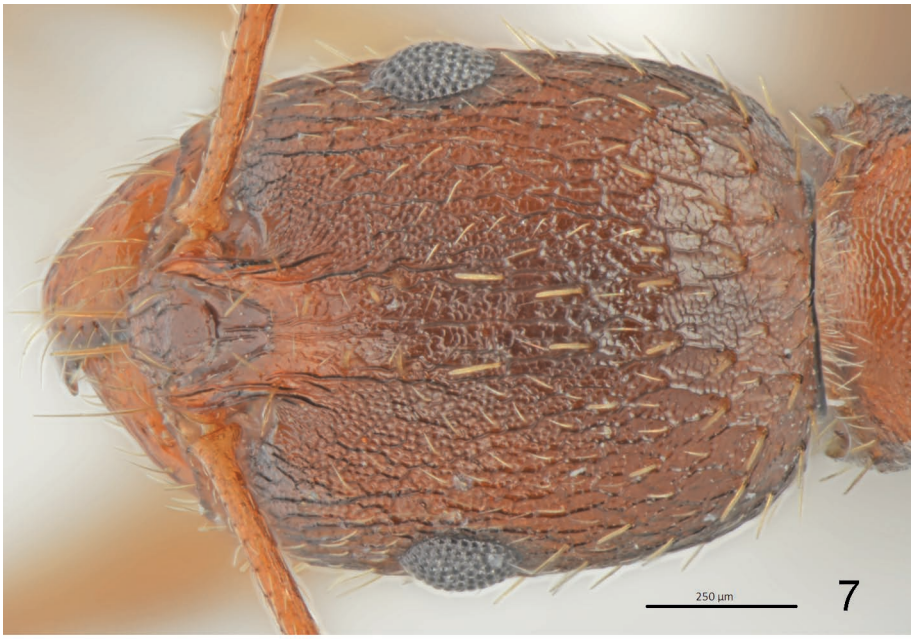
1, 2. Worker dorsal: 1 – *Aphaenogaster rugosoferruginea*, 2 – *Aphaenogaster splendida*

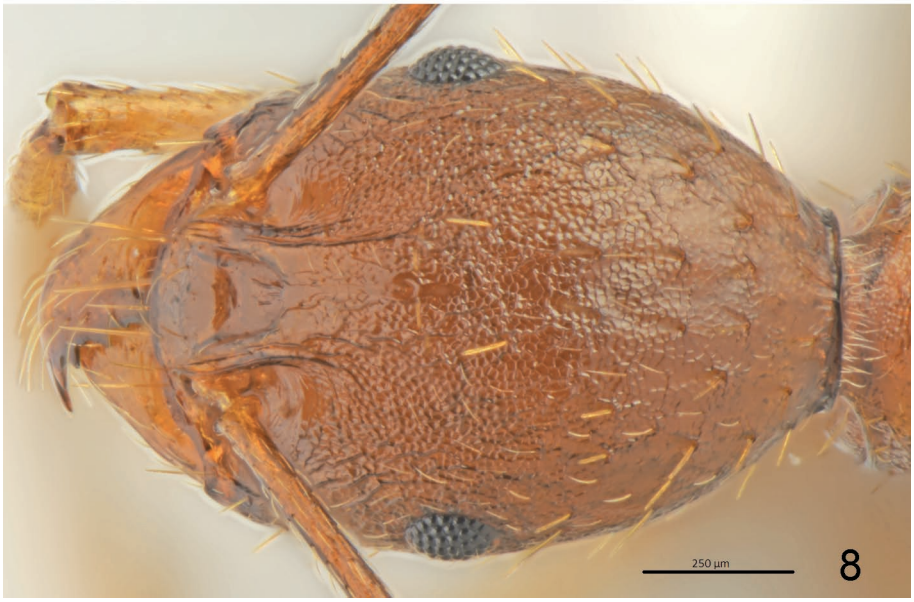
margin of clypeus softly convex. Eyes moderately large, approximately 0.2 times as long as length of lateral margin of head, placed slightly in front of the middle of head (fig. 7. Scapes elongate, approximately 1.55 times as long as width of head, at base 0.6 times as wide as in apex then gradually widened, with gentle preapical constriction. Funicle elongate, approximately 1.2 times as long as scape, first segment elongate, approximately twice as long as wide on apex, 0.7 times as long as two subsequent segments combined, segments 2-7 elongate, segments 3 approximately 1.2 times as

3, 4. Worker lateral: 3 – *Aphaenogaster rugosoferruginea*, 4 – *Aphaenogaster splendida*



5, 6. Head and antennae, worker: 5 – *Aphaenogaster rugosoferruginea*, 6 – *Aphaenogaster splendida*

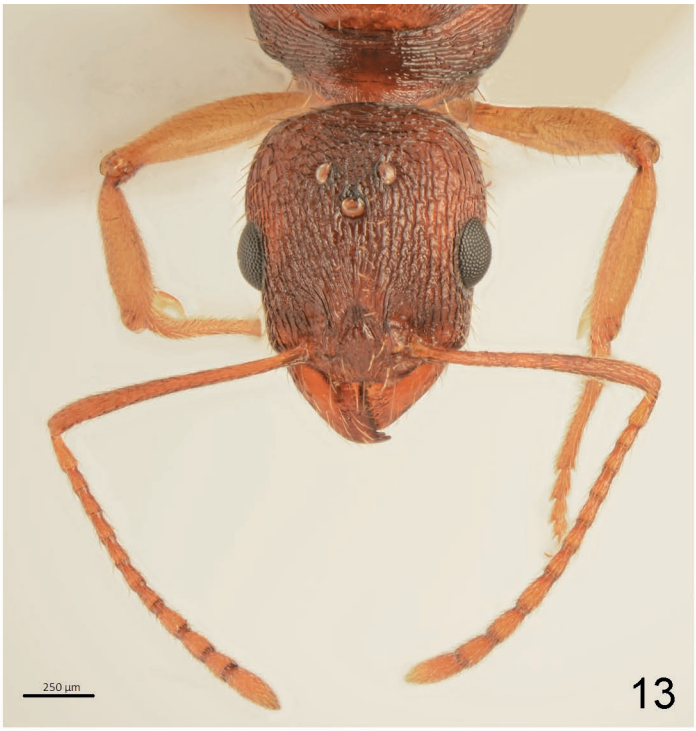




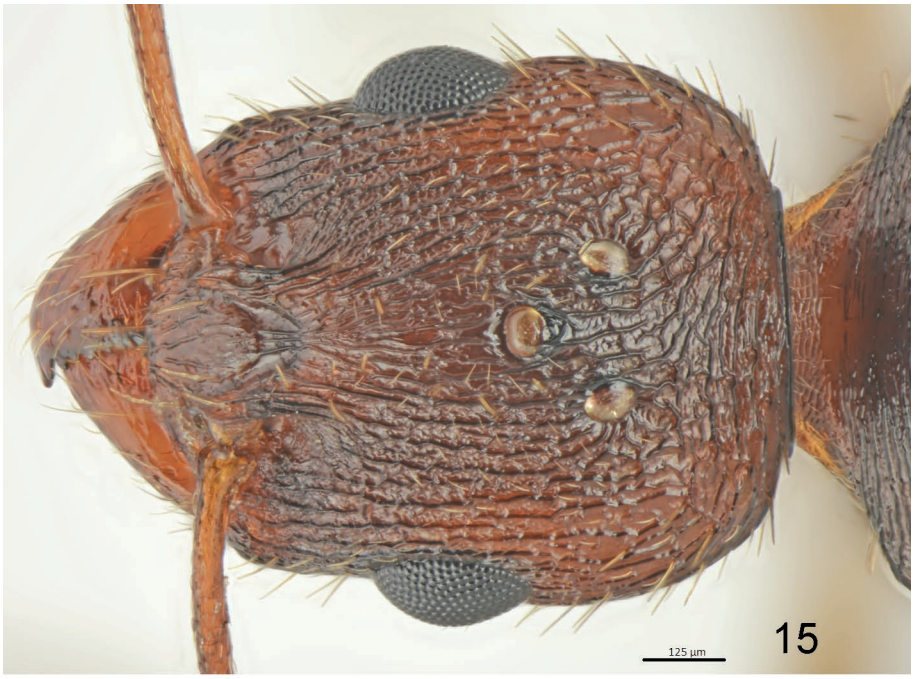
7, 8. Head sculpture, worker: 7 – *Aphaenogaster rugosoferruginea*, 8 – *Aphaenogaster splendida*

9, 10. Gyne dorsal: 9 – *Aphaenogaster rugosoferruginea*, 10 – *Aphaenogaster splendida*

11, 12. Gyne lateral: 11 – *Aphaenogaster rugosoferruginea*, 12 – *Aphaenogaster splendida*



13, 14. Head and antennae, gyne: 13 – *Aphaenogaster rugosoferruginea*, 14 – *Aphaenogaster splendida*



15, 16. Head sculpture, gyne: 15 – *Aphaenogaster rugosoferruginea*, 16 – *Aphaenogaster splendida*

long as segment 2, segment 8 approximately twice as long as wide, last three segments indistinctly wider than preceding segments, not forming a distinct club, as long as segments 5-8 combined (fig. 5).

Promesonotum approximately twice as long as wide, pronotum strongly convex in profile, anterior part of mesonotum placed distinctly higher than posterior part of pronotum thus promesonotal convexity slightly angulate in posterior third. Propodeum elongate, propodeal spines short, spiniform, runs obliquely upwards (fig. 3). Petiole elongate with long stem, its anterior face deeply concave, node rounded. Posterior face shallowly concave. Ventral margin of petiole straight, without spine or distinct angulation (fig. 37). In dorsal view, petiole constricted at base then weakly divergent, almost parallelsided before petiolar node, then globular. Postpetiole in lateral profile regularly rounded. In dorsal view the postpetiole approximately 1.5 times as long as wide with regularly rounded sides (fig. 1).

Mandibles elongate, without distinct striation but with some elongate punctures, shiny. Clypeus with few longitudinal and oblique rugae. Frontal carinae short, as long as 1/4 length of head, subparallel, frontal triangle with few longitudinal rugae but shiny between rugosities. Whole surface of head with longitudinal, oblique and reticulate sculpture, and with distinct microreticulation between rugosities, also vertex and tempora rugose thus head appears dull. Scapes mostly smooth and shiny. Entire pronotum microreticulate, also in anterior part, in posterior part with more or less visible irregular rugosities, on sides with few longitudinal rugae. Mesonotum on top and sides microgranulate with few rugae, propodeum on sides with distinct granulate sculpture, and some longitudinal rugae, at the top with wrinkled sculpture (figs. 1, 3). Entire dorsum of mesosoma with sparse, long, erect hairs, the longest slightly longer than propodeal spines. Petiole and postpetiole on almost entire surface microreticulate but without wrinkles, appearing more or less shiny. Gaster lucid, only base close to postpetiole with indistinct, short, longitudinal grooves and diffused microreticulation. Petiolar node, postpetiole and gaster with long standing pilosity. Variability within the population small, manifested mostly by size and paler and darker coloration.

Description of gyne

Gyne (n=5): HL: 1456.8 ± 37.5 (1506-1402); HW: 860.3 ± 51.3 (964-760); SL: 1422.4 ± 56.2 (1477-1346); ML: 2605.2 ± 112.2 (2800-2532); MH: 1770.8 ± 32.8 (1806-1742); SPSP: 491.6 ± 14.4 (503-469); PEL: 830 ± 71.2 (927-765); PPL: 469 ± 7.8 (480-458); PPH: 537.4 ± 21.1 (570-514); SPBA: 603.4 ± 29.4 (626-553); SPWI: 552 ± 20.7 (570-525); HI: 85.8 ± 2.9 (90-81.9); SI: 113.9 ± 4.6 (118.9-109.1).

Head and thorax rusty-yellow to rusty-brown, head on frontal face usually with darker spot of diffused borders, pronotum often with infuscate anterior face and basal angles, mesosomal plate usually with two infuscate stripes along middle slightly converging posterad, scutellum more or less infuscate across posterior margin, sides of propodeum often with more or less visible infuscate spots. Abdomen brown with paler yellowish brown base and posterior margin of each sternite. Mandibles, antennae and legs yellow (figs. 9, 11).

Head approximately 1.3 times as long as wide, oval, slightly bulging behind eyes, without vertexal corners, hind margin straight. Anterior margin of clypeus softly convex. Eyes large, approximately 0.25 times as long as length of lateral margin of head, placed slightly in front of the middle of head (fig. 15). Ocelli large, first ocellus placed on the line connecting posterior margin of the eyes. Scapes elongate, approximately 1.5 times as long as width of head, at base 0.6 times as wide as in apex then gradually widened, with gentle preapical constriction. Funicle elongate, approximately 1.4 times as long as scape, first segment elongate, approximately 1.8 times as long as wide on apex, 0.7 times as long as two subsequent segments combined, segments 2-7 elongate, segments 3 approximately 1.3 times as long as segment 2, segment 8 approximately 2.2 times as long as wide, last three segments indistinctly wider than preceding segments, do not form a distinct club, as long as segments 5-8 combined (fig. 13).

Mesosomal plate 1.15 times as long as wide, relatively high and robust, in profile regularly convex with rounded pronotal corners. Scutellum 1.6 times as wide as long, posterior margin regularly semicircular, in lateral view scutellum strongly convex, placed higher than top of mesonotal plate. Propodeum located considerably lower than mesosomal plate, propodeal spines moderately elongate, spiniform, with pointed tips, oriented obliquely upwards (fig. 11). In dorsal view the spines slightly diverging outside. Petiole elongate with long stalk, softly concave anterior face, rounded top of node and distinctly concave posterior face, inner margin straight with soft angulation anteriorly. Postpetiole slightly wider than long, in lateral view with rounded top, in dorsal view subcircular. Mandibles indistinctly striate, shiny. Frontal carinae short, extending to 1/4 length of head, softly divergent. Clypeus with longitudinal rugae but appears more or less shiny. Whole surface of head with distinct longitudinal and irregular rugae, on vertex partly transverse and reticulate rugosities, no in sculptured areas but surface between rugae smooth, appears more or less shiny (fig.15). Scapes with very small punctation but appears smooth and shiny. Pronotum with transverse rugae, mesonotal plate almost completely covered with longitudinal striation except along middle in anterior third with narrow smooth and shiny area. Scutellum mostly with longitudinal striation, on top with more or less developed impunctate, smooth area. Anepisternum mostly with fine longitudinal striae but partly diffused in anterior third, katepisternum in anterior third smooth, in posterior 2/3 length with more or less distinct striation gradually higher and sharper to metanotal suture (fig. 11). Propodeum on sides and top with sharp striation, only area between propodeal spines smooth and shiny. Petiole and postpetiole in middle of anterior face smooth, on sides granulate to rugose, on top with transverse rugae (fig. 9). Abdomen smooth and shiny, only base close to postpetiole with indistinct, short, longitudinal grooves. All dorsum covered with short erect hairs (fig. 11).

Comparative notes

At first glance, *Aphaenogaster rugosoferruginea* differs from *A. splendida* in darker coloration with head and thorax rusty yellow to yellowish-brown while *A. spledida* is pure yellow coloured. In general body shape *A. rugosoferruginea* is stouter than *A. splendida* with promesonotum only twice as long as wide vs. 2.3 times (figs. 1, 2),

Table 1. Comparative measurements of *Aphaenogaster rugosoferruginea* and *A. splendida*

Aphaenogaster rugosoferruginea	***Aphaenogaster splendida***
worker (n = 28)	worker (n = 14)
HL:1117 ± 66.3 (1224-981)	HL: 1025.3 ± 86.3 (1206-934)
HW: 860.2 ± 51.3 (964-760)	HW: 822.2 ± 55.6 (888-729)
SL: 1330 ± 72.2 (1439-1150)	SL: 1476.4 ± 82.4 (1598-1336)
ML: 1585.8 ± 103.9 (1794-1336)	ML: 1569.2 ± 67.9 (1682-1476)
SPSP: 244.8 ± 36.3 (383-190)	SPSP: 230 ± 26.7 (291-195)
PEL: 514.5 ± 37.7 (570-436)	PEL: 461.8 ± 21.7 (497-430)
PPL: 330.7 ± 36 (391-246)	PPL: 304.2 ± 21.4 (307-268)
PEH: 303.8 ± 17.4 (346-268)	PEH: 270.3 ± 21.5 (307-229)
PPH: 275.7 ± 21 (318-235)	PPH: 237.7 ± 16.3 (260-210)
SPBA: 226.9 ± 20.4 (268-196)	SPBA: 182.7 ± 16.9 (201-134)
SPWI: 244.5 ± 20.2 (285-213)	SPWI: 215.6 ± 16.1 (240-195)
HI: 77.1 ± 2.7 (84.2-72.4)	HI: 80.4 ± 4.3 (87.6-72.8)
SI:154.8 ± 6.6 (168.5-141)	SI: 179.8 ± 4.8 (188.3-173.3)
gyne (n = 5)	gyne (n = 1)
HL: 1456.8 ± 37.5 (1506-1402)	HL: 1589
HW: 860.3 ± 51.3 (964-760)	HW: 1327
SL: 1422.4 ± 56.2 (1477-1346)	SL: 1168
ML: 2605.2 ± 112.2 (2800-2532)	ML: 2903
MH: 1770.8 ± 32.8 (1806-1742)	MH: 1742
SPSP: 491.6 ± 14.4 (503-469)	SPSP: 682
PEL: 830 ± 71.2 (927-765)	PEL: 872
PPL: 469 ± 7.8 (480-458)	PPL: 419
PPH: 537.4 ± 21.1 (570-514)	PPH: 580
SPBA: 603.4 ± 29.4 (626-553)	SPBA: 670
SPWI: 552 ± 20.7 (570-525)	SPWI: 665
HI: 85.8 ± 2.9 (90-81.9)	HI: 83.5
SI: 113.9 ± 4.6 (118.9-109.1)	SI: 173.3

pronotum is more convex and eyes larger (figs. 3, 4), head slightly larger and stouter behind eyes, less converging posterad than in *A. splendida* (figs. 5-8). *A. splendida* has distinctly longer antennal scapes, approximately 1.8 times as wide as width of head vs. 1.55 in *A. rugosoferruginea* (figs. 5, 6) and slimmer legs (figs. 3, 4). Although most measurements overlap in both species (Table 1) *A. rugosoferruginea* appears to be slightly larger, stouter, with relativery shorter and stouter legs, broader mesosoma and stouter head. The best distinguishing characters are in body sculpture. In *A. rugosoferruginea* the whole dorsal surface of head is strongly sculptured, with longitudinal and reticulate rugae and distinct microreticulation between primary sculpture, the whole vertex is reticulate and thus the surface of head appears dull (fig. 7). In *A. splendida* the head is mostly microreticulate with distinct rugae only below eyes and sometimes a few rugae along the inner margin of eyes, on vertex microreticulation often diffuse thus top of head often appears more or less shiny (fig. 8). The pronotum of *A. rugosoferruginea* is distinctly sculptured, appears dull (fig. 1) while in *A. splendida* pronotum is at most partly microreticulate with top more or less shiny (fig. 2). The gynes differ markedly in coloration. *A. rugosoferruginea* is darker coloured, rusty-yellow to rusty-brown (figs. 9, 11) while in *A. splendida* whole body is yellow. The head in *A. rugosoferruginea* is more distinctly sculptured with oblique and transverse rugae on the vertex (figs. 13, 15), while in *A. splendida* the vertex is only microreticulate (figs. 14, 16); also the mesosomal plate in *A. rugosoferruginea* is more distinctly rugose than in *A. splendida* (figs. 9, 10). They distinctly differ in shape of propodeal spine, shorter and spiniform in *A. rugusoferruginea* (fig. 11) and longer and finger-shaped in *A. splendida* (fig. 12).

Biological notes

Forest species, prefers leaf forest, especially oak forests, most nests were found in soil under large stones, occasionally nests were observed inside the big porous limestone boulders but never within caves or rock crevices or inside the stone culverts under roads which is characteristic for some other species of *A. splendida* group e.g. *A. ovaticeps*, but the preferences are similar to that observed for *A. splendida* which prefers soil nests under stones but the only nest we found was in pine forest.

Aphaenogaster simonellii Emery, 1894

Aphaenogaster testaceopilosa var. *simonellii* Emery, 1894 a: 8.

New material: **Peloponnese**: W Argolida, n. Karia loc. 2 , 37°37.720 N/22°32.872 E, 2 IX2013, 844 m, L. Borowiec; **Peloponnese**: Arkadia, Kardaras-Vitina rd., loc. 1, 3 IX2013, 1163 m, 37°37.508 N/22°16.655 E, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Dodecanese, mainland (St) but conspecifity of populations from Aegean Islands and Dodecanese with populations from Crete (type locality for *Aphaenogaster simonellii*) needs confirmation based on sexual forms. First record for Peloponnese.

Aphaenogaster splendida (Roger, 1859)

Atta splendida Roger, 1859: 257.

New material: **Peloponnese**: Arkadia, n. Kapsas, 37°37.634 N/22°19.735 E, 3 IX2013, 766 m, L. Borowiec.

Distribution in Greece: Aegean Is., mainland (Ma, St). First record for Peloponnese.

Bothriomyrmex corsicus Santschi, 1923

Bothriomyrmex meridionalis var. *corsica* Santschi, 1923: 136.

New material: **Peloponnese**: W Argolida, n. Karia loc. 2 , 37°37.720 N/22°32.872 E, 2 IX2013, 844 m, L. Borowiec.

Distribution in Greece: Aegean Is., Ionian Is., mainland (Ma). First record for Peloponnese.

Camponotus (*Myrmentoma*) *fallax* (Nylander, 1856)

Formica fallax Nylander, 1856: 57.

New material: **Ionian Is.**: Korfu, N of Agios Stefanos, 39°45.118 N/19°37.963 E, 5 VI 2013, 13 m, L. Borowiec.

Distribution in Greece: Aegean Is., Dodecanese, mainland (Ma, Pe). First record for Ionian Islands.

Camponotus honaziensis Karaman & Aktaç, 2013

Camponotus honaziensis Karaman & Aktaç, 2013: 46.
Camponotus lateralis sp. 2: Seifert 2007: 156, 158.
Camponotus (*Myrmentoma*) cf. *lateralis* sp. 1: Borowiec & Salata 2012: 478.

New material: **Aegean Is.**: Samos, Nachtigallental, 37°47' N/26°49' E, 9 VI 2013, H.C. Wagner; **Ionian Is.**: Korfu, Akr. Kefali n. Ag. Stefanos, 39°45.118 N/19°37.963 E, 5 VI 2013, 13 m, L. Borowiec; **Ionian Is.**, Korfu, Klimatia, 39°44.474 N/19°47.370 E, 6 VI 2013, 311 m, L. Borowiec; **Ionian Is.**: Korfu, n. Doukades, 39°42.050 N/19°45.033 E, 8 VI 2013, 174 m, L. Borowiec; **Peloponnese**: W Argolida, Platani, 37°49.500 N/22°31.667 E, 27 VIII 2013, 507 m, L. Borowiec; **Peloponnese**: W Argolida, n. Skotini, 37°47.544 N/22°24.872 E, 27 VIII 2013, 910 m , L. Borowiec; **Peloponnese**: W Argolida, n. Karia loc. 2 , 37°37.720 N/22°32.872 E, 2 IX2013, 844 m, L. Borowiec; **Peloponnese**: E Argolida, n. Nea Epidavros, 37°39.898 N/23°09.089 E, 30 VIII 2013, 142 m, L. Borowiec; **Peloponnese**: Arkadia, n. Vlahokerasea, 37°22.608 N/22°23.385 E, 31 VIII 2013, 887 m, L. Borowiec.

Comments: this taxon was first distinguished from *Camponotus lateralis* by Seifert (2007) under informal name *Camponotus lateralis* sp. 2 and recently described formally by Karaman & Aktaç (2013) under name *Camponotus honaziensis*. These authors suggested that it is Turkish endemics but according to our materials it's a widespread species. We have specimens from mainland Spain, Baleares, Croatia, Cyprus and Mediterranean coast of Turkey, recently recorded from Macedonia (Bračko et al. 2013). From Greece we recorded this species from Crete, Dodecanese and Macedonia (Borowiec & Salata 2012) and here first noted from Aegean Islands, Ionian Islands and Peloponnese.

Camponotus (*Camponotus*) *ligniperda* (Latreille, 1802)

Formica ligniperda Latreille, 1802 a: 88.

New material: **Peloponnese**: Arkadia, Kardaras-Vitina rd., loc. 1, 3 IX2013, 1163 m, 37°37.508 N/22°16.655 E, L. Borowiec; **Peloponnese**: Arkadia, Kardaras-Vitina rd., loc. 2, 3 IX2013, 1287 m, 37°37.653 N/22°15.988 E, L. Borowiec; **Peloponnese**: Arkadia, Kardaras, 37°37.728 N/22°18.006 E, 3 IX2013, 982 m, L. Borowiec.

Distribution in Greece: mainland (Ep, Ma, St). First record for Peloponnese.

Chalepoxenus muellerianus (Finzi, 1922)

Leptothorax (*Temnothorax*) *muellerianus* Finzi, 1922.

New material: **Ionian Is.**: Korfu; Old Perithia; 39°45.696 N/19°52.448 E; 10 VI 2013, 467 m, L. Borowiec; **Ionian Is.**: Korfu, Pandokrator, 39°44.850 N/19°51.824 E, 7 VI 2013, 736 m, L. Borowiec.

Distribution in Greece: Crete, mainland (Ma, Pe, St, Th). First record for Ionian Islands.

Cryptopone ochracea (Mayr, 1855)

Ponera ochracea Mayr, 1855: 3905.

New material: **Crete**: Rethymno Pr. Plakias, Kotsifou Gorge, 35°12.119 N/24°23.785 E, 5 V 2013, 57 m, S. Salata.

Distribution in Greece: Dodecanese, mainland (Pe). First record from Crete.

Formica (*Serviformica*) *gagates* Latreille, 1798

Formica gagates Latreille, 1798: 36.

New material: **Ionian Is.**: Korfu, n. Ag. Anna, 39°42.260 N/19°44.260 E, 8 VI 2013, 414 m, L. Borowiec; **Ionian Is.**: Korfu, Nymfes, 39°45.292 N/19°47.721 E, 6 VI 2013, 162 m, L. Borowiec.

Distribution in Greece: Aegean Is., mainland (Ep, Ma, St). First record for Ionian Islands.

Formica (*Raptiformica*) *sanguinea* Latreille, 1798

Formica sanguinea Latreille, 1798: 37.

New material: **Peloponnese**: W Korinthia, n. Sarandapiho, 38°01.654 N/22°23.597 E, 1 IX 2013, 1389 m, L. Borowiec.

Distribution in Greece: mainland (Ma). First record for Peloponnese.

Lasius (*Lasius*) *illyricus* Zimmermann, 1935 bona species

Lasius alienus subsp. *illyricus* Zimmermann, 1935: 50 (photo of syntype available on the AntWeb: http://www.antweb.org/specimenImages.do?name=casent0905686&project=allantwebants); Wilson 1975: 78 (as. syn. of *L. alienus* (Förster)); Seifert 1992: 34 (as syn. of *L. emarginatus* (Olivier)).

New material: **Ionian Is.**: Korfu, n. Ag. Anna, 39°42.260 N/19°44.260 E, 8 VI 2013, 414 m, L. Borowiec; **Ionian Is.**: Korfu, Ag. Stefanos, urban area, 39°45.454 N/19°38.771 E, 5 VI 2013, 28 m, L. Borowiec; **Ionian Is.**: Korfu, N of Ag. Stefanos, 39°45.805 N/19°39.128 E, 5 VI 2013, 88 m, L. Borowiec; **Ionian Is.**: Korfu, Nymfes, 39°45.292 N/19°47.721 E, 6 VI 2013, 162 m, L. Borowiec; **Ionian Is.**: Korfu, E of Nymfes, 39°45.029 N/19°48.341 E, 9 VI 2013, 179 m, L. Borowiec; **Macedonia**: Halkidiki, Sithona Peninsula, Parthenonas, 40°07.210 N/23°48.785 E, 2 IX 2009, 305 m, L. Borowiec; **Peloponnese**: Ahaia, Aroania Mts., n. Agridi, 38°02.323 N/22°15.343 E, 29 VIII 2013, 1000 m, L. Borowiec; **Peloponnese**: Arkadia, n. Kapsas, 37°37.634 N/22°19.735 E, 3 IX2013, 766 m, L. Borowiec; **Peloponnese**: Arkadia, Kardaras, 37°37.728 N/22°18.006 E, 3 IX2013, 982 m, L. Borowiec; **Peloponnese**: Arkadia, Vlahokerasea-Kollines rd. loc. 1, 31 VIII 2013, 37°21.611 N/22°22.799 E, 1033 m, L. Borowiec; **Peloponnese**: Arkadia, Vlahokerasea-Kollines rd. loc. 2, 31 VIII 2013, 37°21.088 N/22°23.323 E, 1064 m, L. Borowiec.

Distribution in Greece: new to Greece.

Comments: *Lasius illyricus* was described from Croatia. Wilson (1955) synonymized this species with *L. alienus* (Förster, 1850) and lastly Seifert (1992) synonymized with *L. emarginatus* (Olivier, 1792) but with some doubts. Near Agridi (N Peloponnese, Aroania Mts.) we found nests of both typical *L. emarginatus* and the *L. illyricus* form. This was the only locality where we observed sympatric occurrence of both taxa. In Ionian Islands and Central Peloponnese we observed only *L. illyricus* while in central and northern Greece only *L. emarginatus.* Halkidiki is an exception where in an extremely warm locality on the Sithona Peninsula near Parthenonas we found only *L. illyricus* and in Holomontas mountains only *L. emarginatus*. We discussed this problem with B. Seifert (personal comm.) and he agreed with us that *L. illyricus* should be restored to species rank. General distribution of *L. illyricus* is unknown, but in addition to Croatia (type locality), Ionian Is., Greek Macedonia and Peloponnese we

17, 18. *Lasius illyricus*, worker: 17 – dorsal, 18 – lateral

have also examined specimens from Ukraine (Crimea, Čatyr-Dag, 44°47' N/34°18' E, 1036 m, 21 V 2009, leg. D. Tarnawski).

Both species are very similar superficially although specimens of *L. illyricus* in comparison with southern populations of *L. emarginatus* are slightly larger (ML 1352 ± 115.9 vs. 1213.7 ± 94.7; HL 1020 ± 72 vs. 1002.3 ± 78.2, HW 981.1±99.5 vs. 952.8±97.6, for all measurements see Table 2) and more contrasting coloured with thorax reddish, distinctly paler from head and abdomen (figs. 17, 18) thus they are more similar in coloration to the northern populations of *L. emarginatus* than to populations from Greece that are usually dark, with thorax reddish-brown to brown. *L. illyricus*

19-22. Antennal scape: 19, 20 – *Lasius illyricus*, 21, 22 – *Lasius emarginatus* (19, 21 – anteral view, 20, 22 – dorsal view

is easily distinguished from *L. emarginatus* by pubescence and setation of scapes and external margin of hind tibiae. In *L. illyricus* the scape in frontal view on dorsal apical 1/3 length has only erect hairs and 2-3erect setae (fig. 19) while in the same area in *L. emarginatus* erect setae predominate (6-11, fig. 21). In the same view on the ventral side of the scape suberect hairs with some setae only slightly longer than hairs predominate in *L. illyricus* (fig. 19) while in *L. emarginatus* setae distinctly longer than adjacent hairs predominate (fig. 21). The difference in chaetotaxy is more clearly visible on the anterior surface of the scape in dorsal view of antenna. In *L. illyricus* the surface has no to 3-4erect setae, occasionally to 11 setae in large specimens (fig. 20) while in *L. emarginatus* the setation is more clear with several long erect setae (usually 15-20, up to 34) and only occasionally in small specimens with only 9-10 setae (fig. 22). *L. illyricus* has sparser setation oh external edge of hind tibia with 6-18 erect setae (mean 13 ± 3), while in *L. emarginatus* there are 13-27 erect setae (mean 20.8 ± 3.9).

We did not observe significant differences in habitat selection. Both species prefer broadleaved forests, especially oak and platanus forests, but *L. illyricus* prefers more

Table 2. Comparative measurements of *Lasius illyricus* and *L. emarginatus*

Lasius illyricus:	***Lasius emarginatus***
HW: 981.1 ±99.5 (1103-737)	HI: 952.8 ± 97.6 (1089-771)
PDCL: 37.1 ± 10.9 (78-24)	PDCL: 32.8 ± 6.1 (45-24)
MaDe: 6.2 ± 0.9 (7-4)	MaDe: 5.5 ± 0.9 (7-4)
HL: 1020 ± 72 (1140-860)	HL: 1002.3 ± 78.2 (1135-866)
nBH: 11.5 ± 2.6 (17-7)	nBH: 13.4 ± 2.3 (18-8)
nHS: 3.2 ± 3.06 (11-0)	nHS: 17.2 ± 6.8 (34-9)
SL: 1033.8 ± 79.1 (1174-789)	SL: 1024 ± 68.7 (1147-916)
EL: 259 ± 20.1 (285-212)	EL: 259.6 ± 22.6 (302-223)
EW:193.4 ± 24.1 (234-106)	EW: 197.6 ± 15.5 (221-179
UHL: 100.7 ± 62.8 (128-68)	UHL: 98.2 ± 16 (123-69)
M6: 192.1 ± 28.7 (229-128)	M6: 206.7 ± 15.6 (221-190)
nUH: 4.5 ± 2.2 (9-2)	nUH: 5.8 ± 2.7 (12-3)
ML: 1352 ± 115.9 (1458-983)	ML: 1213.7 ± 94.7 (1431-1039)
nHHT: 13 ± 3 (18-6)	nHHT: 20.8 ± 3.9 (27-13)
HI: 96 ± 4.4 (103.84-84.8)	HI: 95.1 ± 3.7 (101.5-88.5)
SI: 106 ± 5.8 (123.8-96.6)	SI: 107.8 ± 5.6 (118.8-99.6)
UHL/HL: 9.9 ± 1.6 (12.4-6.3)	UHL/HL: 10.6 ± 1.60(13.4-7.5)

open and drier localities and on Korfu it is common in urban areas, gardens and olive plantations (on Korfu olive plantations are different than in other parts of Greece, more like natural-growth forests with extremely high unclipped trees overgrown by epiphytic mosses). On Peloponnese *L. illyricus* prefers margins of forest while *L. emarginatus* was collected mostly inside forests, especially on trees along streams.

Lasius (*Lasius*) *lasioides* (Emery, 1869)

Prenolepis lasioides Emery, 1869 a: 6.

New material: **Aegean Is.** : Samos, Drakei, 26°38' E/37°46' N, 8 VI 2013, H. C. Wagner; **Aegean Is.**: Samos, Nachtigallental, 26°49' E/37°47' N, 9 VI 2013, H. C. Wagner; **Aegean Is.**: Samos, Pythagorio, 26°56' E/37°41' N, 5 VI 2013, H. C. Wagner; **Ionian Is.**: Korfu; n. Ag. Anna; 39°42.260 N/19°44.260 E; 8 VI 2013, 414 m; L. Borowiec; **Ionian Is.**: Korfu; n. Doukades; 39°42.050 N/19°45.033 E; 8 VI 2013, 174 m, L. Borowiec; **Ionian Is.**: Korfu, Strinilas, 39°44.380 N/19°50.560 E, 7 VI 2013, 632 m, L. Borowiec; **Peloponnese**: Korinthia, Loutraki urban area, 37°57.779 N/22°58.307 E, 24-25 VIII 2013, 8 m, L. Borowiec.

Distribution in Greece: Crete, Dodecanese. First records from Aegean Islands, Ionian islands and Peloponnese.

Lasius (*Cautolasius*) *myrmidon* Mei, 1998

Lasius myrmidon Mei, 1998: 177.

New material: **Peloponnese**: Korinthia, Gerania Mts., Pisia, 38°01.143 N/22°59.655 E, 26 VIII 2013, 597 m, L. Borowiec.

Distribution in Greece: **mainland (St, Th)**. First record for Peloponnese.

Lasius (*Lasius*) *paralienus* Seifert, 1992

Lasius (*Lasius*) *paralienus* Seifert, 1992: 16.

New material: **Ionian Is.**: Korfu, N of Ag. Stefanos, 39°45.805 N/19°39.128 E, 5 VI 2013, 88 m, L. Borowiec; **Ionian Is.**: Korfu, Klimatia, 39°44.474 N/19°47.370 E, 6 VI 2013, 311 m, L. Borowiec ; **Ionian Is.**: Korfu, Nymfes, 39°45.292 N/19°47.721 E, 6 VI 2013, 162 m, L. Borowiec; **Ionian Is.**: Korfu, E of Nymfes, 39°45.029 N/19°48.341 E, 9 VI 2013, 179 m, L. Borowiec; **Peloponnese**: W Korinthia, n. Tarsos, 37°59.602 N/22°22.178 E, 1 IX 2013, 940 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, mainland (Ma, Th). First records from Ionian Islands and Peloponnese.

Lasius (*Lasius*) *turcicus* Santschi, 1921

Lasius niger st. *turcica* Santschi, 1921: 115.

New material: **Aegean Is.**: Samos, Nachtigallental, 26°49' E/37°47' N, 9 VI 2013, H. C. Wagner; **Peloponnese**: W Korinthia, n. Evrostina, 38°04.430 N/22°23.660 E, 1 IX 2013, 662 m, L. Borowiec.

Distribution in Greece: Crete, Dodecanese, mainland (Ma). First records from Aegean Islands and Peloponnese.

Linepithema humile (Mayr, 1868)

Hypoclinea humilis Mayr, 1868 a: 164.

New material: **Peloponnese**: Korinthia, Loutraki urban area, 37°57.779 N/22°58.307 E, 24-25 VIII 2013, 8 m, L. Borowiec.

Distribution in Greece: Crete, recorded also generally from mainland Greece. First record for Peloponnese.

Monomorium perplexum Radchenko, 1997

Monomorium perplexum Radchenko, 1997: 213.

New material: **Aegean Is.**: Samos, Pythagorio, 26°56' E/37°41' N, 5 VI 2013, H. C. Wagner.

Distribution in Greece: Crete, Cyclades, Dodecanese, mainland (St). First record from eastern Aegean Islands.

Myrmica hirsuta Elmes, 1978

Myrmica hirsuta Elmes, 1978: 131.

New material: **Peloponnese**: Arkadia, Kardaras-Vitina rd., loc. 1, 3 IX2013, 1163 m, 37°37.508 N/22°16.655 E, L. Borowiec.

Distribution in Greece: New to Greece.

General distribution: Austria; Belgium; Britain; Croatia; Czech Rep.; Denmark; Finland; Germany; Hungary; Netherlands; Poland; Serbia; Slovakia; Sweden.

Comments: A rare parasitic species; nest with 24 gynes and two males was found under a rock in the coniferous forest without any specimen of the host species.

Nylanderia jaegerskioeldi (Mayr, 1904)

Prenolepis jaegerskioeldi Mayr, 1904: 8.

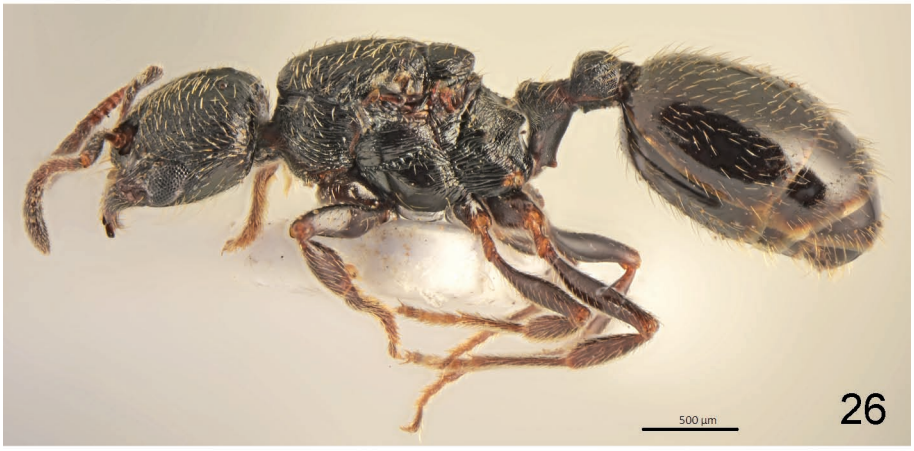
New material: **Peloponnese**: Korinthia, Loutraki urban area, 37°57.779 N/22°58.307 E, 24-25 VIII 2013, 8 m, L. Borowiec; **Peloponnese**: Korinthia, Korinthos urban area, 37°56.352 N/22°56.875 E, 4-5 IX 2013, 36 m, L. Borowiec.

Distribution in Greece: tramp species, recorded only from Dodecanese. First record for Peloponnese.

Oxyopomyrmex krueperi Forel, 1911

Oxyopomyrmex krueperi Forel, 1911: 344.

23, 24 – Worker lateral: 23 – *Oxyopomyrmex krueperi*, 24 – *Oxyopomyrmex santschii*



25-27. *Oxyopomyrmex krueperi*, gyne: 25 – dorsal, 26 – lateral, 27 – head

New material: **Crete**: Rethymno Prov., Fourfouras, 35°13.285 N/24°43.243E, 14 V 2013, 578 m, L. Borowiec & S. Salata.

Distribution in Greece: Dodecanese, mainland (Ma). Our previous record from Crete (Borowiec & Salata 2012: 526) concerns *O. santschii*.

Comments: See comments under *Oxyopomyrmex santschii*. Below we describe the previously unknown gyne of *O. krueperi*.

Description of gyne

Gyne (n=1): HL: 827; HW: 793; SL: 492; ML: 1358; MH: 780; SPSP: 223; PEL: 436; PPL: 302; PEH: 301; PPH: 285; SPBA: 335; SPWI: 291; HI: 95.8; SI: 62.

Whole body black, only mandibles partly reddish, antennal scapes reddish-brown with reddish base and apex, funicle segment 1 reddish, infuscate basally, segments 2-6 reddish with infuscate apical margin, segments 7-10 reddish-brown, trochanters and knee reddish.

Head approximately as long as wide, almost circular in outline, behind eyes softly rounded, without vertexal corners, hind margin straight. Anterior margin of clypeus softly convex. Eyes large, approximately 0.3 times as long as length of lateral margin of head, placed in anterior part of head close to lower margin (fig. 26). Ocelli large (fig. 27). Scapes short, 0.6 times as long as width of head, at base 0.6 times as wide as in apex then gradually widened without preapical constriction. Funicle approximately 1.6 times as long as scape, first segment elongate, as long as two and half subsequent segments combined, segments 2-7 transverse, segments 2 and 3 approximately equal length, last three segments form distinct club, last segment slightly shorter than segments 8 and 9 combined (fig. 27).

Mesosoma 1.5 times as long as head, relatively high and robust, in profile very feeble convex with rounded pronotal corners. Scutellum 1.3 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines short, broadly attached and triangular, with pointed tips, posteriorly oriented. In dorsal view the spines are linear and parallel-sided. Petiole with a distinct stalk, distinctly concave anterior face, globular node and shallowly concave posterior face, inner margin straight with distinct spine anteriorly. Postpetiole almost globular, in dorsal view only slightly wider than long. Mandibles distinctly longitudinally striate, dull. Frontal carinae short, extending to 0.4 length of head, softly divergent. Clypeus with irregular sculpture, dull. Whole surface of head with distinct longitudinal rugae extending to basal margin of head, only area behind eyes with small area with indistinct rugae, surface of head appears dull (figs. 25-27). Scapes smooth, slightly shiny. Sides of pronotum and mesonotal plate with sharp longitudinal striation only mesonotum along middle in anterior third with narrow smooth and shiny area. Scutellum microreticulate, laterad with 2–3 very fine striae on each side. Anepisternum with longitudinal striae but partly diffused in anterior third, katepisternum mostly smooth with short striation at metanotal suture (fig. 26). Propodeum on sides in anterior half with sharp longitudinal striation, in posterior half with microreticulation, irregular granulation and few indistinct striae, area between propodeal spines smooth

and shiny. Dorsum of propodeum transversely and diffusely carinate, between and below the spines transversely reticulo-striate. Petiole and postpetiole microreticulate and microgranulate only on sides with short, thin rugae, opaque. All of dorsum covered with short semierect hairs (figs. 25-27).

Diagnosis

Gynes of the following species have been so far described: *Oxyopomyrmex saulcyi* Emery, 1889: Emery 1889: 440, Forel 1897: 133 (under synonymic name *O. cabrerae* Forel, 1897), Santschi 1939: 2 (under *Oxyopomyrmex saulcyi* var. *latinodis*); *O. emeryi* Santschi, 1908: Délye 1971; *O. gaetulus* Santschi, 1929: Santschi 1929: 146; *O. santschii* Forel, 1904: Forel 1904: 8, Santschi 1907: 329 (under name *Oxyopomyrmex santschii* var. *nigripes*). All these descriptions, including the most recent by Délye (1971) for *O. emeryi*, are superficial and do not offer diagnostic characters. Web resources provide good photographs of gynes of three species: *Oxyopomyrmex insularis* Santschi, 1908 (www.formicidae.org, now unavailable), *O. santschii* Forel, 1904 (http://www.antweb.org/specimenImages.do?name=casent0281609&project=al

Table 3 Comparative measurements of *Oxyopomyrmex krueperi* and *O. santschii*

Oxyopomyrmex krueperi	***Oxyopomyrmex santschii***
HL: 719.2 ± 14.4 (760 – 690)	HL: 664.4 ± 25.7 (682-603)
HW: 675.6 ± 16.4 (715-648)	HW: 627.6 ± 26.2 (659-575)
SL: 469.4 ± 14 (503-447)	SL: 434.5 ± 21.5 (450-380)
EL: 233 ± 13.1 (249-212)	EL: 247.2 ± 53.9 (363-193)
EW: 135.5 ± 9.3 (153-123)	EW: 123.8 ± 10 (140-106)
ML: 902.1 ± 35.1 (983-860)	ML: 783.4 ± 60.4 (835-648)
SPSP: 169.7 ± 8.4 (184-156)	SPSP: 149.9 ± 8.7 (170-142)
PEL: 314.9 ± 16 (346-273)	PEL: 291 ± 8.4 (302-279)
PPL: 199.6 ± 15.7 (223-168)	PPL: 169.1 ± 8.6 (179-156)
PEH: 225.4 ± 15.7 (223-168)	PEH: 209.3 ± 14.9 (229-190)
PPH: 216.8 ± 7.4 (229-201)	PPH: 197 ± 6 (207-190)
SPBA: 194.6 ± 10.9 (223-179)	SPBA: 182 ± 14.3 (201-190)
SPWI: 210.4 ± 8.6 (235-198)	SPWI: 197.9 ± 5.9 (207-190)
HI: 93.9 ± 1.5 (96.9-91.1)	HI: 94.5 ± 1.7 (97.5-91.8)
SI: 143.8 ± 3.2 (289.2-137.9)	SI: 144.6 ± 3.5 (151.3-140.2)
EI: 57.7 ± 4.8 (68.4-52.3)	EI: 51.6 ± 7.9 (63.7-38.6)

lantwebants), and *O. saulcyi* Emery, 1889 (http://www.antweb.org/specimenImages.do?name=casent0907761&project=allantwebants). *Oxyopomyrmex insularis* is easily distinguished from *O. krueperi* in finer sculpture of head and lateral pro- and mesonotal plates, with anepisternite mostly without sculpture except posterior ¼ width, shiny while in *O. krueperi* the surface of anepisternite is mostly with longitudinal striation. Propodeal spines in *O. insularis* are thinner and more acute than in *O. krueperi*. In dorsal view the mesosoma of *O. insularis* is stouter, mesonotum less sculptured with anterior third mostly without striation while in *O. krueperi* the mesonotum is mostly striated except narrow, elongate area in anterior third. Gynes of *O. santschii* Forel and *O. saulcyi* appear very similar but differ in more distinct sculpture, with anepisternite almost completely striate, mesonotal plate completely striate or in anterior 1/3 length with only narrow shiny line, and both have propodeal spine slightly longer than *O. krueperi*.

Oxyopomyrmex santschii Forel, 1904

Oxyopomyrmex santschii Forel, 1904: 8.
Oxyopomyrmex krueperi: Borowiec & Salata 2012: 526 (misidentification).

Distribution in Greece: new to Greece.

Comments: we recorded *Oxyopomyrmex krueperi* Forel, 1911 (Borowiec & Salata 2012) from Crete, Kato Daratso n. Chania but new material from this island showed that two species occur on Crete: *O. santschii* and *O. krueperi*. Specimens from Chania vicinity belong to *O. santschii*. They are very similar superficially but *O. krueperi* differs in more convex pro- and mesonotum with distinct excavation before the border between mesonotum and propodeum (fig. 23) while in *O. santschii* pro- and mesonotum is softly, regularly convex, without excavation before the border between mesonotum and propodeum (fig. 24). Propodeal spines in *O. krueperi* are slightly wider at base and more or less curved downward (fig. 23) while in *O. santschii* they are straight, running more upward (fig. 24).

Pheidole megacephala (Fabricius, 1793)

Formica megacephala Fabricius, 1793: 361.

New material: **Crete**: Rethymno Prov., road to Preveli Beach loc. 2, 35°10.398 N/24°28.023 E, 7 V 2013, 48 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Dodecanese, mainland (Ma).

Comments: tramp species, in Greece rare and known from four provinces but without detailed data. Only Collingwood (1993) reported it from Karpathos but also without details. Our material confirms its occurrence in Crete.

Pheidole teneriffana Forel, 1893

Pheidole teneriffana Forel, 1893: 465.

New material: **Peloponnese**: Korinthia, Loutraki urban area, 37°57.779 N/22°58.307 E, 24-25 VIII 2013, 8 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Cyclades, Dodecanese, Ionian Is. First record for Peloponnese.

Plagiolepis pallescens Forel, 1889

Plagiolepis pygmaea var. *pallescens* Forel, 1889: 265.

New material: **Ionian Is.**: Korfu, Strinilas, 39°44.380 N/19°50.560 E, 7 VI 2013, 632 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Cyclades, Dodecanese, mainland (Ma, Pe, St, Th). First record for Ionian Islands.

Plagiolepis taurica Santschi, 1920

Plagiolepis maura var. *taurica* Santschi, 1920: 171.

New material: **Peloponnese**: Ahaia, Aroania Mts., Tsivlos-Agridi rd., 29 VIII 2013, 794 m, 38°04.083 N/22°14.610 E, L. Borowiec; **Peloponnese**: Ahaia, Aroania Mts., n. Agridi, 38°02.323 N/22°15.343 E, 29 VIII 2013, 1000 m, L. Borowiec; **Peloponnese**: Ahaia, Aroania Mts., Mesorrougi, 1022 m, 38°00.843 N/22°14.349 E, 29 VIII 2013, L. Borowiec; **Peloponnese**: Arkadia, Kardaras, 37°37.728 N/22°18.006 E, 3 IX2013, 982 m, L. Borowiec; **Peloponnese:** Arkadia, Vlahokerasea-Kollines rd. loc. 2, 31 VIII 2013, 37°21.088 N/22°23.323 E, 1064 m, L. Borowiec; **Peloponnese**: W Korinthia, n. Tarsos, 37°59.602 N/22°22.178 E, 1 IX 2013, 940 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Ionian Is., mainland (Ma). First record for Peloponnese.

Plagiolepis xene Stärcke, 1936

Plagiolepis xene Stärcke, 1936: 279.

New material: **Aegean Is.:** Samos, Drakei, 26°38’ E/37°46’ N, 8 VI 2013, H. C. Wagner; **Ionian Is.**: Korfu, Klimatia, 39°44.474 N/19°47.370 E, 6 VI 2013, 311 m, L. Borowiec.

Distribution in Greece: mainland (Ma). First record from Aegean and Ionian Islands.

Ponera coarctata (Latreille, 1802)

Formica coarctata Latreille, 1802: 65.

New material: **Peloponnese**: W Argolida, n. Skotini, 37°47.544 N/22°24.872 E, 27 VIII 2013, 910 m , L. Borowiec; **Peloponnese**: Arkadia, Vlahokerasea-Kollines rd. loc. 3, 31 VIII 2013, 37°18.885 N/22°21.531 E, 1078 m, L. Borowiec; **Peloponnese**: W Korinthia, n. Evrostina, 38°04.430 N/22°23.660 E, 1 IX 2013, 662 m, L. Borowiec.

Distribution in Greece: Ionian Is., mainland (Ep, Ma, St, Th). First record for Peloponnese.

Ponera testacea Emery, 1895

Ponera coarctata var. *testacea* Emery, 1895 a: 62.

New material: **Crete**: Rethymno Prov., road to Preveli Beach loc. 2, 35°10.398 N/24°28.023 E, 7 V 2013, 48 m, S. Salata.

Distribution in Greece: Ionian Is., mainland (Pe). First record from Crete.

Stigmatomma denticulatum Roger, 1859

Stigmatomma denticulatum Roger, 1859: 251.

New material: **Crete**: Rethymno Prov., Antonios Spilia Gorge, 35°15.245 N/24°34.220 E, 11 V 2013, 342 m, S. Salata.

Distribution in Greece: Aegean Is., Dodecanese, Ionian Is., mainland (Ep, St, Pe). First record from Crete.

Strongylognathus huberi dalmaticus Baroni Urbani, 1969 new status

Strongylognathus dalmaticus Baroni Urbani, 1969: 154.

New material: **Crete**: Chania distr., Omalos Plateau, 1034 m, 35°20' N/23°53' E, 3 V 2011, leg. L. Borowiec; **Ionian Is.**: Korfu, Old Perithia, 39°45.696 N/19°52.448 E, 10 VI 2013, 467 m, L. Borowiec.

Distribution in Greece: recorded from Karpathos by Collingwood (1993) but this record concerns probably *S. silvestrii*. New to Greece.

General distribution: France: mainland; Italy: mainland; Portugal; Spain: mainland; Switzerland; ?Turkey.

Comments: Schulz & Sanetra (2002) suggested that all *Strongylognathus* species recorded from Ionian and Adriatic Sea basins represents one variable species. Our material from Korfu and Crete and comparison it with photos of several specimens of

S. huberi group showed in AntWeb resources (www.antweb.org) seems to confirm the opinion of above authors. Continental populations have the most sculptured head, island populations from west to east are gradually less and less sculptured. Populations from Korfu and Crete have the least sculptured head but specimens from Korfu are slightly more sculptured than specimens from Crete. Both populations agree well with the description of *Strongylognathus dalmaticus* and a photograph of its syntype on AntWeb: http://www.antweb.org/specimenImages.do?name=casent0907595&project=greecea nts. Having no extensive material for comparisons from the mainland populations we do not synonymize *S. dalmaticus* with *S. huberi* but we propose to reduce this taxon to the rank of subspecies of *S. huberi*. See also comments under *S. slivestrii*.

28, 29. Worker dorsal: 28 – *Strongylognathus huberi dalmaticus*, 29 – *Strongylognathus silvestrii*

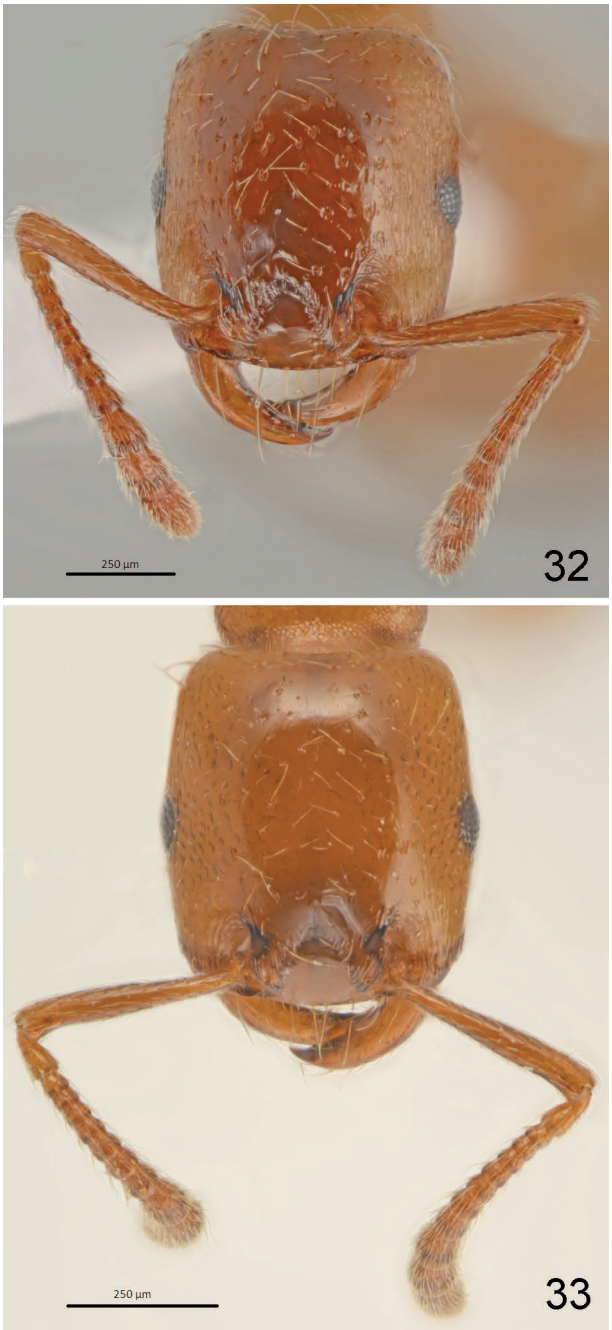
Strongylognathus silvestrii Menozzi, 1936

Strongylognathus silvestrii Menozzi, 1936: 292.

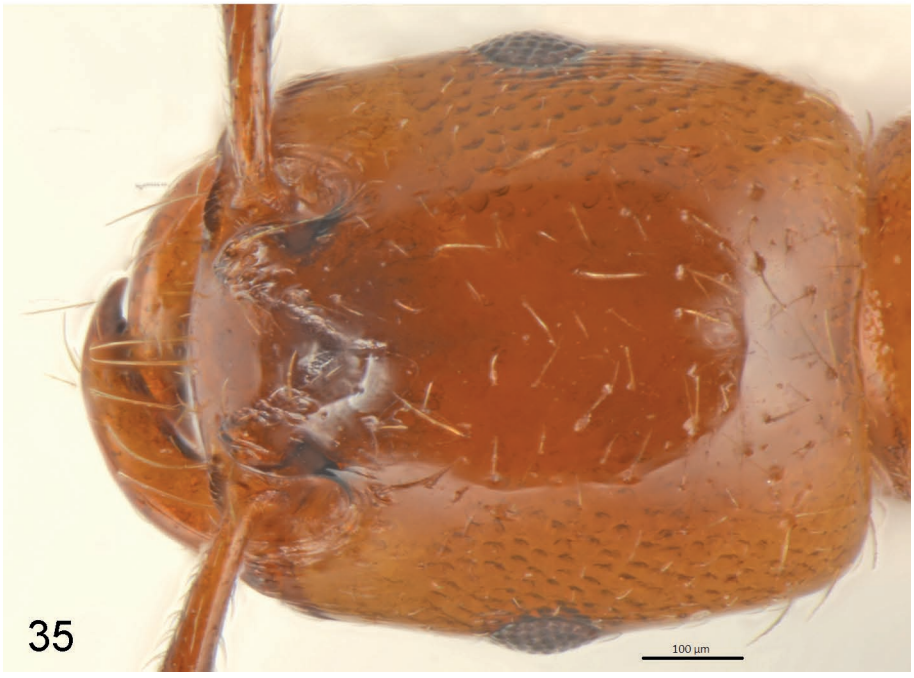
New material: **Crete**: Rethymno Prov., Fourfouras, 35°13.285 N/24°43.243E, 578 m, L. Borowiec & S. Salata.

Distribution in Greece: Crete, Dodecanese.

30, 31. Worker lateral: 30 – *Strongylognathus huberi dalmaticus*, 31 – *Strongylognathus silvestrii*



32, 33. Head and antennae: 32 – *Strongylognathus huberi dalmaticus*, 33 – *Strongylognathus silvestrii*



34, 35. Head sculpture: 34 – *Strongylognathus huberi dalmaticus*, 35 – *Strongylognathus silvestrii*

Comments: in our paper (Borowiec & Salata 2012) we suggested that unidentified specimens of the genus *Strongylognathus* reported from Crete by Buschinger (1989) are conspecific with our material collected on the Omalos Plateau. We had overlooked that after examination of the Buschinger's material Schulz & Sanetra (2002) noted its conspecifity with *Strongylognathus silvestrii* Menozzii, 1936 described from Rhodos. Our material from Fourfouras without doubts belong to the same species studied by Buschinger and belonging to *S. silvestrii* but material from Omalos Plateau represents *S. huberi dalmaticus* Baroni Urbani, 1969: 154. Schulz & Sanetra (2002) suggested that *S. silvestrii* also represents only a form of the variable *S. huberi* Forel, 1874 but sympatric occurrence of *S. huberi dalmaticus* and *S. silvestrii* on Crete supports the distinctiveness of the two taxa. They differ in many characters: in dorsal view *S. silvestrii* appears slimmer than *S. h. dalmaticus*, with more narrow petiole and postpetiole (figs. 28, 29); sculpture of the head in *S. silvestrii* is residual with only few striae on sides of anterior margin of head and behind eyes (figs. 31, 35) while in *S. h. dalmaticus* distinct striae occur on sides of anterior margin of head, around antennal scrobes, on

Table 4. Comparative measurements of *Strongylognathus huberi dalmaticus* and *S. silvestrii*

Strongylognathus huberi dalmaticus	***Strongylognathus silvestrii***
HL: 788.1 ± 34.1 (855-745)	HL: 765.7 ± 21.5 (802-701)
HW: 686.3 ± 35 (749-637)	HW: 673.7 ± 23 (723-615)
SL: 527.9 ± 21.1 (564-491)	SL: 504.9 ± 15.3 (542-458)
EL: 114.5 ± 11.4 (128-83)	EL: 117.8 ± 12.2 (140-101)
EW: 88.5 ± 8.7 (101-70)	EW: 90.6 ± 7.9 (106-78)
ML: 980.6 ± 43.4 (1100-893)	ML: 928.3 ± 318.8 (994-821)
SPSP: 138 ± 13.8 (179-120)	SPSP: 126.8 ± 14.2 (157-89)
PEL: 344.2 ± 29 (419-302)	PEL: 328 ± 15.9 (358-291)
PPL: 192 ± 17.8 (223-165)	PPL: 178.7 ± 12.5 (212-162)
PEH: 307.7 ± 21.3 (363-251)	PEH: 288.4 ± 7,6 (302-279)
PPH: 273.9 ± 19.7 (330-246)	PPH: 268.1 ± 6.6 (279-257)
PNW: 492.1 ± 29.3 (536-447)	PNW: 476.1 ± 18 (520-413)
SPBA: 170.6 ± 19.2 (212-145)	SPBA: 161 ± 16.5 (179-115)
SPWI: 172.4 ± 22.2 (218-145)	SPWI: 160.3 ± 11.1 (176-134)
HI: 87.1 ± 1.2 (89.1-84.5)	HI: 88 ± 1.6 (90.5 – 84)
SI: 77 ± 2.3 (81-73.4)	SI: 75 ± 2 (79.5 – 69.8)
MI: 139.6 ± 3.9 (145.2-128.9)	MI: 141.7 ± 2.95 (148.9-137.3)

sides of frontal triangle and on sides of head, also along ventral margin of eyes (Figs. 30, 34). Punctation of head in *S. silvestrii* is distinctly finer and sparser than in *S. h. dalmaticus* (figs. 32, 33). Propodeal spines in *S. silvestrii* are distinctly smaller than in *S. h. dalmaticus* (fig. 30, 31). *S. silvestrii* has less sculptured petiole and postpetiole with anterior face and top of nodes mostly smooth and shiny (fig. 29) while in *S. h. dalmaticus* the anterior face of petiole is microreticulate and partly dull, top of nodes completely microreticulate with few low rugae (fig. 28).

Tapinoma madeirense Forel, 1895

Tapinoma erraticum var. *madeirense* Forel, 1895 a: 231.

New material: **Aegean Is.**: Samos, Klima, 26°53' E/37°46' N, 4 VI 2013, H. C. Wagner; **Aegean Is.**: Samos, Psili Ammos, 27°00' E/37°42' N, 4 VI 2013, H. C. Wagner; **Crete**: Rethymno Prov., 12 km E Georgioupoli, Karoti, 35°20' N/24°21' E, 30 IV 2007, 110 m, L. & M. Borowiec; Rethymno Prov., **Crete**: 18 km E Georgioupoli, n. Gerani, 35°21' N/24°23' E, 28 IV 2007, 3 m, L. & M. Borowiec; **Crete**: Rethymno Pr., Ag. Joannis Forest loc. 2, 35°14.126 N/24°24.578 E, 17 V 2013, 439 m, L. Borowiec; **Crete**: Rethymno Pr., Ambelaki, 35°16.225 N/24°28.969 E, 10 V 2013, 455 m, L. Borowiec; **Crete**: Rethymno Prov., Potamoi Dam n. Voleones, 35°16.974 N/24°35.171 E, 11 V 2013, 210 m, L. Borowiec & S. Salata; **Crete**: Rethymno Pr., Preveli Beach, 35°10.398 N/24°28.023 E, 7 V 2013, 10 m, L. Borowiec; **Crete**: Rethymno Prov., Spili, 35°13.284 N/24°32.290 E, 9 V 2013, 537 m, L. Borowiec & S. Salata; **Crete**: Rethymno Pr., Xirokambos, 35°06.688 N/24°33.644 E, 12 V 2013, 24 m, L. Borowiec & S. Salata; **Dodecanese**: Rhodes, Agios Nektarios E of Archipoli, 36°15' N/28°04' E, 4 VII 2008, 82 m, L. Borowiec; **Dodecanese**: Rhodes, Gennadi, 36°02' N/27°56' E, 12 VII 2008, 8 m, L. Borowiec.

Distribution in Greece: unknown. Probably records of *Tapinoma festae* Emery, 1925 from Crete and Ionian Islands belong to this species. Recent revision of Central European *Tapinoma* showed that two distinct species were being recorded under the name *T. ambiguum* Emery, 1925: *Tapinoma subboreale* Seifert, 2012 from central and northern parts of Europe and *T. madeirense* Forel, 1895 from the Mediterranean part of Europe (Seifert 2012 and our materials from Greece). Agosti & Collingwood (1987 b) recorded *T. ambiguum* generally from Greece but they listed only three from six nominal species noted recently from this country and it is not clear which species concern this record. Our recently collected material represents the first certain records of this species from Greece.

Temnothorax affinis (Mayr, 1855)

Leptothorax affinis Mayr, 1855: 442.

New material: **Ionian Is.**: Korfu, Old Perithia, 39°45.696 N/19°52.448 E, 10 VI 2013, 467 m, L. Borowiec.

Distribution in Greece: Aegean Is., Cyclades, mainland (Ma, St). First record for Ionian Islands.

Temnothorax bulgaricus (Forel, 1892)

Leptothorax bulgaricus Forel, 1892: 314.

New material: **Peloponnese**: W Argolida, n. Karia loc. 1 , 37°38.332 N/22°33.051 E, 2 IX 2013, 697 m, L. Borowiec.

Distribution in Greece: Aegean Is., Dodecanese, Ionian Is. First record for Peloponnese.

Temnothorax clypeatus (Mayr, 1853)

Myrmica clypeata Mayr, 1853 b: 282.

New material: **Ionian Is.**: Korfu, N of Ag. Stefanos, 39°45.805 N/19°39.128 E, 5 VI 2013, 88 m, L. Borowiec.

Distribution in Greece: Ionian Is. Our new material confirmed occurrence of this rare species in Greece and the Ionian Islands.

Temnothorax cf. interruptus sp. 1

New material: **Macedonia**: Halkidiki, Siviri-Elani rd., 40°01 N/23°25 E, 29 VIII 2009, 41 m, L. Borowiec.

Comments: see comments under *Temnothorax interruptus* below.

Temnothorax cf. interruptus sp. 2

New material: **Ionian Is.**: Korfu, n. Ag. Anna, 39°42.260 N/19°44.260 E, 414 m, L. Borowiec; **Ionian Is.**: Korfu, Pandokrator, 39°44.850 N/19°51.824 E, 7 VI 2013, 736 m, L. Borowiec; **Thessaly**: Larissa distr., Ossa Mts., Ag. Dimitrios Mon. n. Stomio, 39°51.544 N/22°44.418 E, 8 IX 2012, 162 m, L. Borowiec.

Comments: see comments under *Temnothorax interruptus* below. The record of *Temnothorax nitidiceps* from Korfu by Legakis (2011) probably refers to this taxon.

Temnothorax cf. interruptus sp. 3

New material: **Thessaly**: Larissa distr., Ossa Mts., Spilia vic., 39°48.029 N/22°38.952 E, 6 IX 2012, 822 m, L. Borowiec.

Comments: we recorded specimens from Spilia vicinity (Borowiec & Salata 2012) under the name *Temnothorax interruptus* (Schenck, 1852) but they belong to an undescribed species close to *T. interruptus*. See also comments under *Temnothorax interruptus* below.

Temnothorax laconicus Csösz et al., 2013

Temnothorax laconicus Csösz et al., 2013: 8.

New material: **Ionian Is.**: Korfu, Akr. Kefali n. Ag. Stefanos, 39°45.118 N/19°37.963 E, 5 VI 2013, 13 m, L. Borowiec; **Ionian Is.**: Korfu, Klimatia, 39°44.474 N/19°47.370 E, 6 VI 2013, 311 m, L. Borowiec; **Ionian Is.**: Korfu, Nymfes, 39°45.292 N/19°47.721 E, 6 VI 2013, 162 m, L. Borowiec; **Ionian Is.**: Korfu, E of Nymfes, 39°45.029 N/19°48.341 E, 9 VI 2013, 179 m, L. Borowiec; **Ionian Is.**: Korfu, Old Perithia, 39°45.696 N/19°52.448 E, 10 VI 2013, 467 m, L. Borowiec; **Ionian Is.**: Korfu, Pandokrator, 39°44.850 N/19°51.824 E, 7 VI 2013, 736 m, L. Borowiec; **Ionian Is.**: Korfu, Strinilas, 39°44.380 N/19°50.560 E, 7 VI 2013, 632 m, L. Borowiec; **Peloponnese**: Ahaia, Aroania Mts., n. Agridi, 38°02.323 N/22°15.343 E, 29 VIII 2013, 1000 m, L. Borowiec; **Peloponnese**: W Argolida, n. Skotini, 37°47.544 N/22°24.872 E, 27 VIII 2013, 910 m , L. Borowiec; **Peloponnese**: Arkadia, Kardaras, 37°37.728 N/22°18.006 E, 3 IX 2013, 982 m, L. Borowiec; **Peloponnese**: W Korinthia, n. Evrostina, 38°04.430 N/22°23.660 E, 1 IX 2013, 662 m, L. Borowiec.

Distribution in Greece: Ionian Is., mainland (Pe).

Comments: our materials confirmed occurrence of this recently described species in Ionian Islands and Peloponnese.

Temnothorax lichtensteini (Bondroit, 1918)

Leptothorax lichtensteini Bondroit, 1918: 123.

New material: **Macedonia**: Halkidiki, Kassandra, Elani, 40°03' N/23°21' E, 28 VIII 2009, 281 m, L. Borowiec; **Macedonia**: Pieria distr., Olympus Mts., Faragi Enipeas, 40°06' N/22°29' E, 31 VIII 2012, 322 m, L. Borowiec.

Distribution in Greece: mainland (Ma, St, Th).

Comments: *Temnothorax lichtensteini* group was revised recently by Csösz et al. (2013) and the taxon known recently as *T. lichtensteini* was divided into two taxa: *T. lichtensteini* and *T. laconicus* Csösz et al., 2013. Our collections confirmed occurrence of *T. lichtensteini* in Greek Macedonia.

Temnothorax nigriceps (Mayr, 1855)

Leptothorax nigriceps Mayr, 1855: 441.

New material: **Ionian Is.**: Korfu, Old Perithia, 39°45.696 N/19°52.448 E, 10 VI 2013, 467 m, L. Borowiec.

Distribution in Greece: mainland (Ma, Pe). First record for Ionian Islands.

Temnothorax rogeri Emery, 1869 bona species

Temnothorax rogeri Emery, 1869: 18; Emery & Forel 1879: 459 (as subspecies of *T. recedens*); Forel 1892: 315 (as subspecies of *T. recedens*); Dalla Torre 1893: 126 (as species); Ruzsky 1902: 25 (as species); Ruzsky 1905: 609 (as subspecies of *T. recedens*); Emery 1924: 260 (as species); Karavaiev 1927: 293 (as subspecies of *T. recedens*); Finzi 1930: 314 (as subspecies of *T. recedens*); Dlussky & Soyunov 1988: 31 (as synonym of *T. recedens*).

36, 37. *Temnothorax rogeri*, worker: 36 – dorsal, 37 – lateral

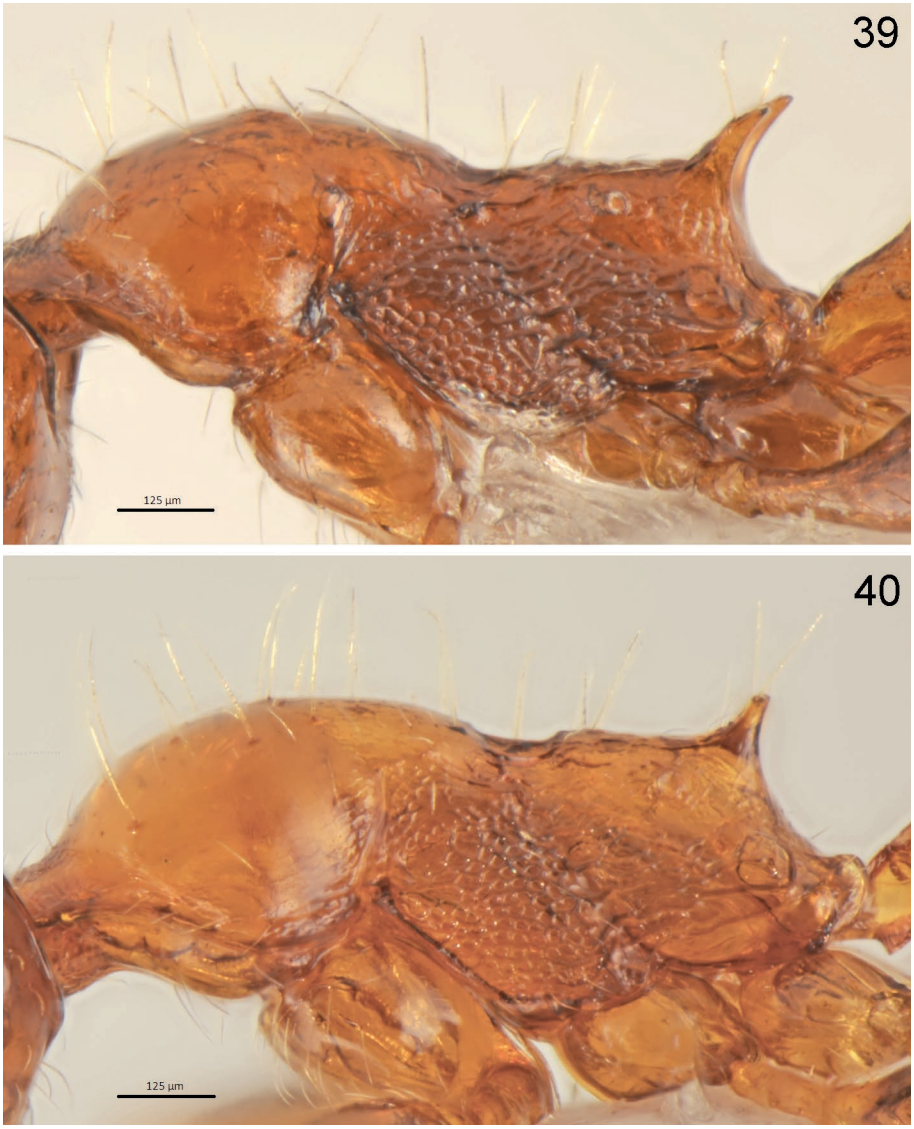
New material: **Ionian Is.**: Korfu, n. Ag. Anna, 39°42.260 N/19°44.260 E, 8 VI 2013, 414 m, L. Borowiec; **Ionian Is.**: Korfu, Klimatia, 39°44.474 N/19°47.370 E, 6 VI 2013, 311 m, L. Borowiec; **Ionian Is.**: Korfu, Old Perithia, 39°45.696 N/19°52.448 E, 10 VI 2013, 467 m, L. Borowiec.

Distribution in Greece: Greece: Aegean Is., Dodecanese, Ionian Is., mainland (St) but records from first two provinces need confirmation due to misinterpretation of this species by several authors.

Comments: described generally from Greece. Following the original description, Emery (1879) reduced it to subspecies of *Temnothorax recedens* (Nylander, 1856) but in later works it was treated as a separate species (Dalla Torre 1893, Ruzsky 1902; Emery 1924) or subspecies of *T. recedens* (Forel 1892, Ruzsky 1905, Karavaiev 1927, Finzi 1930) but probably none of these authors studied specimens of *T. rogeri* except Finzi (1930) who examined specimens from Korfu and Zakynthos. EventuallyDlusky & Soyunov (1988) synonymized it with *T. recedens* but they probably never examined

38. *Temnothorax rogeri*, worker head and antennae

types nor any specimens really belonging to *T. rogeri* and their opinion was based on observed variability of length of the propodeal spine in T. *recedens*. In our opinion it is a distinct species, well distinguished from *T. recedens* by very long propodeal spines (figs. 39, 40). *T. recedens* has markedly proounced geographical variability and needs a revision based on morphological and molecular data, with great probability it is a group of closely related taxa. Below we redescribe *Temnothorax rogeri*:



39, 40. Thorax and propodeal spine: 39 – *Temnothorax rogeri*, 40 – *Temnothorax recedens*

Description of worker

Measurements (n=17): HL:675.1 ± 22.9 (726-636); HW: 552.2 ±18.95 (598-518); SL: 676.8 ± 18.3 (709-648); ML: 831.4 ± 36.9 (893-782); SPSP: 217.4 ± 16.7 (263-190); PEL: 320.1 ± 25.6 (363-240); PPL: 232 ± 15.1 (257-201); PEH: 216.6 ± 12.1 (240-201); PPH: 212.9 ± 14.3 (243-179); SPBA: 154.5 ± 10.5 (173-134); SPWI: 214.1 ± 15.8 (246-190); HI: 81.9 ± 4.24 (87.9-72.5); SI: 122.7 ± 5.1 (136.9-115.9).

41, 42. *Temnothorax rogeri*, gyne: 41 – dorsal, 42 – lateral

Head yellow to yellowish-brown, frontal surface usually darker than sides and underside but without distinct border between dark and pale areas; pronotum yellow, mesonotum yellowish, yellowish-brown, brownish-yellow to brown, in most specimens distinctly darker than pronotum, propodeum on dorsal surface from yellow to yellow-brown on sides gradually darker up to dark brown; petiole and postpetiole yellow to yellowish-brown, postpetiole not or slightly darker than petiole; first abdominal tergite brown with narrowly yellow posterior margin and yellow spot at base extending to 1/4-1/3 length of tergite, subsequent tergites yellowish to brownish-yellow with narrowly yellow basal margin; first and subsequent sternites yellow; antennae uniformly yellow; coxa, trochanters, tibiae and tarsi yellow, femora yellow with more or less infuscate central parts, in extreme case appears dark brown in the middle.

Head approximately rounded in front view, HL/HW approximately 1.2 (fig. 38). Margins of head posterior to eyes weakly convex, vertexal corners evenly rounded, posterior margin of vertex linear. Frontal triangle not clearly demarcated. Frontal carinae short not extending to the line connecting the lower edge of the eye, moderately divergent posteriorly. Mesosoma distinctly convex in profile, with deep metanotal groove (figs. 37, 39). In dorsal view pronotum appears globular, posterior part of mesosoma parallelsided (fig. 36). Propodeal spines narrowly attached, broach-form, acute, more or less pointed downward, in same specimens slightly claw-shaped (fig. 39). Petiole subsessile, its anterior face straight or only slightly concave, node triangular with more or less angulate apex. Posterior face shallowly concave. Ventral margin of petiole close to base with small spine (fig. 37). In dorsal view, petiole narrow at base then weakly divergent, behind middle shallowly constricted and apically weakly convex. Postpetiole in lateral profile more or less evenly rounded. In dorsal view the postpetiole is slightly transverse with more or less angulate sides (fig. 36).

Mandibles very finely irregularly longitudinally striate, sublucid. Frontal triangle smooth and shiny without rugosities, only along frontal carinae with indistinct short striae and microretoculation. smooth and shiny, without median carina and without striae. Frons, sides of head, genae, surface around the eyes, vertex and ventral surface of head smooth and shiny. Whole surface of head with sparse long hairs. Scapes smooth and shiny, thin and elongate, approximately 1.3 times longer than width of head, narrow at base then slightly and gradually expanded distinctly constricted before apex (fig. 38). Funiculus 11-segmented, approximately 1.2 times longer than scape, first segment elongate, approximately 2.3 times longer than second segment, segments 2-4 approximately the same length, last three segments elongate forming distinct elongate club, last segment slightly longer than segments 5-8 combined. Almost entire pronotum smooth and shiny, in posterior half with indistinct microreticulation, sides of mesonotum and propodeum with distinct granulate sculpture, without or with very this, indistinct transverse rugae, especially across metanotal suture (fig. 39), dorsal surface of mesonotum between and behind propodeal spines slightly granulate and distinctly microreticulate. Entire dorsum of mesosoma with sparse, long, erect hairs, the longest as long as propodeal spines. Petiole on entire surface reticulate, appears from slightly dull to slightly shiny. Postpetiole on sides reticulate, dull, on top without or with indistinct reticulation, more or less shiny. Gaster lucid. Petiole, postpetiole and

gaster with long standing pilosity. Variability within the population small, manifested mostly by paler and darker coloration and length of propodeal spine.

Description of gyne

Measurements (n=1): HL: 709; HW: 648; SL: 682; ML: 1295; MH: 469; SPSP: 324; PEL: 436; PPL: 372; PEH: 216.6; PPH: 291; SPBA: 335; SPWI: 335; HI: 91.4; SI: 105.25.

Head yellow to yellowish-brown, frontal surface darker , yellowish brown, sides and underside paler, yellowish, but without distinct border between dark and pale areas.; mesosoma yellow, scutellum and mesopleuron infuscate, yellowish brown; petiole and postpetiole yellowish; first abdominal tergite brownish-black with narrowly yellowish posterior margin and yellow spot at base extending to 1/4 length of tergite, subsequent tergites brownish-black with very narrow yellowish apical margin; first sternite mostly brown with yellowish spot at base, subsequent sternites yellow; antennae and legs yellow, femora in middle infuscate, yellowish brown to brown.

Head almost globular, with rounded genae, rounded vertexal corners and slightly convex anterior clypeus margin. Compound eyes relatively small, 0.25 times as long as length of head. Mesosoma elongate, relatively high and robust, in profile convex in anterior half and depressed in posterior half, and with obtuse pronotal corners. Scutellum approximately 1.4 times as wide as long, its posterior margin semicircular. Propodeal spines elongate, 1.8-1.9 times as long as wide at base, spiniform, broad at base, with acute top, distinctly oriented posteriorly. In dorsal view the spines slightly divergent. Petiole subsessile, with general shape as described for workers, anterior face slightly concave, posterior face distinctly concave, ventral margin straight, at base with small spine, petiolar node subangulate in profile. Postpetiole in profile almost rounded. In dorsal view petiole only slightly divergent from base to apex, postpetiole approximately 1.4 times as wide as long. Mandibles faintly longitudinally striate, sublucid. Frontal triangle mostly unsculptured and lucid on sides with 2-3 longitudinal rugae not extending to ocelli, also in front of eyes few, short circular rugae and below eyes indistinct reticulate sculpture. Vertex, sides of head and clypeus shiny, without sculpture. Scapes shiny. Pronotum, mesonotum, scutellum and anepisternite shiny, without sculpture, mesopleuron in anterior half shiny, in posterior half with indistinct transverse sculpture, propodeum dorsally without sculpture, on sides with irregular sculpture but shiny between rugae, metapleuron with distinct longitudinal rugae. Petiole and postpetiole on anterior face partly microreticulate but shiny, petiolar node distinctly microreticulate but shiny, postpetiole on top and posterior face microreticulate and with few rugae but appears mostly shiny, dorsally rugoso-reticulate, ventrally reticulate, subopaque. Abdomen lucid. Whole dorsum covered with long and sparse hairs similar as in workers.

Diagnosis

Temnothorax rogeri Emery is very similar to *T. recedens* (Nylander). In most biometric characters there is overlap in the two species (Table 3), although *T. rogeri* has slightly broader head and longer antennal scapes and it also has slightly longer petiole and postpetiole. The only distinct distinguishing character is shape and length

of propodeal spines. Although in *T. recedens* spine is variable, from short, triangular to spiniform its length is at most 0.7 times as long as in *T. rogeri* (usually twice shorter, see SPI index in Table 3) and only the largest specimens of *T. recedens* have the spine as long as the smallest specimens of *T. rogeri*. In similarly sized specimens the difference

Table 3. Comparative measurements of *Temnothorax rogeri* and *T. recedens*

Temnothorax rogeri	***Temnothorax recedens***
worker (n = 17)	worker (n = 26)
HL:675.1 ± 22.9 (726-636)	HL: 628.4 ± 59.9 (745-503)
HW: 552.2 ±18.95 (598-518)	HW: 504.7 ± 52 (603-408)
SL: 676.8 ± 18.3 (709-648)	SL: 610 ± 65.3 (735-491)
ML: 831.4 ± 36.9 (893-782)	ML: 767.8 ± 104.9 (978-609)
SPSP: 217.4 ± 16.7 (263-190)	SPSP: 143.7 ± 26.3 (190-84)
PEL: 320.1 ± 25.6 (363-240)	PEL: 287.4 ± 41.5 (358-212)
PPL: 232 ± 15.1 (257-201)	PPL: 208.9 ± 37.2 (318-156)
PEH: 216.6 ± 12.1 (240-201)	PEH: 196.9 ± 28.3 (246-156)
PPH: 212.9 ± 14.3 (243-179)	PPH: 192.3 ± 29.2 (243-145)
SPBA: 154.5 ± 10.5 (173-134)	SPBA: 128.1 ± 25.8 (179-87)
SPWI: 214.1 ± 15.8 (246-190)	SPWI: 164.8 ± 12.9 (182-84)
HI: 81.9 ± 4.24 (87.9-72.5)	HI: 80.3 ± 3.03 (85.9-71.9)
SI: 122.7 ± 5.1 (136.9-115.9)	SI: 120.9 ± 3.8 (131.5-115)
SPI: 2.52 ±0.24 (2.86-1.97)	SPI: 3.49 ±0.58 (5.15-2.49)
gyne (n = 1)	gyne (n = 4)
HL: 709	HL: 746.3 ± 40.5 (804-712)
HW: 648	HW: 669.3 ± 10.2 (681-656)
SL: 682	SL: 664.5 ± 8.02 (670-653)
ML: 1295	ML: 1331 ± 46.8 (1369-1285)
MH: 469	MH: 681.3 64.3 (755-622)
SPSP: 324	SPSP: 274.5 ± 43.4 (338-240)
PEL: 436	PEL: 417.3 ± 19.2 (436-391)
PPL: 372	PPL: 341.5 ± 27 (360-302)
PEH: 216.6	PEH: 291 ± 6.3 (296-282)
PPH: 291	PPH: 280.3 ± 27.5 (302-240)
SPBA: 335	SPBA: 346 ± 19.2 (359-318)
SPWI: 335	SPWI: 318.5 ± 28.9 (346-279)
HI: 91.4	HI: 89.9 ± 4.6 (94.1-83.3)
SI: 105.25	SI: 99.3 ± 0.7 (100-98.4)

is striking, in *T. recedens* the spine is never claw-shaped, pointed more or less upward (fig. 40) while in *T. rogeri* the spine is pointed slightly more downwards and often more or less curved apically (fig. 39). The gynes of *T. rogeri* and *T. recedens* are very similar but in most examined gynes of T. *recedens* the head, scutum and mesopleuron are darker than in the only studied gyne of *T. rogeri*. They are well distinguished by the shape and length of propodeal spine, short, triangular in *T. recedens* and elongate, approximately 1.2 times longer and spiniform in *T. rogeri*.

Temnothorax semiruber (André, 1881)

Leptothorax rottenbergi var. *semiruber* André, 1881: 72.

New material: **Peloponnese**: W Argolida, n. Karia loc. 2 , 37°37.720 N/22°32.872 E, 2 IX2013, 844 m, L. Borowiec; **Peloponnese**: W Argolida, n. Skotini, 37°47.544 N/22°24.872 E, 27 VIII 2013, 910 m , L. Borowiec; **Peloponnese**: W Korinthia, n. Sarandapiho, 38°01.654 N/22°23.597 E, 1 IX 2013, 1389 m, L. Borowiec.

Distribution in Greece: Aegean Is., Crete, Cyclades, Dodecanese, mainland (Ma, St, Th). First record for Peloponnese.

SPECIES EXCLUDED FROM GREEK FAUNA

Aphaenogaster obsidiana (Mayr, 1861)

Atta obsidiana Mayr, 1861: 67.

Comments: Firstly recorded from Attica by Forel (1913), and Legakis (2011) reported it from Macedonia, Sterea Ellas and Ionian Islands. These records based of misinterpretation of the *A. obsidiana* species group which contains two closely related taxa: *A. obsidiana* (Mayr) and *A. epirotes* (Emery, 1895). The latter species has been usually treated as variety or subspecies of *A. obsidiana* and only Agosti and Collingwood (1987 a) finally separated the two species. Recent collections from the Balkan Peninsula, Turkey and Caucasian countries showed that *A. obsidiana* is an eastern species known from the Caucasian countries and north-east Anatolia Region of Turkey while int the European part of Turkey and the Balkan Peninsula only *A. epirotes* occurs (Borowiec & Salata 2012; Kiran & Karaman 2012; Bračko & al. 2013). Thus, *A. obsidiana* should be removed from list of Greek ants.

Aphaenogaster semipolita (Nylander, 1856)

Myrmica semi-polita Nylander, 1856: 86.

Comments: Recorded from Greece due to the taxonomical chaos in *Aphaenogaster testaceopilosa* group and based probably on misidentification of other species. The species was described from Sicily and probably is Sicilian endemic. At first noted from continental Greece and Greek islands by Roger (1859) but at that time the taxon was

more broadly interpreted and records from Greece may concern later described taxa, e.g. *A. simonellii* Emery, 1894, *A. balcanica* (Emery, 1898), and *A. ionia* Santschi, 1933. Subsequent records from Greece (Forel 1886; Emery 1908; Mader 1941) were also based on the broad interpretation of *A. semipolita*.

Aphaenogaster strioloides Forel, 1890

Aphaenogaster subterranea var. *strioloides* Forel, 1890: 71.

Comments: Species known from southern Spain, Algeria and Tunisia. Recorded from Greece by Legakis (2011) based on unpublished check-list of ants of Greece prepared by Collingwood in 1992. Occurrence of this species in Greece is very unlikely and Collingwood's note based on misidentification.

Aphaenogaster testaceopilosa (Lucas, 1849)

Myrmica testaceopilosa **Lucas**, 1849: 301.

Comments: It is probably a North African endemic and its reliable records come from Algeria. All of the numerous records outside Algeria, including records from Greece (Emery 1881; André 188; Hamann & Klemm 1976), are based on the broad interpretation of *Aphaenogaster testaceopilosa*. and concern species of *A. balcanica* group.

Camponotus (*Tanaemyrmex*) *compressus* (Fabricius, 1787)

Formica compressa **Fabricius**, 1787: 307.

Comments: Forel (1910) described *Camponotus maculatus* ssp. *symiensis* from the island Symia of the Sporades archipelago. Emery (1920) placed this taxon as a subspecies of *Camponotus compressus* (Fabricius, 1787) but according to the original description it represents only an aberrant form of *C. cosensis* Finzi, 1939 (=*Camponotus maculatus* r. *sanctus* var. *cosensis* Forel, 1904 unavailable name). The true *C. compressus* is distributed in Oriental and Ethiopian regions north to Arabian Peninsula (United Arab Emirates), the true *C. maculatus* occurs in the Afrotropical region north to Yemen and in the Aegean area only *C. sanctus* Forel, 1904 from this group of species occurs. Without doubts *Camponotus symiensis* Forel, 1910 and *Camponotus cosensis* Finzi, 1939 are junior synonyms of *Camponotus sanctus* Forel, 1904 (not *C. compressus*), **new synonymy**, the only taxon of the *C. compressus* group occurring on Sporades Archipelago. Thus, *C. compressus* should be removed from the list of Greek species.

Camponotus (*Tanaemyrmex*) *maculatus* (Fabricius, 1782)

Formica maculata Fabricius, 1782: 491.

Comments: Recorded from Dodecanese (Rhodos) by Hamann & Klemm (1976) due to the broad interpretation of the taxon "*maculatus*". Now this species is known only from the Ethiopian Region north to Egypt and Yemen. With great probability the record from Rhodos concerns *Camponotus sanctus* Forel, 1904, the most common species of this group on Dodecanese.

Camponotus (*Tanaemyrmex*) *sylvaticus* (Olivier 1792)

Formica sylvatica Olivier 1792: 491.

Comments: First recorded from Crete by Forel (1886, 1888) under name *Camponotus sylvaticus* var. *dichrous* but at that time the taxon was broadly interpreted and now this name can relate to at least four species of *baldaccii-maculatus-sylvaticus-thoracicus* group. Our material from Crete shows that only *Camponotus baldaccii* Emery, 1908 occurs on this island. Hammann & Klemm (1976) also recorded *Camponotus* (*Tanaemyrmex*) *maculatus sylvaticus* from Rhodos due to the broad interpretation of taxa of the *Camponotus maculatus* group. Our recently collected material from Rhodos showed that also only *Camponotus baldaccii* Emery, 1908 occurs on this island. Thus both Greek records of *Camponotus sylvaticus* should be attributed to that species.

Camponotus (*Tanaemyrmex*) *thales* Forel, 1910

Camponotus maculatus subsp. *thales* Forel, 1910: 453.

Comments: Recorded from Crete by Legakis (2011), based on unpublished list of ants collected on Crete prepared by Collingwood in 1990. This species occurs in Ethiopian Region north to Saudi Arabia and the record from Crete is probably based on misidentification of *Camponotus baldaccii* Emery, 1908, the only species of *C. maculatus* group known from that island.

Cataglyphis bicolor (Fabricius, 1793)

Formica bicolor Fabricius, 1793: 351.

Comments: Originally described from Korfu (and from Bulgaria) under unavailable name *Myrmecocystus viaticus* ssp. *orientalis* var. *rufiventris* by Forel (1911) and first valid name for this taxon is *Cataglyphis bicolor rufiventris* Emery, 1925. This record was repeated in the work of Emery (1925 b) and Legakis (2011). Emery (1915) recorded *Cataglyphis bicolor* from Rhodos. These records based on broad interpretation of *Cataglyphis bicolor* at the beginning of the 20th Century. As presently understood, this taxon occurs only in North Africa (Wehner et al. 1994) and from the Balkan region only *Cataglyphis nodus* (Brullé, 1833) was recorded from this group. Thus the name *Cataglyphis bicolor rufiventris* Emery, 1925: 265 (terra typica: Korfu) is a junior synonym of *Cataglyphis nodus* (Brullé, 1833: 326), **new synonymy**.

Cataglyphis cursor (Fonscolombe, 1846)

Formica cursor Fonscolombe, 1846: 41.

Comments: First recorded from Attica and Crete by Forel (1886), and Legakis (1984) recorded it from Attica but both records are based on a broad interpretation of the taxon "*cursor*". Presently *Cataglyphis cursor* is known only from the Mediterranean part of France while on the Balkan peninsula only one representative of the same group is present, namely *Cataglyphis aenescens* (Nylander, 1849). *Myrmecocystus cursor* var. *hellenicus* Forel, 1886: 204 and *Myrmecocystys cursor* var. *cretica* Forel, 1910 b: 23 described froim Greece are junior synonyms of *Cataglyphis aenescens* (Nylander, 1849: 37) **new synonymy**. Also unavailable name *Cataglyphis* (*Momocombus*) *cursor* st. *helenica* var. *dorica* Santschi, 1929: 35 proposed for specimens from Crete refers to *Cataglyphis aenescens* (Nylander).

Lepisiota karawaiewi (Kuznetsov-Ugamsky, 1929)

Acantholepis frauenfeldi subsp. *karawaiewi* Kuznetsov-Ugamsky, 1929: 483.

Comments: First recorded generally from the Balkan peninsula by Agosti and Collingwood (1987a), then recorded from Aegean Islands and Crete by Legakis (2011) based on unpublished check-lists of ants of Chios prepared by Taylor and Clee in 2008 and of Crete prepared by Collingwood in 1990. Legakis (2011) noted also its occurrence in Ionian Islands and Cyclades. In our opinion all records mentioned above are based on misinterpretations of other taxa of the *frauenfeldti-nigra* group. The true *L. karawaiewi* occurs only in Central Asia, further records from Kuwait and United Arab Emirates also need confirmation.

Lepisiota semenovi (Ruzsky, 1905)

Acantholepis frauenfeldi var. *semenovi* Ruzsky, 1905: 461.

Comments: Radchenko in Fauna Europea project noted this species from mainland Greece, Crete, and Cyclades but we did not find any bibliographic references to these records. This resource has of numerous errors and incorrect country data (Bračko et al. 2013) and should be ignored in preparation of regional check-lists. *Lepisiota semenovi* is distributed in Central Asia west to the Russian coast of Caspian Sea and its occurrence in Greece is doubtful.

Lepisiota syriaca (André, 1881)

Acantholepis frauenfeldi var. *syriaca* André, 1881 b: 61.

Comments: Recorded from Crete by Stitz (1928) but according to our recent material from that island the occurrence of *L. syriaca* on Crete is doubtful and Stitz's

record is probably based on misidentification. The true *L. syriaca* is distributed in the Near East north to Armenia and eastern Turkey and south to Egypt.

Messor antennatus Emery, 1908

Messor antennatus Emery, 1908 b: 441.

Comments: Röszler (1942) described *Messor antennatus* var. *fodorii* from island Chios. From this reason Legakis (2011) recorded *Messor antennatus* from Greece. This taxon occurs only in North Africa and was reported from Algeria and Morocco (Cagniant & Espadaler 1997) and var. *fodorii* without doubts is not conspecific with *M. antennatus*. Judging from the original description it is a synonym of one of the species from *Messor structor* group.

Messor bouvieri Bondroit, 1918

Messor bouvieri Bondroit, 1918: 154.

Comments: Collingwood (1963) recorded this species from Greece and the record was repeated by Agosti and Collingwood (1967 a). *Messor bouvieri* is a western Mediterranean species common in Iberian Peninsula, France and western and southern Italy but not reaching north-eastern Italy and its occurrence in Greece is impossible. Probably this record was based on a misidentification of small, dark-colored specimens of *Messor wasmanni*.

Messor concolor Santschi, 1927

Messor semirufus var. *concolor* Santschi, 1927: 229 (= *Messor barbarus semirufus* var. *concolor* Emery, 1908 b: 448 unavailable name.

Comments: Emery (1908) described this species from Syria and Crete. Baroni Urbani (1964) treated it as subspecies of *Messor semirufus* André, 1883 but in 1974 he reduced it to a junior synonym of *Messor semirufus*. Tohmé & Tohmé (1981) revived it from synonymy and raised to species. Collingwood & Agosti (1996) reduced it to junior synonym of *Messor wasmanni* Krausse, 1910. Judging from the photograph of a syntype of *M. concolor* from Crete available on AntWeb, this taxon is without doubt conspecific with *Messor wasmanni*, widespread in eastern part of Mediterranean, and we confirm synonymy by Collingwood & Agosti (1996).

Messor denticulatus Santschi, 1927

Messor minor st. *denticulatus* Santschi, 1927: 247.

Comments: Recorded from Greece by Agosti and Collingwood (1967 a). Legakis (2011) reported it from Crete and Dodecanese but noted "According to Collingwood

(pers. comm.), the specimens named by him as *M. denticulatus* may belong to the species *M. punctaticeps* SANTSCHI, 1910" unavailable name. True *Messor denticulatus* is widely distributed in central Asia, recorded also from eastern Turkey, Israel and Iran. Its occurrence in Greece is impossible. *Messor barbarous* st. *mediorubra* var. *punctaticeps* SANTSCHI (unavailable name) was described from Algeria and its occurrence in Greece is doubtful. It is probable that COLLINGWOOD misidentified specimens of one of the bicoloured species and the first abdominal tergite covered with numerous erect setae, likely *Messor caducus* (MOTSCHOULSKY) we collected in Crete.

Messor ebeninus SANTSCHI, 1927

Messor semirufus var. *ebeninus* SANTSCHI, 1927: 229 (= *Messor barbarus* ssp. *semirufus* var. *ebenina* FOREL, 1910 a: 10 unavailable name).

COMMENTS: LEGAKIS (2011) recorded it from Aegean Islands based on unpublished check-lists of ants of Chios prepared by TAYLOR and CLEE in 2008. This species is widely distributed in the Near East north to eastern Turkey and south to Egypt. Its occurrence in Greece is impossible and based on misidentification.

Messor sultanus SANTSCHI, 1917

Messor barbarus var. *sultana* SANTSCHI, 1917: 89.

COMMENTS: First recorded generally from Greece by AGOSTI and COLLINGWOOD (1967 a). LEGAKIS (2011) reported it from Macedonia, Aegean Islands, Crete and Dodecanese. This taxon was described from Israel and further recorded from Syria and eastern Turkey and its occurrence in Greece is doubtful. We have extensive material of the genus *Messor* from all regions mentioned by LEGAKIS (2011) but have no other species than *Messor wasmanni* and *M. structor* group and thus in our opinion his records are based on misidentification.

Monomorium abeillei ANDRÉ, 1881

Monomorium abeillei ANDRÉ, 1881 a: 531.

COMMENTS: Recorded from Crete by LEGAKIS (2011) based on specimens in Budapest Museum and identified as *Monomorium abeillei* by PISARSKI. Recent papers (e.g. COLLINGWOOD & AGOSTI 1996) suggested that this taxon occurs only in the Middle East from Israel to United Arab Emirates. PISARSKI probably misidentified specimens preserved in Budapest with other species of *M. salomonis* group, especially *M. subopacum* (SMITH, 1858) we recently recorded on Crete.

Proformica epinotalis Kuznetsov-Ugamsky, 1927

Proformica epinotalis Kuznetsov-Ugamsky, 1927: 27.

Comments: Radchenko in Fauna Europaea project recorded it from mainland Greece but according to the most recent revisions of the genus *Proformica* (Dlussky 1969; Atanassov & Dlussky 1992) its occurrence in Greece is doubtful and in this part of the Balkan Peninsula only two species occur: *Proformica oculatissima* (Forel, 1886) and *P. striaticeps* (Forel, 1911). True *P. epnotalis* is more norther and eastern species distributed in Iran, Moldova, Romania, Ukraine and Russia.

Proformica nasuta (Nylander, 1856)

Formica nasuta Nylander, 1856: 66.

Comments: Roger (1859) described *Formica aerea* from Greece. Mayr (1863) synonymized it with *Formica nasuta* (Nylander, 1856) and it was the reason why in André (1882) and Legakis (2011) *Proformica nasuta* was recorded from Greece. According to the recent revisions of the genus *Proformica* (Dlussky 1969; Atanassov & Dlussky 1992), *Proformica nasuta* occurs only in western Europe and status of *Formica aerea* is unclear. Probably this taxon is conspecific with one of the two species of *Proformica* occurring in Greece. The problem needs revision based on re-examination of the types of *Formica aerea*.

Proformica nitida Kuznetsov-Ugamsky, 1923

Proformica nitida Kuznetsov-Ugamsky, 1923: 246.

Comments: Recorded from Greece by Legakis (2011) based on unpublished check-list of ants of Greece prepared by Collingwood in 1992. According to the most recent revision of the genus *Proformica* (Dlussky 1969) true *Proformica nasuta* occurs only in Tianshan Mountains in Central Asia and the record from Greece is based on misidentification.

Tapinoma israele Forel, 1904

Tapinoma erraticum r. *israelis* Forel, 1904: 16.

Comments: Described from Israel. Emery (1925) recorded this species from Syria and Crete. Species of the *Tapinoma erraticum* group need to the proper identification sexual forms but according to Emery (1925) he studied workers only. Our extensive materials from Crete yielded only *Tapinoma erraticum* Latreille, 1798 on Crete and Emery's record is thus probably based on misidentification.

Temnothorax interruptus (Schenck, 1852)

Myrmica interrupta Schenck, 1852: 106.

Comments: Recorded generally from Greece by Agosti and Collingwood (1987 a) and from mainland Greece (Ma, Th) by Legakis (2011). Borowiec & Salata (2012) reported it from Thessaly but re-examination of Greek material and comparison with materials of true *Temnothorax interruptus* from northern Europe showed that populations from Greece belong to three distinct species but none of them conspecific with true *T. interruptus*. With great probability they are new species but the whole group needs revision based on materials from the whole range of the *T. interruptus* complex. For collection data of all three Greek taxa see above.

Temnothorax nitidiceps (Dalla Torre, 1893)

Leptothorax interruptus var. *nitidiceps* Dalla Torre, 1893: 124 (= *Leptothorax tuberum* r. *interruptus* var. *nitidiceps* Forel, 1890: 74 unavailable name.

Comments: Legakis (2011) recorded it from Ionian Islands but with great probability this record refers to *Temnothorax* cf. *interruptus* sp. 2. True *T. nitidiceps* is exclusively North African species known from Algeria, Morocco and Tunisia.

Temnothorax rougeti (Bondroit, 1918)

Leptothorax cordieri var. *rougeti* Bondroit, 1918: 127.

Comments: Legakis (2011) reported this species based on web page of A.P. Fowles concerning the natural history of Thasos island (http://yrefail.net/Thasos/ants.htm). This species is known only from France and its occurrence in Greece is doubtful and probably a case of misidentification.

Temnothorax tuberum (Fabricius, 1775)

Formica tuberum Fabricius, 1775: 393.

Comments: First recorded from Greece by Forel (1886). Legakis (2011) reported it from Macedonia, Peloponnese and Ionian Islands. We recorded *Temnothorax tuberum* (F.) from Crete and Thessaly (Borowiec & Salata 2012). Re-examination of our material and comparison with material of this species from Central Europe showed that Greek populations belong to a distinct species distinguished by sculpture and biometric characters. Due to several infraspecific names and synonyms proposed under this taxon we are not able to make a decision on its status. Most probably it is a new species, and the whole group needs revision.

DISCUSSION

In our previous list of the ants of Greece (Borowiec & Salata 2012) we listed 291 species but suggested that approximately 15% of taxa need confirmation. During the last year we had the opportunity to study new material from Greece and to compare our material with several type specimens imaged on AntWeb. As a result we found five species not previously recorded from this country, confirmed one doubtful species, and noted 19 taxa with informal names. Two species we restored from synonyms, one subspecies raised to species rank, one species reduced to subspecies rank and five new synonymies for infraspecific taxa were proposed. After analysis of geographical distribution, nomenclatorial history and recently collected material we removed 28 species from the list of Greek ants. Thus, revised check-list of Greek ants reported 278 taxa, 19 of them with informal name. Probably additional 10-15 species need confirmation due to taxonomical and nomenclatorial chaos in some groups, especially in the genera *Tetramorium* and *Temnothorax* and some species groups of the genera *Camponotus*, *Lepisiota* and *Tapinoma*. We still have several unidentified taxa from the genera *Tetramorium* and *Temnothorax* in our collection, many of them with great probability new for science and they will be described in subsequent revisions. After these corrections, the Greek ant fauna is established as one of the richest in Europe and the Mediterranean subregion with more species recorded only from Turkey (286 + 20 ssp.).

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APPENDIX I

NEW NOMENCLATORIAL ACTS

Aphaenogaster rugosoferruginea FOREL, 1889 new status

Aphaenogaster splendida r. *rugosoferruginea* FOREL, 1889: 260.

Lasius illyricus ZIMMERMANN, 1935 bona species

Lasius alienus subsp. *illyricus* ZIMMERMANN, 1935: 50; WILSON 1975: 78 - as. syn. of *L. alienus* (FÖRSTER 1850: 36); SEIFERT 1992: 34 - as syn. of *L. emarginatus* (OLIVIER, 1792: 494).

Temnothorax rogeri EMERY, 1869 bona species

Temnothorax rogeri EMERY, 1869: 18; EMERY & FOREL 1879: 459 - as subspecies of *T. recedens* (NYLANDER, 1856: 94); FOREL 1892: 315 - as subspecies of *T. recedens* (NYLANDER, 1856: 94); DALLA TORRE 1893: 126 (as species); RUZSKY 1902: 25 (as species); RUZSKY 1905: 609 - as subspecies of *T. recedens* (NYLANDER, 1856: 94); EMERY 1924: 260 (as species); KARAVAIEV 1927: 293 - as subspecies of *T. recedens* (NYLANDER, 1856: 94); FINZI 1930: 314 - as subspecies of *T. recedens* (NYLANDER, 1856: 94); DLUSSKY & SOYUNOV 1988: 31 - as synonym of *T. recedens* (NYLANDER, 1856: 94.

Strongylognathus huberi dalmaticus BARONI URBANI, 1969 new status

Strongylognathus dalmaticus BARONI URBANI, 1969: 154.

Camponotus sanctus FOREL, 1904

Camponotus maculatus r. *sanctus* FOREL, 1904 b: 18;
Camponotus maculatus r. *sanctus* var. *cypriacus* FOREL, 1904 d: 176 unavailable name;
Camponotus compressus subsp. *sancta* var. *consensi* FINZI, 1928 a: 791 unavailable name (lapsus = *Camponotus maculatus* r. *sanctus* var. *cosensis* FOREL, 1904 b: 20 unavailable name);
Camponotus maculatus subsp. *symiensis* FOREL, 1910 a: 26; **new synonymy**
Camponotus (*Myrmoturba*) *compressus* st. *sanctus* var. *confellah* SANTSCHI, 1939 a: 83 unavailable name;
Camponotus (*Tanaemyrmex*) *compressus* var. *cosensis* FINZI, 1939: 159 (= *Camponotus maculatus* r. *sanctus* var. *cosensis* FOREL, 1904 b: 20 unavailable name). **new synonymy**

Cataglyphis nodus (BRULLÉ, 1833)

Formica nodus BRULLÉ, 1833: 326;
Myrmecocystus viaticus var. *orientalis* FOREL, 1895 a: 228;
Cataglyphis bicolor var. *rufiventris* EMERY, 1925 b: 265 **new synonymy**
Cataglyphis bicolor st. *nodus* var. *assyria* SANTSCHI, 1929 b: 44 unavailable name;
Cataglyphis bicolor st. *nodus* var. *drusa* SANTSCHI, 1929 b: 44 unavailable name;
Cataglyphis (*Cataglyphis*) *bicolor* st. *nodus* var. *helladica* SANTSCHI, 1934 a: 281 unavailable name;
Cataglyphis nodus subsp. *causcasicola* ARNOLDI, 1964: 1803;
Cataglyphis nodus subsp. *mesasiatica* ARNOLDI, 1964: 1803;

Cataglyphis aenescens (Nylander, 1849)

Formica aenescens Nylander, 1849: 37;
Myrmecocystus cursor var. *hellenicus* Forel, 1886 a: 204, **new synonymy**
Myrmecocystus cursor r. *tancrei* Forel, 1901 a: 66;
Myrmecocystus cursor var. *caspius* Ruzsky, 1902 b: 470;
Myrmecocystus altisquamis var. *jakobsoni* Ruzsky, 1905: 436;
Myrmecocystus cursor var. *cretica* Forel, 1910 a: 23, **new synonymy**
Myrmecocystus (*Cataglyphis*) *cursor* subsp. *rockingeri* Forel, 1911 c: 287;
Myrmecocystus (*Cataglyphis*) *cursor* subsp. *aenescens* var. *flavigastra* Karavaiev, 1924: 303 unavailable name;
Cataglyphis (*Monocombus*) *cursor* subsp. *aenescens* var. *maeotica* Karavaiev, 1935 b: 110 unavailable name;
Cataglyphis (*Monocombus*) *cursor* subsp. *aenescens* var. *kuenlunensis* Stärcke, 1935: 269 unavailable name;
Cataglyphis aenescens subsp. *aterrima* Pisarski, 1967: 417;
Cataglyphis aenescens georgica Arnoldi, 1968: 1816;
Cataglyphis aenescens subsp. *chatkalensis* Tarbinski 1976: 202.

APPENDIX II

Revised check-list of ants of Greece

(species collected by authors in recent time marked with an asterisk*)

1. *Acropyga palearctica* Menozzi, 1936
2. *Aenictus rhodiensis* Menozzi, 1936
3. *Anergates atratulus* (Schenck, 1852)
4. *Anoplolepis gracilipes* (F. Smith, 1857)
5. *Aphaenogaster balcanica* (Emery, 1898)*
6. *Aphaenogaster cecconii* Emery, 1894*
7. *Aphaenogaster epirotes* (Emery, 1895)*
8. *Aphaenogaster festae* Emery, 1915*
9. *Aphaenogaster finzii* Müller, 1921*
10. *Aphaenogaster gibbosa* (Latreille, 1798)
11. *Aphaenogaster graeca* Schulz, 1994*
12. *Aphaenogaster ionia* Santschi, 1933*
13. *Aphaenogaster ledouxi* Tohmé, 1969
14. *Aphaenogaster lesbica* Forel, 1913
15. *Aphaenogaster muelleriana* Wolf, 1915
16. *Aphaenogaster ovaticeps* (Emery, 1898)*
17. *Aphaenogaster rugosoferruginea* Forel, 1889*
18. *Aphaenogaster sangiorgii* (Emery, 1901)
19. *Aphaenogaster simonellii* Emery, 1894*
20. *Aphaenogaster splendida* (Roger, 1859)*
21. *Aphaenogaster subterranea* (Latreille, 1798)*
22. *Aphaenogaster subterraneoides* Emery, 1881*
23. *Bothriomyrmex communistus* Santschi, 1919*

24. *Bothriomyrmex corsicus* Santschi, 1923*
25. *Bothriomyrmex jannonei* Menozzi, 1936
26. *Bothriomyrmex syrius* Forel, 1910
27. *Camponotus* (*Camponotus*) *herculeanus* (Linnaeus, 1758)
28. *Camponotus* (*Camponotus*) *ligniperda* (Latreille, 1802)*
29. *Camponotus* (*Camponotus*) *vagus* (Scopoli 1763)*
30. *Camponotus* (*Colobopsis*) *truncatus* (Spinola 1808)*
31. *Camponotus* (*Myrmentoma*) *aegaeus* Emery, 1915*
32. *Camponotus* (*Myrmentoma*) *atricolor* (Nylander, 1849)*
33. *Camponotus* (*Myrmentoma*) *boghossiani* Forel, 1911*
34. *Camponotus* (*Myrmentoma*) *candiotes* Emery, 1894*
35. *Camponotus* (*Myrmentoma*) *concavus* Dalla Torre, 1893
36. *Camponotus* (*Myrmentoma*) *dalmaticus* (Nylander, 1849)*
37. *Camponotus* (*Myrmentoma*) *fallax* (Nylander, 1856)*
38. *Camponotus* (*Myrmentoma*) *gestroi* Emery, 1878*
39. *Camponotus* (*Myrmentoma*) *honaziensis* Karaman & Aktaç, 2013*
40. *Camponotus* (*Myrmentoma*) *kiesenwetteri* (Roger, 1859)*
41. *Camponotus* (*Myrmentoma*) *lateralis* (Olivier 1792)*
42. *Camponotus* (*Myrmentoma*) cf. *lateralis**
43. *Camponotus* (*Myrmentoma*) *libanicus* André, 1881
44. *Camponotus* (*Myrmentoma*) *piceus* (Leach 1825)*
45. *Camponotus* (*Myrmentoma*) *vogti* Forel, 1906
46. *Camponotus* (*Tanaemyrmex*) *aethiops* (Latreille, 1798)*
47. *Camponotus* (*Tanaemyrmex*) *andrius* Dalla Torre, 1893
48. *Camponotus* (*Tanaemyrmex*) *baldaccii* Emery, 1908*
49. *Camponotus* (*Tanaemyrmex*) *cecconii* Emery, 1908
50. *Camponotus* (*Tanaemyrmex*) *festai* Emery, 1894
51. *Camponotus* (*Tanaemyrmex*) *foreli* Emery, 1881
52. *Camponotus* (*Tanaemyrmex*) *ionius* Emery, 1920*
53. *Camponotus* (*Tanaemyrmex*) *jaliensis* Dalla Torre, 1893*
54. *Camponotus* (*Tanaemyrmex*) *laconicus* Emery, 1920*
55. *Camponotus* (*Tanaemyrmex*) *oertzeni* Forel, 1889*
56. *Camponotus* (*Tanaemyrmex*) *samius* Forel, 1889*
57. *Camponotus* (*Tanaemyrmex*) *sanctus* Forel, 1904*
58. *Camponotus* (*Tanaemyrmex*) *sannini* Tohmé & Tohmé, 2000*
59. *Cardiocondyla bulgarica* Forel, 1892*
60. *Cardiocondyla elegans* Emery, 1869*
61. *Cardiocondyla mauritanica* Forel, 1890*
62. *Cardiocondyla nigra* Forel, 1905
63. *Cardiocondyla stambuloffii* Forel, 1892
64. *Carebara oertzeni* Forel, 1886
65. *Cataglyphis aenescens* (Nylander, 1849)*
66. *Cataglyphis albicans* (Roger, 1859)

67. *Cataglyphis nodus* (Brullé, 1833)*
68. *Cataglyphis viaticoides* (André, 1881)
69. *Cataglyphis viatica* (Fabricius, 1787)
70. *Chalepoxenus muellerianus* (Finzi, 1922)*
71. *Crematogaster auberti* Emery, 1869
72. *Crematogaster ionia* Forel, 1911*
73. *Crematogaster jehovae* Forel, 1907*
74. *Crematogaster lorteti* Forel, 1910
75. *Crematogaster schmidti* (Mayr, 1853)*
76. *Crematogaster scutellaris* (Olivier 1792)*
77. *Crematogaster sordidula* (Nylander, 1849)*
78. *Cryptopone ochracea* (Mayr, 1855)*
79. *Dolichoderus quadripunctatus* (Linnaeus, 1771)*
80. *Formica* (*Coptoformica*) *bruni* Kutter, 1967*
81. *Formica* (*Coptoformica*) *exsecta* Nylander, 1846
82. *Formica* (*Formica*) *lugubris* Zetterstedt, 1838
83. *Formica* (*Formica*) *polyctena* Förster, 1850
84. *Formica* (*Formica*) *pratensis* Retzius, 1783
85. *Formica* (*Formica*) *rufa* Linnaeus, 1761
86. *Formica* (*Raptiformica*) *sanguinea* Latreille, 1798*
87. *Formica* (*Serviformica*) *cinerea* Mayr, 1853*
88. *Formica* (*Serviformica*) *clara* Forel, 1886*
89. *Formica* (*Serviformica*) *cunicularia* Latreille, 1798*
90. *Formica* (*Serviformica*) *fusca* Linnaeus, 1758*
91. *Formica* (*Serviformica*) *gagates* Latreille, 1798*
92. *Formica* (*Serviformica*) *lemani* Bondroit, 1917
93. *Formica* (*Serviformica*) *picea* Nylander, 1846
94. *Formica* (*Serviformica*) *rufibarbis* Fabricius, 1793*
95. *Formicoxenus nitidulus* (Nylander, 1846)
96. *Hypoponera eduardi* (Forel, 1894)*
97. *Hypoponera punctatissima* (Roger, 1859)
98. *Lasius* (*Austrolasius*) *carniolicus* Mayr, 1861
99. *Lasius* (*Cautolasius*) *flavus* (Fabricius, 1782)*
100. *Lasius* (*Cautolasius*) *myops* Forel, 1894*
101. *Lasius* (*Cautolasius*) *myrmidon* Mei, 1998*
102. *Lasius* (*Chthonolasius*) *bicornis* (Förster, 1850)*
103. *Lasius* (*Chthonolasius*) *citrinus* Emery, 1922*
104. *Lasius* (*Chthonolasius*) *distinguendus* (Emery, 1916)*
105. *Lasius* (*Chthonolasius*) *jensi* Seifert, 1982*
106. *Lasius* (*Chthonolasius*) *meridionalis* Bondroit, 1920
107. *Lasius* (*Chthonolasius*) *mixtus* (Nylander, 1846)
108. *Lasius* (*Chthonolasius*) *nitidigaster* Seifert, 1996*
109. *Lasius* (*Chthonolasius*) *umbratus* (Nylander, 1846)

110. *Lasius* (*Chthonolasius*) *viehmeyeri* Emery, 1922
111. *Lasius* (*Dendrolasius*) *fuliginosus* (Latreille, 1798)*
112. *Lasius* (*Lasius*) *alienus* (Förster 1850)*
113. *Lasius* (*Lasius*) *brunneus* (Latreille, 1798)*
114. *Lasius* (*Lasius*) *emarginatus* (Olivier, 1792)*
115. *Lasius* (*Lasius*) *illyricus* Zimmermann, 1935*
116. *Lasius* (*Lasius*) *karpinisi* Seifert, 1992
117. *Lasius* (*Lasius*) *lasioides* (Emery, 1869)*
118. *Lasius* (*Lasius*) *neglectus* Van Loon, Boomsma & Andrasfalvy, 1990*
119. *Lasius* (*Lasius*) *niger* (Linnaeus, 1758)*
120. *Lasius* (*Lasius*) *paralienus* Seifert, 1992*
121. *Lasius* (*Lasius*) *platythorax* Seifert, 1991
122. *Lasius* (*Lasius*) *psammophilus* Seifert, 1992*
123. *Lasius* (*Lasius*) *turcicus* Santschi, 1921*
124. *Lepisiota bipartita* (Smith, 1861)
125. *Lepisiota dolabellae* (Forel, 1911)*
126. *Lepisiota frauenfeldi* (Mayr, 1855)*
127. *Lepisiota melas* (Emery, 1915)*
128. Lepisiota cf. *melas**
129. *Lepisiota nigra* (Dalla Torre, 1893)*
130. *Lepisiota splendens* (Karavaiev, 1912)
131. *Lepisiota* cf. *syriaca**
132. *Leptanilla* sp. 1
133. *Leptanilla* sp. 2
134. *Leptanilla* sp. 3
135. *Leptothorax acervorum* (Fabricius, 1793)
136. *Leptothorax gredleri* Mayr, 1855
137. *Leptothorax muscorum* (Nylander, 1846)
138. *Linepithema humile* (Mayr, 1868)*
139. *Liometopum microcephalum* (Panzer, 1798)*
140. *Manica rubida* (Latreille, 1802)
141. *Messor alexandri* Tohmé & Tohmé 1981
142. *Messor caducus* (Motschoulsky 1839)*
143. *Messor capitatus* (Latreille, 1798)*
144. *Messor intermedius* Santschi, 1927
145. *Messor muticus* (Nylander, 1849)*
146. *Messor oertzeni* Forel, 1910*
147. *Messor orientalis* (Emery, 1898)
148. *Messor structor* (Latreille, 1798)*
149. *Messor wasmanni* Krausse, 1910*
150. *Monomorium creticum* Emery, 1895*
151. *Monomorium monomorium* Bolton, 1987*
152. *Monomorium nitidiventre* Emery, 1893

153. *Monomorium perplexum* Radchenko, 1997*
154. *Monomorium pharaonis* (Linnaeus, 1758)
155. *Monomorium phoenicum* Santschi, 1927
156. *Monomorium subopacum* (F. Smith, 1858)*
157. *Myrmecina graminicola* (Latreille, 1802)*
158. *Myrmica constricta* Karavaiev, 1934*
159. *Myrmica gallienii* Bondroit, 1920
160. *Myrmica hellenica* Finzi, 1926*
161. *Myrmica hirsuta* Elmes, 1978*
162. *Myrmica karavaievi* (Arnoldi, 1930)
163. *Myrmica lobicornis* Nylander, 1846
164. *Myrmica lonae* Finzi, 1926*
165. *Myrmica pelops* Seifert, 2003
166. *Myrmica ravasinii* Finzi, 1923
167. *Myrmica rubra* (Linnaeus, 1758)
168. *Myrmica ruginodis* Nylander, 1846
169. *Myrmica rugulosa* Nylander, 1849
170. *Myrmica sabuleti* Meinert, 1861*
171. *Myrmica scabrinodis* Nylander, 1846
172. *Myrmica schencki* Viereck, 1903
173. *Myrmica specioides* Bondroit, 1918
174. *Myrmica sulcinodis* Nylander, 1846
175. *Myrmica tulinae* Elmes, Radchenko & Aktaç, 2002*
176. *Myrmoxenus adlerzi* (Douwes, Jessen & Buschinger, 1988)
177. *Myrmoxenus gordiagini* Ruzsky, 1902
178. *Myrmoxenus kraussei* (Emery, 1915)
179. *Myrmoxenus ravouxi* (André, 1896)
180. *Nylanderia jaegerskioeldi* (Mayr, 1904)*
181. *Nylanderia vividula* (Nylander, 1846)
182. *Oxyopomyrmex krueperi* Forel, 1911*
183. *Oxyopomyrmex lagoi* Menozzi, 1936
184. *Oxyopomyrmex santschii* Forel, 1904*
185. *Pheidole megacephala* (Fabricius, 1793)*
186. *Pheidole pallidula* (Nylander, 1849)*
187. *Pheidole teneriffana* Forel, 1893*
188. *Plagiolepis ancyrensis* Santschi, 1920
189. *Plagiolepis karawajewi* Radchenko, 1989
190. *Plagiolepis pallescens* Forel, 1889*
191. *Plagiolepis pygmaea* (Latreille, 1798)*
192. *Plagiolepis* sp. 1 (parasite)*
193. *Plagiolepis taurica* Santschi, 1920*
194. *Plagiolepis xene* Stärcke, 1936*
195. *Polyergus rufescens* (Latreille, 1798)

196. *Ponera coarctata* (Latreille, 1802)*
197. *Ponera testacea* Emery, 1895*
198. *Prenolepis nitens* (Mayr, 1853)*
199. *Proceratium algiricum* Forel, 1899*
200. *Proceratium melinum* (Roger, 1860)
201. *Proformica oculatissima* (Forel, 1886)
202. *Proformica striaticeps* (Forel, 1911)*
203. *Pyramica argiola* (Emery, 1869)
204. *Pyramica baudueri* (Emery, 1875)
205. *Pyramica membranifera* (Emery, 1869)
206. *Pyramica tenuipilis* (Emery, 1915)
207. *Pyramica tenuissima* (Brown, 1953)
208. *Solenopsis crivellarii* Menozzi, 1936
209. *Solenopsis fugax* Latreille, 1798*
210. *Solenopsis geminata* (Fabricius, 1804)
211. *Solenopsis latro* Forel, 1894
212. *Solenopsis wolfi* Emery, 1915*
213. *Stenamma debile* (Förster, 1850)
214. *Stenamma striatulum* Emery, 1895*
215. *Stigmatomma denticulatum* Roger, 1859*
216. *Stigmatomma impressifrons* Emery, 1869
217. *Strongylognathus huberi dalmaticus* Baroni Urbani, 1969*
218. *Strongylognathus silvestrii* Menozzi, 1936*
219. *Strongylognathus testaceus* (Schenck, 1852)
220. *Tapinoma erraticum* (Latreille, 1798)*
221. *Tapinoma festae* Emery, 1925
222. *Tapinoma madeirense* Forel, 1895*
223. *Tapinoma nigerrimum* (Nylander, 1856)*
224. *Tapinoma simrothi* Krausse, 1911*
225. *Tapinoma subboreale* Seifert, 2012
226. *Temnothorax aeolius* (Forel, 1911)
227. *Temnothorax affinis* (Mayr, 1855)*
228. *Temnothorax bulgaricus* (Forel, 1892)*
229. *Temnothorax clypeatus* (Mayr, 1853)*
230. *Temnothorax corticalis* (Schenck, 1852)
231. *Temnothorax crassispinus* (Karavaiev, 1926)*
232. *Temnothorax dessyi* (Menozzi, 1936)
233. *Temnothorax exilis* (Emery, 1869)*
234. *Temnothorax flavicornis* (Emery, 1870)*
235. *Temnothorax graecus* (Forel, 1911)*
236. *Temnothorax* cf. *interruptus* sp 1*
237. *Temnothorax* cf. *interruptus* sp 2*
238. *Temnothorax* cf. *interruptus* sp 3*

239. *Temnothorax* cf. *korbi* sp. 1*
240. *Temnothorax* cf. *korbi* sp. 2
241. *Temnothorax* cf. *korbi* sp. 3
242. *Temnothorax laconicus* Csösz et al., 2013*
243. *Temnothorax lichtensteini* (Bondroit, 1918)*
244. *Temnothorax luteus* (Forel, 1874)
245. *Temnothorax niger* (Forel, 1894)
246. *Temnothorax nigriceps* (Mayr, 1855)*
247. *Temnothorax parvulus* (Schenck, 1852)*
248. *Temnothorax recedens* (Nylander, 1856)*
249. *Temnothorax rogeri* Emery, 1869*
250. *Temnothorax rottenbergi* (Emery, 1870)
251. *Temnothorax saxonicus* (Seifert, 1995)*
252. *Temnothorax semiruber* (André, 1881)*
253. *Temnothorax solerii* (Menozzi, 1936)
254. *Temnothorax sordidulus* (Müller, 1923)*
255. *Temnothorax* cf. *specularis**
256. *Temnothorax* cf. *tuberum**
257. *Temnothorax turcicus* (Santschi, 1934)*
258. *Temnothorax unifasciatus* (Latreille, 1798)*
259. *Tetramorium biskrense* Forel, 1904
260. *Tetramorium* cf. *caespitum* sp. D*
261. *Tetramorium* cf. *caespitum* sp. E*
262. *Tetramorium* cf. *caespitum* sp. ?*
263. *Tetramorium chefteki* Forel, 1911*
264. *Tetramorium davidi* Forel, 1911
265. *Tetramorium diomedeum* Emery, 1908*
266. *Tetramorium hungaricum* Röszler, 1935*
267. *Tetramorium hippocrate* Agosti & Collingwood, 1987
268. *Tetramorium ferox* Ruzsky, 1903*
269. *Tetramorium* cf. *lucidulum**
270. *Tetramorium meridionale* Emery, 1870
271. *Tetramorium moravicum* Kratochvíl, 1941*
272. *Tetramorium punctatum* Santschi, 1927
273. *Tetramorium punicum* (F. Smith, 1861)
274. *Tetramorium rhodium* Emery, 1924
275. *Tetramorium sahlbergi* Finzi, 1936
276. *Tetramorium schmidti* Forel, 1904
277. *Tetramorium semilaeve* André, 1883*
278. *Tetramorium splendens* Ruzsky, 1902