



Zootaxa 4025 (1): 001–066
www.mapress.com/zootaxa/

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Monograph

ISSN 1175-5326 (print edition)

ZOOTAXA

ISSN 1175-5334 (online edition)

<http://dx.doi.org/10.11646/zootaxa.4025.1.1>

<http://zoobank.org/urn:lsid:zoobank.org:pub:0C191D16-E03E-41D6-9AE3-17B4AE237E0F>

ZOOTAXA

4025

A taxonomic revision of the genus *Oxyopomyrmex* André, 1881 (Hymenoptera: Formicidae)

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Magnolia Press
Auckland, New Zealand

Accepted by J. Longino: 11 Sept. 2015; published: 30 Sept. 2015

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A taxonomic revision of the genus *Oxyopomyrmex* André, 1881 (Hymenoptera: Formicidae)
(*Zootaxa* 4025)

66 pp.; 30 cm.

30 Sept. 2015

ISBN 978-1-77557-803-1 (paperback)

ISBN 978-1-77557-804-8 (Online edition)

FIRST PUBLISHED IN 2015 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: zootaxa@mapress.com

<http://www.mapress.com/zootaxa/>

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ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

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Abstract

Oxyopomyrmex André, 1881 is a small genus of myrmicine ants found in arid grasslands of the Mediterranean region. Here we provide a new taxonomic revision of the genus. Twelve species are recognized, including five new to science: *O. laevibus* sp. nov. (Greece: Crete), *O. magnus* sp. nov. (Spain), *O. negevensis* sp. nov. (Israel), *O. polybotesi* sp. nov. (Greece: Nisyros, W Turkey) and *O. pygmalioni* sp. nov. (Cyprus). *Oxyopomyrmex santschii* var. *nigripes* Santschi, 1907 and *O. santschii* var. *nitidior* Santschi, 1910 are raised to species level. The following new synonymies are proposed: *O. krueperi* Forel, 1911 = *O. lagoi* Menozzi, 1936 syn. nov.; *O. nigripes* Santschi, 1907 = *O. sabulonis* var. *rugociput* Santschi, 1923 syn. nov. = *O. emeryi* var. *brunnescens* Santschi, 1929 syn. nov.; *O. nitidior* Santschi, 1910 = *O. emeryi* var. *laticeps* Santschi, 1915 syn. nov. = *O. emeryi* st. *sabulonis* Santschi, 1915 syn. nov.; *O. saulcyi* Emery, 1889 = *O. santschii* Forel, 1904 syn. nov. = *O. santschii* var. *siciliana* Karavaiev, 1912 syn. nov. = *O. gaetulus* Santschi, 1929 syn. nov. = *O. saulcyi* var. *latinodis* Santschi, 1939 syn. nov. A neotype for *O. oculatus* André, 1881 is designated. An identification key based on the gyne, male and worker caste is provided.

Key words: revision, Formicidae, Myrmicinae, Mediterranean Subregion

Introduction

Oxyopomyrmex is a small genus of ants with a center of diversity in northwest Africa. The genus was described by André (1881) as monotypic for *Oxyopomyrmex oculatus* André, 1881, from Israel, and now contains 15 species-group taxa. It occurs mostly in the Mediterranean Basin with a few records from the Near East and one from Macaronesia (Ghahari et al. 2011, Borowiec 2014). The largest contribution to the study of *Oxyopomyrmex* was made by Felix Santschi, who described more than 50% of the known taxa. Currently, *Oxyopomyrmex* includes nine valid species and six valid subspecies, of which 80% were described from the western part of the Mediterranean Basin: eight from Tunisia, two from Morocco, one from France, and one from Spain (Emery 1899; Forel 1904; Santschi 1907, 1908, 1910, 1915, 1923, 1929, 1939). Three species were described from the eastern part of the Mediterranean Basin: two from Greece and one from Israel (André 1881, Forel 1911, Menozzi 1936).

In the Old World, along with *Goniomma* Emery, 1895 and *Messor* Forel, 1890, they represent a well-defined clade within the tribe *Stenammini* Ashmead, 1905 (Ward et al. 2015).

General information concerning the taxonomy of this genus can be found only in the original description (André 1881) and four catalogues (Dalla Torre 1893, Emery 1921, Bernard 1967, Bolton 1993). This genus is easily distinguished from other Mediterranean genera by having (1) characteristic large eyes, pointed anteroventrally, with anterior margin close to the mandibular insertions and (2) 11-segmented antennae. *Goniomma*, which is very similar in appearance, differs from *Oxyopomyrmex* by having 12-segmented antennae and a geographic distribution limited to the western part of the Mediterranean region. However, a high level of similarity in morphology and biology of both genera, supported by results of the molecular phylogeny in Ward et al. (2015), may question the validity of the separation of *Goniomma* from *Oxyopomyrmex*. Determination of the relationship between these genera requires further study.

The biology of *Oxyopomyrmex* species is poorly known and usually limited to short notes in the descriptions of species, checklists and catalogues. Members of this genus prefer open, grassy, arid environments with sparse vegetation (Forel 1904, Santschi 1910) and most species are cryptic, nocturnal seed harvesters (Espadaler 1981, Hansen 2002, Reyes 1986, Wheeler 1907). Nests are located in soil (usually sand or clay), sometimes under stones. In most species the nest entrance is surrounded by a small crater composed of herb scraps (Bernard 1967, Déyle 1971, Forel 1904, Menozzi 1936).

Here, the seven valid *Oxyopomyrmex* species are redescribed and five new species (four from the eastern part of the Mediterranean Basin and one from Spain) are described. Also, the male of *O. krueperi* and the male and gyne of *O. oculatus* are described.

Material and methods

Specimens were compared using standard methods of comparative morphology. Photos were taken using a Nikon SMZ 1500 stereomicroscope, Nikon D5200 photo camera and Helicon Focus software. All given label data are in original spelling; a vertical bar (|) separates data on different rows and double vertical bars (||) separate labels. Additional information about the labels or explanatory notes are given in square brackets.

Examined specimens are housed in the following collections:

AAC—coll. Antonio Alicata;
BMNH—Natural History Museum, London, UK;
CASC—California Academy of Sciences, San Francisco, California, USA.;
CGC—coll. Crisanto Gómez, Girona, Spain;
DBET—Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Poland;
DSAB—Dipartimento di Scienze Agrarie, Università di Bologna, Bologna, Italy;
MCSNG—Museo Civico di Storia Naturale, Genova, Italy;
MHNG—Museum d'Histoire Naturelle, Geneva, Switzerland;
MNHN—Muséum National d'Histoire Naturelle, Paris;
NHMB—Naturhistorisches Museum, Basel, Switzerland;
OBBFL—Oddelek za Biologijo Biotehniška Fakulteta, Univerza v Ljubljani, Ljubljana, Slovenia;
SSC—coll. Sebastian Salata, Wrocław, Poland;
TAUI—Department of Zoology, Tel Aviv University, Tel Aviv, Israel;
UASK—Institute of Zoology, National Academy of Sciences of Ukraine, Kiev;
WML—World Museum Liverpool, Great Britain.

Measurements and Indices:

Measurements

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

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

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

EW—eye width; measured along the maximum width of eye perpendicular to EL;
SL—scape length; maximum straight-line length of the scape;
PNW—pronotum width; maximum width of pronotum in dorsal view;
ML—mesosoma length; measured as diagonal length from the anterior end of the neck shield to the posterior margin of the propodeal lobe;
MH—mesosoma height; measured from the upper edge of mesonotum to the lowest point of the mesopleuron margin; in lateral view;
SDL—spiracle to declivity length; minimum distance from the center of the propodeal spiracle to the propodeal declivity;
PSL—propodeal spine length; measured from the center of the propodeal spiracle to the top of the propodeal spine in lateral view;
PH—petiole height; maximum height of petiole in lateral view;
PL—petiole length; maximum length of petiole in lateral view;
PW—petiole width; maximum width of petiole in dorsal view;
PPH—postpetiole height; maximum height of postpetiole in lateral view;
PPL—postpetiole length; maximum length of postpetiole in lateral view;
PPW—postpetiole width; maximum width of postpetiole in dorsal view;
TL—hind tibia length; maximum length of hind tibia;
TW—hind tibia width; maximum width of hind tibia.

Example of measurements: 0.188 ± 0.012 (0.162-0.201) = The average measurement \pm standard deviation (range of variation).

Indices

HI—cephalic index; $HW/HL \times 100$;
SI1—scape index 1; $SL/HL \times 100$;
SI2—scape index 2; $SL/HW \times 100$;
MI—mesosoma index; $ML/PNW \times 100$;
SPI—propodeal spines index; $PSL/SDL \times 100$;
PI1—petiole index 1; $PL/PH \times 100$;
PI2—petiole index 2; $PW/PNW \times 100$;
PPI1—postpetiole index 1; $PPL/PPH \times 100$;
PPI2—postpetiole index 2; $PPW/PNW \times 100$;
TI1—hind tibia index 1; $TL/HW \times 100$;
TI2—hind tibia index 2; $TW/TL \times 100$;
EI—eye index; $EW/EL \times 100$.
All lengths are in mm.

***Oxyopomyrmex* André, 1881**

Oxyopomyrmex André, 1881: 72. Type-species: *Oxyopomyrmex oculatus* André, 1881 by monotypy.

Oxyopomyrmex in Myrmicinae: Dalla Torre 1893:108.

Oxyopomyrmex in Myrmicinae, Myrmicini: Emery 1895: 769; Ashmead 1905: 383; Wheeler 1910: 140.

Oxyopomyrmex in Myrmicinae, Pheidolini: Emery 1914: 40; Forel 1917: 241.

Oxyopomyrmex in Myrmicinae, Pheidolini, subtribe Stenammini: Emery 1921: 75; Wheeler 1922: 661; all subsequent authors.
Oxyopomyrmex in Myrmicinae, Stenammini: Ward et al. 2015: 17.

Diagnosis of gyne. Head quadrate to rectangular, longer than wide (except for *O. magnus*). Frontal carinae short, never exceeding 1/3 length of the eye. Mandible striate, with 7–8 teeth, the apical tooth massive and long. Antennae 11 segmented; antennal club 3-jointed. Compound eyes large, elongate, narrowing downward, reaching anteroventral margin of head. Gena with either striae and rugae sparser than on frons or smooth, without sculpture, often shinier. Entire head bearing setae, posterior margin with sparse to dense erect setae directed forward, lateral

surfaces of the head with sparse to dense semierect setae always directed toward anterior margin, frontal area with sparse to dense, appressed to erect setae, placed transversely and directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Promesonotum projecting dorsally above propodeum, flat or slightly convex in profile. Scutum and scutellum always sculptured, sometimes smooth at center. Propodeal spines always with wide base, usually triangular, rising obliquely upwards. Abdomen shiny with long semierect to erect setae.

Diagnosis of male. Head oval, longer than wide. Frontal carinae short, curved outward to merge with the rugae surrounding antennal sockets. Mandible striate, with 4-5 teeth, the apical tooth massive and long. Antennae 12 segmented. Compound eyes large, oval. Gena with either striae and rugae sparser than on frons or smooth, without sculpture, often shinier. Entire head bearing setae, posterior margin with sparse to dense erect setae directed forward, lateral surfaces of the head with a few appressed to dense, semierect setae directed toward anterior margin, frontal area with sparse to dense, appressed to erect setae, placed transversely and directed to the center of the head. Ventral surface of the head with a long psammophore and appressed to erect long setae. Promesonotum projecting dorsally above propodeum, flat or slightly convex in profile. Scutum and scutellum always sculptured with three smooth longitudinal stripes at the scutum. Central stripe always shorter. Propodeal spines with wide base, short or absent. Abdomen shiny with long semierect to erect setae. No significant differences in genitalia shape and structure were observed.

Diagnosis of worker. Worker small to medium sized, monomorphic. Head elongate to quadrate, longer than wide (except for *O. magnus*, *O. emeryi*, *O. nitidior*). Frontal carinae short, never exceeding 1/3 length of the eye. Mandible striate, with 7-8 teeth, sometimes apical tooth massive and long. Antennae 11 segmented; antennal club 3-jointed. Compound eyes large, elongate, narrowing downward, reaching anteroventral margin of head. Gena with either striae and rugae sparser than on frons or smooth, without sculpture, often shinier. Entire head bearing setae, posterior margin with sparse to dense erect setae directed forward, lateral surfaces of the head with a few appressed to dense semierect setae always directed toward anterior margin, frontal area with sparse to dense, appressed to erect setae, placed transversely and directed to the center of the head, ventral surface of the head with a long psammophore appressed to erect long setae. Promesonotum projecting slightly higher than propodeum, flat or sometimes convex in profile. Pronotum and mesonotum always sculptured, sometimes with smooth surfaces at the center of the mesonotum. Propodeal spines always with wide base, usually triangular rising obliquely upwards. Abdomen shiny with long semierect to erect setae (except for *O. negevensis*).

Distribution: Mediterranean Basin, Near East, Canary Is.

Synonymic list of species

Oxyopomyrmex emeryi Santschi, 1908: 524—Alegría, Tunisia

Oxyopomyrmex insularis Santschi, 1908: 523—Canary Islands

=*Oxyopomyrmex insularis* var. *major* Santschi, 1923: 326

Oxyopomyrmex krueperi Forel, 1911: 344—Bulgaria, Macedonia, Greece (mainland, Crete, Dodecanese), Macedonia, Turkey, SW Iran

=*Oxyopomyrmex lagoi* Menozzi, 1936: 278 **syn. nov.**

Oxyopomyrmex laevibus **sp. nov.**—Greece (Crete)

Oxyopomyrmex magnus **sp. nov.**—Spain (mainland)

Oxyopomyrmex negevensis **sp. nov.**—Israel

Oxyopomyrmex nigripes Santschi, 1907: 329 **stat. nov.**—Tunisia

=*Oxyopomyrmex sabulonis* var. *rugocciput* Santschi, 1923: 326 **syn. nov.**

=*Oxyopomyrmex emeryi* var. *brunnescens* Santschi, 1929: 147 **syn. nov.**

Oxyopomyrmex nitidior Santschi, 1910: 46 **stat. nov.**—Algeria, Tunisia, Egypt, W Saudi Arabia

=*Oxyopomyrmex emeryi* var. *laticeps* Santschi, 1915: 62 **syn. nov.**

=*Oxyopomyrmex emeryi* st. *sabulonis* Santschi, 1915: 62 **syn. nov.**

Oxyopomyrmex oculatus André, 1881: 73—Lebanon, Israel, Palestine, Siria

Oxyopomyrmex polybotesi **sp. nov.**—Greece (Dodecanese), W Turkey

Oxyopomyrmex pygmalioni **sp. nov.**—Cyprus

Oxyopomyrmex saulcyi Emery, 1889: 440—Portugal, Spain (mainland), France (mainland), Malta, Italy (Sicily), Morocco, Algeria, Tunisia

= *Oxyopomyrmex saulcyi* var. *cabrerae* Forel, 1897: 133

- =*Oxyopomyrmex santschii* Forel, 1904: 8 **syn. nov.**
 =*Oxyopomyrmex santschii* var. *siciliana* Karavaiev, 1912: 11 **syn. nov.**
 =*Oxyopomyrmex gaetulus* Santschi, 1929: 146 **syn. nov.**
 =*Oxyopomyrmex saulcyi* var. *latinodis* Santschi, 1939: 2 **syn. nov.**

Species excluded from genus

- Oxyopomyrmex (Goniomma) blanci* r. *tuneticus* Forel, 1905: 175 now *Goniomma tuneticus* (Forel, 1905): Emery, 1908: 462.
Oxyopomyrmex (Goniomma) hispanicus r. *tuneticus* var. *thoracica* Santschi, 1907: 330, unavailable name within the genus *Goniomma*.
Oxyopomyrmex (Goniomma) punicus Forel, 1907: 205 now *Goniomma punicum* (Forel, 1907): Emery, 1908: 462.

Key to species based on the gyne caste

(gynes known for *O. emeryi*, *O. krueperi*, *O. magnus*, *O. nigripes*, *O. oculatus*, *O. saulcyi*)

1. Head wider than long, dorsal and lateral surfaces of propodeum with striae, smooth between striae (Figs. 22, 23) *O. magnus* sp. nov.
- Head longer than wide, dorsal and lateral surfaces of propodeum punctate to rugulose with longitudinal striae (Figs. 10, 11, 34, 35, 49, 50, 64, 65) 2.
2. Gena with longitudinal striae, without distinct rugosity (Figs. 11, 65) 3.
- Gena rugulose with or without longitudinal striae (Figs. 35, 50) 5.
3. Lateral surface of thorax punctate with longitudinal striae *O. emeryi* Santschi
- Lateral surfaces of thorax only with longitudinal striae, never punctate (Figs. 11, 65) 4.
4. Body black with reddish brown mandibles, antennae and partly legs (Figs. 10, 11, 12); Eastern Mediterranean region *O. krueperi* Forel
- Body brown to dark brown; with paler mandible, antennae and legs (Figs. 64, 65, 66); Western Mediterranean region *O. saulcyi* Emery
5. Gena rugulose, longitudinal striae only on the posterior edge of gena; petiole and postpetiole punctate (Figs. 49, 50) *O. oculatus* André
- Gena with longitudinal striae on the entire surface, rugulose between striae; petiole and postpetiole punctate to rugulose with longitudinal striae (Figs. 34, 35) *O. nigripes* Santschi

Key to species based on the male

(males known for *O. emeryi*, *O. insularis*, *O. krueperi*, *O. magnus*, *O. nigripes*, *O. oculatus*, *O. saulcyi*)

1. Scutum and scutellum distinctly punctate, longitudinal striae sparse, limited to the posterior edge of the scutum (Fig. 52) ; $SHI < 59.6$ *O. oculatus* André
- Scutum and scutellum shiny or with striation; punctation, if present, cover only part of scutellum (Figs. 4, 13, 25, 37, 67) .. 2.
2. Dorsal surface of the head punctate to rugulose, without striae (Fig. 6) *O. insularis* Santschi
- Dorsal surface of the head always with striae (Figs. 15, 39, 69) 3.
3. Scutellum with longitudinal striae, without rugosity or smooth areas (Fig. 37) 4.
- Scutellum with longitudinal striae and rugulose or with longitudinal striae and smooth and shiny centre of scutellum (Figs. 13, 25, 67) 5.
4. Propodeal spines present, lobe-like (Fig. 38) *O. nigripes* Santschi
- Propodeum without propodeal spines *O. emeryi* Santschi
5. Propodeal spines absent or nodular (Fig. 26) *O. magnus* sp. nov.
- Propodeal spines present, triangular or lobe-like 6.
6. Postpetiole node punctate, on the dorsal surface punctate with light longitudinal striae; body brown (Fig. 67) *O. saulcyi* Emery
- Postpetiole node rugulose to punctate, on the dorsal surface smooth micropunctae at the edges; body black (Fig. 13) *O. krueperi* Forel

Key to species based on the worker caste

1. Western Mediterranean region and Canary Islands 2.
- Eastern Mediterranean region and the Near East 8.
2. Longitudinal striae on the head limited to the frons and sometimes reaching the anterior margin of head (Figs. 3, 9, 48, 87) .. 3.
- Longitudinal striae covering entire face (Figs. 30, 42, 45, 72, 86) 5.
3. Lateral surfaces of thorax distinctly punctate, sometimes with light longitudinal striae, dorsal surface of pronotum distinctly punctate and with transverse striae (Figs. 1, 2, 73); Tunisia, Algeria *O. emeryi* Santschi

- Lateral surfaces of thorax rugulose to smooth with longitudinal striae, dorsal surface of pronotum never punctate and with transverse striae (Figs. 7, 8, 46, 47, 74, 81) 4.
4. Pronotum shiny, smooth or microreticulate; striae, if present, fine, located on the side and posterior edges of the pronotum; dorsal surface of mesonotum shiny and with sparse microreticulation (Figs. 7, 74); Canary Is. *O. insularis* Santschi
- Pronotum rugulose with distinct striae that are longitudinal or transverse and cover entire surface; dorsal surface of mesonotum always rugulose (Figs. 46, 81); Algeria, Egypt, Saudi Arabia, Tunisia *O. nitidior* Santschi
5. Center of frons with small, smooth area lacking striae, or striae in the center of frons sparse and the surface between striae smooth and shiny (Figs. 86, 87); area between rugae and striae on dorsal surface of pronotum smooth and shiny (Figs. 43, 80); Algeria, Egypt, Saudi Arabia, Tunisia. *O. nitidior* Santschi
- Center of frons rugulose with longitudinal, uniformly distributed striae (Figs. 28, 40, 70); area between striae and rugae on dorsal surface of pronotum and mesonotum always with microsculpture, not smooth (Figs. 28, 40, 70, 77, 79, 85)..... 6.
6. Head always wider than long (HI>100); Spain: mainland *O. magnus* sp. nov.
- Head longer than wide (HI<100) 7.
7. Dorsal and lateral surfaces of the pronotum rugulose with distinct longitudinal striae on entire surface (Figs. 40, 41, 79), HI: 97.1 ± 1.4 (95.7-99.1); SI2: 68.3 ± 1.3 (66.0-70.0); Tunisia *O. nigripes* Santschi
- Dorsal surface of pronotum distinctly rugulose; striation, if present, never covering entire surface of pronotum, lateral surfaces distinctly rugulose, sometimes with thin longitudinal striae (Figs. 70, 71, 85), HI: 92.8 ± 2.1 (87.5-96.5); SI2: 73.2 ± 1.7 (70.1-77.4); Algeria, France: mainland, Italy: Sicily, Malta, Morocco, Portugal, Spain: mainland, Tunisia. *O. saulcyi* Emery
8. Dorsal surface of pronotum at least partly punctate with or without striation (Figs. 1, 31, 55, 58, 61, 73, 78, 82, 83, 84) 9.
- Dorsal surface of pronotum rugose to rugulose, never punctate; with or without striation (Figs. 16, 19, 43, 46, 75, 76, 86, 87) 13.
9. Center of head with longitudinal striae, lateral surfaces rugulose to punctate or smooth (Figs. 3, 57) 10.
- Longitudinal striation covering entire surface of head (Figs. 33, 60, 63) 11.
10. Dorsal surface of pronotum punctate, lacking striae (Figs. 55, 82); gena slightly rugulose (Fig. 57); Israel, Lebanon, Palestine, Syria *O. oculus* André
- Dorsal surface of pronotum punctate with transverse striae (Figs. 1, 73), gena smooth and shiny (Fig. 2); Tunisia, Algeria *O. emeryi* Santschi
11. Dorsal surface of abdominal tergites dull, bearing dense, appressed microsetae along with a sparse layer of long, erect setae (Fig. 31), gena without striation (Fig. 32); Israel *O. negevensis* sp. nov.
- Abdomen shiny, bearing long erect to semierect setae (Figs. 58, 61), gena with longitudinal striae (Figs. 59, 62) 12.
12. Gena with longitudinal striae, shiny; lateral surfaces of pronotum with longitudinal striae (Fig. 59); HTI2>20.4, Greece: Dodecanese, Turkey *O. polybotesi* sp. nov.
- Gena dull, rugulose, with thick longitudinal striae; lateral surfaces of the pronotum punctate to rugulose (Fig. 62); HTI2<20.1, Cyprus *O. pygmalioni* sp. nov.
13. Center of frons with small, smooth area lacking striae or striae in center of frons sparser, with surface between striae smooth and shiny (Figs. 86, 87), body brown; Algeria, Egypt, Saudi Arabia, Tunisia *O. nitidior* Santschi
- Center of frons rugulose with longitudinal, uniformly distributed striae (Figs. 18, 21), body black 14.
14. In profile, a border between dorsal and posterior surfaces of the promesonotum sharply curved (Fig. 17), gena always with fine longitudinal striae (Fig. 17), dorsal surface of propodeum rugulose to finely rugulose, never smooth, with or without striation, lateral surfaces of mesonotum punctate with longitudinal striae at the posterior edge (Figs. 16, 75); Bulgaria, Greece: Crete, Dodecanese, mainland; Macedonia, Turkey *O. krueperi* Forel
- In profile, a border between dorsal and posterior surfaces of the promesonotum never sharply curved (Fig. 20), gena without longitudinal striae, microreticulate (Fig. 20), center of propodeum smooth and shiny, lateral surfaces of mesonotum with gently reticulation (Figs. 19, 76); Greece: Crete *O. laevibus* sp. nov.

Review of species

Oxyopomyrmex emeryi Santschi, 1908

(Figs. 1, 2, 3, 73)

Oxyopomyrmex emeryi Santschi, 1908: 524, fig. 9 (w.); Cagniant 1968: 143; Délye 1971: 211 (g.m.); Bernard 1976: 114.

Type locality: Dratamar, near Kairuan, Tunisia.

Type material. Lectotype worker (top on the pin) (present designation): *O. Emeryi* || Tunisie | Kairouan | Dr Santschi || Sammlung | Dr. F. Santschi | Kairouan || CASENT | 0101200 | ANTWEB || red label (NHMB); 27 paralectotype workers: the same data as lectotype (NHMB).

Other material examined. 11 workers—*Oxyopomyrmex* | *Emeryi* Sants. | SANTSCHI det. 1913 || Kairouan | X 1913 || Sammlung | Dr. F. Santschi | Kairouan (NHMB); 2 workers—MUSEUM PARIS | Kairouan | 1911 | F. Santschi || *Oxyopomyrmex* | *Emeryi* | Santschi | type | Kairouan (MNHN); 1 worker—MUSEUM PARIS | Kairouan | Santschi 1910 || *Oxyopomyrmex* | *Emeryi* | Santschi | type (MNHN).



FIGURES 1–3. *Oxyopomyrmex emeryi* Santschi [lectotype]. **1**, Worker dorsal (scale bar = 1 mm). **2**, Worker lateral (scale bar = 1 mm). **3**, Worker head (scale bar = 0.5 mm).

Gyne. Description: see Délye (1971).

Male. Description: see Délye (1971).

Worker. Redescription. Measurements (n=39): HL: 0.732 ± 0.017 (0.698-0.76); HW: 0.721 ± 0.018 (0.692-0.758); SL: 0.537 ± 0.014 (0.514-0.559); EL: 0.307 ± 0.009 (0.291-0.319); EW: 0.167 ± 0.005 (0.162-0.179); ML: 0.923 ± 0.037 (0.849-1.005); PSL: 0.192 ± 0.012 (0.162-0.218); SDL: 0.136 ± 0.008 (0.123-0.156); PL: 0.339 ± 0.019 (0.313-0.363); PPL: 0.245 ± 0.01 (0.223-0.257); PH: 0.239 ± 0.009 (0.223-0.257); PPH: 0.232 ± 0.008 (0.221-0.246); PNW: 0.469 ± 0.011 (0.448-0.492); TL: 0.567 ± 0.022 (0.52-0.587); TW: 0.105 ± 0.006 (0.092-0.117); PW: 0.188 ± 0.012 (0.162-0.201); PPW: 0.279 ± 0.012 (0.268-0.302); HI: 98.4 ± 1.2 (94.6-100.7); S11: 73.4 ± 1.4 (70.9-76.0); EI: 54.4 ± 1.9 (51.8-57.7); SI2: 74.3 ± 1.3 (72.0-76.6); MI: 196.9 ± 5.1 (187.4-204.3); SPI: 140.6 ± 10.0 (118.0-162.7); P11: 141.7 ± 5.6 (130.4-152.3); PI2: 40.2 ± 1.9 (35.8-43.3); PPI1: 104.2 ± 5.4 (94.9-112.2); PPI2: 59.7 ± 1.9 (57.1-63.5); HTI1: 78.8 ± 2.0 (75.0-82.1); HTI2: 18.5 ± 1.1 (15.8-20.3).

Head and abdomen dark brown. Thorax and legs brown to brick-red colour. Antennae dark brown, only apex of the scapes and first segments of funiculus paler (Figs. 1, 2, 3).

Head oval, longer than wide (Fig. 3). Anterior margin of the clypeus smooth and straight. Eyes elongate, gently narrowing downward, 0.4 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.83 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.45 times as long as scape, the first segment elongate, triangular, 1.4 times as long as wide on apex, 1.9 times as long as second segment, length ratio of segments 100:53:53:59:47:59:71:117:129:224, apical segments 1.6 times as wide as basal segments. Surface of the scape with a very fine microsculpture, shiny, covered with short, appressed or semierect setae (Figs. 1, 2, 3).

Promesonotum 1.1 times as long as wide, gently and regularly convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines short, triangular but thin, rising obliquely upwards (Figs. 1, 2). Petiole rounded with a short peduncle, its anterior face slightly convex, node angulated in profile. Posterior face slightly rounded. Ventral margin of petiole straight or with a small ventral lobe (Fig. 2). Postpetiole regularly rounded in profile. In dorsal view postpetiole 1.1 times as long as wide, regularly widened from base to top, apical half with gently rounded sides (Fig. 2).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, apical tooth massive and long. Clypeus smooth and shiny on the entire surface. Frontal carinae short, extending to 1/3 length of the eye, antennal fossa area deeply impressed, shiny, frontal lobes with thin longitudinal rugae, microreticulate, shiny between rugosities. Frons shiny, with longitudinal striae, distinct reticulation. Area above eyes shiny and distinctly reticulate to microreticulate, ventral surface of head with indistinct microreticulation or microgranulate, gena smooth and shiny (Figs. 2, 3). Entire head bearing setae, posterior margin with sparse erect setae directed forward, sides of the head with a few appressed setae directed toward anterior margin, frontal area with sparse, appressed to semierect setae placed transversely, directed to the centre of the head, ventral surface of the head with a prominent psammophore and appressed to erect, long setae. Pronotum shiny, and finely punctate on the entire surface, only lateral surfaces micropunctate or smooth. Dorsal surface of pronotum shiny, punctate with transverse rugae. Mesonotum punctate on the entire surface, lateral surfaces with several transverse striae on posterior surface, propodeum punctate, with distinct oblique rugae below spiracles (Figs. 1, 2, 73). Dorsal surface of mesosoma with at least 5 erect setae on anterior half, mesonotum and propodeum with a few erect setae. Base of petiole and postpetiole punctate on the entire surface, nodes punctate, micropunctate on top, shiny, bearing several sparse setae. Gaster shiny with micropunctuation or shagreened; bearing sparse, erect and semierect setae.

Legs short, hind femora 0.8 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.2 times as long as hind femora. Dorsal surface of femora with short, sparse, appressed setae, inner margin with a row of sparse, short setae, tibiae covered with short, appressed to semierect pubescence on the entire surface, with a row of slightly long and more erect setae on inner margins (Fig. 2).

Biological data. Nests occur in humid sand between dunes, or under stones in sandy or clay soil. The entrance is always single and narrow, surrounded by a regular crater, 5 to 8 centimeters in diameter. Nest depth is at least 40-50 centimeters, and consists of one enormous central gallery and 5 to 10 small chambers. Workers are nocturnal, carrying the cuttings and debris of *Helianthemum lippii* (L.) (Délye 1971).

Distribution. Algeria, Tunisia.

Differential diagnosis. Gyne. According to the description (Délye 1971), *Oxyopomyrmex emeryi*, along with *O. krueperi* and *O. santschii*, belong to a group of species that have the genae covered with longitudinal striae without rugosity. In this group, *O. emeryi* is distinguished by punctation occurring between the longitudinal striation on the lateral surfaces of the thorax. The two other known species from this group are characterized by the lateral surfaces of the thorax bearing longitudinal striation with rugosity or a smooth surface between the striae.

Male. *Oxyopomyrmex emeryi* is one of two known species that is devoid of propodeal spines (Délye 1971). In this group, *O. emeryi* differs from *O. magnus* by having the scutellum covered by longitudinal striae on the entire surface, whereas *O. magnus* has at least the center of the scutellum smooth and shiny, without striation.

Worker. *Oxyopomyrmex emeryi* belongs to a group of species that have distinctly punctate pronotum. In this group, *O. emeryi* differs from *O. polybotesi* and *O. pygmalioni* in the lacking rugosity and longitudinal striae on dorsal surface of pronotum. In comparison with *O. oculatus*, *O. emeryi* differs in the occurrence of vertical striation on the dorsal surface of the pronotum and from *O. negevensis* it can be distinguished by the shining abdomen without a dense layer of appressed micropulpae on dorsal surface of the first tergite.

***Oxyopomyrmex insularis* Santschi, 1908**

(Figs. 4, 5, 6, 7, 8, 9, 74)

Oxyopomyrmex insularis Santschi, 1908: 523, fig. 7 (w.m.); Wheeler 1927: 105; Wellenius 1955: 6; Báez & Ortega 1978: 190; Barquín 1981: 103.

Oxyopomyrmex insularis var. *major* Santschi, 1923: 326; Wheeler 1927: 105; Wellenius 1955: 6; Báez & Ortega 1978: 190; Barquín 1981: 103 (as syn. of *O. insularis*).

Type locality: Medano, Tenerife, Canary Is, Spain.

Type material. Lectotype worker (present designation): *O. insularis* | Sants || type || Tenerife | Medano | 3.1.1906 || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913243 (NHMB); 1 paralectotype worker: red label | Tenerife | Medano | 3.1.1906 || Sammlung | Dr. F. Santschi | Kairouan (NHMB); 1 paralectotype worker: *O. insularis* | Sants || red label || Tenerife | Medano | 3.1.1906 || TENERIFE | Medano | Cabrera.y.Diaz | 1.III.1906 || Sammlung | Dr. F. Santschi | Kairouan (NHMB) 1 paralectotype male: the same data as lectotype (NHMB).

Oxyopomyrmex insularis var. *major* : 1 worker—*Oxyopomyrmex* | *insularis* type | v. *major* | Sants. || Tenerife | El Medano | 3.1.1906 | A. Cabrera || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913244 (NHMB).

Other material examined. 10 workers—SPAIN Tenerife, El | Médano, 10 m 28° 02' | N/16°32' W, 13.12.2002 | leg. X. Espadaler (SSC); 16 workers—Collection L. Borowiec | Formicidae | LBC-ES0043 || *Oxyopomyrmex* | *insularis* | det. L. Borowiec || SPAIN, Canary Is., Tenerife | Puertito de Güimar, 29 m | 28,31312 / 16,36161 | 1 I 2015, L. Borowiec (DBET); 3 workers—CANARY IS. | Tenerife | El Medano | 13.XII.2000 | X. Espadaler (BMNH).

Gyne. Unknown.

Male. Redescription. Measurements (n=1): HL: 0.603; HW: 0.581; SL: 0.436; EL: 0.246; EW: 0.179; ML: 1.52; MH: 0.976; PSL: 0.251; SDL: 0.223; PL: 0.469; PPL: 0.346; PH: 0.268; PPH: 0.279; PNW: 0.771; TL: 0.905; TW: 0.095; PW: 0.246; PPW: 0.358; HI: 96.4; SI1: 72.3; EI: 72.8; SI2: 75.0; MI: 197.1; SPI: 122.6; PI1: 175.0; PI2: 31.9; PPI1: 124.0; PPI2: 46.4; HTI1: 61.2; HTI2: 10.5.

Whole body uniformly brown. Antennal scapes brown to yellowish brown at the apex, first segment of funiculus pale brown, segments 2–11 yellowish brown. Mandibles brown to yellowish brown. Legs brown to pale brown, tibiae pale brown, tarsi pale brown to yellowish brown (Figs. 4, 5, 6).

Head oval, longer than wide, lateral surfaces below eyes and on the posterior edges gently rounded (Fig. 6). Anterior margin of the clypeus slightly convex in central part. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Scape short, 0.8 times as long as width of the head, at base 0.75 times as wide as in the apex, straight. Funiculus short, 1.7 times as long as scape, the first segment elongate, triangular, 1.4 times as long as wide on the apex, 1.4 times as long as second segment, length ratio of segments: 100:71:57:57:64:64:78:86:100:114:207, apical segments as wide as the basal segments (Figs. 4, 5). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, appressed to semierect setae.



4



5



6

FIGURES 4–6. *Oxyopomyrmex insularis* Santschi [paralectotype]. 4, Male dorsal (scale bar = 1 mm). 5, Male lateral (scale bar = 1 mm). 6, Male head (scale bar = 0.5 mm).

Mesosoma 2.5 times as long as head, relatively high and robust, very feeble convex in profile with rounded pronotal corners. Scutum 1.2 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines triangular, short with a wide base. Petiole rounded with a long peduncle, its anterior face slightly concave, node sharply rounded with deep cavity in the central part and two nodules at the outer edges, posterior face strongly concave. Ventral margin of the petiole straight, without lobe. Postpetiole regularly rounded in profile. Postpetiole regularly widened from base to top in the dorsal view, apical half with a gently rounded sides (Figs. 4, 5).

Mandibles elongate with longitudinally striae, shiny, inner margin with 4-5 teeth, the apical tooth massive and long. Clypeus rugulose but shiny. Frontal carinae curved outward to merge with the rugae surrounding antennal sockets; antennal fossa impressed, shiny and rugulose, frontal lobes rugulose with thin longitudinal striae, shiny between rugosities. Frons rugulose with longitudinal striae in the central part to rugulose towards eyes, area above the eyes and ventral surface of the head rugulose, gena rugulose with longitudinal thin striae (Figs. 5, 6). Entire head bearing setae, posterior margin with dense, very long semierect to erect setae directed forward, lateral surfaces of the head with dense, long and semierect setae directed toward anterior margin, frontal area with dense, semierect to erect, long setae placed transversely, directed toward center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum punctate to rugulose with thin longitudinal striae, anepisternum smooth and shiny with fine microreticulation, katepisternum smooth to microreticulate with fine longitudinal striae, metanepisternum and metakatepisternum rugulose with fine longitudinal striae. Scutum rugulose with fine longitudinal striae except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth and shiny with sparse, very weak longitudinal striae. Central stripe wide, narrowing toward centre, reaching only half of the length of the scutum. Scutellum punctate with longitudinal striae at the outer surfaces, central part smooth and shiny (Figs. 4, 5). Propodeum on lateral surfaces punctate, area between propodeal spines shiny and smooth. Dorsal surface of the propodeum punctate with transverse striation, between and below the spines punctate to smooth and shiny. Dorsal surface of the mesosoma on anterior half with sparse, long, erect setae, anterior propodeum without setae. Base of petiole and postpetiole punctate on the entire surface, nodes of the petiole punctate on lateral surfaces, dorsal surface of the petiole node punctate, postpetiole node punctate, punctate to micropunctate on the dorsal surface, shiny. Gaster shiny with sparse micropunctation, bearing sparse, long, semierect to erect setae.

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.5 times as long as hind femora. Dorsal surface of the femora with several, short, semierect setae, inner margin with a row of sparse, semierect setae, tibiae covered with long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 5).

Worker. Redescription. Measurements (n=17): HL: 0.706 ± 0.026 (0.659-0.737); HW: 0.667 ± 0.03 (0.603-0.704); SL: 0.524 ± 0.019 (0.492-0.558); EL: 0.254 ± 0.014 (0.229-0.282); EW: 0.135 ± 0.007 (0.123-0.145); ML: 0.879 ± 0.048 (0.771-0.961); PSL: 0.189 ± 0.01 (0.17-0.207); SDL: 0.125 ± 0.009 (0.109-0.145); PL: 0.341 ± 0.023 (0.302-0.369); PPL: 0.27 ± 0.027 (0.212-0.324); PH: 0.236 ± 0.014 (0.212-0.254); PPH: 0.238 ± 0.013 (0.218-0.257); PNW: 0.439 ± 0.027 (0.391-0.48); TL: 0.557 ± 0.032 (0.469-0.603); TW: 0.1 ± 0.006 (0.089-0.109); PW: 0.171 ± 0.009 (0.156-0.19); PPW: 0.265 ± 0.02 (0.232-0.313); HI: 94.4 ± 1.8 (91.5-98.3); SII: 74.0 ± 1.5 (71.6-77.1); EI: 53.1 ± 2.7 (47.9-58.5); SI2: 78.2 ± 1.8 (75.9-82.2); MI: 201.7 ± 3.3 (196.8-208.5); SPI: 152.5 ± 8.9 (131.0-164.3); PII: 144.5 ± 7.1 (130.9-156.6); PI2: 39.4 ± 2.3 (36.1-43.0); PPI1: 113.7 ± 12.7 (95.1-146.6); PPI2: 60.2 ± 2.2 (57.9-65.2); HTI1: 83.2 ± 2.6 (77.8-88.5); HTI2: 17.8 ± 1.4 (15.6-21.1).

Head and abdomen black. Thorax black to dark brown. Antennal scapes black, apex of the scapes and funiculus brown to yellowish brown. Legs dark brown, knees and tarsi brown to yellowish brown. Mandibles dark brown to yellowish brown (Figs. 7, 8, 9).

Head oval, longer than wide (Fig. 9). Anterior margin of the clypeus smooth and slightly curved in central part. Eyes elongate, gently narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.6 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 2.2 times as long as wide on apex, 2.75 times as long as second segment, length ratio of segments 100:36:36:32:45:54:72:81:163, apical segments 1.6 times as wide as basal segments (Figs. 7, 8). Surface of the scape with very fine microsculpture, shiny, covered with short and semierect setae.

Promesonotum 1.1 times as long as wide, gently, regularly convex in profile. Promesonotal suture indistinct, in profile the border between dorsal and posterior surfaces of the promesonotum gently curved. Propodeum quadrate, 1.1 times as long as wide, propodeal spines triangular, rising obliquely upwards, peaks gently curved downward (Fig. 8). Petiole rounded with short peduncle, its anterior face slightly concave, node angulated in profile. Posterior face slightly concave. Ventral margin of petiole with distinct ventral lobe (Fig. 8). Postpetiole in profile regularly rounded. In dorsal view postpetiole as long as wide, regularly widened from base to top, apical half with gently rounded sides (Fig. 7).



FIGURES 7–9. *Oxyopomyrmex insularis* Santschi [specimen code: LBC-ES0043]. 7, Worker dorsal (scale bar = 1 mm). 8, Worker lateral (scale bar = 1 mm). 9, Worker head (scale bar = 0.5 mm).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus on entire surface smooth and shiny. Frontal carinae short, extending to 1/3 length of eye, antennal fossa area deeply impressed, shiny and smooth, frontal lobes with thin longitudinal rugae, microreticulate but shiny between rugosities. Frons shiny, in central part with longitudinal striae, on sides with distinct reticulation. Area above eyes shiny and finely rugulose, ventral surface of the head with indistinct microreticulation or microgranulate, gena smooth and shiny (Figs. 8, 9). Entire head bearing setae, posterior margin with a few erect setae directed forward, lateral surfaces of the head with sparse appressed to semierect setae directed toward anterior margin, frontal area with sparse appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae (Fig. 9). Pronotum shiny, on the entire surface finely rugulose with longitudinal striae. Dorsal surface of pronotum shiny, finely rugulose with longitudinal or transverse striation at the outer surface, lateral surfaces finely rugulose with longitudinal striae. Mesonotum on entire surface with fine longitudinal striae, dorsal surface finely rugulose, shining, lateral surfaces with several longitudinal striae, on the posterior surface distinctly rugulose. Propodeum shiny, finely rugulose with longitudinal striae on the dorsal and lateral surfaces (Figs. 7, 8, 74). Dorsal surface of mesosoma on anterior half with at least 5 long, erect setae, mesonotum and anterior propodeum with a few erect to semierect setae. Base of petiole and postpetiole on the entire surface rugulose, nodes rugulose, on the dorsal surface shiny and microreticulate to smooth, covered with several sparse, setae. Gaster shiny, bearing erect setae.

Legs short, hind femora 0.9 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, sparse, appressed setae, inner margin with a row of sparse, long and semierect setae, tibiae covered with long, semierect pubescence on the entire surface, inner margins with a row of slightly long and more erect setae (Fig. 8).

Biological data. Borowiec collected this species in the desert wadi located near El Médano. Despite the low temperature (15° C) and windy, arid climate of the wadi, which is vegetated by a sparse, halophilic vegetation, worker ants were active, and could be caught between clumps of saline herbs. Other ant species collected at the site were: *Camponotus rufoglaucus feae* Emery, *Monomorium subopacum* (Smith), *Plagiolepis maura* Santschi, *Solenopsis canariensis* Forel, and *Tetramorium depressum* Forel.

Distribution. Spain: Canary Is.

Differential diagnosis. Male. *Oxyopomyrmex insularis* is the only species known to have the posterior margin of the head distinctly rugulose and completely devoid of striation. Only the center of the frons has a few, fine and oblique wrinkles. These two features easily distinguish the male of *O. insularis* from other *Oxyopomyrmex* males.

Worker. *Oxyopomyrmex insularis* belongs to a species group that has a longitudinal striae on the head limited to the center of the frons. *Oxyopomyrmex insularis* differs from *O. emeryi* and *O. oculatus* in lacking punctation on dorsal and lateral surfaces of the pronotum and by occurrence of smooth and shiny surface at the center of the dorsal surface of its pronotum and mesonotum; from *O. nitidior* it differs in the lack of rugosity on dorsal surface of its pronotum and the lack of shiny and smooth surface at the center of its frons.

***Oxyopomyrmex krueperi* Forel, 1911**

(Figs. 10, 11, 12, 13, 14, 15, 16, 17, 18, 75)

Oxyopomyrmex krueperi Forel, 1911: 344 (w.); Agosti & Collingwood 1987: 54; Collingwood 1993: 194; Legakis 2011: 12; Ghahari et al. 2011: 560; Kiran & Karaman 2012: 23; Lapeva-Gjonova & Kiran 2012: 77; Borowiec & Salata 2013: 359 (g.); Bračko et al. 2014: 15.

Oxyopomyrmex lagoi Menozzi, 1936: 278, fig. 7; Legakis 2011: 12; Borowiec & Salata 2012: 526 **syn. nov.**

Type locality: Thessaloniki, Greece.

Type material. Lectotype worker (top on the pin) (present designation): *O. | Krüeperi |* Forel | Salonique | coll. aride || Sp. *O. Krüperi |* Forel || MHNG || TYPUS || Coll. Forel. || ANTWEB | CASENT | 0907759; 2 paralectotype workers: the same data as lectotype (MHNG).

Oxyopomyrmex lagoi: 11 workers—lagoi | Menoz. || *Oxyopomyrmex | lagoi |* type | C. Menozzi || Pigadia | Scarpanto | 21.IV.1934 | C. Menozzi (DSAB).



10



11



12

FIGURES 10–12. *Oxyopomyrmex krueperi* Forel [specimen code: LBC-GR010160]. **10**, Gyne dorsal (scale bar = 1 mm). **11**, Gyne lateral (scale bar = 1 mm). **12**, Gyne head (scale bar = 0.5 mm).

Other material examined. 1 gyne—GREECE, Crete | Rethymno Pr. Fourfouras | 35°13.285 N/24°43.243E | 14 V 2013, 578 m | S. Salata || *Oxyopomyrmex* | *krueperi* | LBC-GR010160 | det. L. Borowiec (DBET); 1 male—TURKEY Eskişehir-Alpu- | Bozan Vill, 843 m, 39°47' | 49'' N / 31°04'09'' E, 15.10 | 2009, leg. Kiran & Askoy || SSC-TUR-OKM (SSC); 19 workers—GREECE, Crete, Rethymno Pr. | Fourfouras | 35°13.285 N/24°43.243E | 14 V 2013, 578 m | L. Borowiec || *Oxyopomyrmex* | *krueperi* | det. L. Borowiec || Collection L. Borowiec | Formicidae | LBC-GR01016 (DBET); 3 workers—GREECE S Crete 572 m | Fourfouras 036 35°13' N | /24°43' E 14 V 20013S Salata (SSC); 3 workers—TURKEY Eskişehir-Alpu- | Bozan Vill, 843 m, 39°47' | 49'' N / 31°04'09'' E, 15.10 | 2009, leg. Kiran & Askoy (SSC); 1 worker—*Oxyopomyrmex krueperi* | det. A. Schulz, 2011 | W of Star

Dojran, Rep. of Macedonia; | 41°10.9' N, 22°43.1'E, 240 m a.s.l.; | karst meadow (pitfall traps); 26.- | 29.4.2010; leg. G. Bračko (OBBFL).

Gyne. Redescription. Measurements (n=1):HL:0.827; HW: 0.793; SL: 0.492; EL: 0.246; EW: 0.168; ML: 1.358; MH: 0.780; PSL: 0.215; SDL: 0.167; PL: 0.525; PPL: 368; PH: 324; PPH: 291; PNW: 0.682; TL: 0.581; TW: 0.145; PW: 0.235; PPW: 0.356; SI2: 62.0; HI: 95.9; SI1: 59.5; EI: 68.2; MI: 199.1; SPI: 128.7; PI1: 162.0; PI2: 34.5; PPI1: 126.5; PPI2: 52.2; HTI1: 73.2; HTI2: 25.0.

Whole body black, only mandibles partly reddish, antennal scapes reddish-brown with reddish base and apex, funiculus segment 1 reddish, infusate basally, segments 2-6 reddish with infusate apical margin, segments 7-10 reddish-brown, tarsi and knees reddish (Figs. 10, 11, 12).

Head rectangular longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 12). Anterior margin of the clypeus softly convex. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Ocelli large. Scape short, 0.6 times as long as width of the head, at base 0.6 times as wide as in the apex then gradually widened without preapical constriction. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 2.1 times as long as wide on the apex, 2.8 times as long as second segment, length ratio of the segments 100:35:35:35:39:52:61:87:78:156, the apical segments 2.1 times as wide as the basal segments (Figs. 10, 11). Surface of the scape with very fine microsculpture, shiny, covered with short, appressed to semierect setae.

Mesosoma 1.5 times as long as head, relatively high and robust, very feeble convex with rounded pronotal corners in profile. Scutum 1.3 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines triangular, short, broadly attached, rising obliquely upwards. Peaks of spines posteriorly oriented. The spines are linear and parallel-sided in dorsal view. Petiole rounded with long peduncle, its anterior face distinct concave, node globular and shallowly on dorsal surface in profile, posterior face concave. Ventral margin of petiole straight with distinct spine. Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in the dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 10, 11).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 7-8 teeth, the apical tooth long. Clypeus rugulose with longitudinal striae, shiny. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, shiny between rugosities. Frons dull, all surface with thick longitudinal striae and dense rugulose. Area between eyes shiny with thick longitudinal striae and dense rugulose. Ventral surface of the head with distinct striation and rugulose, gena shiny, with a fine striation and micropunctuation (Figs. 11, 12). Entire head bearing setae, posterior margin with a sparse erect setae directed forward, lateral surfaces of the head with appressed to semierect setae directed toward anterior margin, frontal area with dense, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae (Figs. 11, 12). Lateral surfaces of pronotum rugulose to punctate with distinct longitudinal striae, anepisternum rugulose with distinct longitudinal striae, katepisternum smooth and shiny at the centre, finely rugulose with longitudinal striae on the lateral and anterior edges, metanepisternum with distinct longitudinal striae, metakatepisternum rugulose with longitudinal striae. Scutum with longitudinal striae but partly diffused in anterior edge, scutellum smooth to microreticulate with sparse longitudinal striae (Figs. 10, 11). Propodeum with sharp longitudinal striae in anterior half of the lateral surfaces, with microreticulation, irregular granulation and few indistinct striae in posterior half, area between propodeal spines smooth and shiny. Dorsal surface of propodeum transversely and diffusely carinate, transversely reticulo-striate between and below the spines. Dorsal surface of mesosoma with dense, semierect and long setae on anterior half, propodeum with a few long setae anteriorly (Figs. 10, 11). Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on the dorsal and lateral surfaces, postpetiole node punctate, sparse punctuation and shiny on the top, covered with several setae. Gaster shiny with sparse micropunctuation, bearing dense, long, erect to semierect setae.

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, dense, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, appressed to semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 11).



13



14



15

FIGURES 13–15. *Oxyopomyrmex krueperi* Forel [specimen code: SSC-TUR-OKM]. **13**, Male dorsal (scale bar = 1 mm). **14**, Male lateral (scale bar = 1 mm). **15**, Male head (scale bar = 0.5 mm).

Male. Description. Measurements (n=1): HL: 0.648; HW: 0.564; SL: 0.419; EL: 0.257; EW: 0.201; ML: 1.626; PSL: 0.223; SDL: 0.167; PL: 0.48; PPL: 0.302; PH: 0.268; PPH: 0.313; PNW: 0.994; TL: 0.96; TW: 0.095; PW: 0.235; PPW: 0.313; HI: 87.0; SI1: 64.6; EI: 78.2; SI2: 74.3; MI: 163.6; SPI: 133.5; PI1: 179.1; PI2: 23.6; PPI1: 96.5; PPI2: 31.5; HTI1: 170.2; HTI2: 9.9.

Whole body uniformly black. Funiculus black, segments 8-12 black to yellowish brown. Tibiae and tarsi black to yellowish brown (Figs. 13, 14, 15).

Head oval, longer than wide, below eyes and on the posterior edges rounded (Fig. 15). Anterior margin of the clypeus straight. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Scape short, 0.7 times as long as width of the head, at the base 0.6 times as wide as in the apex, straight. Funiculus short, 2.9 times as long as scape, the first segment elongate, triangular, 0.5 times as long as wide on the apex, 1.7 times as long as second segment, length ratio of segments 100:58:42:50:58:75:75:92:92:167, apical segments 1.3 times as wide as the basal segments (Figs. 14, 15). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, semierect to erect setae.

Mesosoma 2.5 times as long as head, relatively high and robust, very feeble convex in profile with rounded pronotal corners. Scutum 1.0 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines lobe-like, short. Petiole rounded with long peduncle, its anterior face straight, node sharply rounded on dorsal surface, posterior face sharply bent. Ventral margin of the petiole straight, without lobe. In dorsal view, petiole almost parallel sided before petiolar node, then gently widened. Postpetiole 0.7 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 13, 14).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 4-5 teeth, the apical tooth massive and long. Clypeus with longitudinal striae, shiny. Frontal carinae curved outward to merge with the rugae that surround antennal sockets; antennal fossa impressed, shiny with striation, frontal lobes rugulose with longitudinal striae, shiny between rugosities. Frons rugulose with longitudinal striae, area above eyes and ventral surface of the head rugose with vertical striation. Gena shiny with a fine striation (Figs. 14, 15). Entire head bearing setae, posterior margin with dense, very long, semierect to erect setae directed forward, lateral surfaces of the head with dense, long, semierect setae directed toward anterior margin, frontal area with dense, semierect to erect, long setae placed transversely, directed toward center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae (Figs. 14, 15). Sides of the pronotum rugulose with longitudinal striae, anepisternum smooth and shiny, only anterior edge with fine longitudinal striae, katepisternum smooth and shiny at the central part, rugulose and oblique striation directed toward anterior margin on the side and the posterior edges, metanepisternum rugulose with longitudinal striae, metakatepisternum distinct rugulose with longitudinal striae. Scutum rugulose with longitudinal striae except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth and shiny with several longitudinal striae. Central stripe thin, reach only half of the length of the scutum. Scutellum dull, rugose with longitudinal striae. Metanotum punctate to rugose, shiny (Figs. 13, 14). Propodeum on lateral surfaces distinct rugulose with longitudinal striae, area between propodeal spines shiny and smooth. Dorsal surface of the propodeum punctate to rugulose, between and below the spines smooth and shiny. Dorsal surface of the mesosoma with dense, long, erect setae on anterior half, anterior propodeum without setae. Base of petiole and postpetiole punctate on the entire surface, nodes of the petiole punctate on lateral surfaces, dorsal surface of the petiole node punctate with a few longitudinal striae, postpetiole node rugulose to punctate, smooth on the top, micropunctae at the edges, shiny (Figs. 13, 14). Gaster shiny with microreticulation, bearing sparse, long, semierect to erect setae.

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.7 times as long as hind femora. Dorsal surface of femora with several, short, semierect setae. Inner margin with a row of the sparse, long, semierect setae. Tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 14).

Worker. Redescription. Measurements (n=25): HL: 0.718 ± 0.014 (0.69-0.76); HW: 0.674 ± 0.017 (0.648-0.715); SL: 0.468 ± 0.015 (0.444-0.503); EL: 0.237 ± 0.013 (0.212-0.263); EW: 0.136 ± 0.009 (0.123-0.153); ML: 0.902 ± 0.036 (0.86-0.983); PSL: 0.17 ± 0.008 (0.156-0.184); SDL: 0.104 ± 0.01 (0.089-0.123); PL: 0.315 ± 0.02 (0.273-0.346); PPL: 0.2 ± 0.02 (0.168-0.223); PH: 0.225 ± 0.016 (0.19-0.273); PPH: 0.217 ± 0.008 (0.201-0.229); PNW: 0.451 ± 0.022 (0.413-0.482); TL: 0.486 ± 0.02 (0.46-0.536); TW: 0.108 ± 0.009 (0.097-0.131); PW: 0.177 ± 0.018 (0.156-0.245); PPW: 0.261 ± 0.024 (0.235-0.346); HI: 93.9 ± 1.49 (91.15-96.9); SI1: 65.2 ± 1.4 (61.8-68.1); EI: 57.7 ± 4.9 (52.3-68.4); SI2: 69.5 ± 1.5 (66.1-72.5); MI: 200.1 ± 8.4 (184.0-214.4); SPI: 163.9 ± 14.3 (140.7-

194.4); P11: 140.2 ± 9.3 (114.7-153.2); P12: 38.5 ± 1.8 (34.4-41.9); PPI1: 92.4 ± 8.1 (73.3-102.4); PPI2: 57.0 ± 3.2 (49.8-62.9); HTI1: 74.0 ± 4.4 (67.7-82.7); HTI2: 22.3 ± 1.2 (20.2-24.9).



FIGURES 16–18. *Oxyopomyrmex krueperi* Forel [specimen code: LBC-GR01016]. **16**, Worker dorsal (scale bar = 1 mm). **17**, Worker lateral (scale bar = 1 mm). **18**, Worker head (scale bar = 0.5 mm).

Head, thorax and abdomen black. Antennae black, apex of antennal scapes and first 7 segments of funiculus reddish brown, dorsal surface of promesonotum partly reddish brown. Mandibles black to reddish black. Legs black, apex of femora, tibiae and tarsi reddish brown (Figs. 16, 17, 18).

Head rectangular, longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 18). Anterior margin of the clypeus smooth and slightly curved downward. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Antennae with 11 segments. Scape short, 0.7 times as long as width of the head, at base 0.8 times as wide as in the apex, gradually widened, slightly bent downward. Funiculus short, 1.5 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on the apex, 3.0 times as long as second segment, length ratio of segments 100:33:28:33:33:33:67:89:100:144, apical segments 2.0 times as wide as the basal segments (Figs. 17, 18). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, appressed to semierect setae.

Promesonotum 1.2 times as long as wide, convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum sharply curved in profile view. Propodeum quadrate, 1.0 times as long as wide, propodeal spines massive, triangular, erect, only peaks of spines gently curved downward (Figs. 16, 17). Petiole rounded with short peduncle, its anterior face straight, node rounded on dorsal surface in profile, posterior face straight, ventral margin of the petiole straight (Fig. 18). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 17).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth long. Clypeus shiny with longitudinal striae on entire surface. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, but shiny between rugosities. Frons shiny, all surface with very thick longitudinal striae and rugulose. Area above eyes with thick longitudinal striae and rugulose, shiny. Ventral surface of the head with striation and rugulose. Sometimes striation very weak, gena shiny and shagreened or microrugulose sometimes with slight longitudinal striae (Fig. 17, 18). Entire head bearing setae, posterior margin with dense erect setae directed forward, lateral surfaces of the head with appressed setae directed toward anterior margin, frontal area with dense, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum punctate to rugulose, shiny, lateral surfaces punctate to rugulose with fine longitudinal striae at the posterior edge. Dorsal surface of the pronotum rugulose to microrugulose, central part usually with weaker sculpture but never smooth, posterior edge sometimes with slightly transverse wrinkles curved at the outer surface. Mesonotum rugulose to punctate with fine longitudinal striae on dorsal surface, lateral surfaces punctate with longitudinal striae at the posterior edge, dorsal surface of propodeum punctate to smooth, shiny, below spiracles punctate with fine longitudinal striae (Fig. 16, 17, 75). Dorsal surface of mesosoma with at least 7 long, erect setae on anterior half, mesonotum and anterior propodeum with a few long setae. Base of petiole and postpetiole on the entire surface punctate, node of the petiole punctate on the top and lateral surfaces, postpetiole node punctate, smooth with fine longitudinal striae on the top, covered with several setae. Gaster shiny and shagreened, bearing dense, erect setae.

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.5 times as long as hind femora. Dorsal surface of femora with short, sparse, appressed setae, inner margin with a row of the sparse, long, semierect setae. Tibiae covered with long, appressed to semierect setae on the entire surface, inner margins with a row of appressed setae (Fig. 17).

Biology. Forel (1911) and Menozzi (1936) reported finding nests in sandy soil at a barren hill near Thessaloniki and on a path to Pigadia beach at Karpathos. Specimens were also collected in an agricultural field in Iran (Ghahari et al. 2011). Authors found a nest under a stone on the western slope of Psiloritis on Crete, at elevation 578 m a.s.l (above Fourfouras village). The area there is overgrown by a typical Mediterranean shrubland and olive trees. Other ant species collected at the site were: *Aphaenogaster simonellii* Emery, *A. subterraneoides* Emery, *Camponotus aethiops* (Latreille), *C. jaliensis* Dalla Torre, *C. kiesenwetteri* (Roger), *Lepisiota nigra* (Dalla Torre), *Messor orientalis* (Emery), *Strongylognathus silvestrii* Menozzi, *Temnothorax specularis* (Emery), and *Tetramorium* cf. *lucidulum*.

Distribution. Bulgaria; Greece: Crete, Dodecanese, mainland; Iran: East Azerbaijan Province; Macedonia; Turkey.

Differential diagnosis. Gyne. *Oxyopomyrmex krueperi* is distinguished from *O. magnus* by the HI<100; from *O. oculatus* and *O. nigripes* it differs in lacking rugosity between striation at the gena. It is very hard to distinguish *O. krueperi* from *O. saulcyi*. *Oxyopomyrmex krueperi* has a triangular, broadly attached propodeal spines which rising obliquely upwards but the peaks of the spines are posteriorly oriented whereas most of the studied gyne of *O.*

saulcyi has propodeal spines triangular, short, broadly attached, directed obliquely upwards with sharp or blunt peaks. Only one gyne of *O. saulcyi* had peaks of the propodeal spines directed slightly downward. In distinguishing these two species the differences in the colouration and the geographical separation can be also used (*O. krueperi* has body black with reddish fragments and it occurs in the Eastern part of the Mediterranean region whereas *O. saulcyi* has body brown to dark brown with paler fragments and inhabits the Western part of the Mediterranean region).

Male. *Oxyopomyrmex krueperi* is distinguished from *O. oculatus* by the occurrence of the longitudinal striae on dorsal surface of the scutum and lacking punctation on it; from *O. insularis* it differs in the occurrence of the longitudinal striae at its frons and by having the vertical striation on dorsal surface of the head; from *O. nigripes* and *O. emeryi* it differs in the occurrence of the rugosity between longitudinal striation at the scutellum; from *O. magnus* and *O. emeryi* it can be distinguished by the presence of the lobe-like propodeal spines and from *O. saulcyi* it differs in the occurrence of smooth, shiny and devoid of the longitudinal striae surface on the dorsal surface of the postpetiole and by the black colouration of the body.

Worker. *Oxyopomyrmex krueperi* is clearly distinguished from all other species by a sharply curved border between dorsal and posterior surfaces of the promesonotum (in the profile view). There are only two species, in which the border between dorsal and posterior surfaces of the promesonotum can have such shape: *O. emeryi* and *O. nitidior*. *Oxyopomyrmex krueperi* can be easily distinguished from *O. emeryi* by the thin, longitudinal striae covering the entire frontal surface of its head, the rectangular shape of the head and lacking punctation on the dorsal surface of the pronotum. *Oxyopomyrmex krueperi* differs from *O. nitidior* in the lack of shiny surface on the center of the frons, the gentler and thinner striation on the dorsal and lateral surfaces of the promesonotum and in the black colouration of the body. Among studied material, two workers of *O. krueperi* had the border between dorsal and posterior surfaces of the promesonotum curved under less acute angle. At first glance, they resemble workers of *O. laevibus*, but *O. krueperi* differs by having the presence of longitudinal striae at the gena and posterior margin of the head and by having the rugosity covering dorsal surface of the pronotum. *Oxyopomyrmex krueperi* is distinguished from *O. nitidior* by lack of smooth and shiny sculpture at the center of the frons and the darker colouration; from *O. pygmalioni* and *O. polybotesi* is distinguished by lacking punctation at the centre of the pronotum and its gena are devoid rugosity; from *O. magnus* it differs in lacking rugosity at the gena and the SI<100; from *O. saulcyi* and *O. nigripes* is distinguished by the convex promesonotum, the weaker striation and rugosity covering the dorsal surface of its promesonotum, the darker colouration and its gena are more shining with weaker and sparser longitudinal striae, never rugulose.

Comments. Having examined the type series of *O. lagoi*, described by Menozzi (1936) from Karpathos, Greece, we decided to synonymize this species with *O. krueperi*. All type specimens have a sharply curved border between the dorsal and posterior surfaces of the promesonotum and the sculpture of the head and thorax appear equal to these observed in *O. krueperi*. Moreover, Menozzi, in his description of *O. lagoi*, mentioned that he had never seen specimens of *O. krueperi* but according to the description of this species (in which Forel compared *O. krueperi* to *O. oculatus*) Menozzi decided to describe specimens from Karpathos as a new species. All these features enabled us to synonymize these species.

***Oxyopomyrmex laevibus* sp. nov.**

(Figs. 19, 20, 21, 76)

Oxyopomyrmex krueperi: Borowiec & Salata 2012: 526 (misidentification).

Oxyopomyrmex santschii: Borowiec & Salata 2013: 363 (misidentification).

Etymology. Named after the smooth and shiny surface at the center of the pronotum and the reduced sculpture on dorsal surface of the head and genae (lat. *laevibus* = smooth).

Type locality: Kato Daratso n. Chania, Crete, Greece.

Type material. Holotype worker: GREECE W Crete 20-25 m | Kato Daratso n. Chania | 35°30' N/23°58'E, littoral | 30 IV 2011 L. Borowiec || Collection L. Borowiec | Formicidae | LBC-GR00417 (DBET); 7 paratype workers: the same data as lectotype (DBET); 1 paratype worker: GREECE Crete: | Kato Daratso, n. Chania | 35°30' N/23°59'E | 10-15 m, 6.v.2011 | littoral L. Borowiec || sweeping | vegetation || ANTCAT | CASENT | 0106267 (CASC).



FIGURES 19–21. *Oxyopomyrmex laevibus* sp. nov. [holotype] **19**, Worker dorsal (scale bar = 1 mm). **20**, Worker lateral (scale bar = 1 mm). **21**, Worker head (scale bar = 0.5 mm).

Gyne. Unknown.

Male. Unknown.

Worker. Description. Measurements: Workers (n=8): HL: 0.664 ± 0.026 (0.603-0.682); HW: 0.628 ± 0.026 (0.575-0.659); SL: 0.435 ± 0.021 (0.38-0.45); EL: 0.258 ± 0.05 (0.223-0.363); EW: 0.124 ± 0.009 (0.106-0.14); ML: 0.783 ± 0.06 (0.648-0.835); PSL: 0.15 ± 0.008 (0.142-0.17); SDL: 0.092 ± 0.008 (0.078-0.101); PL: 0.291 ± 0.008 (0.279-0.302); PPL: 0.17 ± 0.008 (0.156-0.179); PH: 0.209 ± 0.015 (0.19-0.229); PPH: 0.197 ± 0.006 (0.19-0.207); PNW: 0.408 ± 0.012 (0.391-0.43); TL: 0.457 ± 0.009 (0.446-0.469); TW: 0.098 ± 0.007 (0.084-0.106); PW: 0.155 ± 0.006 (0.148-0.165); PPW: 0.234 ± 0.004 (0.229-0.24); HI: 94.5 ± 1.7 (91.8-97.5); SI1: 65.4 ± 1.2 (63.0-66.9); EI: 54.2 ± 6.6 (45.3-63.7); SI2: 69.2 ± 1.7 (66.1-71.3); MI: 191.6 ± 10.8 (165.7-200.0); SPI: 163.9 ± 13.2 (143.6-185.9); PI1: 139.7 ± 10.1 (130.6-158.9); PI2: 38.0 ± 1.8 (36.0-41.4); PPI1: 86.1 ± 4.9 (78.8-91.3); PPI2: 57.5 ± 2.0 (54.7-61.4); HTI1: 71.7 ± 1.3 (70.7-74.3); HTI2: 21.5 ± 1.6 (18.8-23.7).

Head, thorax and abdomen black. Antennal scapes smoked brown, apex of the scapes and first 6 segments of funiculus brown to yellowish, segments 7–11 smoked brown. Mandibles smoked brown to brown. Femora and tibiae smoked brown, knees and tarsi brown to yellowish brown (Figs. 19, 20, 21).

Head rectangular, longer than wide, lateral surfaces below eyes straight, slightly rounded on the posterior edges (Fig. 21). Anterior margin of the clypeus smooth and slightly emarginated at the central part. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.9 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.7 times as long as scape, first segment elongate, triangular, 2.0 times as long as wide on apex, 2.5 times as long as second segment, length ratio of segments: 100:40:35:35:40:45:50:80:90:160, apical segments 1.8 times as wide as basal segments (Figs. 20, 21). Surface of the scape with very fine microsculpture, shiny, covered with long appressed pubescence.

Promesonotum 1.2 times as long as wide, convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 1.0 times as long as wide, propodeal spines very short, triangular, rising obliquely upwards (Fig. 20). Petiole rounded with short peduncle, its anterior face slightly convex, node sharply rounded on dorsal surface in profile. Posterior face slightly convex. Ventral margin of petiole with lobe projection (Fig. 20). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 20).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth long. Clypeus shiny with longitudinal striae. Frontal carinae short, extending to upper edge of antennal fossa; antennal fossa deeply impressed, microreticulate with striation, frontal lobes rugulose with thin longitudinal striae, shiny. Frons shiny, all surface with thin longitudinal striae and rugulose in central part to rugulose and finely striation near eyes. Area above eyes shiny with longitudinal striae and rugulose. Ventral surface of the head with microreticulation, gena shiny with fine microreticulation (Fig. 21). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with sparse appressed setae directed toward anterior margin, frontal area with dense appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum shiny and smooth in the centre, fine striation and reticulation on the edges, lateral surfaces rugulose to punctate. Dorsal surface of pronotum shiny, central part smooth with microreticulation, edges with fine longitudinal striae. Mesonotum rugulose to punctate on the top, lateral surfaces gently rugulose with a few fine striae on the posterior surface. Dorsal surface of the propodeum punctate to smooth, punctate or rugulose with longitudinal striae below spiracles (Figs. 19, 76). Dorsal surface of mesosoma with at least 5 semierect, long setae on anterior half, mesonotum and anterior propodeum with a few shorter, erect setae. Base of petiole and postpetiole on the entire surface punctate to rugulose, nodes punctate, on the top shiny and smooth with micropunctae, covered with several setae. Gaster shiny with a fine, sparse micropunctuation, bearing dense, erect setae.

Legs short, hind femora 0.8 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.4 times as long as hind femora. Dorsal surface of femora with long, sparse, appressed setae, inner margin with a row of the sparse, appressed setae. Tibiae covered with long, appressed setae on the entire surface, inner margins with a row of semierect setae (Fig. 20).

Biology. Specimens were collected by sweep net in arid littoral habitat, located on a small peninsula close to the sea. The peninsula was vegetated by pine grove and Mediterranean scrubland. Other ant species collected at the

site were: *Aphaenogaster simonellii* Emery, *Camponotus candiotes* Emery, *C. gestroi* Emery, *C. kiesenwetteri* (Roger), *Cardiocondyla mauritanica* Forel, *Crematogaster ionia* Forel, *C. sordidula* (Nylander), *Lasius turcicus* Santschi, *Lepisiota nigra* (Dalla Torre), *Messor* cf. *structor*, *M. wasmannii* Krausse, *Monomorium creticum* Emery, *M. subopacum* (F. Smith), *Pheidole teneriffana* Forel, *Plagiolepis pallescens* sensu Radchenko, *P. pygmaea* (Latreille), *Temnothorax exilis* (Emery), *T.* cf. *graecus*, *T. specularis* (Emery), *T.* cf. *tuberculum*, *Tetramorium* cf. *caespitum*, *Trichomyrmex perplexus* (Radchenko).

Distribution. Greece: Crete.

Differential diagnosis. Worker. *Oxyopomyrmex laevibus* belongs to a group of species characterized by having the head with longitudinal striae on the entire frontal surface. *Oxyopomyrmex laevibus* is distinguished from workers of *O. krueperi* by the more gentle curved border between dorsal and posterior surfaces of the promesonotum (in the profile view), lacking striation on dorsal surface of the head and gena, and lack of rugae on the center of the dorsal surface of its mesonotum; from *O. nitidior* it is distinguished by lack of smooth and shiny sculpture at the center of its frons and the lack of distinct rugosity and striation on dorsal surface of the pronotum; from *O. pygmalioni* and *O. polybotesi* it is distinguished by lacking punctuation and rugosity at the centre of the pronotum and the gena are devoid of rugosity; from *O. magnus* is distinguished by the HI<100 and the lack of the distinct striation and rugosity at the gena, posterior margin of the head and pronotum; from *O. saulcyi* and *O. nigripes* is distinguished by the convex promesonotum, lacking striation and distinct rugosity at the thorax and by the darker body colouration.

***Oxyopomyrmex magnus* sp. nov.**

(Figs. 22, 23, 24, 25, 26, 27, 28, 29, 30, 77)

Etymology. Named for the large size of this species (lat. *magnus* = large).

Type locality: Aranjuez n. Madrid, Spain.

Type material. Holotype worker (top on the pin): SPAIN | Aranjuez | 22.V.77 | p. Acosta (BMNH); 2 paratype workers: the same data as holotype (BMNH); 3 paratype workers: Aranjuez (M.) | L-27' | 15-5-77 M-977 | F. Acosta (coll) (WML); 2 paratype workers: Aranjuez (M.) | 21-5-77 M-1727 | F. Acosta (DBET, SSC); 1 paratype gyne: Aranjuez (M.) | 21-5-77 M-1727 | F. Acosta (DBET).

Other material examined. 1 male—SPAIN | Albacete | Sierra da Alcaraz | 11.IV.1989 | X. Espadaler || BMNH-041989 (BMNH); 2 male—SPAIN | Albacete | Sierra da Alcaraz | 11.IV.1989 | X. Espadaler (BMNH); 4 workers—SPAIN | Albacete | Sierra da Alcaraz | 11.IV.1989 | X. Espadaler (BMNH); 2 gyne—SPAIN | Albacete | Sierra da Alcaraz | 11.IV.1989 | X. Espadaler (BMNH).

Gyne. Description. Measurements (n=3): HL: 0.825 ± 0.007 (0.816-0.832); HW: 0.866 ± 0.005 (0.86-0.872); SL: 0.534 ± 0.002 (0.531-0.536); EL: 0.296 ± 0.004 (0.291-0.302); EW: 0.168 ± 0.001 (0.167-0.17); ML: 1.385 ± 0.013 (1.367-1.396); MH: 0.867 ± 0.008 (0.86-0.879); PSL: 0.283 ± 0.009 (0.274-0.296); SDL: 0.188 ± 0.002 (0.184-0.19); PL: 0.492 ± 0.004 (0.486-0.497); PPL: 0.365 ± 0.04 (0.335-0.425); PH: 0.335 ± 0.016 (0.313-0.352); PPH: 0.343 ± 0.014 (0.324-0.358); PNW: 0.696 ± 0.021 (0.681-0.726); TL: 0.615; TW: 0.134; PW: 0.246-0.257; PPW: 0.366-0.38; HI: 105.0 ± 0.7 (104.0-105.6); SI1: 64.8 ± 0.6 (64.3-65.7); EI: 56.8 ± 1.3 (55.3-58.4); SI2: 61.7 ± 0.6 (60.9-62.3); MI: 199.1 ± 5.1 (192.3-204.6); SPI: 150.5 ± 4.8 (144.2-155.8); PI1: 147.0 ± 8.7 (138.1-158.8); PI2: 35.4-36.1; PPI1: 106.6 ± 12.2 (93.6-122.8); PPI2: 52.3-53.7; HTI1: 70.5; HTI2: 21.8.

Head and thorax dark brown to brown. Abdomen brown. Antennal scapes brown to pale brown, funiculus pale brown. Mandibles dark brown to pale brown. Femora brown to pale brown, tibiae pale brown to yellowish brown, tarsi yellowish brown (Figs. 22, 23, 24).

Head quadrate, wider than long, lateral surfaces below eyes straight gently rounded on the posterior edges (Fig. 24). Anterior margin of the clypeus straight. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Ocelli large. Scape short, 0.6 times as long as width of the head, at base 0.4 times as wide as in apex then gradually widened without preapical constriction. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 1.9 times as long as wide on apex, 3.25 times as long as second segment, length ratio of segments 100:31:35:38:38:46:52:81:77:154, apical segments 1.6 times as wide as basal segments (Figs. 23, 24). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, semierect setae.



FIGURES 22–24. *Oxyopomyrmex magnus* sp. nov. [paratype] **22**, Gyne dorsal (scale bar = 1 mm). **23**, Gyne lateral (scale bar = 1 mm). **24**, Gyne head (scale bar = 0.5 mm).

Mesosoma 1.7 times as long as head, relatively high and robust, flat with rounded pronotal corners in profile. Scutum 1.0 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines big, triangular rising obliquely upwards. Petiole sharply rounded with long peduncle, its anterior face concave, node sharply rounded on dorsal surface, posterior face slightly concave. Ventral margin of petiole straight without lobe. Postpetiole in profile regularly rounded. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 22, 23).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus with longitudinal striae, shiny. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, rugulose with striation, frontal lobes rugulose with thick longitudinal striae, shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and rugulose. Area above eyes with striation and rugulose. Ventral surface of the head with striation and finely rugulose, gena shiny, with longitudinal striae (Figs. 23, 24). Entire head bearing setae, posterior margin with dense, semierect to erect setae directed forward, lateral surfaces of the head with dense semierect setae directed toward anterior margin, frontal area with dense, semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum, anepisternum, katepisternum, metanepisternum and metakatepisternum microreticulate with distinct sparse longitudinal striae, shiny between striae. Scutum on anterior half rugose with smooth longitudinal stripe in central part, posterior part of the scutum with longitudinal striae, rugulose. Scutellum smooth, shiny microreticulate, only outer surface with a few longitudinal striae. Metanotum punctate to rugose and dull (Figs. 22, 23). Propodeum with distinct longitudinal and transverse striation on lateral surfaces, shiny and smooth between striae, area between propodeal spines shiny and micropunctate. Dorsal surface of propodeum rugulose to transversely striate, between and below the spines smooth and shiny. Dorsal surface of mesosoma with dense, semierect to erect, long setae on anterior half, anterior propodeum with a few long setae (Figs. 22, 23). Base of petiole and postpetiole on the entire surface punctate to rugulose, nodes of the petiole punctate on the top and lateral surfaces, postpetiole node rugulose, microrugulose with fine longitudinal striae on the top, shiny. Gaster shiny with sparse microreticulation, bearing dense, long, semierect to erect setae.

Legs short, hind femora 0.5 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.6 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of dense, long, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 23).

Male. Description. Measurements (n=3): HL: 0.518 ± 0.003 (0.514-0.52); HW: 0.499 ± 0.007 (0.492-0.508); SL: 0.317 ± 0.005 (0.313-0.324); EL: 0.212-0.223; EW: 0.173-0.179; ML: 1.23 ± 0.016 (1.213-1.252); MH: 0.781 ± 0.023 (0.761-0.813); PSL: 0.158 ± 0.007 (0.151-0.168); SDL: 0.165 ± 0.009 (0.156-0.178); PL: 0.374 ± 0.02 (0.357-0.402); PPL: 0.261 ± 0.019 (0.235-0.279); PH: 0.19-0.218; PPH: 0.205 ± 0.014 (0.19-0.223); PNW: 0.769 ± 0.019 (0.748-0.793); TL: 0.674 ± 0.005 (0.67-0.681); TW: 0.089 ± 0.00 (0.089-0.089); PW: 0.207-0.212; PPW: 0.291-0.302; HI: 96.3 ± 1.3 (94.6-97.7); SI1: 61.1 ± 0.9 (60.2-62.3); EI: 77.6-84.4; SI2: 63.5 ± 1.8 (61.6-65.9); MI: 160.1 ± 4.0 (154.6-163.7); SPI: 95.8 ± 1.0 (94.4-96.8); PI1: 184.4-191.1; PI2: 26.7-27.1; PPI1: 127.7 ± 10.0 (116.9-141.0); PPI2: 36.7-39.5; HTI1: 135.0 ± 0.9 (134.1-136.2); HTI2: 13.2 ± 0.1 (13.1-13.3).

Head and thorax dark brown to brown. Abdomen brown. Antennal scapes brown to pale brown, funiculus pale brown to yellowish brown. Mandibles dark brown to pale brown. Femora brown to pale brown, tibiae pale brown to yellowish brown, tarsi yellowish brown (Figs. 25, 26, 27).

Head oval, longer than wide, lateral surfaces below eyes straight, rounded on the posterior edges (Fig. 27). Anterior margin of the clypeus straight. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Antenna with 12 segments. Scape short, 12 segmented, 0.6 times as long as width of the head, at base 0.8 times as wide as in apex then gradually widened without preapical constriction. Funiculus short, 3.2 times as long as scape, first segment elongate, triangular, 0.7 times as long as wide on apex, 1.3 times as long as second segment, length ratio of segments 100:75:63:63:69:69:75:88:113:113:238, apical segments 1.5 times as wide as basal segments (Figs. 26, 27). Surface of the scape with a very fine microsculpture, shiny, covered with long, dense, erect setae.

Mesosoma 2.4 times as long as head, relatively high and robust, very feeble convex with rounded pronotal corners in profile view. Scutum 1.0 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines absent or form minute nodes. Petiole slightly rounded with long peduncle, its anterior face straight, node slightly rounded on dorsal surface, posterior face

straight. Ventral margin of petiole straight without lobe. Postpetiole regularly rounded in profile. Postpetiole 1.2 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 25, 26).



FIGURES 25–27. *Oxyopomyrmex magnus* sp. nov. [specimen code: BMNH-041989] **25**, Male dorsal (scale bar = 1 mm). **26**, Male lateral (scale bar = 1 mm). **27**, Male head (scale bar = 0.5 mm).

Mandibles rounded with distinct longitudinal striae, shiny, inner margin with 4-5 teeth, the apical tooth massive and long. Clypeus rugulose, shiny. Frontal carinae curved outward to merge with the rugae surrounding antennal sockets; antennal fossa deeply impressed, shiny with striation, frontal lobes rugulose with longitudinal striae, shiny between rugosities. Frons and area above the eyes shiny, all surface rugulose with longitudinal striae. Ventral surface of the head with striation and finely rugulose, gena shiny, rugulose (Fig. 27). Entire head bearing setae, posterior margin with dense, very long semierect to erect setae directed forward, lateral surfaces of the head with dense, long, semierect setae directed toward anterior margin, frontal area with dense, semierect to erect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum rugulose with thin longitudinal striae, anepisternum smooth and shiny with rugosity and striation at the apical edge, katepisternum smooth with microreticulation at the central part, the side and apical edges rugulose with longitudinal striae, metanepisternum and metakatepisternum rugulose with longitudinal distinct striation. Scutum rugose with longitudinal striae except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth and shiny with a few longitudinal striae. Scutellum smooth, shiny at the centre, outer surface rugulose to punctate. Metanotum punctate to rugose and dull (Figs. 25, 26). Propodeum punctate with longitudinal striae on lateral surfaces, shiny and smooth between striae, area between propodeal spines shiny and smooth and shiny. Dorsal surface of propodeum punctate, smooth and shiny between and below the spines. Dorsal surface of mesosoma with dense, long, erect setae on anterior half, anterior propodeum without setae (Figs. 25, 26). Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on lateral surfaces, dorsal surface of the petiole node punctate with a few longitudinal striae, postpetiole node rugulose, micropunctate on the top, shiny. Gaster shiny with microreticulation, bearing dense, long, semierect to erect setae.

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.6 times as long as hind femora. Dorsal surface of femora with several, short, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae covered with long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 26).

Worker. Description. Measurements (n=12): HL: 0.719 ± 0.032 (0.682-0.788); HW: 0.736 ± 0.034 (0.693-0.802); SL: 0.507 ± 0.017 (0.475-0.536); EL: 0.254 ± 0.004 (0.246-0.257); EW: 0.136 ± 0.004 (0.131-0.145); ML: 0.901 ± 0.045 (0.844-0.988); PSL: 0.192 ± 0.013 (0.179-0.218); SDL: 0.125 ± 0.007 (0.112-0.14); PL: 0.349 ± 0.02 (0.318-0.38); PPL: 0.254 ± 0.022 (0.229-0.291); PH: 0.25 ± 0.015 (0.235-0.279); PPH: 0.234 ± 0.002 (0.201-0.265); PNW: 0.482 ± 0.025 (0.441-0.525); TL: 0.517 ± 0.014 (0.497-0.536); TW: 0.115 ± 0.008 (0.101-0.123); PW: 0.192 ± 0.017 (0.165-0.223); PPW: 0.261 ± 0.02 (0.234-0.296); HI: 101.9 ± 1.2 (100.4-104.6); SI1: 70.5 ± 2.0 (66.7-73.0); EI: 53.6 ± 1.6 (51.0-56.4); SI2: 69.3 ± 2.2 (65.5-72.5); MI: 188.4 ± 2.2 (185.7-191.5); SPI: 153.2 ± 6.4 (145.5-163.4); PI1: 140.0 ± 6.1 (134.6-149.6); PI2: 39.8 ± 1.7 (37.4-42.5); PPI1: 108.7 ± 7.3 (99.2-117.0); PPI2: 54.3 ± 3.8 (49.0-60.9); HTI1: 70.9 ± 1.1 (69.5-73.0); HTI2: 22.2 ± 1.5 (19.6-24.5).

Head, thorax and abdomen from dark brown to brown. Antennal scapes pale brown, apex of the scapes and funiculus yellowish-brown. Mandibles dark brown to pale brown. Femora pale brown, tibiae and tarsi brown to yellowish brown (Figs. 28, 29, 30).

Head rectangular, wider than long, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 30). Anterior margin of the clypeus smooth and straight. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.4 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.5 times as long as scape, first segment elongate, triangular, 1.9 times as long as wide on apex, 2.6 times as long as second segment, length ratio of segments 100:38:33:33:42::42:54:75:83:166, apical segments 1.8 times as wide as basal segments (Figs. 29, 30). Surface of the scape with very fine microsculpture, shiny, covered with short, dense and semierect setae.

Promesonotum 1.1 times as long as wide, slightly convex in profile. Promesonotal suture distinct, border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines massive, triangular, rising obliquely upwards (Fig. 29). Petiole rounded with short peduncle, its anterior face straight, node flat on dorsal surface in profile. Posterior face slightly domed. Ventral margin of petiole with ventral lobe (Fig. 29). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 29).



FIGURES 28–30. *Oxyopomyrmex magnus* sp. nov.[holotype] **28**, Worker dorsal. **29** (scale bar = 1 mm), Worker lateral (scale bar = 1 mm). **30**, Worker head (scale bar = 0.5 mm).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus smooth and shiny on entire surface. Frontal carinae short, extending to upper edge of antennal fossa; antennal fossa deeply impressed with rounded striation, frontal lobes with thick longitudinal striae, area between striation shiny. Frons shiny, all surface with thick longitudinal striae and rugulose in central part to rugulose toward eyes. Area above eyes shiny, rugulose with thinner longitudinal striae. Ventral surface of the head with distinct striation and rugulose, gena shiny with longitudinal striae and rugosity (Figs. 29, 30). Entire head bearing semierect setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with setae directed toward anterior margin, frontal area with dense semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum shiny, rugose with longitudinal striae, lateral surfaces finely rugulose with longitudinal striae. Dorsal surface of pronotum rugose, area between rugae shiny, lateral surfaces with longitudinal striae and finely rugulose, shiny. Mesonotum rugose and shiny on the top, lateral surfaces rugose with longitudinal striae, dorsal surface of propodeum with longitudinal striae or rugose, punctate with longitudinal striae and rugose below spiracles (Figs. 28, 29). Dorsal surface of mesosoma with at least 5 erect setae and several short appressed setae on anterior half, mesonotum and anterior propodeum with a few setae. Base of petiole and postpetiole on the entire surface punctate, nodes punctate, sparse punctation or micropunctae on the top, shiny. Sides punctate with fine longitudinal striae, covered with several setae. Gaster shiny with microreticulation, bearing dense, erect setae.

Legs short, hind femora 0.8 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 29).

Biological data. Nothing is known about the biology of this species.

Distribution. Spain: mainland.

Differential diagnosis. Gyne. *Oxyopomyrmex magnus* is the only species with $SI > 100$ and with the surface between striae on the dorsal and lateral surfaces of the propodeum smooth and shiny, without punctation.

Male. *Oxyopomyrmex magnus* is distinguished from *O. oculatus* by the occurrence of the longitudinal striae on dorsal surface of the scutum; from *O. insularis* by the occurrence of the longitudinal striae at its frons and the vertical striation on dorsal surface of the head; from *O. nigripes* and *O. emeryi* by the occurrence of the rugosity between longitudinal striae at the scutellum; from *O. saulcyi* and *O. krueperi* by the lack of distinct propodeal spines which in the *O. magnus* males are nodular or absent.

Worker. *Oxyopomyrmex magnus* belongs to a species group with $HI > 100$. In this group, *O. magnus* is clearly distinguished from *O. emeryi* by lack of punctation on dorsal surface of the pronotum and with striae covering entire surface of the head; from *O. nitidior* by the distinct longitudinal striae covering the surface of the head and by the lack of smooth sculpture on the center of the frons.

***Oxyopomyrmex negevensis* sp. nov.**

(Figs. 31, 32, 33, 78)

Etymology. Named after terra typica, Negeve desert in Israel.

Type locality: Sede Boger, Negeve desert, Israel.

Type material. Holotype worker: ISRAEL | Sede Boger | 5. XI.1974 | J. Morad || ISRAEL, Sede Boger | 476 m, 30° 52' N/34° 47' E | 5.11.1974 leg. Morad || HOLOTYPE (TAUI); 3 paratype workers: the same data as holotype (TAUI); 14 paratype workers: ISRAEL, Southern Distr. || Sede Boger || 30,871 / 34,7912, 472 m || 29 I 1973, Y. Ben-Mordekhai (DBET, SSC).

Gyne. Unknown.

Male. Unknown.

Worker. Description. Measurements (n=18): HL: 0.743 ± 0.006 (0.737-0.749); HW: 0.693 ± 0.017 (0.67-0.715); SL: 0.514 ± 0.007 (0.503-0.525); EL: 0.267 ± 0.005 (0.258-0.372); EW: 0.155 ± 0.008 (0.145-0.168); ML: 0.921 ± 0.012 (0.905-0.939); PSL: 0.216 ± 0.011 (0.207-0.235); SDL: 0.15 ± 0.005 (0.145-0.156); PL: 0.346 ± 0.003 (0.341-0.351); PPL: 0.22 ± 0.004 (0.212-0.223); PH: 0.251 ± 0.009 (0.246-0.268); PPH: 0.243 ± 0.005 (0.234-0.247); PNW: 0.466 ± 0.012 (0.447-0.483); TL: 0.562 ± 0.014 (0.547-0.581); TW: 0.105 ± 0.004 (0.101-

0.112); PW: 0.187 ± 0.007 (0.179-0.198); PPW: 0.278 ± 0.004 (0.271-0.284); HI: 93.2 ± 1.7 (90.9-95.5); SI1: 69.2 ± 0.8 (68.2-70.1); EI: 57.7 ± 3.2 (54.1-62.7); SI2: 74.2 ± 1.0 (73.0-75.5); MI: 199.0 ± 5.4 (191.9-204.9); SPI: 144.1 ± 7.3 (132.7-150.6); PI1: 137.8 ± 5.2 (129.1-142.7); PI2: 40.7 ± 1.5 (38.7-42.2); PPI1: 90.6 ± 3.3 (85.8-95.3); PPI2: 60.2 ± 1.9 (57.8-62.4); HTI1: 81.1 ± 1.5 (79.4-83.4); HTI2: 18.7 ± 0.5 (18.1-19.3).



FIGURES 31–33. *Oxyopomyrmex negevensis* sp. nov. [holotype] **31**, Worker dorsal (scale bar = 1 mm). **32**, Worker lateral (scale bar = 1 mm). **33**, Worker head (scale bar = 0.5 mm).

Head and abdomen black. Thorax and legs dark ochraceous. Tarsi and first 5 segments of funiculus dark brown (Figs. 31, 32, 33).

Head oval, longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 33). Anterior margin of the clypeus shallowly emarginated and curved downward at the central part. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Antenna with 11 elements. Scape short, 0.7 times as long as width of the head, at base 0.6 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 2.4 times as long as wide on apex, 2.8 times as long as second segment, length ratio of segments 100:36:27:32:32:37:46:73:1077, apical segments 2.1 times as wide as basal segments (Figs. 32, 33). Surface of the scape shiny, shagreened, covered with short, dense, semierect setae.

Promesonotum 1.1 times as long as wide, gently convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum smoothly curved in profile view. Propodeum quadrate, 1.0 times as long as wide, propodeal spines short, triangular, rising obliquely upwards (Fig. 32). Petiole rounded with short peduncle, its anterior face straight, node rounded on dorsal surface in profile. Posterior face straight. Ventral margin of petiole with small teeth-like projection or smooth (Fig. 32). Postpetiole in profile regularly rounded. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 32).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth slightly longer than other teeth. Clypeus on entire surface shiny, microreticulate with longitudinal striae. Frontal carinae short, extending to upper edge of antennal fossa; antennal fossa deeply impressed, fine microreticulate, frontal lobes rugulose with thin and dense longitudinal striae, shiny between rugosities. Frons shiny, all surface with thin and dense longitudinal striae and rugulose. Area above eyes shiny with thin and dense longitudinal striae and dense rugulose. Ventral surface of the head with distinct striation, gena shiny, rugulose (Figs. 32, 33). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with sparse appressed setae directed toward anterior margin, frontal area with dull semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum punctate to rugulose with transverse striation, lateral surfaces punctate with longitudinal striae. Dorsal surface of pronotum punctate with transverse striation, the central surface rugulose with transverse striation, lateral surfaces punctate with longitudinal striae. Mesonotum rugulose with transverse striation on the top, lateral surfaces punctate, weak rugulose with longitudinal striae. Dorsal surface of propodeum rugulose with longitudinal striae, strongly rugulose with longitudinal striae below spiracles (Figs. 31, 32, 78). Dorsal surface of mesosoma with 2-5 long erect setae and several semierect setae on anterior half, mesonotum and anterior propodeum with a few short, semierect setae. Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on the dorsal and lateral surfaces, postpetiole node punctate, on the top shiny, finely rugulose with indistinct longitudinal striae, with several long, erect setae. Gaster strongly microreticulate or shagreened, dull, bearing sparse, short, erect to appressed setae and dorsal surface of the first gaster tergite additionally with dense, appressed pubescence (Fig. 31).

Legs short, hind femora 0.8 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect to appressed setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of long semierect setae (Fig. 32).

Biological data. Nothing is known about the biology of this species.

Distribution. Israel.

Differential diagnosis. Worker. *Oxyopomyrmex negevensis* is the only species known to have the first abdominal tergite bearing a dense layer of appressed microsetae. It belongs to the species group that has punctae on the dorsal surface of the pronotum. From *O. oculus* it can be distinguished by the presence of vertical striae on the dorsal surface of the pronotum and longitudinal striae covering the entire frontal surface of the head; from *O. polybotesi* and *O. pygmalioni* it is distinguished by the presence of vertical striae and lack of rugosity on the dorsal surface of the pronotum; from *O. emeryi* it differs in the occurrence of longitudinal striae on the entire surface of the head and the rugae on the gena.

***Oxyopomyrmex nigripes* Santschi, 1907 stat. nov.**

(Figs. 34, 35, 36, 37, 38, 39, 40, 41, 42, 79)

Oxyopomyrmex santschii var. *nigripes* Santschi, 1907: 329 (w.q.m.)

Oxyopomyrmex sabulonis var. *rugocciput* Santschi, 1923: 326 (w.) **syn. nov.**

Oxyopomyrmex emeryi var. *brunnescens* Santschi, 1929: 147 (w.) **syn. nov.**



FIGURES 34–36. *Oxyopomyrmex nigripes* Santschi [specimen code: NHB-ONG]. **34.** Gynes dorsal (scale bar = 1 mm). **35.** Gynes lateral (scale bar = 1 mm). **36.** Gynes head (scale bar = 0.5 mm).

Type locality: Kairouan, Tunisia.

Type material. *Oxyopomyrmex santschii* var. *nigripes*: lectotype worker (present designation): *O. Santschii* | Forel | v. *nigripes* | Sants. | Kairouan | 1906 | (Santschi) || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913249 (NHMB); 4 paralectotype workers: the same data as lectotype.(NHMB); 3 paralectotype males: the same data as lectotype (NHMB).

Oxyopomyrmex sabulonis var. *rugocciput*: 1 worker—*Oxyopomyrmex* | *sabulonis* Sants | v. *rugocciput* Sants || Tunisie | El Batene | Dr. F. Santschi || Tunisie | Bathon | 6.III.19 Dr. S. || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913247 (NHBM).

Oxyopomyrmex emeryi var. *brunnescens*: 2 workers—*Oxyopomyrmex* | *Emeryi* Sants | *brunnescens* | Sants. | 7 SANTSCHI det. 1929 || type || T. Kairouan | Dr Normand || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913241 (NHBM).

Other material examined. 1 gyne—*O. Santschii* | Forel | v. *nigripes* | Sants. | Kairouan X 06 | (Santschi) || Sammlung | Dr. F. Santschi | Kairouan || NHB-ONG (NHBM); 1 gyne—*O. Santschii* | Forel | v. *nigripes* | Sants. | Kairouan X 06 | (Santschi) || Sammlung | Dr. F. Santschi | Kairouan (NHBM); 8 workers—*O. Santschii* | Forel | v. *nigripes* | Sants. | Kairouan X 06 | (Santschi) || Sammlung | Dr. F. Santschi | Kairouan (NHBM).

Gyne. Redescription. Measurements (n=2): HL: 0.743-0.782; HW: 0.737-0.771; SL: 0.447-0.475; EL: 0.246; EW: 0.156; ML: 1.194-1.255; MH: 0.748-0.77; PSL: 0.218-0.235; SDL: 0.168-0.19; PL: 0.413-0.413; PPL: 0.257-0.302; PH: 0.302-0.302; PPH: 0.302-0.324; PNW: 0.57-0.592; TL: 0.559; TW: 0.134; PW: 0.235-0.241; PPW: 0.358-0.363; HI: 98.6-99.2; SI1: 60.2-60.7; EI: 63.4; SI2: 60.7-61.6; MI: 209.5-212.0; SPI: 114.7-139.9; PI1: 136.8-136.8; PI2: 40.7-41.2; PPI1: 79.3-100; PPI2: 61.3-62.8; HTI1: 72.5; HTI2: 24.0.

Whole body dark brown, only mandibles partly pale brown, antennae brown, antennal scapes brown to pale brown at the apex, funiculus pale brown to yellowish brown. Mandibles brown to pale brown. Femora and tibiae pale brown and tarsi pale brown to yellowish brown (Figs. 34, 35, 36).

Head quadrate, longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 36). Anterior margin of the clypeus softly convex. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Ocelli large. Scape short, 0.6 times as long as width of the head, at base 0.5 times as wide as in apex then gradually widened without preapical constriction. Funiculus short, 1.8 times as long as scape, first segment elongate, triangular, 2.4 times as long as wide on apex, 3.0 times as long as second segment, length ratio of segments 100:33:33:33:42:50:54:75:83:167, apical segments 2.2 times as wide as basal segments (Figs. 35, 36). Surface of the scape with very fine microsculpture, shiny, covered with long, dense, semierect setae.

Mesosoma 1.6 times as long as head, relatively high and robust, flat with rounded pronotal corners in profile. Scutum 0.9 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines short, triangular rising obliquely upwards, top of spine sharp directed downward or forward (Fig. 35). Petiole sharply rounded with short peduncle, its anterior face concave, node sharply rounded on dorsal surface, posterior face slightly concave. Ventral margin of petiole straight without lobe. In dorsal view, petiole almost parallel sided before petiolar node, then gently widened. Postpetiole 0.8 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 35).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus with longitudinal striae, shiny. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed with striation, frontal lobes finely rugulose with thick longitudinal striae, shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and finely rugulose. Area above eyes with striation and rugulose. Ventral surface of the head with striation and finely rugulose, gena shiny, with longitudinal striae (Figs. 35, 36). Entire head bearing setae, posterior margin with sparse semierect to erect setae directed forward, lateral surfaces of the head with sparse appressed to semierect setae directed toward anterior margin, frontal area with dense, appressed to semierect setae placed transversely, directed at the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum and anepisternum shiny with sparse, distinct longitudinal striae, katapisternum shiny, smooth in central part side and apical edges with longitudinal striae, metanepisternum and metakatepisternum microreticulate with distinct longitudinal striae. Scutum smooth and shiny with a few longitudinal striae at the anterior part, posterior part shiny with sparse longitudinal striae. Scutellum smooth and shiny only outer surface with a few longitudinal striae. Metanotum punctate to rugose and dull (Figs. 34, 35). Propodeum punctate with fine longitudinal and transverse striation in anterior half of lateral surfaces, with longitudinal striae in posterior half, shiny and smooth between

them, area between propodeal spines shiny and micropunctate. Dorsal surface of propodeum rugulose to punctate, smooth and shiny between and below the spines. Dorsal surface of mesosoma on anterior half with sparse semierect to erect, long setae, anterior propodeum with a few long setae (Figs. 34, 35). Base of petiole and postpetiole punctate on the entire surface, nodes of the petiole punctate on the top, punctate with longitudinal striae on lateral surfaces, postpetiole node punctate, sparse punctation to smooth on the top. Gaster shiny with sparse micropunctation, bearing dense, long, appressed to semierect setae.

Legs short, hind femora 0.4 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.4 times as long as hind femora. Dorsal surface of femora with short, dense, appressed to semierect setae, inner margin with a row of dense, long, semierect setae, tibiae bearing long, appressed to semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 35).

Male. Redescription. Measurements (n=2): HL: 0.486-0.569; HW: 0.469-0.536; SL: 0.291-0.346; EL: 0.179; EW: 0.156; ML: 1.383-1.414; MH: 0.879-0.89; PSL: 0.193-0.201; SDL: 0.156-0.19; PL: 0.425-0.441; PPL: 0.24-0.257; PH: 0.257-0.257; PPH: 0.263-0.302; PNW: 0.849-0.849; TL: 0.816-0.827; TW: 0.087-0.089; PW: 0.235-0.246; PPW: 0.258-0.313; HI: 94.2-96.5; S11: 59.9-60.8; EI: 87.2; SI2: 62.0-64.6; MI: 162.9-166.6; SPI: 105.8-123.7; P11: 165.4-171.6; P12: 27.7-29.0; PPI1: 79.5-97.7; PPI2: 30.4-36.9; HTI1: 152.2-176.3; HTI2: 10.5-10.9.

Whole body uniformly brown. Antennal scapes pale brown to yellowish brown at the apex, funiculus first segment pale brown, segments 2-11 yellowish brown. Mandibles brown to yellowish brown. Femora and tibiae brown to pale brown, tarsi pale brown to yellowish brown (Figs. 37, 38, 39).

Head oval, longer than wide, lateral surfaces below eyes straight, rounded on the posterior edges (Fig. 39). Anterior margin of the clypeus straight. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Antennal with 12 segments. Scape short, 0.6 times as long as width of the head, at base 0.8 times as wide as in apex, straight. Funiculus short, 2.4 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on apex, 1.7 times as long as second segment, length ratio of segments 100:60:55:50:50:50:60:90:90:100:175, apical segments 1.6 times as wide as basal segments (Figs. 38, 39). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, appressed to semierect setae.

Mesosoma 2.8 times as long as head, relatively high and robust, very feeble convex in profile with rounded pronotal corners. Scutum 1.1 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines lobe-like, short (Fig. 38). Petiole rounded with long peduncle, its anterior face slightly concave, node sharply rounded with slightly cavity in the central part and two small nodules at the outer edges, posterior face strongly concave. Ventral margin of petiole straight without lobe. Postpetiole in profile regularly rounded. Postpetiole regularly widened from base to top in dorsal view, apical half with gently rounded sides (Fig. 37, 38).

Mandibles elongate with longitudinally striation, shiny, inner margin with 4-5 teeth, the apical tooth massive and long. Clypeus rugulose but shiny. Frontal carinae curve outward to merge with the rugae surrounding antennal sockets, antennal fossa impressed, shiny and rugulose, frontal lobes rugulose with thin longitudinal striae, shiny between rugosities. Frons rugulose with longitudinal striae, area above eyes and ventral surface of the head rugulose with longitudinal or transverse striation, gena rugulose with longitudinal striae (Fig. 39). Entire head bearing setae, posterior margin with dense, very long semierect to erect setae directed forward, lateral surfaces of the head with dense, long, semierect setae directed toward anterior margin, frontal area with dense, semierect to erect, long setae placed transversely, directed toward center of the head, ventral surface of the head with appressed to semierect long setae. Sides of the pronotum punctate to rugulose with a thin and fine longitudinal striae, anepisternum smooth and shiny with slight microstriation, katepisternum smooth to microreticulate with slight longitudinal microstriation, metanepisternum and metakatepisternum rugulose with longitudinal striae. Scutum rugulose with slight and thin longitudinal striae except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth and shiny with sparse, very weak longitudinal striae. Central stripe wide, narrowing toward centre, reach only half of the length of the scutum. Scutellum with thin longitudinal striae (Figs. 37, 38). Propodeum punctate with longitudinal striae on lateral surfaces, area between propodeal spines shiny and smooth. Dorsal surface of propodeum punctate with longitudinal striae, punctate to smooth and shiny between and below the spines. Dorsal surface of mesosoma with sparse, long, erect setae on anterior half, anterior propodeum without setae. Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on lateral surfaces, dorsal surface of the petiole node punctate, back side with a few longitudinal striae, postpetiole node punctate, on the top punctate to micropunctate, shiny. Gaster shiny with microreticulation, bearing sparse, long, semierect to erect setae (Figs. 37, 38).



37



38



39

FIGURES 37–39. *Oxyopomyrmex nigripes* Santschi [paralectotype]. 37, Male dorsal (scale bar = 1 mm). 38, Male lateral (scale bar = 1 mm). 39, Male head (scale bar = 0.5 mm).

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.6 times as long as hind femora. Dorsal surface of femora with several, short, semierect setae, inner margin with a row of the sparse, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 38).



FIGURES 40–42. *Oxyopomyrmex nigripes* Santschi [lectotype]. **40**, Worker dorsal (scale bar = 1 mm). **41**, Worker lateral (scale bar = 1 mm). **42**, Worker head (scale bar = 0.5 mm).

Worker. Redescription. Measurements (n=15): HL: 0.678 ± 0.023 (0.636-0.704); HW: 0.658 ± 0.02 (0.626-0.693); SL: 0.452 ± 0.021 (0.413-0.48); EL: 0.231 ± 0.008 (0.223-0.246); EW: 0.122 ± 0.007 (0.112-0.134); ML: 0.785 ± 0.035 (0.743-0.849); PSL: 0.159 ± 0.004 (0.151-0.162); SDL: 0.116 ± 0.004 (0.112-0.123); PL: 0.303 ± 0.016 (0.274-0.324); PPL: 0.217 ± 0.014 (0.201-0.246); PH: 0.226 ± 0.013 (0.201-0.246); PPH: 0.226 ± 0.012 (0.212-0.246); PNW: 0.431 ± 0.015 (0.413-0.458); TL: 0.467 ± 0.02 (0.444-0.503); TW: 0.097 ± 0.007 (0.084-0.103); PW: 0.184 ± 0.009 (0.168-0.201); PPW: 0.261 ± 0.01 (0.243-0.279); HI: 97.1 ± 1.4 (95.7-99.1); SI1: 66.1 ± 1.4 (64.2-68.2); EI: 52.9 ± 3.6 (49.8-60.1); SI2: 68.3 ± 1.3 (66.0-70.0); MI: 182.1 ± 2.0 (179.4-185.4); SPI: 136.2 ± 4.6 (126.8-142.0); PI1: 134.3 ± 6.7 (125.4-148.6); PI2: 42.6 ± 1.6 (40.7-45.3); PPI1: 96.1 ± 3.7 (90.2-100.0); PPI2: 60.5 ± 1.5 (57.6-62.2); HTI1: 71.8 ± 2.0 (69.5-75.1); HTI2: 20.7 ± 1.1 (18.9-22.1).

Head, thorax and abdomen from dark brown to brown. Antennal scapes pale brown, apex of the scapes and funiculus yellowish-brown. Femora pale brown, tibiae and tarsi yellowish brown (Figs. 40, 41, 42).

Head rectangular, longer than wide lateral surfaces below eyes straight, slightly rounded on the posterior edges (Fig. 42). Anterior margin of the clypeus smooth and straight. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.6 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.5 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on apex, 3.5 times as long as second segment, length ratio of segments 100:29:29:29:29:33:33:67:86:143, apical segments 1.4 times as wide as basal segments (Figs. 41, 42). Surface of the scape with very fine microsculpture, shiny, covered with short and appressed setae.

Promesonotum 1.1 times as long as wide, flat in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum smoothly curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines very short, triangular, the upper edge parallel to the dorsal surface of propodeum, only peaks of spines gently raised (Fig. 41). Petiole rounded with short peduncle, its anterior face straight, node sharply rounded on dorsal surface in profile. Posterior face straight. Ventral margin of petiole straight and smooth (Fig. 41). Postpetiole regularly rounded in profile. Postpetiole 0.8 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 40, 41).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and slightly longer than the rest of teeth. Clypeus on entire surface smooth and shiny. Frontal carinae short, extending to upper edge of the antennal fossa; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, shiny. Frons shiny, all surface with thick longitudinal striae and rugulose. Area above eyes shiny with thick longitudinal striae and slightly rugosity. Ventral surface of the head with distinct striation and rugulose, gena shiny with striation and rugosity (Figs. 41, 42). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with appressed to semierect setae directed toward anterior margin, frontal area with appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum dull, rugose with longitudinal striae, rounded in the edges, lateral surfaces punctate with distinct longitudinal striae. Dorsal surface of pronotum rugose with sparse longitudinal and vertical striation, lateral surfaces punctate with distinct longitudinal striae. Mesonotum with longitudinal striae on the top, lateral surfaces punctate with longitudinal striae, dorsal surface of propodeum punctate to smooth and shiny, punctate with longitudinal striae below spiracles (Figs. 40, 41, 79). Dorsal surface of mesosoma with at least two setae on anterior half, mesonotum and anterior propodeum with a few setae. Base of petiole and postpetiole on the entire surface punctate, nodes punctate, punctate with fine longitudinal striae on the top, covered with several setae. Gaster shiny and smooth, bearing sparse, erect setae.

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.5 times as long as hind femora. Dorsal surface of femora with short, sparse, appressed pubescence, inner margin with a row of the sparse, short, appressed pubescence, tibiae bearing long, semierect setae on the entire surface, inner margins with a row semierect setae (Fig. 41).

Biological data. Santschi (1907) reported nests as occurring in clay soil and having round entrances surrounded by a crater, which sometimes, especially after rain, could become cylindrical.

Distribution. Tunisia.

Differential diagnosis. Gyne. *Oxyopomyrmex nigripes* belongs to a group of species with rugulose genae. In this group, it is clearly distinguished from *O. oculus* by striae covering the entire gena, lack of oblique striae on the frons and presence of smooth and shiny sculpture on dorsal surface of postpetiolar node.

Male. *Oxyopomyrmex nigripes* is distinguished from *O. oculatus* by lacking punctation on the scutum and scutellum; from *O. insularis* by the presence of transverse striation on the dorsal surface of its head; from *O. magnus*, *O. krueperi* and *O. saulcyi* by the lack of rugosity or smooth sculpture on the scutellum and from *O. emeryi* by the presence of propodeal spines.

Worker. *Oxyopomyrmex nigripes* belongs to a group of species that has longitudinal striae covering the entire surface of the head. It is easy to distinguish from *O. polybotesi*, *O. pygmalioni* and *O. negevensis* by the lack of punctation on the dorsal surface of the pronotum, paler colouration and a flat promesonotum in dorsal profile view; from *O. krueperi* it is distinguished by the lack of a sharply curving border between dorsal and posterior surfaces of the promesonotum, the flat promesonotum (in profile view), the distinct striation and rugosity on the dorsal and lateral surfaces of the pronotum and the paler colouration; from *O. laevibus* it is distinguished by longitudinal striae on the posterior margin of the head, the flat promesonotum (in profile view), the paler colouration and the distinct rugosity and striation on the thorax. At first glance *O. nigripes* is very similar to *O. saulcyi*. Both of these species have pale colouration and the promesonotum is flat in profile view. *Oxyopomyrmex nigripes* differs from *O. saulcyi* by having a distinct striae covering the entire dorsal surface of the pronotum and by the lateral surfaces of the pronotum always bearing thick longitudinal striae and rugosity. In contrast, *O. saulcyi* has the dorsal surface of the pronotum distinctly rugulose and striae, if present, cover only part of it; the lateral surfaces of the pronotum are more rugulose with a thin and slightly striation. In addition to these features *O. nigripes* has a wider head: the HI: 97.1 ± 1.4 (95.7-99.1) vs. 92.8 ± 2.1 (87.5-96.5) and the propodeum and its scape are longer: SI2: 68.3 ± 1.3 (66.0-70.0) vs. 73.2 ± 1.7 (70.1-77.4).

Comments: Having examined of all type specimens of *Oxyopomyrmex santschii* var. *nigripes* Santschi, 1907, *Oxyopomyrmex sabulonis* var. *rugociput* Santschi, 1923 and *Oxyopomyrmex emeryi* var. *brunnescens* Santschi, 1929 significant differences between these taxa were not found. The sculpture of the head and thorax and the body colouration are very similar in all. Also, examination of measurements and indices did not reveal any significant differences. All these features enabled us to synonymize *Oxyopomyrmex sabulonis* var. *rugociput* and *Oxyopomyrmex emeryi* var. *brunnescens* with *Oxyopomyrmex nigripes*.

***Oxyopomyrmex nitidior* Santschi, 1910 stat. nov.**

(Figs. 43, 44, 45, 46, 47, 48, 80, 81, 86, 87)

Oxyopomyrmex santschii var. *nitidior* Santschi, 1910: 46 (w.)

Oxyopomyrmex emeryi var. *laticeps* Santschi, 1915: 62 (w.) **syn. nov.**

Oxyopomyrmex emeryi st. *sabulonis* Santschi, 1915: 62 (w.); Santschi 1923: 326 (as good species); Collingwood 1985: 246; Collingwood 1996: 304 **syn. nov.**

Type locality: Kairouan, Tunisia.

Type material. *Oxyopomyrmex santschii* var. *nitidior*: lectotype worker (present designation): F. Santschi det. 1937 | *Oxyopomyrmex* | *Santschii* For. | v. *nitidior* Sants. || type || TUNISIE | Kairouan | Dr Santschi | 7.XI.1909 || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913250 (NHMB); 1 paralectotype worker: F. Santschi det. 1937 | *Oxyopomyrmex* | *Santschii* For. | v. *nitidior* Sants. || type || TUNISIE | Kairouan | Dr Santschi | 7.XI.1909 || Sammlung | Dr. F. Santschi | Kairouan || NHB-ONS (NHMB); 4 paralectotype workers: the same data as lectotype (NHMB).

Oxyopomyrmex emeryi var. *laticeps*: 1 worker—*Oxyopomyrmex* | *Emeryi* Sants | v. *laticeps* Sants | SANTSCHI det. 1915 || Tunisie | Sousse | (Normand 1915) || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913246 (NHMB).

Oxyopomyrmex emeryi st. *sabulonis*: 7 workers—*Oxyopomyrmex* | *Emeryi* Sants | st. *sabulonis* Sant | SANTSCHI det. 1914 || Tunisie | Garn et Fayat | 90 km O. Kef. | V 1913 Santschi || Tunisie | Gam et Fayat | Dr. F. Santschi || V 1913 || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913245 (NHMB).

Other material examined. 6 workers—*Oxyopomyrmex* | *Emeryi* Sant. | st. *sabulonis* | Sants (NHMB); 2 workers—Tunisie | Le Kef. | Dr. F. Santschi || Sammlung | Dr. F. Santschi | Kairouan (NHMB).

Gyne. Unknown.

Male. Unknown.



FIGURES 43–45. *Oxyopomyrmex nitidior* Santschi (sculptured) [lectotype]. **43**, Worker dorsal (scale bar = 1 mm). **44**, Worker lateral (scale bar = 1 mm). **45**, Worker head (scale bar = 0.5 mm).

Worker. Redescription. Measurements (n=19): HL: 0.679 ± 0.048 (0.592-0.749); HW: 0.685 ± 0.041 (0.603-0.749); SL: 0.482 ± 0.028 (0.425-0.531); EL: 0.239 ± 0.015 (0.212-0.257); EW: 0.129 ± 0.008 (0.112-0.145); ML: 0.812 ± 0.056 (0.704-0.894); PSL: 0.174 ± 0.013 (0.156-0.201); SDL: 0.123 ± 0.01 (0.101-0.14); PL: 0.311 ± 0.028 (0.268-0.346); PPL: 0.221 ± 0.018 (0.201-0.246); PH: 0.237 ± 0.011 (0.223-0.257); PPH: 0.227 ± 0.007 (0.223-0.24); PNW: 0.434 ± 0.029 (0.385-0.48); TL: 0.474 ± 0.036 (0.413-0.525); TW: 0.105 ± 0.008 (0.089-0.112); PW: 0.162 ± 0.019 (0.134-0.19); PPW: 0.247 ± 0.018 (0.212-0.268); HI: 100.9 ± 2.0 (96.9-103.5); S11:

71.1 ± 2.2 (67.0-74.1); EI: 54.3 ± 3.9 (49.8-63.2); SI2: 70.4 ± 1.7 (67.6-73.2); MI: 185.6 ± 5.1 (175.1-190.6); SPI: 142.4 ± 13.1 (111.4-163.4); PII: 133.9 ± 11.0 (114.0-145.3); PI2: 37.5 ± 3.6 (28.6-41.1); PPI1: 99.7 ± 8.4 (90.1-110.3); PPI2: 56.5 ± 1.9 (53.1-60.3); HTI1: 68.8 ± 2.3 (64.9-72.3); HTI2: 22.1 ± 1.0 (20.8-24.5).

Head and thorax from brown to black. Abdomen darker than head and thorax or in the same colour. Legs paler than thorax. Antennal scapes in the same colour as head, apex of the scapes and funiculus paler than head (Figs. 43, 44, 45, 46, 47, 48).

Head posterior to eyes with straight lateral surfaces, deeply rounded on the posterior edges (Figs. 45, 48). Anterior margin of the clypeus smooth and straight. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.7 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.58 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on apex, 2.75 times as long as second segment, length ratio of segments 100:36:32:32:36:46:46:64:109:181, apical segments 1.8 times as wide as basal segments (Figs. 44, 45). Surface of the scape with very fine microsculpture, shiny, covered with short and appressed setae.

Promesonotum 1.2 times as long as wide, gently convex or flat in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 0.8 times as long as wide, propodeal spines short, triangular, rising obliquely upwards (Figs. 44, 47). Petiole rounded with short peduncle, its anterior face straight, node flat on dorsal surface in profile. Posterior face slightly concave. Ventral margin of petiole straight and smooth (Figs. 44, 47). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 44, 47).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with one large and 7-8 smaller teeth, the apical tooth massive and long. Clypeus smooth and shiny on entire surface. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, shiny and microreticulate, frontal lobes with thin longitudinal striae and microreticulate, shiny (Figs. 45, 48). Frons shiny, with longitudinal striae (Fig. 45) or distinct reticulation to smooth on lateral surfaces (Fig. 48). Center of frons always smooth and shiny or with striation sparser than in surrounding area and smooth surface between striation (Figs. 86, 87). Area above eyes shiny with longitudinal striae and fine reticulation or smooth (Figs. 45, 48). Ventral surface of the head with distinct striation and smooth at the posterior edge (Fig. 45) or smooth and shiny with fine reticulation (Fig. 48), gena smooth and shiny with fine microreticulation (Figs. 44, 47). Entire head bearing setae, posterior margin with a few erect setae directed forward, lateral surfaces of the head with sparse appressed to semierect setae directed toward anterior margin, frontal area with sparse appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum shiny, rugose with striation, lateral surfaces shiny area between striation and rugosity always smooth. Dorsal surface of pronotum rugulose or with striation, central area usually with weaker sculpture (Figs. 43, 46, 80, 81). Mesonotum on the dorsal surface rugose with parallel striation, lateral surfaces punctate with several longitudinal rugae on the upper edge, dorsal surface of propodeum with striation or rugose, surface between propodeal spines shiny with striation, below spiracles punctate with a few rugae in the posterior surface (Figs. 43, 46, 80, 81). Dorsal surface of mesosoma with at least 3-5 setae on anterior half, mesonotum and anterior propodeum with several setae. Base of petiole and postpetiole on the entire surface punctate, nodes punctate, on the top with fine longitudinal rugae, without microsculpture, shiny, covered with several setae. Gaster shiny and smooth, bearing sparse, erect setae.

Legs short, hind femora 0.9 times as long as mesosoma length, hind tibia 0.6 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of the sparse, short setae, tibiae bearing short, semierect setae on the entire surface, inner margins with a row semierect setae (Figs. 44, 47).

Biological data. Nests have been located in sandy soil (Santschii 1910) and the nest entrance was always surrounded by a crater (Santschii 1915). Workers have also been collected in dry pasture in highland alluvial valleys (Collingwood 1985).

Distribution. Algeria, Egypt, Saudi Arabia, Tunisia.



46



47



48

FIGURES 46–48. *Oxyopomyrmex nitidior* Santschi (smooth) [specimen code: NHB-ONS]. **46**, Worker dorsal (scale bar = 1 mm). **47**, Worker lateral (scale bar = 1 mm). **48**, Worker head (scale bar = 0.5 mm).

Differential diagnosis. *Oxyopomyrmex nitidior* can be easily distinguished from other species by the presence of smooth and shiny sculpture on the center of the frons. In specimens with strong striation overall, this area can be covered by sparser/weaker striae as compared to the rest of the head. Additionally, in these specimens the area

between striae is shiny and smooth rather than rugose. Specimens of *O. nitidior* with limited striation at the head, can be distinguished from other species belonging to this group by the following features: from *O. emeryi* it differs in the lack of punctuation on the dorsal and lateral surfaces of the pronotum; from *O. insularis* it can be distinguished by the presence of distinct rugosity and striae on the entire surface of the promesonotum; from *O. oculatus* it differs by lacking distinct punctuation on the top and edges of the promesonotum. Specimens of *O. nitidior* that have striae covering the entire surface of the head can be distinguished from *O. negevensis*, *O. polybotesi* and *O. pygmalioni* by lacking punctuation on the dorsal surface of the pronotum and by having the genae devoid of striation and rugosity; from *O. saulcyi* and *O. nigripes* it differs by lacking longitudinal striae on the genae and by weak rugosity on the dorsal and lateral surfaces of the promesonotum; from *O. laevibus* it differs by having paler colouration, a flat promesonotum (in profile view) and the presence of the rugosity on dorsal and lateral surfaces of the promesonotum.

Comments. *Oxyopomyrmex nitidior* is characterized by high variability of striation on the face. Both specimens with longitudinal striae limited to the frons and specimens with the entire face covered by a distinct striation occur in the same series of type specimens. The only common feature of all the specimens is the structure of the center of the frons (see differential diagnosis above). In the type series of *Oxyopomyrmex santschii* var. *nitidior* Santschi, 1910, *O. emeryi* var. *laticeps* Santschi, 1915 and *O. emeryi* st. *sabulonis* Santschi, 1915 we found specimens with variable levels of striation covering the head and variable sculpturation on the dorsal surface of the pronotum. In each of the type series of these three taxa we found specimens which have the same type of sculpture and striation on the head and thorax. The differences between *O. nitidior* and *O. sabulonis* noted by Santschi (1915), are insignificant when we take the intraspecific variability of these features into account. Moreover, we didn't find any significant differences in the measurements and indices between type series of all taxa mentioned above. All these features enabled us to synonymize *O. emeryi* var. *laticeps* and *O. emeryi* st. *sabulonis* with *O. nitidior*.

***Oxyopomyrmex oculatus* André, 1881**

(Figs. 49, 50, 51, 52, 53, 54, 55, 56, 57, 82)

Oxyopomyrmex oculatus André, 1881: 73, pl. 3, figs. 1-3 (w.); André, 1883: 379; Dalla Torre 1893: 108; Menozzi 1933: 92; Vonshak & Ionescu-Hirsch 2009: 43; Tohmé & Tohmé 2014: 135.

Type locality: Rishon le Zion n. Jaffa, Israel.

Type material. Neotype worker (present designation): 1 worker—Rishon le Zion | PALESTINE | 10.III.1942 | Bytliniski-Salz || ISRAEL Rishon LeZion | 53 m, 31°58' N/34°46' E, | 03.1942 leg. Bytliniski-Salz (TAUI).

Other material examined. 1 gyne—ISRAEL | Mashash | 8 IV | 1984 || *Oxyopomyrmex* | *oculatus* Andre | J. Kugler det. || ISRAEL, Mashash | 361 m, 31°12' N/34°57' E | 8.04.1984 leg. Kugler || TAUI-OOG (TAUI); 1 male: ISRAEL | Tureiba | 3.XII.1986 | A. HEFETZ || *Oxyopomyrmex* | *oculatus* Andre | J. Kugler det. 1982 || ISRAEL Tureiba | -390 m, 31°39' N/35°26' E, | 03.12.1986 leg. Hefetz || TAUI-OOM (TAUI); 1 male: ISRAEL | Tureiba | 3.XII.1986 | A. HEFETZ || *Oxyopomyrmex* | *oculatus* Andre | J. Kugler det. 1982 || ISRAEL Tureiba | -390 m, 31°39' N/35°26' E, | 03.12.1986 leg. Hefetz (TAUI); 1 worker: Mishor Rotem | Israel | 15. IV.1980 | leg. Kugler || ISRAEL Mishor Rotem | 385 m, 31° 02' N/35° 09' E | 15.04.1980 leg. Kugler || TAUI-OOW (TAUI); 11 workers: Mishor Rotem | Israel | 15. IV.1980 | leg. Kugler || ISRAEL Mishor Rotem | 385 m, 31° 02' N/35° 09' E | 15.04.1980 leg. Kugler (DBET, SSC, TAUI, WML); 3 workers—ISRAEL, Gvulot | 128 m 31°12' N/34°27' E | 21.01.1979 leg. Kugler || nr. Gvulot | Israel | 21.I.1979 | leg. Kugler (TAUI); 3 workers—PALESTINE | Herzliya | XI 44 | leg. Bytliniski-Salz || ISRAEL Herzliya | 67 m, 32°09' N/34°50' E, | 11.1944 leg. Bytliniski-Salz (TAUI); 3 workers—ISRAEL | Herzliya | III 77 | leg. Bytliniski-Salz || ISRAEL Herzliya | 67 m, 32°09' N/34°50' E, | 03.1977 leg. Bytliniski-Salz (TAUI); 1 workers—ISRAEL Tureiba | -390 m, 31°39' N/35°26' E, | 03.12.1986 leg. Hefetz (TAUI); 3 workers—Rishon le Zion | PALESTINE | 10.III.1942 | Bytliniski-Salz || ISRAEL Rishon LeZion | 53 m, 31°58' N/34°46' E, | 03.1942 leg. Bytliniski-Salz (TAUI); 2 workers—ISRAEL | Mashash | 8 IV | 1984 || *Oxyopomyrmex* | *oculatus* Andre | J. Kugler det. || ISRAEL, Mashash | 361 m, 31°12' N/34°57' E | 8.04.1984 leg. Kugler (TAUI); 2 workers—Rishon le Zion | PALESTINE | 10.III.1942 | Bytliniski-Salz || ISRAEL Rishon LeZion | 53 m, 31°58' N/34°46' E, | 03.1942 leg. Bytliniski-Salz (TAUI). 1 worker—*Oxyopomyrmex* | *oculatus* Andre | J. Kugler det. 1983 || Israel | Mishor Rotem | 15. IV.1980 | Kugler (BMNH).



FIGURES 49–51. *Oxyopomyrmex oculatus* André [specimen code: TAUI-OOG]. **49**, Gyne dorsal (scale bar = 1 mm). **50**, Gyne lateral (scale bar = 1 mm). **51**, Gyne head (scale bar = 0.5 mm).

Gyne. Description. Measurements (n=1): HL: 0.804; HW: 0.777; SL: 0.558; EL: 0.268; EW: 0.179; ML: 1.337; PSL: 0.257; SDL: 0.168; PL: 0.439; PPL: 0.268; PH: 0.257; PPH: 0.307; PNW: 0.715; TL: 0.637; TW: 0.123; PNH: 0.302; PW: 0.235; PPW: 0.223; HI: 96.6; SI1: 69.4; EI: 66.8; SI2: 71.8; MI: 187.0; SPI: 153.0; PI1: 170.8; PI2: 117.2; PPI1: 31.2; PPI2: 31.2; HTI1: 82.0; HTI2: 19.3.

Whole body black to dark brown, only mandibles partly reddish, Antennal scapes brown to pale brown on the apex, funiculus pale brown. Mandibles brown to pale brown. Legs pale brown, tarsi pale brown to yellowish brown (Figs. 49, 50, 51).

Head oval, longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 51). Anterior margin of the clypeus softly convex. Eyes longitudinal, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Ocelli large. Scape short, 0.7 times as long as width of the head, at base 0.6 times as wide as in apex then gradually widened without preapical constriction. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on apex, 2.2 times as long as second segment, length ratio of segments 100:45:36:36:36:50:59:86:91:200, apical segments 1.75 times as wide as basal segments (Figs. 50, 51). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, appressed to semierect setae.

Mesosoma 1.7 times as long as head, relatively high and robust, very feeble convex with rounded pronotal corners in profile view. Scutum 0.8 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines short rising obliquely upwards and triangular. Petiole sharply rounded with short peduncle, its anterior face straight, node sharply rounded on dorsal surface, posterior face slightly concave. Ventral margin of petiole straight with smooth tooth-like lobe. Postpetiole in profile regularly rounded. In dorsal view postpetiole 0.9 times as long as wide, regularly widened from base to top, apical half with gently rounded sides (Figs. 49, 50).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 7-8 teeth, the apical tooth massive and the longest. Clypeus with longitudinal striae, shiny. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and sparse rugulose. Area above eyes sparse rugulose, shiny with thick longitudinal striae slightly bent outward at the outer surface. Ventral surface of the head with fine striation and rugulose, gena shiny, finely rugulose with a few longitudinal striae at the posterior edge (Figs. 50, 51). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with sparse appressed to semierect setae directed toward anterior margin, frontal area with sparse, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum and anepisternum rugulose with weak longitudinal striae, katepisternum finely rugulose with oblique striation directed downward, metanepisternum, metakatepisternum and lateral surfaces of the propodeum with distinct longitudinal striae, microreticulate and shiny. Scutum with dense longitudinal striae. Scutellum with longitudinal striae, shiny and smooth between them. Metanotum punctate and dull (Figs. 49, 50). Propodeum rugulose with transverse and longitudinal striae in anterior half of lateral surfaces, rugulose with longitudinal striae in posterior half of lateral surfaces. Area between propodeal spines shiny and micropunctate. Dorsal surface of propodeum transversely and diffusely carinate, transversely reticulo-striate between and below the spines. Dorsal surface of mesosoma with dense, semierect to erect, long setae on anterior half, anterior propodeum with a few long setae. Base of petiole and postpetiole rugulose to punctate on the entire surface, nodes of the petiole punctate on the top and lateral surfaces, postpetiole node punctate, sparser punctation on the top, shiny (Figs. 49, 50). Gaster shiny with sparse micropunctuation, bearing sparse, short, appressed to semierect setae.

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.1 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of the sparse, long, appressed to semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 50).

Male. Description. Measurements (n=2): HL: 0.48-0.581; HW: 0.458-0.547; SL: 0.273-0.346; EL: 0.212-0.251; EW: 0.162-0.19; ML: 1.027-1.514; PSL: 0.19; SDL: 0.19; PL: 0.458; PPL: -; PH: 0.223; PPH: -; PNW: 0.682-0.866; TL: 0.668-0.827; TW: 0.067-0.089; PW: -; PPW: -; HI: 94.1-95.4; SI1: 56.9-59.6; EI: 75.7-76.4; SI2: 59.6-63.3; MI: 150.6-174.8; SPI: 100.0; PI1: 205.4; PI2: -; PPI1: -; PPI2: -; HTI1: 145.8-151.2; HTI2: 10.0-10.8.

Whole body uniformly black. Antennae and legs dark brown. Mandibles black to dark brown.



FIGURES 52–54. *Oxyopomyrmex oculatus* André [specimen code: TAU1-OOM]. **52**, Male dorsal (scale bar = 1 mm). **53**, Male lateral (scale bar = 1 mm). **54**, Male head (scale bar = 0.5 mm).

Head oval, longer than wide, lateral surfaces below eyes straight, rounded on the posterior edges (Figs. 52, 53, 54). Anterior margin of the clypeus straight. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Antenna with 12 segments. Scape short, 0.6 times as long as width of the head, at base 0.7 times as wide as in apex, straight. Funiculus short, 3.4 times as long as scape, first segment elongate, triangular, 0.5 times as long as wide on apex, 0.9 times as long as second segment, length ratio of segments 100:114:54:54:63:63:81:81:86:91:163, apical segments 0.8 times as wide as basal segments (Figs. 53, 54). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, semierect to erect setae.

Mesosoma 2.6 times as long as head, relatively high and robust, very feeble convex with rounded pronotal corners in profile. Scutum 0.9 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines lobe-like, short. Petiole rounded with long peduncle, its anterior face straight, node slightly rounded on dorsal surface, posterior face slightly convex. Ventral margin of petiole straight without lobe. Postpetiole regularly rounded in profile view. Postpetiole regularly widened from base to top in dorsal view, apical half with gently rounded sides (Figs. 52, 53).

Mandibles elongate with longitudinal striae, shiny, inner margin with 4-5 teeth, the apical tooth massive and the longest. Clypeus with longitudinal striae, shiny. Frontal carinae curved outward to merge with the rugae that surround antennal sockets; antennal fossa impressed, shiny and rugulose, frontal lobes punctate with longitudinal striae, shiny between rugosities. Frons punctate with longitudinal striae in central part to punctate towards eyes, area above eyes and ventral surface of the head punctate, gena shiny, punctate to micropunctate (Figs. 53, 54). Entire head bearing setae, posterior margin with dense, very long semierect to erect setae directed forward, lateral surfaces of the head with dense, long, semierect setae directed toward anterior margin, frontal area with dense, semierect to erect, long setae placed transversely, directed toward center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae.

Sides of the pronotum punctate with longitudinal striae, anepisternum smooth to punctate with longitudinal striae, katepisternum smooth to punctate with oblique striation directed downward, metanepisternum smooth to micropunctate, metakatepisternum smooth to punctate with longitudinal striae at the posterior edge. Scutum distinctly punctate with a few longitudinal striae at the outer surface, except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth and shiny with a fine longitudinal striae. Central stripe wide, narrowing toward central part, reach only half of the length of the scutum. Scutellum punctate (Figs. 52, 53). Propodeum punctate on lateral surfaces, area between propodeal spines shiny and smooth. Dorsal surface of propodeum punctate, punctate to smooth and shiny between and below the spines. Dorsal surface of mesosoma with dense, long, erect setae in the anterior half, anterior propodeum without setae (Figs. 52, 53). Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on lateral surfaces, dorsal surface of the petiole node punctate, postpetiole node punctate, punctate to micropunctate on the top. Gaster shiny with sparse micropunctuation, bearing sparse, long, semierect to erect setae.

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with several, short, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, appressed to semierect setae on the entire surface, inner margins with a row of appressed to semierect setae (Fig. 53).

Worker. Redescription. Measurements (n=22): HL: 0.649 ± 0.024 (0.592-0.682); HW: 0.606 ± 0.022 (0.556-0.637); SL: 0.484 ± 0.021 (0.444-0.514); EL: 0.251 ± 0.036 (0.223-0.369); EW: 0.134 ± 0.004 (0.126-0.145); ML: 0.782 ± 0.03 (0.743-0.838); PSL: 0.155 ± 0.015 (0.123-0.173); SDL: 0.114 ± 0.008 (0.101-0.128); PL: 0.27 ± 0.02 (0.235-0.304); PPL: 0.179 ± 0.013 (0.156-0.201); PH: 0.192 ± 0.009 (0.18-0.212); PPH: 0.191 ± 0.008 (0.179-0.212); PNW: 0.4 ± 0.016 (0.374-0.436); TL: 0.531 ± 0.029 (0.48-0.581); TW: 0.073 ± 0.007 (0.061-0.084); PW: 0.147 ± 0.007 (0.134-0.162); PPW: 0.216 ± 0.014 (0.196-0.245); HI: 93.3 ± 1.0 (91.5-94.9); SI1: 74.5 ± 0.8 (72.7-75.8); EI: 55.8 ± 2.0 (52.1-57.0); SI2: 79.9 ± 1.2 (77.8-81.6); MI: 195.8 ± 7.0 (186.3-208.8); SPI: 135.3 ± 13.9 (112.8-160.4); PI1: 138.3 ± 12.1 (121.2-146.8); PI2: 36.5 ± 2.3 (33.3-41.1); PPI1: 95.1 ± 8.9 (82.1-105.8); PPI2: 85.5 ± 2.2 (82.2-89.2); HTI1: 87.6 ± 1.8 (84.2-91.2); HTI2: 13.8 ± 0.9 (12.2-15.0).

Head, thorax and abdomen brown. Antennal scapes brown to yellowish brown at the apex, funiculus uniformly yellowish brown. Mandibles brown to pale brown. Femora brown to yellowish brown at the edges, tibiae pale brown to yellowish brown, tarsi yellowish brown (Figs. 55, 56, 57).



FIGURES 55–57. *Oxyopomyrmex oculatus* André [specimen code: TAUI-OOW]. **55**, Worker dorsal (scale bar = 1 mm). **56**, Worker lateral (scale bar = 1 mm). **57**, Worker head (scale bar = 0.5 mm).

Head oval, longer than wide (Fig. 57). Anterior margin of the clypeus smooth and slightly curved downward. Eyes elongate, gently narrowing downward, reaching anteroventral margin of head, 0.4 times as long as length of the head. Scape short, 0.8 times as long as width of the head, at base 0.5 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.7 times as long as scape, first segment elongate, triangular, 1.0 times as long as wide on apex, 1.0 times as long as second segment, length ratio of segments 100:50:35:35:40:40:60:80:100:190, apical segments 1.6 times as wide as basal segments (Figs. 56, 57). Surface of the scape with very fine microsculpture, shiny, covered with short and semierect setae.

Promesonotum 1.2 times as long as wide, gently convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 1.0

times as long as wide, propodeal spines short, triangular, rising obliquely upwards (Fig. 56). Petiole rounded with short peduncle, its anterior face straight, node angulated in profile. Posterior face slightly rounded. Ventral margin of petiole straight (Fig. 56). Postpetiole regularly rounded in profile. Postpetiole 1.0 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 55, 56).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin 7-8 small teeth, the apical tooth massive and long. Clypeus on entire surface microreticulate and shiny. Frontal carinae short, extending to upper edge of antennal fossa, antennal fossa deeply impressed, shiny, frontal lobes with thin longitudinal striae, rugulose, shiny between rugosities. Frons shiny, with longitudinal striae and rugulose in central part, lateral surfaces rugulose. Area above eyes shiny and distinctly rugulose, tempora and ventral surface of the head microgranulate, gena slightly rugulose to microgranulate (Figs. 56, 57). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with appressed setae directed toward anterior margin, frontal area with sparse, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum shiny, finely punctate on the entire surface. Dorsal surface of pronotum shiny and punctate. Mesonotum punctate on entire surface, propodeum punctate, with a few longitudinal striae below spiracles (Figs. 55, 56). Dorsal surface of mesosoma with at least five thin and long setae in the anterior half, mesonotum and anterior propodeum with a few setae. Base of petiole and postpetiole punctate on the entire surface, nodes punctate, shiny with sparse punctation on the top, covered with sparse setae. Gaster shiny micropunctate or shagreened, bearing sparse, erect setae.

Legs short, hind femora 0.8 times as long as mesosoma length, hind tibia 0.7 times as long as hind femora, hind tarsi 1.4 times as long as hind femora. Dorsal surface of femora with short, sparse, appressed pubescence, inner margin with a row of the sparse, short, appressed setae, tibiae bearing short, appressed pubescence on the entire surface (Fig. 56).

Biological data. Workers have been found under olive tree bark (André 1881) and on olive trees (Tohmé & Tohmé 2014).

Distribution. Lebanon, Israel, Palestine, Syria.

Differential diagnosis. Gyne. *Oxyopomyrmex oculatus* is easily distinguished from *O. emeryi*, *O. magnus*, *O. saulcyi* and *O. krueperi* by the presence of rugosity on the gena, from *O. nigripes* it differs by having the longitudinal striae at its gena limited only to the posterior edge and the distinct punctation at the entire surface of its petiole and postpetiole.

Male. *Oxyopomyrmex oculatus* is the only one known species with a distinct punctation occurring at the entire surface of scutum and scutellum (except three smooth stripes at the scutum). Only a few sparse longitudinal striae occur at the posterior edge of the scutum. In the rest of the known *Oxyopomyrmex* males the surface of the scutum and scutellum is covered mainly by striation and the punctation, if present, is limited to a small area.

Worker. *Oxyopomyrmex oculatus* belongs to the species group that has distinctly punctate propodeum. It is distinguished from *O. emeryi* and *O. negevensis* by the lack of transverse striation on dorsal surface of the pronotum. Moreover, it can be distinguished from *O. emeryi* by the more rugulose genae and the darker body colouration and from *O. negevensis* it differs by having the shiny dorsal surface of the first abdominal tergite and the more dense and thicker hairiness at the scape and legs; from *O. polybotesi* and *O. pygmalioni* it differs in the lack of the rugosity and longitudinal striae on dorsal surface and edges of the promesonotum.

Comments. The type specimen of the *O. oculatus* is lost. In André's collection (MNHN), at the place where the type specimen is supposed to be, a label with information that the type of *O. oculatus* has been lost is pinned. According to the International Code of Zoological Nomenclature (article 75.3.4, 75.3.6), due to the possibility of misinterpretation of cryptic species in the genus *Oxyopomyrmex*, we decided to designate a neotype, which comes from a locality situated 6 km at the south-west from the type locality noted by André (1881).

***Oxyopomyrmex polybotesi* sp. nov.**

(Figs. 58, 59, 60, 83)

Oxyopomyrmex oculatus: Forel 1911: 344; Kiran & Karaman 2012: 23 (misidentification)

Etymology. Named after giant Polybotes. According to the Greek mythology, during the Gigantomachy Polybotes was crushed under Nisyros (type locality of the species), which was thrown at him by Poseidon.

Type locality: Moni Evangelistrias, Nisyros Is., Greece.



FIGURES 58–60. *Oxyopomyrmex polybotesi* sp. nov. [holotype] **58**, Worker dorsal (scale bar = 1 mm). **59**, Worker lateral (scale bar = 1 mm). **60**, Worker head (scale bar = 0.5 mm).

Type material. Holotype worker: GREECE, Dodecanese, 270 m | Nisyros, Moni Evangelistrias | 36,601 N / 27, 151 E | 1 VI 2001, M. Chatzaki (DBET); 45 paratype workers: the same data as holotype (DBET, SSC).

Other material examined. 1 worker—*Oxyopomyrmex | oculatus* Andre ? | Smyrne || Forel || Smyrne || MUSEUM PARIS | COLLECTION | ERNEST ANDRE | 1914 (MNHN).

Gyne. Unknown.

Male. Unknown.

Worker. Description. Measurements (n=30): HL: 0.705 ± 0.017 (0.681-0.732); HW: 0.66 ± 0.012 (0.648-0.69); SL: 0.467 ± 0.013 (0.447-0.48); EL: 0.221 ± 0.01 (0.201-0.234); EW: 0.12 ± 0.008 (0.106-0.134); ML: 0.818 ± 0.02 (0.785-0.849); PSL: 0.18 ± 0.008 (0.162-0.19); SDL: 0.114 ± 0.009 (0.094-0.128); PL: 0.328 ± 0.013 (0.302-0.341); PPL: 0.224 ± 0.014 (0.201-0.24); PH: 0.216 ± 0.008 (0.201-0.223); PPH: 0.203 ± 0.012 (0.19-0.223); PNW: 0.457 ± 0.007 (0.444-0.475); TL: 0.497 ± 0.011 (0.48-0.52); TW: 0.108 ± 0.005 (0.101-0.117); PW: 0.165 ± 0.01 (0.145-0.179); PPW: 0.244 ± 0.01 (0.229-0.268); HI: 93.6 ± 1.5 (91.4-96.8); SI1: 66.2 ± 1.2 (64.5-68.9); EI: 54.1 ± 5.0 (45.3-63.2); SI2: 70.7 ± 1.4 (68.8-73.4); MI: 179.8 ± 4.3 (171.0-187.8); SPI: 154.6 ± 14.7 (136.6-184.0); PI1: 151.6 ± 5.2 (142.5-158.2); PI2: 36.7 ± 1.9 (34.2-39.8); PPI1: 110.6 ± 9.2 (97.1-126.3); PPI2: 54.0 ± 1.6 (51.3-56.4); HTI1: 75.3 ± 1.6 (72.6-77.6); HTI2: 21.7 ± 1.05 (20.4-23.8).

Head, thorax and abdomen black. Antennal scapes smoked black to brown on the apex, funiculus segments 1-7 brown, 7-10 smoked black. Mandibles black to brown. Femora and tibiae smoked black to brown at the edges, tarsi brown (Figs. 58, 59, 60).

Head rectangular, longer than wide, lateral surfaces below eyes straight, slightly rounded on the posterior edges (Fig. 60). Anterior margin of the clypeus shiny with longitudinal striae, slightly curved downward at the central part. Eyes elongate, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.7 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 2.0 times as long as wide on apex, 2.6 times as long as second segment, length ratio of segments 100:39:28:39:44:44:56:100:111:156, apical segments 1.9 times as wide as basal segments (Figs. 59, 60). Surface of the scape with very fine microsculpture, shiny, covered with long, dense, semierect setae.

Promesonotum as long as wide, convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines short, triangular, the upper edge parallel to the dorsal surface of propodeum (Fig. 59). Petiole rounded with short peduncle, its anterior face straight, node rounded on dorsal surface in profile. Posterior face straight. Ventral margin of petiole smooth (Fig. 59). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Fig. 59).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus on entire surface shiny, micropunctate with longitudinal striae. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and dense rugulose. Area above eyes shiny with thick longitudinal striae and dense rugulose. Ventral surface of the head with distinct striation, gena shiny, rugulose with fine striation (Figs. 59, 60). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with appressed setae directed toward anterior margin, frontal area with dense appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum punctate with longitudinal striae, lateral surfaces strongly punctate with longitudinal striae. Dorsal surface of pronotum punctate with longitudinal striae, the central surface with striation and weak punctation or without punctation, shiny. Mesonotum strongly punctate on the dorsal surface, lateral surfaces punctate with longitudinal striae. Dorsal surface of propodeum strongly punctate to punctate, below spiracles strongly punctate with fine longitudinal striae at the posterior edge (Figs. 58, 59, 83). Dorsal surface of mesosoma with at least five long erect setae in the anterior half, mesonotum and anterior propodeum with a few long setae. Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on the dorsal and lateral surfaces, postpetiole node punctate, smooth with sparse punctation on the top, covered with several setae. Gaster shiny and shagreened, bearing dense, erect to semierect setae (Figs. 58, 59).

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.3 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of long semierect setae (Fig. 59).

Biological data. Nothing is known about the biology of this species. In addition to the types, the following ant species were collected at the type locality: *Aphaenogaster sporadis* Santschi, *Aphaenogaster subterraneoides* Emery, *Cataglyphis nodus* (Brullé), *Camponotus baldaccii* Emery, *Crematogaster ionia* Forel, *Lepisiota frauenfeldi* (Mayr), *Messor wasmanni* Krausse, *Plagiolepis pygmaea* sensu Radchenko, *Tetramorium* cf. *semilaeve*.

Distribution. Greece: Dodecanese; Turkey.

Differential diagnosis. Worker. *Oxyopomyrmex polybotesi* belongs to the species group that has a distinctly punctate propodeum. It is distinguished from *O. emeryi* and *O. oculatus* by the longitudinal striae covering whole frontal surface of the head and the presence of the rugosity and longitudinal striae on dorsal surface of the pronotum; from *O. negevensis* it differs in the lack of transverse striation on dorsal surface of the pronotum, the shiny abdomen and the more dense and thicker hairiness at the scape and legs. At first glance *O. polybotesi* is very similar to *O. pygmalioni* but it differs in following features: the shiny gena without rugosity (while *O. pygmalioni* has the gena dull and distinctly rugose), the occurrence of distinct longitudinal striae on the lateral surfaces of the pronotum (in *O. pygmalioni* the lateral surfaces of the pronotum are rugose with a slight longitudinal striae) and the dorsal surface of pronotum is shinier, weaker rugulose with longitudinal striae at the posterior edge (in *O. pygmalioni* the dorsal surface of pronotum is distinctly rugulose to rugose, and striation, if present, is oblique).

***Oxyopomyrmex pygmalioni* sp. nov.**

(Figs. 61, 62, 63, 84)

Etymology. Named after the Cypriot king Pygmalion. According to Ovid's narrative, Pygmalion was a sculptor who fell in love with an ivory statue which he had carved. Through Aphrodite's blessing the sculpture changed to a woman and the king could fortunately married her. *Oxyopomyrmex pygmalioni* is the most densely and distinctly sculptured species, reminiscent of a raw sculpture.

Type locality: Cape Drepano, Cyprus.

Type material. Holotype worker: CYPRUS, Paphos distr., 21 m | Cape Drepano | 34°54.027 N/32°19.159 E | 2 V 2012, L. Borowiec (DBET); 18 paratype workers: the same data as lectotype (DBET).

Additional material: specimen on photo: Cyprus—17 | Prov. Paphos, Polis | vic. Argaka, 200 mH | Leg. Sanetra, 01.04.94 || *Oxyopomyrmex* | *oculatus* | A. Schulz, det. (available from; <https://www.antweb.org/specimen/CASENT0101775>, Accessed 2 April 2015).

Gyne. Unknown.

Male. Unknown.

Worker. Description. Measurements (n=19): HL: 0.698 ± 0.022 (0.659-0.726); HW: 0.662 ± 0.022 (0.603-0.701); SL: 0.472 ± 0.015 (0.446-0.5); EL: 0.22 ± 0.005 (0.212-0.229); EW: 0.124 ± 0.003 (0.122-0.134); ML: 0.817 ± 0.037 (0.749-0.894); PSL: 0.17 ± 0.012 (0.14-0.19); SDL: 0.121 ± 0.008 (0.109-0.134); PL: 0.311 ± 0.022 (0.268-0.335); PPL: 0.224 ± 0.025 (0.179-0.246); PH: 0.223 ± 0.01 (0.201-0.235); PPH: 0.219 ± 0.006 (0.212-0.229); PNW: 0.438 ± 0.014 (0.402-0.458); TL: 0.478 ± 0.02 (0.458-0.503); TW: 0.092 ± 0.003 (0.089-0.098); PW: 0.163 ± 0.01 (0.145-0.184); PPW: 0.238 ± 0.014 (0.212-0.268); HI: 95.0 ± 1.5 (91.5-96.8); SI1: 71.3 ± 1.8 (68.3-75.2); EI: 56.4 ± 1.75 (55.2-60.9); SI2: 71.3 ± 1.8 (68.3-72.2); MI: 186.7 ± 4.9 (176.2-197.7); SPI: 138.8 ± 10.7 (113.8-164.2); PI1: 138.8 ± 8.3 (125.1-150.2); PI2: 37.3 ± 2.6 (32.9-41.9); PPI1: 107.6 ± 4.3 (100.0-112.8); PPI2: 54.4 ± 3.8 (46.2-62.2); HTI1: 72.9 ± 2.6 (67.3-76.3); HTI2: 19.3 ± 0.8 (17.9-20.1).

Head, thorax and abdomen black. Antennae black, only apex of the scapes and first five segments of funiculus brown. Legs black, only apex of femora, tibiae and tarsi brown (Figs. 61, 62, 63).

Head rectangular, longer than wide, lateral surfaces below eyes straight, slightly rounded on the posterior edges (Fig. 63). Anterior margin of the clypeus shiny with longitudinal striae, straight. Eyes elongate, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.8 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.5 times as long as scape, first segment elongate, triangular, 1.6 times as long as wide on apex, 2.25 times as long as second segment, length ratio of segments 100:44:33:33:39:44:56:89:111:200, apical segments 1.9 times as wide as basal segments (Figs. 62, 63). Surface of the scape with very fine microsculpture, shiny, covered with short, dense, appressed setae.



61



62



63

FIGURES 61–63. *Oxyopomyrmex pygmalioni* sp. nov. [holotype] **61**, Worker dorsal (scale bar = 1 mm). **62**, Worker lateral (scale bar = 1 mm). **63**, Worker head (scale bar = 0.5 mm).

Promesonotum 1.1 times as long as wide, convex in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum gently curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines short, triangular, erect (Fig. 62). Petiole rounded with short peduncle, its anterior

face straight, node rounded on dorsal surface in profile. Posterior face straight. Ventral margin of petiole with small teeth-like projection or smooth (Fig. 62). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 61, 62).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and the longest. Clypeus shiny, micropunctate with longitudinal striae on entire surface. Frontal carinae short, extending to 1/3 length of eye; antennal fossa deeply impressed, microreticulate, frontal lobes rugulose with thick longitudinal striae, shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and dense rugulose. Area above eyes shiny with thick longitudinal striae and densely rugulose. Ventral surface of the head with distinct striation and rugulose, gena shiny, rugulose with thick longitudinal striae (Figs. 62, 63). Entire head bearing setae, posterior margin with dense erect setae directed forward, lateral surfaces of the head with appressed setae directed toward anterior margin, frontal area with dense, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum strongly punctate, rugose, lateral surfaces strongly punctate with fine longitudinal striae. Dorsal surface of pronotum strongly punctate and rugose at the edges to rugose at the central surface. Mesonotum strongly punctate on the top and lateral surfaces, dorsal surface of propodeum strongly punctate to punctate, below spiracles strongly punctate with fine longitudinal striae at the posterior edge (Figs. 61, 62, 84). Dorsal surface of mesosoma with at least 5 long setae on anterior half, mesonotum and anterior propodeum with a few long setae. Base of petiole and postpetiole on the entire surface punctate, nodes of the petiole punctate on the top and lateral surfaces, postpetiole node punctate, smooth with sparse punctuation on the top, covered with several setae. Gaster shiny and smooth, bearing dense, erect to semierect setae (Figs. 61, 62).

Legs short, hind femora 0.7 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.1 times as long as hind femora. Dorsal surface of femora with short, sparse, semierect setae, inner margin with a row of the sparse, long, semierect setae, tibiae bearing long, appressed to semierect setae on the entire surface, inner margins with a row of appressed setae (Fig. 62).

Biology. Borowiec collected specimens on grassy coastal terraces of cliffs. Despite low temperatures (16° C) and windy weather, the workers were active and were hand collected between clumps of grass. The following ant species were collected in the area: *Messor* sp. (*hellenius* complex), *Plagiolepis pallescens* sensu Radchenko, and *Tapinoma simrothi* Krausse.

Distribution. Cyprus.

Differential diagnosis. Worker. *Oxyopomyrmex pygmalioni* belongs to the group of species characterized by a distinctly punctate propodeum. It is distinguished from *O. emeryi* and *O. oculatus* by the longitudinal striae covering whole frontal surface of the head and the presence of rugosity on dorsal surface of the pronotum. From *O. negevensis* it differs by the lack of the transverse striation on dorsal surface of the pronotum, the shiny abdomen and by more dense and thicker hairiness at the scape and legs. See also differential diagnosis under *O. polybotesi*.

***Oxyopomyrmex saulcyi* Emery, 1889**

(Figs. 64, 65, 66, 67, 68, 69, 70, 71, 72, 85)

Oxyopomyrmex saulcyi Emery, 1889: 440 (w.q.m.); Dalla Torre 1893: 108; Menozzi 1922: 327; Santschi 1923: 326; Bernard 1945: 133; Cagniant 1962: 102; Bernard 1967: 155; Collingwood 1978: 68; Tinaut 1989: 22; Tinaut 1991: 59; Espadaler 1997: 18; Boieiro et al. 2003: 256; Tianaut et al. 2007: 63; Casevitz-Weulersse & Galkowski 2009: 492.

Oxiopomyrmex (sic!) *saulcyi* Emery: Ceballos 1956: 302.

Oxyopomyrmex saulcyi var. *cabrerai* Forel, 1897: 133 (q.).

Oxyopomyrmex saulcyi var. *cabrerai* Forel, 1897: 207 (q.); Laguna 1902: 134; Dusmet 1915: 99; Collingwood 1976: 68 (as syn. of *O. saulcyi*).

Oxyopomyrmex saulcyi var. *cabrerai* (sic!) Forel, 1897: Bondroit 1918: 164.

Oxiopomyrmex (sic!) *saulcyi* var. *cabrerai* For.: Ceballos 1956: 302.

Oxyopomyrmex santschii Forel, 1904: 8 (w.q.m.); Emery 1916: 146; Baroni Urbani 1971: 68 Ortiz & Tianaut 1988: 32; Schembri & Collingwood 1995:153; Tianaut et al. 2007: 63 **syn. nov.**

Oxyopomyrmex santschii var. *siciliana* Karavaiev, 1912: 11 (w.); Emery 1916: 146 (as syn. of *O. santschii*), **syn. nov.**

Oxyopomyrmex gaetulus Santschi, 1929: 146 (q.m.); Bernard 1945: 132; Cagniant 1962: 102; Cagniant 1968: 143; Bernard 1976: 103; Cagniant 2006: 197 **syn. nov.**

Oxyopomyrmex saulcyi var. *latinodis* Santschi, 1939: 2 (w.q.) **syn. nov.**

Type locality: Banyuls, France.

Type material. Lectotype worker (left top corner of glue board) (present designation): *Oxyopomyrmex saulcyi* | Em n. st. || SYNTYPUS | *Oxyopomyrmex saulcyi* | Emery, 1883 || typus || Banylus || *Leptothorax angustulus* || ANTWEB | CASENT | 0904146 (MSNG); 1 paralectotype worker: the same data as lectotype (MSNG); 4 gyne paralectotypes: Banylus || TYPUS || SYNTYPUS | *Oxyopomyrmex saulcyi* | Emery, 1883 (MSNG); 1 male paralectotype: Banylus || Museo Civico Genova || SYNTYPUS | *Oxyopomyrmex saulcyi* | Emery, 1883 (MSNG).

Oxyopomyrmex saulcyi var. *cabreræ*: 1 gyne—*O. saulcyi* | Em. | v. *cabreræ* | For. | Cabrera || C. Real | Pozuelo 96 || typus || v. *O. cebræ* | For. || 64 || Coll. | A. Forel || ANTWEB | CASENT | 0907761 (MHNG).

Oxyopomyrmex santschii: 3 workers—*O. Santschii* | type Forel | Kairouan | Santschi (MHNG).

Oxyopomyrmex gaetulus: 1 gyne—*Oxyopomyrmex gaetulus* Sant. | SANTSCHI det. 1928 || type || Maroc | Larache 07 || Maroc | ex Musæ o | H. Vaucher | 1908 || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913242 (NHMB I); 1 male—*Oxyopomyrmex gaetulus* Sant. | SANTSCHI det. 1928 || type || Maroc | Larache 07 || Maroc | ex Musæ o | H. Vaucher | 1908 || Sammlung | Dr. F. Santschi | Kairouan (NHMB).

Oxyopomyrmex saulcyi var. *latinodis*: 1 gyne—*Oxyopomyrmex saulcyi* Em | v. *latinodis* S. | SANTSCHI det. 1920 || Maroc | Rabat, | Thery. || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913251 (NHMB); 1 worker—*Oxyopomyrmex saulcyi* Em | v. *latinodis* S. | SANTSCHI det. 1920 || Maroc | Rabat, | Thery. || type || Sammlung | Dr. F. Santschi | Kairouan || ANTWEB | CASENT | 0913251 (NHMB).

Oxyopomyrmex santschii var. *siciliana*: 2 workers—*Oxyopomyrmex santschii* | For. Emery det. || Palermo, | Karawajew || 4864. | Coll. Karawajewi (UASK); 3 workers—Palermo, | Karawajew || 1944. | Coll. Karawajewi (UASK); 3 workers—1944. | Coll. Karawajewi (UASK).

Other material examined. 1 gyne—*Oxyopomyrmex gaetulus* Sant. | SANTSCHI det. 1928 || 2 Maroc | Larache 07 || Maroc | ex Musæ o | H. Vaucher | 1908 || Sammlung | Dr. F. Santschi | Kairouan (NHMB); 1 male—*Oxyopomyrmex gaetulus* Sant. | SANTSCHI det. 1928 || 2 Maroc | Larache 07 || Maroc | ex Musæ o | H. Vaucher | 1908 || Sammlung | Dr. F. Santschi | Kairouan (NHMB); 30 workers—Mohago pine forest / Omledo 41° 17' N, 4° 41' W, elevation 750-780 m | Crisanto Gomez leg.(CGC); 1 worker—ITALY Sicily, Vittoria | 174 m, 36° 57' N / 14° 32' E | 30.03.2001 leg. A. Alicata || SSC-IT032001 (SSC); 15 workers—ITALY Sicily, Vittoria | 174 m, 36° 57' N / 14° 32' E | 30.03.2001 leg. A. Alicata (AAC); 10 workers—ITALY Sicily, Marsala Isole | dello Stagnone, Isola | Grande, 175 m, 37.88227 N / | 12.441206 E, 6.05.1991 leg. M. Mei (SSC); 3 workers—Mamora | 11 IV 42 | F. Bernard || *Oxyopomyrmex gaetulus* | F. Bernard det. 44 (MNHN); 2 workers—FRANCE, Languedoc- | Roussillon, Hérault, Mèze || 43° 25' N / 3° 36' E || 3 III 2025, D. Sennier (DBET).

Gyne. Redescription. Measurements (n=8): HL: 0.774 ± 0.038 (0.737-0.838); HW: 0.749 ± 0.04 (0.715-0.812); SL: 0.489 ± 0.027 (0.436-0.525); EL: 0.242 ± 0.01 (0.223-0.256); EW: 0.154 ± 0.008 (0.145-0.188); ML: 1.291 ± 0.119 (1.123-1.421); MH: 0.72 ± 0.113 (0.536-0.846); PSL: 0.235; SDL: 0.19; PL: 0.454 ± 0.026 (0.435-0.491); PPL: 0.29 ± 0.03 (0.257-0.335); PH: 0.302 ± 0.022 (0.279-0.332); PPH: 0.311 ± 0.009 (0.302-0.324); PNW: 0.633 ± 0.025 (0.615-0.679); TL: 0.583 ± 0.02 (0.555-0.603); TW: 0.132 ± 0.009 (0.123-0.145); PW: 0.264 ± 0.02 (0.234-0.279); PPW: 0.394 ± 0.026 (0.358-0.413); HI: 96.8 ± 0.4 (95.9-97.0); SI1: 63.2 ± 2.3 (59.2-67.7); EI: 63.7 ± 3.8 (58.9-70.0); SI2: 65.3 ± 2.5 (61.0-70.2); MI: 201.2 ± 13.2 (182.6-211.6); SPI: 123.7; PI1: 150.4 ± 3.9 (147.3-155.9); PI2: 41.9 ± 0.8 (41.1-42.7); PPI1: 93.1 ± 7.6 (85.1-103.4); PPI2: 62.0 ± 1.2 (60.8-63.2); HTI1: 77.9 ± 3.2 (74.3-83.1); HTI2: 23.0 ± 0.8 (22.2-24.0).

Whole body brown, only mandibles partly reddish brown, Antennae reddish brown, antennal scapes reddish brown to yellowish brown on the apex, funiculus yellowish brown. Mandibles brown to reddish brown. Femora pale brown to reddish brown, tibiae and tarsi reddish brown to yellowish brown (Figs. 64, 65, 66).

Head quadrate, longer than wide, lateral surfaces below eyes straight, slightly rounded on the posterior edges (Fig. 66). Anterior margin of the clypeus softly convex. Eyes elongate, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Ocelli large. Scape short, 0.6 times as long as width of the head, at base 0.75 times as wide as in apex then gradually widened without preapical constriction. Funiculus short, 1.6 times as long as scape, first segment elongate, triangular, 1.8 times as long as wide on apex, 2.75 times as long as second segment, length ratio of segments 100:36:36:41:41:45:54:81:90:163, apical segments 1.8 times as wide as basal segments (Figs. 65, 66). Surface of the scape with very fine microsculpture, shiny, covered with long, dense, semierect setae.



FIGURES 64–66. *Oxyopomyrmex saulcyi* Emery [paralectotype]. **64**, Gyne dorsal (scale bar = 1 mm). **65**, Gyne lateral (scale bar = 1 mm). **66**, Gyne head (scale bar = 0.5 mm).

Mesosoma 1.6 times as long as head, relatively high and robust, flat with rounded pronotal corners in profile. Scutum 0.9 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines short, triangular, rising obliquely upwards, top of spine sharp or blunt, directed downward (Fig. 65). Petiole sharply rounded with short peduncle, its anterior face concave, node sharply rounded on dorsal surface, posterior face slightly concave or straight. Ventral margin of petiole with tooth-like lobe. Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 64, 65).

Mandibles rounded with distinct longitudinally striation, shiny, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus with longitudinal and transverse striation, shiny. Frontal carinae short, extending to 1/3 length of eye, antennal fossa deeply impressed, microreticulate with striation, frontal lobes rugulose with thick longitudinal striae, but shiny between rugosities. Frons shiny, all surface with thick longitudinal striae and rugulose. Area above eyes rugulose, shiny with or without longitudinal striae. Ventral surface of the head rugulose to rugulose with striation, gena shiny, with fine striation and microreticulation (Figs. 65, 66). Entire head bearing

setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with sparse semierect to erect setae directed toward anterior margin, frontal area with dense, appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum, anepisternum, katepisternum, metanepisternum and metakatepisternum finely rugulose with weak to strong longitudinal, dashed striation, shiny between striation. Scutum with dense longitudinal striae and smooth and shiny top. Scutellum with longitudinal striae, smooth to rugulose at the anterior and central part, shiny. Metanotum punctate and dull (Figs. 64, 65). Propodeum smooth with fine transverse and longitudinal striae in anterior half of lateral surfaces, with longitudinal striae and microreticulation. in posterior half of lateral surfaces, area between propodeal spines shiny and micropunctate. Dorsal surface of propodeum transversely and diffusely carinate, transversely reticulo-striate between and below the spines (Figs. 64, 65). Dorsal surface of mesosoma with dense, semierect to erect, long setae on anterior half, anterior propodeum with a few long setae. Base of petiole and postpetiole rugulose to punctate on the entire surface, nodes of the petiole punctate on the top and lateral surfaces, postpetiole node punctate, sparse punctation and fine striation on the top, shiny. Gaster shiny with sparse micropunctation, bearing dense, long, semierect to erect setae.



FIGURES 67–69. *Oxyopomyrmex saulcyi* Emery [paralectotype]. **67**, Male dorsal (scale bar = 1 mm). **68**, Male lateral (scale bar = 1 mm). **69**, Male head (scale bar = 0.5 mm).

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.2 times as long as hind femora. Dorsal surface of femora with long, dense, semierect setae, inner margin with a row of dense, long, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 65).

Male. Redescription. Measurements (n=3): HL: 0.594 ± 0.009 (0.581-0.603); HW: 0.548 ± 0.029 (0.52-0.589); SL: 0.406 ± 0.019 (0.38-0.425); EL: 0.234-0.235; EW: 0.162-0.168; ML: 1.496-1.57; MH: 0.911-1.009; PSL: 0.218-0.251; SDL: 0.19-0.201; PL: 0.38; PPL: 0.268; PH: 0.24; PPH: 0.24; PNW: 0.787 ± 0.016 (0.765-0.804); TL: 0.771-0.821; TW: 0.098-0.101; PW: 0.229 ± 0.02 (0.201-0.251); PPW: 0.335 ± 0.016 (0.318-0.357); HI: 92.4 ± 6.4 (87.0-101.4); S11: 68.4 ± 3.9 (63.5-73.1); EI: 68.9-71.8; SI2: 75.1 ± 2.1 (72.1-77.1); MI: 195.3-195.6; SPI: 108.5-132.1; PI1: 158.3; PI2: 29.1 ± 2.9 (25.0-31.7); PPI1: 111.7; PPI2: 42.6 ± 2.3 (39.6-45.0); HTI1: 139.4-148.3; HTI2: 12.3-12.7.

Whole body uniformly brown. Antennal scapes brown to reddish brown at the apex, funiculus pale brown to reddish brown. Mandibles brown to reddish brown. Femora and tibiae pale brown, tarsi pale brown to yellowish brown (Figs. 67, 68, 69).

Head oval, longer than wide, lateral surfaces below eyes straight, rounded on the posterior edges (Fig. 69). Anterior margin of the clypeus straight with longitudinal striae. Eyes oval, 0.4 times as long as length of the head. Ocelli large. Scape short, 0.7 times as long as width of the head, at base 0.7 times as wide as in apex, straight. Funiculus short, 2.6 times as long as scape, first segment elongate, triangular, 2.0 times as long as wide on apex, 1.6 times as long as second segment, length ratio of segments 100:64:45:54:54:63:81:91:91:100:172, apical segments 1.2 times as wide as basal segments (Figs. 68, 69). Surface of the scape with very fine microsculpture, shiny, covered with long, dense, semierect to erect setae.

Mesosoma 2.5 times as long as head, relatively high and robust, very feeble convex with rounded pronotal corners in profile. Scutum 0.7 times as wide as long, posterior margin regularly semicircular. Propodeum located considerably lower than mesosomal plate, propodeal spines triangular, short with blunt top (Fig. 68). Petiole rounded with long peduncle, its anterior face slightly concave, node sharply rounded with shallow cavity by having the central part and two small nodules at the outer edges, posterior face straight. Ventral margin of petiole straight without lobe. Postpetiole regularly rounded in profile. In dorsal view postpetiole regularly widened from base to top, apical half with gently rounded sides (Figs. 67, 68).

Mandibles elongate with longitudinal striae, shiny, inner margin with 4-5 teeth, the apical tooth massive and the longest. Clypeus rugulose but shiny. Frontal carinae curve outward to merge with the rugae surrounding antennal sockets; antennal fossa impressed, shiny with striation, frontal lobes rugulose with longitudinal striae, shiny between rugosities. Frons rugulose with longitudinal striae in central part to rugulose towards eyes, area above eyes and ventral surface of the head rugulose with transverse striation, gena rugulose with sparse longitudinal striae (Figs. 68, 69). Entire head bearing setae, posterior margin with dense, very long semierect to erect setae directed forward, lateral surfaces of the head with dense, long, semierect setae directed toward anterior margin, frontal area with dense, semierect to erect, long setae placed transversely, directed toward center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Sides of the pronotum rugulose with thin longitudinal striae, anepisternum shiny with distinct longitudinal striae, katepisternum smooth to rugulose with distinct longitudinal striae, metanepisternum and metakatepisternum rugulose with distinct longitudinal striae. Scutum rugulose with distinct longitudinal striae except three longitudinal stripes located at the centre and outer edges of the scutum which are smooth with distinct to weak longitudinal striae. Central stripe wide, narrowing toward centre, reach only half of the length of the scutum. Scutellum slightly rugulose with longitudinal striae (Figs. 67, 68). Propodeum on lateral surfaces rugulose with striation, area between propodeal spines shiny and smooth. Dorsal surface of propodeum rugulose with transverse striation, punctate to smooth and shiny between and below the spines. Dorsal surface of mesosoma on anterior half with sparse, long, erect setae, anterior propodeum without setae (Figs. 67, 68). Base of petiole and postpetiole punctate on the entire surface, nodes of the petiole punctate on the top and lateral surfaces, postpetiole node punctate, punctate with slight longitudinal striae on the top, shiny. Gaster shiny with sparse micropunctuation, bearing sparse, long, semierect to erect setae.

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.8 times as long as hind femora, hind tarsi 1.4 times as long as hind femora. Dorsal surface of femora with sparse, long, appressed to semierect setae, inner margin with a row of the sparse, semierect setae, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 68).



FIGURES 70–72. *Oxyopomyrmex saulcyi* Emery [SSC-IT032001]. **70**, Worker dorsal (scale bar = 1 mm). **71**, Worker lateral (scale bar = 1 mm). **72**, Worker head (scale bar = 0.5 mm).

Worker. Redescription. Measurements (n=65): HL: 0.637 ± 0.026 (0.598-0.715); HW: 0.592 ± 0.03 (0.547-0.681); SL: 0.432 ± 0.017 (0.402-0.48); EL: 0.205 ± 0.012 (0.19-0.234); EW: 0.114 ± 0.007 (0.101-0.128); ML: 0.727 ± 0.043 (0.659-0.865); PSL: 0.147 ± 0.016 (0.123-0.201); SDL: 0.103 ± 0.01 (0.089-0.134); PL: 0.282 ± 0.02 (0.245-0.324); PPL: 0.203 ± 0.019 (0.179-0.246); PH: 0.207 ± 0.017 (0.179-0.246); PPH: 0.198 ± 0.013

(0.179-0.229); PNW: 0.387 ± 0.019 (0.358-0.441); TL: 0.432 ± 0.024 (0.391-0.491); TW: 0.089 ± 0.008 (0.078-0.101); PW: 0.159 ± 0.01 (0.145-0.179); PPW: 0.233 ± 0.013 (0.212-0.268); HI: 92.8 ± 2.1 (87.5-96.5); SI1: 67.9 ± 1.4 (64.8-70.9); EI: 55.7 ± 4.5 (48.9-67.4); SI2: 73.2 ± 1.7 (70.1-77.4); MI: 187.1 ± 5.3 (177.9-200.0); SPI: 142.6 ± 12.8 (114.3-175.3); PI1: 137.6 ± 14.3 (115.2-164.2); PI2: 41.6 ± 3.1 (36.1-46.6); PPI1: 103.6 ± 9.4 (91.7-129.5); PPI2: 60.5 ± 3.2 (54.7-66.7); HTI1: 72.9 ± 3.1 (67.9-82.9); HTI2: 20.6 ± 1.4 (17.4-23.3).

Head, thorax and abdomen from dark brown to brown. Antennal scapes pale brown, apex of the scapes and funiculus yellowish-brown. Femora pale brown, tibiae and tarsi yellowish brown (Figs. 70, 71, 72).

Head rectangular, longer than wide, lateral surfaces below eyes straight, gently rounded on the posterior edges (Fig. 72). Anterior margin of the clypeus straight or shallowly emarginated. Eyes elongate, strongly narrowing downward, reaching anteroventral margin of head, 0.3 times as long as length of the head. Scape short, 0.7 times as long as width of the head, at base 0.7 times as wide as in apex, gradually widened, slightly bent downward. Funiculus short, 1.5 times as long as scape, first segment elongate, triangular, 2.2 times as long as wide on apex, 5.5 times as long as second segment, length ratio of segments 100:18:27:27:27:32:36:63:72:172, apical segments 1.8 times as wide as basal segments (Figs. 71, 72). Surface of the scape with very fine microsculpture, shiny, covered with short and semierect to appressed pubescence.

Promesonotum 1.2 times as long as wide, flat in profile. Promesonotal suture distinct, the border between dorsal and posterior surfaces of the promesonotum smoothly curved in profile view. Propodeum quadrate, 0.9 times as long as wide, propodeal spines very short, triangular, the upper edge parallel to the dorsal surface of propodeum or rising obliquely upwards (Fig. 71). Petiole rounded with short peduncle, its anterior face straight, node sharply rounded on dorsal surface in profile. Posterior face slightly convex. Ventral margin of petiole with lobe projection (Fig. 71). Postpetiole regularly rounded in profile. Postpetiole 0.9 times as long as wide in dorsal view, regularly widened from base to top, apical half with gently rounded sides (Figs. 70, 71).

Mandibles rounded, with outer and dorsal edges straight and smooth, inner margin with 7-8 teeth, the apical tooth massive and long. Clypeus shiny, smooth to rugulose on entire surface. Frontal carinae short, extending to upper edge of antennal fossa; antennal fossa deeply impressed, microreticulate with striation, frontal lobes rugulose with thick longitudinal striae, shiny. Frons shiny, all surface with thick longitudinal striae and rugulose in central part to rugulose and finely striation near eyes. Area above eyes shiny with thick longitudinal striae and rugulose. Ventral surface of the head with distinct striation and fine rugulose to smooth, gena shiny with fine striation and microreticulation (Figs. 71, 72). Entire head bearing setae, posterior margin with sparse erect setae directed forward, lateral surfaces of the head with appressed to semierect setae directed toward anterior margin, frontal area with appressed to semierect setae placed transversely, directed to the center of the head, ventral surface of the head with a prominent psammophore and appressed to erect long setae. Pronotum shiny, rugose with longitudinal striae, lateral surfaces punctate with distinct longitudinal striae. Dorsal surface of pronotum rugose with sparse longitudinal or transverse striation, lateral surfaces punctate or rugose with longitudinal striae. Mesonotum rugose on the top with longitudinal or transverse striation, lateral surfaces punctate or rugose with longitudinal, thin striation, dorsal surface of propodeum punctate to rugose with longitudinal, thin striation, below spiracles punctate or rugose with longitudinal striae (Figs. 70, 71, 85). Dorsal surface of mesosoma with at least five erect, long setae on anterior half, mesonotum and anterior propodeum with a few long, erect setae. Base of petiole and postpetiole punctate to rugulose on the entire surface, nodes punctate, shiny with sparse punctation or smooth on the top, covered with several setae. Gaster shiny with fine, sparse micropunctation, bearing dense, erect setae (Figs. 70, 71, 85).

Legs short, hind femora 0.6 times as long as mesosoma length, hind tibia 0.9 times as long as hind femora, hind tarsi 1.6 times as long as hind femora. Dorsal surface of femora with long, sparse, semierect to appressed pubescence, inner margin with a row of the sparse, long, appressed pubescence, tibiae bearing long, semierect setae on the entire surface, inner margins with a row of semierect setae (Fig. 71).

Biological data. *Oxyopomyrmex saulcyi* inhabits dry, arid habitats. Nests are usually located in sandy soil (Forel 1904, Santschi 1923, A. Alicata pers. comm.). Forel (1904) published a very detailed description of *O. saulcyi* nests found in Tunisia. Nest entrances were single, narrow and surrounded by a crater (2-3 cm diameter, 2-3 cm height). From the entrance hole a long, vertical corridor leads to the first chamber (occupied by gyne and larvae). From the first chamber, a second vertical corridor (15-20 cm length) leads to 2-3 chambers filled by seeds and workers.

Distribution. Algeria; France: mainland; Italy: Sicily; Malta; Morocco; Portugal; Spain: mainland; Tunisia.



FIGURES 73–87. Thorax, workers. **73**, *Oxyopomyrmex emeryi* Santschi [lectotype]. **74**, *Oxyopomyrmex insularis* Santschi [specimen code: LBC-ES0043]. **75**, *Oxyopomyrmex krueperi* Forel [specimen code: LBC-GR01016]. **76**, *Oxyopomyrmex laevibus* **sp. nov.** [holotype] **77**, *Oxyopomyrmex magnus* **sp. nov.** [holotype] **78**, *Oxyopomyrmex negevensis* **sp. nov.** [holotype] **79**, *Oxyopomyrmex nigripes* Santschi [lectotype]. **80**, *Oxyopomyrmex nitidior* Santschi [lectotype]. **81**, *Oxyopomyrmex nitidior* Santschi [specimen code: NHB-ONS]. **82**, *Oxyopomyrmex oculatus* André [specimen code: TAUI-OOW]. **83**, *Oxyopomyrmex polybotesi* **sp. nov.** [holotype] **84**, *Oxyopomyrmex pygmalioni* **sp. nov.** [holotype] **85**, *Oxyopomyrmex saulcyi* [SSC-IT032001].; **86–87**, *Oxyopomyrmex nitidior* Santschi, frons. **86**, Worker with distinct striation [specimen code: CASENT0913245] (Will Ericson, from www.AntWeb.org). **87**, Worker with limited striation [specimen code: CASENT0913250] (Zach Lieberman, from www.AntWeb.org).

Differential diagnosis. Gyne. *Oxyopomyrmex saulcyi* is distinguished from *O. magnus* by the $HI < 100$ and the paler colouration; from *O. oculatus* and *O. nigripes* it differs in the lack of the rugosity between striation at the gena. See also Differential diagnosis under *O. krueperi*.

Male. *Oxyopomyrmex saulcyi* is distinguished from *O. oculatus* by the occurrence of longitudinal striae on dorsal surface of the scutum and lacking punctation on it; from *O. insularis* it differs in the occurrence of longitudinal striae at the frons and the vertical striation on dorsal surface the head; from *O. nigripes* and *O. emeryi* it differs in the occurrence of rugosity between longitudinal striae at the scutellum; from *O. magnus* and *O. emeryi* it can be distinguished by the presence of the lobe-like propodeal spines; from *O. krueperi* it differs in the occurrence of the longitudinal striae on dorsal surface of postpetiole and the brown colouration of the body.

Worker. *Oxyopomyrmex saulcyi* belongs to the group of species characterized by a longitudinal striae covering the entire face. It is easy to distinguish it from *O. polybotesi*, *O. pygmalioni* and *O. negevensis* by lacking punctation on dorsal surface of the pronotum, the paler colouration and the flat promesonotum (in dorsal profile); from *O. krueperi* is distinguished by the lack of sharply curved border between mesonotum and propodeum, the flat promesonotum (in profile view), the distinct rugosity on dorsal surface and lateral surfaces of the pronotum and the paler colouration; from *O. laevibus* is distinguished by the longitudinal striae on dorsal surface the head, the flat promesonotum in profile view, the paler colouration and the distinct rugosity and striation at the thorax. See also differential diagnosis under *O. nigripes*.

Comments. Santschi (1939) distinguished *O. latinodis* from *O. saulcyi* by the wider and more massive postpetiole. Having examined the type specimens, differences in PPI1, PPI2, PPL, PPW were not found. Additionally, the shape and size of the *O. latinodis* postpetiole does not differ from that in *O. saulcyi* populations.

Of the features distinguishing *O. saulcyi* from *O. santschii* the shape and length of the head and scape are listed (Emery 1916). Additionally, Forel (1904), in his description of *O. santschii*, noted differences in the type of sculpture occurring between these two species. After examination of both the type series and the fresh material from Spain, Sicily and Morocco any significant differences between these two species were not found. The HI, SI and other indices are almost the same for every type specimen of both taxa. Moreover, the examination of the samples from Spain, Italy and North Africa show a huge intraspecific variation in the type of rugosity on the thorax and the striation of the head.

Examination of the type specimens of *O. gaetulus*, *O. cabreriae* and sexual forms of *O. saulcyi* (paratypes and material collected from Spain) did not show any significant differences between these specimens. The shape and length of pilosity, the shape of the propodeum and petiole and the intensity of the sculpture are very variable in the *O. saulcyi* gynes and males and cannot be used in this group as a feature distinguishing the species.

The features mentioned above enabled us to synonymize all these taxa with *O. saulcyi*.

Discussion

Up to our revision, the literature suggested that most *Oxyopomyrmex* species occur in the western part of the Mediterranean area *sensu lato* (including the Canary Islands and the adjacent areas of the Middle East). This revision has shown that they are evenly spread in the whole Mediterranean basin with six species in both the western and eastern parts of the region. Three species have a wide range: *O. nitidior* (North Africa), *O. krueperi* (north-eastern part of the Mediterranean Basin and the Near East) and *O. saulcyi* (north-western part of the North Africa, Iberian Peninsula, France and Sicily). Other species of this genus have either very limited ranges or they are island endemics. We identify two centers of diversity for the genus: one in the northwestern part of North Africa and the other one in the eastern part of the Mediterranean Basin. Fauna of Tunisia (4), Algeria (3), Spain (3), Greece (3), Turkey (2) and Israel (2) are the most species-rich. One species has been recorded in each of the following countries: Bulgaria, Cyprus, Egypt, France, Italy, Iran, Lebanon, Malta, Morocco, Saudi Arabia and Syria (Barquín 1981; Boieiro et al. 2002; Borowiec & Salata 2012, 2013; Bračko et al. 2014; Cagniant 1968, 2006; Collingwood 1976, 1985; Ghahari et al. 2011; Kiran & Karaman 2012; Lapeva-Gjonova & Kiran 2012; Menozzi 1933; Santschi 1907, 1908; Schembri & Collingwood 1995; Tohmé & Tohmé 2014; Vonshal & Ionescu-Hirsch 2009).

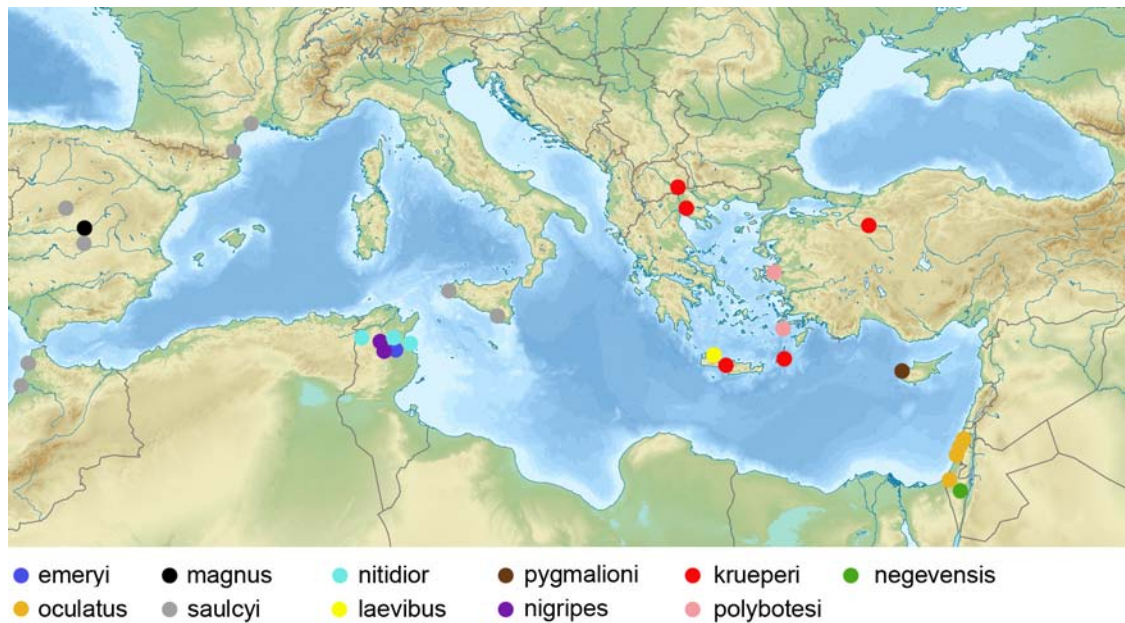


FIGURE 88. Distribution of *Oxyopomyrmex* species in Mediterranean Basin: *Oxyopomyrmex emeryi* (dark blue circle), *O. krueperi* (red circle), *O. laevibus* (yellow circle), *O. magnus* (black circle), *O. negevensis* (green circle), *O. nigripes* (violet circle), *O. nitidior* (pale blue circle), *O. oculatus* (orange circle), *O. polybotesi* (pink circle), *O. pygmalioni* (brown circle), *O. saulcyi* (grey circle).

Acknowledgments

We wish to thank the curators of the above-mentioned collections and the private persons who enabled loans, provided information abouts of types, or donated material: Antonio Alicata (Italy), Bernard Landry (MHNG, Switzerland), Crisanto Gómez (Spain), Giovanni Bazzocchi (DSAB, Italy), Suzanne Ryder (BMNH, United Kingdom), Stefano Maini (DSAB, Italy), Maria Tavano (MCSNG, Italy), Roberto Poggi (MCSNG, Italy), Agnièle Touret-Alby (MNHN, France), Claire Villemant (MNHN, France), Daniel Burckhardt (NHMB, Switzerland), Gregor Bračko (OBBFL, Slovenia), Armin Ionescu (TAUI, Israel), Netta Dorchin (TAUI, Israel), Alexander Radchenko (UASK, Ukraine), Tony Hunter (WML, United Kingdom), Xavier Espadaler (Spain), Maurizio Mei (Italy), Kadri Kiran (Turkey). We thank also an anonymous reviewer and Barry Bolton for constructive suggestions which greatly improved the article. The senior author would like to thank the University of Wrocław for supporting grant no. 2127/M/KBTE/14.

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