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An annotated list of *Camponotus* of Israel (Hymenoptera: Formicidae), with a key and descriptions of new species

A. Ionescu-Hirsch
Department of Zoology, the George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel. E-mail: armini@post.tau.ac.il

ABSTRACT

Twenty-four species of *Camponotus* are recorded from Israel, including three new species (*C. kefir* n. sp., *C. kugleri* n. sp., and *C. sinaiticus* n. sp.), and an additional five species new to the country. In addition, eight introduced, but presumably not established, species are listed. A key to the worker caste is provided.

KEYWORDS: *Camponotus*, list, Israel, new species, key

INTRODUCTION

Investigations of the ant fauna of Israel began in the second half of the 19th century, when ants were collected by foreign expeditions or residents of the region and subsequently sent for identification to the leading myrmecologists of the time (Smith, 1861; André, 1881; Forel, 1904, 1910, 1913; Wheeler and Mann, 1916; Menozzi, 1933).

Camponotus Mayr (1861) is a species-rich genus of conspicuous, generally large, ants. The first checklist of Israeli ants published by Schmitz (1911) contained six *Camponotus* species, subspecies, and varieties (currently four species), while more recent lists have presented 10–12 taxa (Menozzi, 1933; Bodenheimer, 1937; Kugler, 1988; Alpert and Martinez, 2007). In 1975, Bytinski-Salz listed 20 species and one subspecies of *Camponotus* in an unpublished "List of Formicidae of Eretz Israel from Mount Hermon to Sinai" based on his personal collection. However, nine of these species were collected in Lebanon and Sinai. More recently however, four out of nine of these species have also been collected in Israel, although these latter records have not been published so far.

The species are listed in alphabetical order and grouped in two sections: (A) species considered to be part of the fauna of Israel, and (B) imported species, presumably not established in Israel. For each of the group "A" species, the list contains the following sections: recognition, distribution, material examined, and notes; new species are also described. "Notes" include previous records of each species and miscellaneous comments. Group "B" species list contains the following sections: material examined, distribution, and notes, if appropriate. A key to the workers of both groups is provided.

I dedicate this article to the memory of the late Prof. J. Kugler, whose contribution to and impact on the study of the myrmecofauna of Israel are unmatched. He introduced me to the taxonomy of ants and initiated the project leading to this article, contributing his personal notes on the studied taxa and participating in many discussions on the subject.

MATERIALS AND METHODS

For the present study, I examined all specimens in the National Collection of Insects at Tel Aviv University (TAUI), the collection of the Plant Protection and Inspection Services of the government of Israel (PPIS), and the associated collection records. Of highest value were notes comparing Israeli ants with type material recorded by the late Prof. J. Kugler during his 1980–1986 visits to the "Forel" and "Santschi" collections. These notes are cited here as "Kugler, personal communication". The literature concerning the myrmecofauna of Israel was also checked. Three species reported in previously published checklists for which voucher specimens were not available for examination, are included in the list because the taxa were recorded from neighboring countries, and thus their presence in Israel is likely. The nomenclature follows Bolton et al. (2006) and Bolton (2009).

Measurements (in millimeters) were taken with a stereomicroscope LEICA MZ 8, fitted with an ocular micrometer. Standard measurements are:

TL (Total Length)—total outstretched length of a specimen, from mandibular apex to gastral apex.

HL (Head Length)—length of head, excluding mandibles, measured in a straight line from anteriormost point of median clypeal margin to midpoint of occipital margin in full-face view.

HW (Head Width)—maximum width of head, excluding eyes, measured in full-face view.

EL (Eye Length)—maximum diameter of eye.

SL (Scape Length)—straight-line length of antennal scape excluding condylar bulb.

ML (Mesosoma Length)—diagonal length of mesosoma in lateral view from the point at which pronotum meets cervical shield to posteroventral corner of mesosoma.

PW (Pronotum Width)—maximum width of pronotum in dorsal view.

mTbL (midtibia Length)—maximum length of midtibia in lateral view, with tibia at right angle to femur.

hTbL (hindtibia Length)—maximum length of hindtibia in lateral view, with tibia at right angle to femur.

Because the petiolar scale is higher and wider than longer, I refer to its length as thick or thin.

Because a revision of the West Palaearctic species of *Camponotus* is in progress (F. Rigato, personal communication), I have mostly refrained from making nomenclatural changes.

The drawings were made from photos taken with a digital camera through a LEICA MZ 8 microscope by using Adobe Illustrator 9.0 (Adobe Systems Incorporated).

The examined material is kept in the depositories listed below:

MHNG—Muséum d'Histoire Naturelle, Geneva, Switzerland
MIZW—Museum and Institute of Zoology, Polish Academy of Science, Warsaw, Poland
NHMB—Naturhistorisches Museum, Basel, Switzerland
MNHN—Muséum National d'Histoire Naturelle, Paris, France
PPIS—Plant Protection and Inspection Services of the government of Israel collection
TAUI—National Collections of Insects, Tel Aviv University
All specimens mentioned in the section "Material examined" are deposited in TAUI unless otherwise indicated.

Symbols used in this publication:

☿—worker
♀—gyne
♂—male

KEY TO MAJOR WORKERS OF *CAMPONOTUS* SPECIES FROM ISRAEL

1. Clypeus in full-face view with anterior margin projected beyond anterior margin of gena; anterolateral corner right angle (Figs. 15, 17, and 22) **2**
–. Clypeus with anterior margin not extending beyond anterior margin of gena, broadly rounded (Fig. 18), or with anterolateral corner truncated (Fig. 21); if extending beyond anterior margin of gena, then free margin broadly emarginated medially (Fig. 16)..... **17**
2. Scape and hindtibia covered with abundant suberect and erect setae; setae longer than scape and hindtibia diameter, longest setae more than twice as long as hindtibia diameter (Fig. 53) ..... ***C. (Myrmothrix) floridanus*** **(Buckley)**
–. Erect setae on scape and hindtibia shorter and distinctly less abundant (Fig. 50), or lacking ... . ***C. (Tanaemyrmex)***..... **3**
3. Body mainly yellow with at most, the last two gastral segments brownish; hindtibia tubular, without longitudinal ridge, oval in cross section ..... ***C. (Tanaemyrmex) turkestanus*** **André**
–. At least dorsum of last three gastral segments brown or black; if (rarely) body paler, hindtibia with distinct longitudinal ridge, prismatic (Fig. 54)..... **4**
4. Gena with erect setae (Fig. 17)..... **5**
–. Gena without erect setae (Fig. 15)..... **9**
5. Hindtibia with short apressed pubescence, without row of spiny bristles on ventral margin in addition to 3–4 suberect setae at distal end near spurs (Fig. 51); head and mesosoma usually light ferruginous-brown, sometimes head slightly darker..... ..... ***C. (Tanaemyrmex) jaliensis*** **Dalla Torre**
-. Hindtibia with at least one row of spiny bristles on ventral margin (Fig. 52); head dark brown to black **6**
6. Hindtibia with erect setae on dorsal surface (Fig. 50); body matte..... ..... ***C. (Tanaemyrmex) festai*** **Emery**
–. Hindtibia without erect setae on dorsal surface; at least gaster shiny **7**

7. Hind tibia flattened and with a distinct longitudinal ridge (Fig. 52); mesosoma black dorsally, yellow to brown ventrolaterally..... ***C. (Tanaemyrmex) kefir*** **Ionescu n. sp.**
–. Hind tibia without distinct longitudinal ridge; mesosoma monochromatic **8**
8. Mesosoma with superficial sculpture laterally, entire ant shiny..... ..... ***C. (Tanaemyrmex) sannini*** **Tohmé and Tohmé**
–. Mesosoma with accentuated sculpture laterally, head and mesosoma dorsum matte in major workers .... ***C. (Tanaemyrmex) aethiops*** **(Latreille)**
9. Ventral head surface without erect setae..... ..... **10**
–. Ventral head surface with 1–10 erect setae (Fig. 12)..... ..... **12**
10. At least first gaster tergite yellow anteriorly and laterally..... ..... ***C. (Tanaemyrmex) sanctus*** **Forel** (part)
–. Gaster uniformly dark brown or black **11**
11. Petiole paler than first gaster segment; eye large, EL/HL = 0.23–0.26 (Fig. 11) .... ***C. (Tanaemyrmex) xerxes*** **Forel**
–. Petiole concolorous with first gaster segment; eye small, EL/HL = 0.20–0.23 (Fig. 9)..... ..... ***C. (Tanaemyrmex) sinaiticus*** **Ionescu n. sp.**
12. Hindtibia without row of bristles ventrally; clypeus slightly carinate, short (Fig. 22)..... ..... ***C. (Tanaemyrmex) irritans carinifer*** **(Viehmeyer)**
–. Hindtibia with a row of bristles ventrally (Figs. 49 and 54); clypeus distinctly carinate, elongated (Fig. 15)..... ..... **13**
13. Mesosoma uniformly blackish-brown; leg uniformly yellow to ferruginous-yellow; head and mesosoma matte ..... ***C. (Tanaemyrmex) kugleri*** **Ionescu n. sp.**
–. If mesosoma uniformly blackish-brown, than leg not uniformly colored, with femur partly infuscate or black; if leg uniformly pale, than mesosoma dorsum infuscate, and head and mesosoma sub-opaque or shiny..... ..... **14**
14. Hindtibia slightly compressed laterally, without distinct dorsomedial ridge (Fig. 49) .... ***C. (Tanaemyrmex) baldaccii*** **Emery** and ***C. (T.)*** **sp. near** ***baldaccii***
–. Hindtibia prismatic, with distinct dorsomedial ridge (Fig. 54) **15**
15. First gaster segment anteriorly and laterally, and second segment laterally, with distinctly paler areas, contrasting with dark color of rest of gaster; first and second tergites of gaster with anterolateral margins paler than middle in dorsal view..... ..... …..… ***C. (Tanaemyrmex) sanctus*** **Forel** (part)
–. Gaster uniformly dark, or with paler area(s) restricted to first segment; gaster entirely dark in dorsal view..... ..... **16**
16. Head and gaster of major worker entirely shiny to subopaque; minor worker shiny; bicoloured, bright black with mesosoma ventrally, petiole and macula on first gaster tergite brownish-red to yellow .... ***C. (Tanaemyrmex) sanctus*** **Forel** (part)
–. Major worker matte, sometimes with sub-opaque gaster; minor worker matte with gaster subopaque to shiny; mesosoma varies from black to faded reddish-brown..... ..... ***C. (Tanaemyrmex) fellah*** **Dalla Torre**
17. Propodeal dorsum broad and somewhat flat, margined laterally, in profile forming a distinct angle with the declivity (Figs. 24 and 30) **18**
–. Propodeal dorsum narrow, transversally arched and not margined laterally, in profile forming an obtuse angle with the declivity (Fig. 48) **27**
18. Propodeum posteriorly with obtuse teeth (Fig. 26); gaster covered with thick, apressed, golden-mossy pubescence..... ..... ***C. (Orthonotomyrmex) sericeus*** **(Fabricius)**
–. Propodeum unarmed (Fig. 25); if gaster with abundant, apressed pubescence, then pubescence

white ..... ***C. (Myrmentoma)*** (part)..... **19**
19. Propodeum dorsum with erect setae over its surface (Figs. 31 and 36) **20**
–. Propodeum dorsum only with a transverse row of erect setae along edge with declivity (Figs. 28 and 35) ..... …. **23**
20. Head and gaster black, mesosoma red..... ***C. (Myrmentoma) interjectus*** **Mayr**
–. Body uniformly dark brown to black **21**
21. At least gaster shiny; head and mesosoma finely sculptured; gaster with sparse suberect setae and apressed pubescence ..... ***C. (Myrmentoma) gestroi*** **Emery**
–. Entire body matte; head and mesosoma coarsely sculptured; gaster minutely reticulate punctulate, covered with abundant suberect setae and apressed pubescence..... ..... **22**
22. Clypeus with anterior margin emarginated medially (Fig. 19); petiolar scale thin in lateral view (Fig. 57) ..... ***C. (Myrmentoma) nadimi*** **Tohmé**
–. Clypeus with anterior margin entire, slightly convex (Fig. 18); petiolar scale thickness variable, scale usually thick (Figs. 36 and 55–56)..... ***C. (Myrmentoma) libanicus*** **André**
23. Clypeus smooth, with two lateral projections, anterior margin entire, not incised medially (Fig. 21); mesopropodeal suture not impressed (Fig. 46)..... ..... **24**
–. Clypeus subcarinate, with anterior margin incised medially (Fig. 20); mesosoma with impressed mesopropodeal suture (Figs. 28 and 38), rarely obsolete (Fig. 37)..... ..... **25**
24. Head and gaster blackish-brown or black; mesosoma and leg ferruginous-red to reddish-brown..... ***C. (Myrmentoma) kurdistanicus*** **Emery**
–. Head, mesosoma and leg ferruginous-red to reddish-brown, gaster black; sometimes head brown dorsally ..... ***C. (Myrmentoma) vogti*** **Forel**
25. Propodeum dorsum convex longitudinally and transversally; mesopropodeal suture slightly impressed (Fig. 38)..... ..... ***C. (Myrmentoma) rebeccae*** **Forel**
–. Propodeum dorsum with posterior half concave longitudinally, rarely flat (Figs. 24 and 25); mesopropodeal suture strongly impressed (Fig. 28)..... ..... **26**
26. Head and gaster concolorous black; mesosoma (at least pronotum) red.....
.... ***C. (Myrmentoma) dalmaticus*** **(Nylander)**
–. Head paler than gaster; mesosoma ochraceous ..... ***C. (Myrmentoma) lateralis*** **(Olivier)**
27. Head circular in cross section, abruptly truncate in "soldier" (Fig. 13); worker: propodeum dorsum distinctly concave in lateral view (Fig. 45); petiole scale with acute summit in lateral view; dorsum indented in front view (Figs. 45 and 58).....
..... ***C. (Colobopsis) truncatus*** **(Spinola)**
–. Head not circular in cross section and not abruptly truncated in any sub-caste (Fig. 14); other combination of characters..... ..... **28**
28. Propodeum dorsum concave in lateral view (Fig. 47); petiole scale thick with flat anterior and posterior surface, its contour in lateral view parallel lines converging at rounded summit (Fig. 47) ..... …..... ***C. (Myrmamblys)*** **sp. near *vitiosus* Smith, F.**
–. Propodeum dorsum usually straight or convex; if slightly concave in lateral view (Fig. 48), then petiole scale with anterior surface convex; posterior surface flat; summit sharp in lateral view (Fig. 48) **29**
29. Gena with erect setae..... ..... **30**
–. Gena without erect setae..... ..... **31**
30. Scape with row of erect setae spread over its entire length (Fig. 23); body black, with coxae, femur, and first gaster segment anteriorly light reddish-brown; entire ant shiny.....
..... ***C. (Myrmentoma) tergestinus*** **Müller**
–. Scape without setae spread over its entire length; body brown to black; leg uniformly reddish-

brown or black; head and mesosoma matte; gaster subopaque ..... ***C. (Camponotus) cilicicus*** **Emery**

31. Clypeus with short triangular impression anteromedially and wide notch in middle of anterior border; gaster shiny with sparse reduced pilosity; distance between hairlets larger than their length ..... ***C. (Myrmentoma)*** (part)..... **32**

–. Free margin of clypeus truncated and impressed medially, without median notch; gaster dull, thickly covered with apressed pubescence; distance between hairlets smaller than their length ..... ***C. (Camponotus)*** (part).....**33**

32. Body uniformly black with reddish antenna and tarsus; specimen from Caucasus with head anteriorly and mesosoma pale brown ..... ***C. (Myrmentoma) fallax*** **(Nylander)**

–. Head and mesosoma red; gaster black..... ***C. (Myrmentoma) sayi*** **Emery**

33. Body completely black ..... ***C. (Camponotus) vagus*** **(Scopoli)**

–. Body mainly black, with funiculus, leg, and petiole brown ..... ***C. (Camponotus) pennsylvanicus*** **(De Geer)**

ANNOTATED LIST OF *CAMPONOTUS* SPECIES

A. Species considered part of the ant fauna of Israel

Camponotus (Tanaemyrmex) aethiops (Latreille, 1798)

(Fig. 27)

Recognition

C. aethiops is a member of the subgenus *Tanaemyrmex*, recognized by its small size, the head with erect setae on the genae and ventral surface, the tibiae slightly compressed laterally and without a dorsomedial ridge, covered only with apressed pubescence in addition to a ventral row of bristles, and its black to reddish-black body. Major workers have matte head and mesosoma dorsum.

Several varieties of *C. aethiops* were described based on color, shape of the propodeum, and strength of their sculpture (see Emery, 1908). The Israeli specimens show a variability in these features that encompasses all Eastern Mediterranean forms of *C. aethiops*, although these features are not "correlated", as stated in the original description. Workers in one series are similar to syntypes of var. *concava* Forel (Kugler, personal communication) because of their distinctly concave propodeal dorsum in lateral view and black body with reddish legs. However, in other series, the propodeal shape and color differ: the propodeal dorsum in lateral view varies from distinctly concave (Fig. 27) to straight (Fig. 43), and the body color varies from completely black, to partly black with head and mesosoma dark brown; while the legs range from black to ferruginous-brown or brownish-yellow.

Measurements: ☿: TL = 4.9–9.5, HL = 1.15–2.54, HW = 0.86–2.50, EL = 0.35–0.51, SL = 1.29–2.19, ML = 1.76–3.16, MW = 0.74–1.56, mTbL = 1.09–1.84, hTbL = 1.43–2.50 (n = 40).

Material examined

ISRAEL: Har Hermon, 2000 m, 23.iv.1982, J. Kugler (18☿); 1650 m, 20.iv.1969, H. Bytinski-Salz (3☿); 1600 m, 27.v.1980, J. Kugler (4☿); 1.iii.2003, A. Ionescu (5☿); 1400–1600 m, 23.v.1978, J. Kugler (12☿); Har Meron, 27.v.1980, J. Kugler (2☿).

SPAIN: Sant Bernat (Barcelona), 11.v.1974, X. Espadaler (4☿).

ITALY: Tersalonia, 16.vi.1972, B. Poldi (2☿); Portici, Silvestri (3☿); Teolo (Veneto), 25.x.1936, H. Bytinski-Salz (9☿).

CROATIA: Baska (Krk), 8–17.vi.1934, E. Jaeger.

TURKEY: Beynam, 28.vi.1947, (3☿); Erzurum, 24.vii.1972, H. Bytinski-Salz (2☿).

Distribution

Western Palaearctic, from Germany to Kazakhstan, and the western Mediterranean through southern Europe and Asia Minor to Afghanistan (Radchenko, 1997b) and Israel.

The species from Lebanon that was formerly identified as *C. concavus* Forel (junior synonym of *C. aethiops* in Bolton et al., 2006) by Tohmé (1969a) was reidentified as *C. sannini* by Tohmé and Tohmé (1999).

Notes

This species was recorded from Israel by Wheeler and Mann (1916), Menozzi (1933), Bodenheimer (1937), Kugler (1988), and Alpert and Martinez (2007).

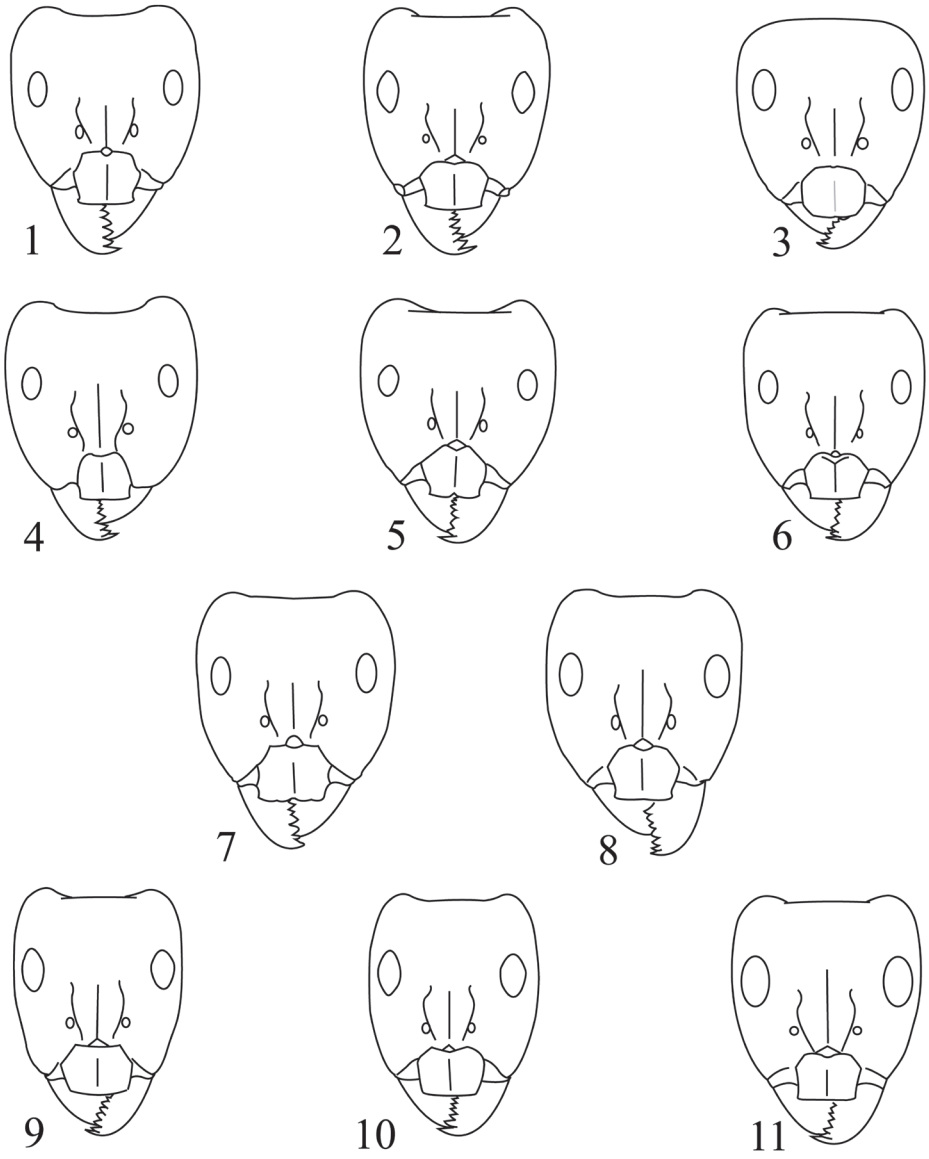
Camponotus (Tanaemyrmex) baldaccii Emery, 1908

(Fig. 15)

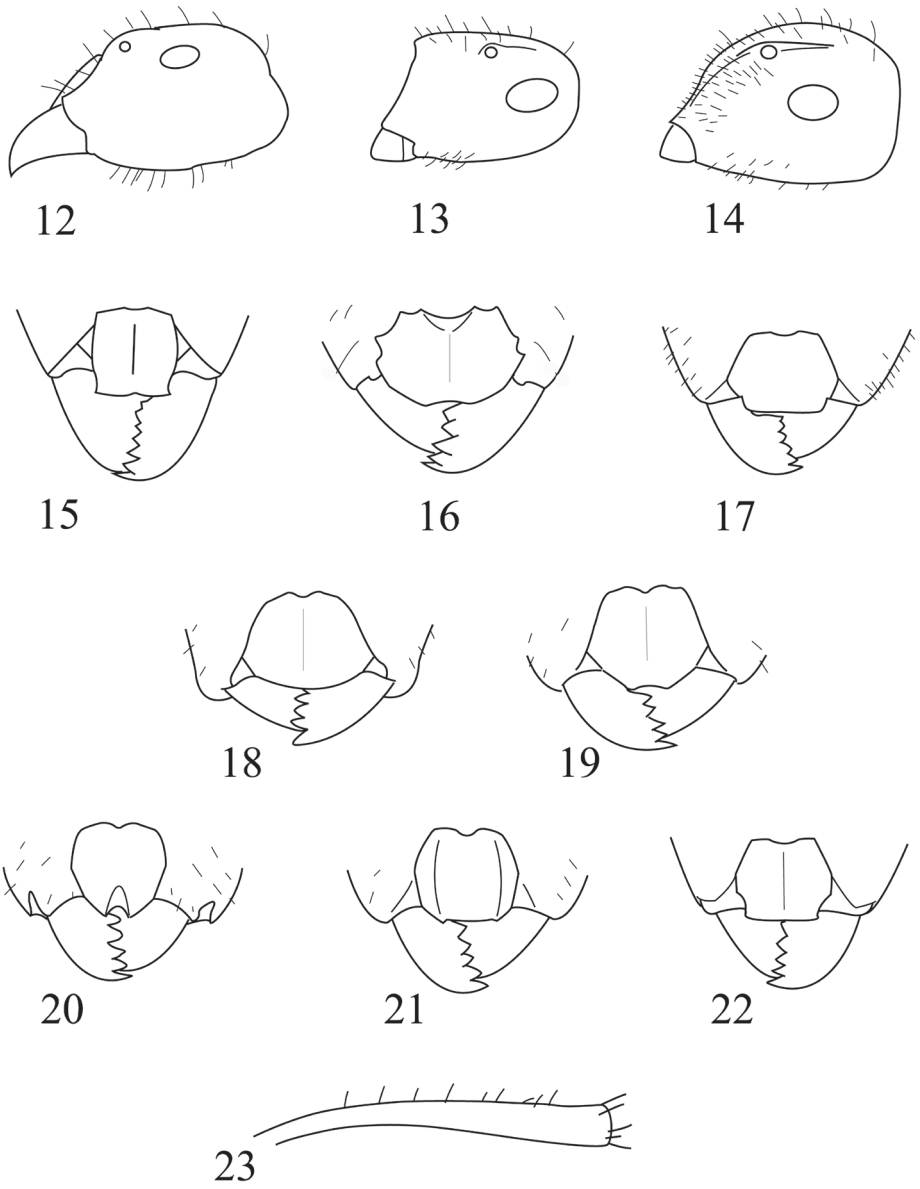
Recognition

C. baldaccii is a small species of *Tanaemyrmex*, with hindtibia flattened but without a distinct dorsomedial ridge, and with a ventral row of bristles. It has abundant erect setae on the ventral head surface but lacks such setae on the genae. The ground sculpture is feeble and the entire ant is shiny, except for major workers, whose head and mesosoma dorsum are sub-matte. The body of major workers is reddish-yellow, with the head, dorsum of mesosoma, dorsum of first two gaster tergites, and the three posterior-most gaster segments brown. *C. baldaccii* is similar to *C. cecconii* Emery, differing in the feebler ground sculpture, and with major workers having the head and mesosoma dorsum sub-matte, as opposed to matte in *C. cecconii*. *C. baldaccii* is similar to *Camponotus* sp. near *baldaccii*, a species misidentified as *C. sanctus* Forel in Tohmé and Tohmé (2000: 390), in having the hindtibia without a distinct dorsomedial ridge (Fig. 49), relatively abundant erect setae on the ventral head surface, and a similar sculpture and color pattern, but differing from it by its distinctly smaller size: HW < 3.3 mm in *C. baldaccii* (Collingwood and Agosti, 1996) and HW up to 3.8 mm in *Camponotus* sp. near *baldaccii* (Tohmé and Tohmé, 2000).

Measurements: ☿: TL = 8.7–12.5, HL = 1.97–3.13, HW = 1.45–2.97, EL = 0.50–0.60,



Figs. 1–11. Head of major worker in full-face view, pilosity omitted. 1. *C fellah*, specimen from central coastal plain. 2. *C. fellah* var. *herodes* Santschi, syntype. 3. *C. kefir*, holotype. 4. *C. kugleri*, holotype. 5. *C. sanctus*, syntype. 6. *C. sanctus* var. *sanctoides* Forel, syntype. 7. *C. sanctus*, "oasium" morph. 8. *C. oasium*, syntype. 9. *C. sinaiticus*, holotype. 10. *C. tahatensis*, syntype. 11. *C. xerxes*.



Figs. 12–14. Head of major worker in laterl view. 12. *C. kugleri*, holotype. 13. *C. truncates*, soldier. 14. *Camponotus* sp. near *vitiosus*. Figs. 15–22. Clypeus of worker in full-face view, pilosity omitted except setae on genae. 15. *C. baldaccii*, major worker. 16. *C. cilicicus*, minor worker. 17. *C. jaliensis*, major worker. 18. *C. libanicus*, major worker. 19. *C. nadimi*, major worker. 20. *C. rebeccae*, major worker. 21. *C. vogti*, major worker 22. *C. irritans*, major worker. Fig. 23. *C. tergestinus*, antennal scape.

SL = 2.27–2.58, ML = 3.13–4.14, PW = 1.17–1.83, mTbL = 1.99–2.50, hTbL = 2.84–3.52 (n = 2).

Material examined

No material from Israel was available for examination.
TURKEY: Menemen, Izmir, 28.iv.1980, Lodos (2☿).

Distribution

Southeastern Europe, Turkey (Asia Minor), and Saudi Arabia (Radchenko, 1997b).

Notes

C. baldaccii was recorded from "Baniyas, Syria" by Wheeler and Mann (1916) and was included by Bytinski-Salz in his unpublished list of ants of Israel. However, I could not locate specimens of *C. baldaccii* from Israel in TAUI. Nevertheless, based on the known distribution, its presence in Israel is likely.

Here, I note the likely presence in northern Israel of *Camponotus* sp. near *baldaccii* (examined material from Syria, Daraya, 1–14.xi.1974, coll. G. and H. Tohmé (2☿; MNHN)), an abundant species in Syria and Lebanon. Examination of the specimens from MNHN confirmed the lack of a dorsomedial ridge on the hindtibia, as mentioned in Tohmé and Tohmé (2000). Because the presence of such a ridge is a diagnostic character of *C. sanctus* (Forel, 1904), I consider Tohmé and Tohmé's identification erroneous.

Camponotus (Camponotus) cilicicus Emery, 1908
(Fig. 16)

Recognition

C. cilicicus belongs to the *C. herculeanus* species group and recalls *C. vagus* (Scopoli) and *C. herculeanus* (L.), except for the clypeus of minor workers, which is anteriorly emarginated (Fig. 16), the gena, which is covered with erect setae, and the gaster pubescence, which is distinctly shorter.

Measurements: Worker: TL = 7.3–12.0, HL = 1.80–3.20, HW = 1.41–3.13, EL = 0.47–0.70, SL = 2.11–2.50, ML = 2.73–3.98, PW = 1.25–2.19, mTbL = 1.76–2.34, hTbL = 2.27–2.93 (n = 10).

Material examined

ISRAEL: Tel Dan, 31.iii.1942, H. Bytinski-Salz (7☿); 6.vi.1984, A. Freidberg (2☿); 1.ix.2008, A. Ionescu (1☿); Teverya, 16.iv.1941, H. Bytinski-Salz (1☿).

Distribution

C. cilicicus has a scattered distribution in Turkey (Asia Minor) and Iraq (Radchenko, 1997a). This is the first record of *C. cilicicus* from Israel.

Notes

The specimens in the TAUI collection were not compared with types, but fit the descriptions of Emery (1908) and Radchenko (1997a).

Camponotus (Myrmentoma) dalmaticus (Nylander, 1849)

(Figs. 24, 28)

Recognition

According to Radchenko (1997c), *C. dalmaticus* belongs to the *C. piceus* complex of the *C. lateralis* species group, together with *C. abrahami* Forel, *C. figaro* Collingwood and Yarrow, and *C. piceus* (Leach). *C. dalmaticus* differs from *C. abrahami* (studied specimens from Lebanon identified by C.A. Collingwood), by the clypeus being incised anteromedially (as in Fig. 20), as opposed to entire (as in Fig. 21), by the presence of a metanotal groove (Fig. 28), as opposed to a lack of such (as in Fig. 35), and by a red mesosoma (at least pronotum), as opposed to a completely black mesosoma. It differs from *C. figaro* and *C. piceus* by the presence of a single transverse row of erect setae on the junction of the propodeal dorsum with declivity (Fig. 28), as opposed to the erect setae scattered all over the propodeal dorsum in the latter species (see also Emery, 1925a). *C. dalmaticus* has the clypeus incised anteriorly and the arrangement pattern of the propodeal setae similar to *C. lateralis* (Olivier) and *C. rebeccae* Forel, but it differs from these species in its black head and gaster, whereas *C. lateralis* and *C. rebeccae* have the head always paler than the gaster. It further differs from *C. rebeccae* by its deeply impressed, as opposed to shallow, metanotal groove; a difference especially marked in major workers (Figs. 24, 37–38), by its propodeal dorsum flat or concave posteriorly (Fig. 24), as opposed to convex, and by a slightly broader petiolar scale: the ratio of maximum petiolar width to pronotum width = 0.47–0.60 (n = 33), as opposed to 0.41–0.53 (n = 47).

Measurements: ☿: TL = 4.3–6.1, HL = 1.04–1.70, HW = 0.87–1.52, EL = 0.25–0.33, SL = 1.02–1.30, ML = 1.48–2.03, PW = 0.74–1.07, mTbL = 0.81–1.09, hTbL = 1.04–1.50 (n = 15).

Material examined

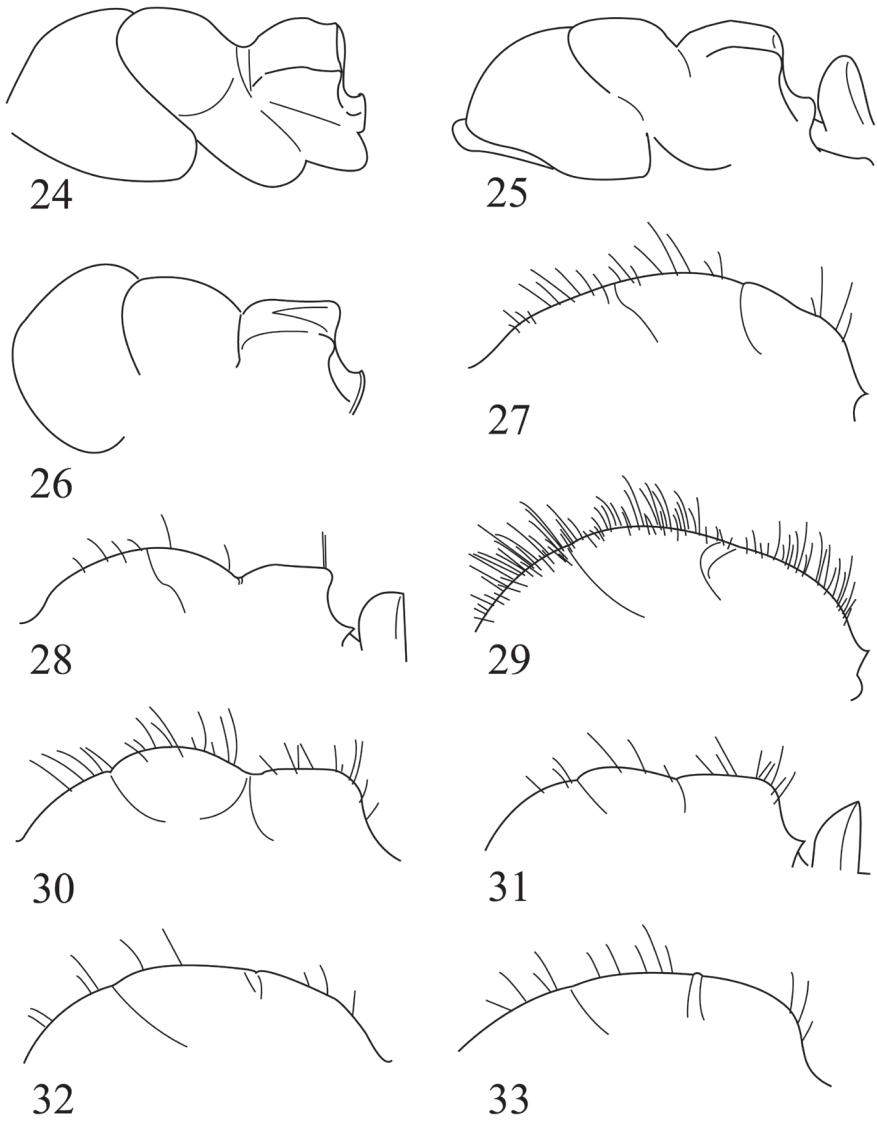
ISRAEL: Panyas, 24.5.1978, A. Freidberg (1☿); Har Hermon, 1400 m, 8.vi.1975, J. Kugler (3☿); 1600 m, 10.iii.2003, A. Ionescu (6☿); 2100 m, 12.iii.2003, A. Freidberg (4☿); Nahal Qana Reserve, 120 m, 6.5 km SW Qarne Shomeron, 32º08′N 35º02′E, 9.vii. A. Ionescu (1☿).

ITALY: Calabria, v.1920, C. Menozzi (2☿).

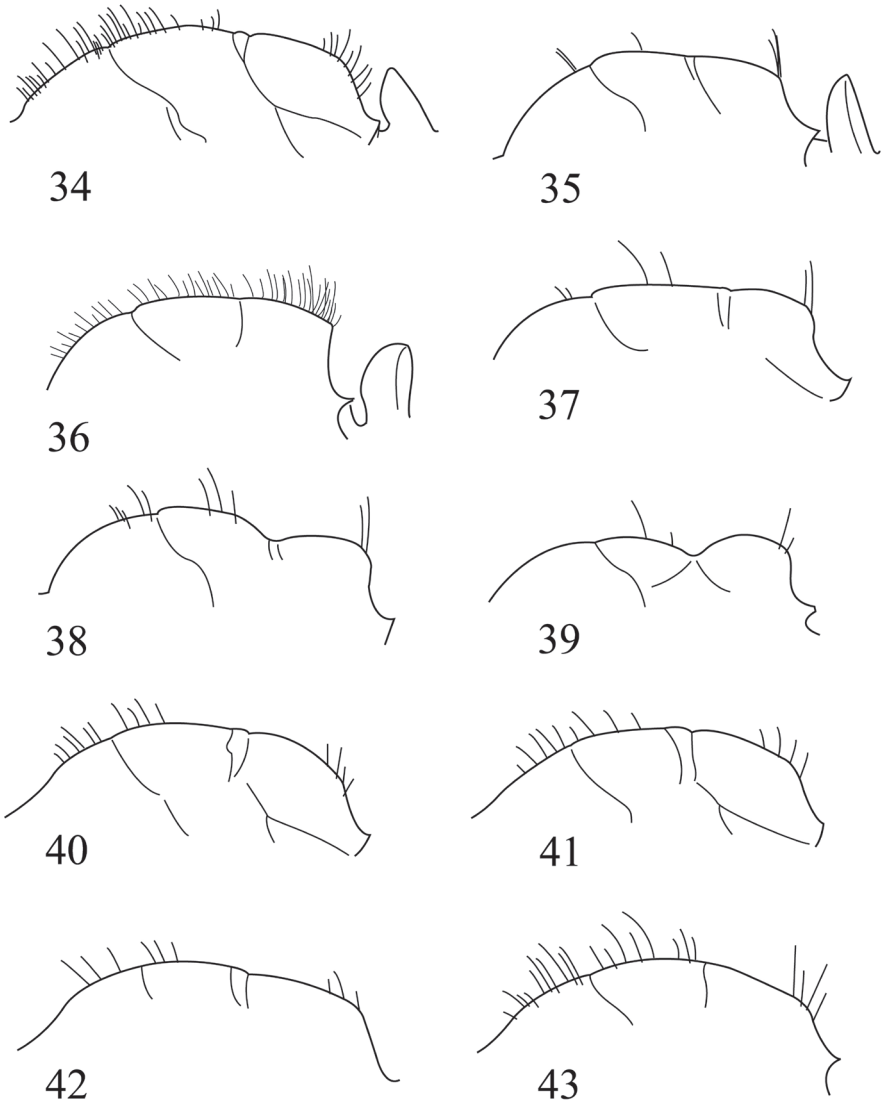
YUGOSLAVIA: Velaluka, 5–7.vi.1936, E. Jaeger (2☿); Zara, 2.vi.1972, B. Poldi (2☿).

SYRIA: Nahr el Kelb, 3.vii.1933, F. Santschi (1☿).

LEBANON: Lablouk, iv.1966, C.A. Collingwood (4☿).



Figs. 24–26. Mesosoma in dorsolateral view, pilosity omitted. 24. *Camponotus dalmaticus*, major worker. 25. *C. lateralis*, minor worker. 26. *C. sericeus*, major worker. Figs. 27–33. Mesosoma outline in lateral view, pilosity omitted except setae on mesosoma dorsum. 27. *C. aethiops*, media worker. 28. *C. dalmaticus*, media worker. 29. *C. festai*, major worker. 30. *C. gestroi*, major worker. 31. *C. gestroi*, media worker. 32. *C. jaliensis*, major worker. 33. *C. shaqualavensis*, paratype.



Figs. 34–43. Mesosoma outline in lateral view, pilosity omitted except setae on mesosoma dorsum. 34. *Camponotus kefir*, holotype. 35. *C. kurdistanicus*, minor worker. 36. *C. libanicus*, media worker. 37. *C. rebeccae*, major worker. 38. *C. rebeccae*, major worker. 39. *C. rebeccae*, media worker. 40. *C. sanctus*, syntype. 41. *C. sanctus* var. *sanctoides* Forel, syntype. 42. *C. oasium*, syntype. 43. *C. sannini*, paratype.

Distribution

Mainly in southeastern Europe, although also found in Switzerland, Turkey (Asia Minor), and the Near East (Radchenko, 2007). This is its first record from Israel.

Camponotus (Tanaemyrmex) fellah Dalla Torre, 1893
(Figs. 1, 2)

Recognition

C. fellah is a large species of *Tanaemyrmex*, with accentuated ground sculpture (major worker is mostly matte) and prismatic hindtibia that is provided ventrally with a row of bristles. *C. fellah* is similar to *C. xerxes*, *C. thoracicus sensu lato*, and *C. oasium* Forel, from which it differs by the presence of erect setae on the ventral head surface, as opposed to a lack of such setae (see also Santschi, 1938, 1939; Cagniant, 1996; Collingwood and Agosti, 1996; Radchenko, 1997b).

Examination of a sample of 160 specimens of *C. fellah* from 70 localities from Israel and Egypt revealed that all have erect setae on the ventral head surface (minor workers have 1–2, majors have up to seven), whereas ten specimens of *C. xerxes* from Sinai, Saudi Arabia, and Iran and ten syntypes of *C. thoracicus sensu lato* and *C. oasium* from northern Africa have no such setae, except one in one major worker of *C. oasium*, in agreement with Santschi's (1939) assessment.

Major workers of *C. fellah* from different nest series show marked differences with regard to body measures, e.g., eye length (Figs. 1,2, which depict specimens with equal head length), scape length, pronotum width, and hindtibia length, especially between specimens from the central coastal plain and the 'Arava Valley.

Measurements of HL, HW, EL, SL, PW, and hTbL of *C. fellah* (n = 129), *C. xerxes* (n = 10), and of syntypes of *C. thoracicus sensu lato* and *C. oasium* (n = 10) are similar, except for the antennal scape which is slightly shorter in *C. fellah*, and the eye and hindtibia which are slightly longer in *C. xerxes*.

The color is variable among nest series. In major workers, the head and mesosoma range from red or ochraceous, dorsally infuscate, to completely black. In paler specimens the coxae, petiolar scale, and at least a small area on the anterior gaster surface are light ferruginous to dark red, but this area does not extend to second gaster tergite; in darkest specimens, petiole and gaster are black. This color pattern distinguishes major workers of *C. fellah* from *C. xerxes*, which has the petiole paler than the unicolorous dark gaster, and from *C. thoracicus sensu lato* and *C. oasium*, which have the gaster with large yellow areas on the first and second tergite laterally.

Specimens from Syria, identified as *C. fellah* by Tohmé and Tohmé (2000), differ from those from Israel and Egypt by the lack of erect setae on the ventral head surface, a stouter body, and shorter appendages.

Measurements: Worker: TL = 7.8–17.2, HL = 1.91–4.69, HW = 1.29–4.61, EL = 0.55–0.98, SL = 2.38–3.59, ML = 3.09–6.02, PW = 1.13–2.66, mTbL = 2.27–3.83, hTbL = 3.05–5.08 (n = 129).

Material examined

ISRAEL: Gal'ed, 25.iii.1989, O. Soussan (3☿); Kinereth, 17.iv.1967, Pener (1☿); E. bank of Jordan nr. See of Galilee, 701, J. Palmoni (1☿) (identified as *C. compressus fellah* Emery by B. Finzi); E. bank of Jordan nr. See of Galilee, #701, J. Palmoni (1w) (identified as *C. compressus fellah* Emery by C. Menozzi); Netanya, 14.vii.2007, A. Ionescu (3☿); Tel Aviv, 10.iii.1966, J. Kugler (6☿, 2♂); 20.x.1994, J. Kugler (3☿, 2♀, 2♂); 26.iii.2006, T. Simon (3☿); 8.iii.1998, A. Ionescu (3☿); 20.iii.2007, A. Ionescu (20☿, 3♀); Shoham, 31.iii.2006, A. Ionescu (5☿, 1♂); Rishon Lezion, 10.xi.1989, E. Vaginsky (2☿, 1♀); Giv'at Brenner, 23.xii.1980, J. Kugler (1☿); Rehovot, 28.ii.1966, J. Kugler (2☿); Beko'a, 27.vi.1990, O. Soussan (1☿); Jerusalem, 1910, E. Schmitz (2☿, 1♂) (identified as *C. maculatus thoracicus fellah* Emery by A. Forel, 1910); Har Gilo, 10.v.1983, J. Kugler (2☿, 1♂); 'Eqron, 3.vii.1943, H. Bytinski-Salz (1☿); Umm Zuqa Natural reserve, 17.iii.2008, A. Ionescu (20☿); Yeriho, ii.1942, H. Bytinski-Salz (2☿, 1♂); Qalya, 17.ii.1940, H. Bytinski-Salz (3☿); Nizzanim, 27.vii.2005, C. Grach (11☿); Nizzanim, 7.vi.2007, M. Orlova (1☿); Gan Or, 12.ii.1986, Q. Argaman (3☿); Rafiah, 8.iii.1942, H. Bytinski-Salz (6☿, 3m); Zeelim, 18.iv.1967, Nitzan (1☿); Bor Mashash, 10.iv.2006, L. Halfin (1☿); Be'er Sheva', 10.iii.1984, J. Kugler (3☿); Dimona, 15.iv.1966, J. Kugler (1☿, 2♀); Kfar Yeroham, 24.iii.1959, J. Kugler (2☿, 2♀); Yeroham, 27.iii.1966, J. Kugler (2♀); Yeroham, 21.iii.1974, J. Kugler (3☿); Yeroham, 9.iv.1967, Pener (1☿); Revivim, 30.viii.1960, J. Kugler (3☿); Ramon, 22.iii.1980, J. Kugler (3☿); 'Enot Zuqim, 18.viii.1938, H. Bytinski-Salz (2☿); Nahal Zohar Spill, 12.iv.1982, J. Kugler (3☿); Hazeva, 17.xii.1979, J. Kugler (3☿); Hazeva, 16.iii.1982, J. Kugler (6☿); Hazeva, 8.vi.1991, A. Ionescu (6☿, 1♀, 1♂); 'En Yahav, 22.xi.1967, P. Amitai (9☿, 2♀); Yotvata, 19.iii.1988, T. Feller (2☿); Eilat, 20 km S., 15.iii.1982, J. Kugler (3☿); Ras Umm Jurfan, 28.ii.1949, J. Wahrman (20☿, 2♀, 1♂).

SYRIA: Hama, 3.viii.1974, G. and H. Tohmé (2☿; MNHN).

JORDAN: Akaba, iii.1940, Haas (3☿).

EGYPT: Cairo, 1976, W. Karawaiev (1☿, "typus" of *Camponotus* (*Myrmoturba) compressus* st. *thoracicus* var. *herodes* Santschi, 1938: 42, unavailable name in Bolton, 1995: 103; NHMB); 6-th Tower Suez Road, 8.ii.1928, A. Alfieri (1☿); Sinai: En Chabijiah, 23.iv.1968, H. Schweiger (2☿); Bir Zreir, 2.ix.1970, H. Bytinski-Salz (1☿, 1♀); Wadi Kid, 14.iii.1982, J. Kugler (1☿, 1♀); Abu Rodeis, 18.v.1970, H. Bytinski-Salz (1☿); Oasis Feiran, 23.v.1971, H. Bytinski-Salz (2☿); Wadi Mukateb, 14.viii.1971, H. Bytinski-Salz (1☿).

Distribution

C. fellah is distributed in Syria and Lebanon (Emery, 1891; 1925b; Finzi, 1936; Tohmé and Tohmé, 2000), Israel, Jordan, Iraq, Iran (Paknia et al., 2008), Egypt (Taylor, 2007), and the Arabian Peninsula (Collingwood and Agosti, 1996).

Notes

C. fellah was recorded from Israel by Emery (1898), Forel (1910), Schmitz (1911), Menozzi (1933), Bodenheimer (1937), Kugler (1988), and Alpert and Martinez (2007).

The above-noted differences between the specimens from Israel and Egypt, on the one hand, and from Syria and Lebanon, on the other hand, and the fact that Israeli specimens show color and size variability in major workers that surpasses those reported in earlier descriptions, e.g., Emery (1908) and Tohmé and Tohmé (2000), suggest the occurrence of some cryptic species under the name *C. fellah*.

Camponotus (Tanaemyrmex) festai Emery, 1894

(Figs. 29, 50)

Recognition

C. festai, together with *C. riedeli* Pisarski and *C. samius* Forel, belong to a species complex characterized by abundant, long, decumbent, and erect setae on the scape and tibiae (Radchenko, 1997b), and distant and strongly divergent frontal carinae (Emery, 1920). Major and media workers of *C. festai* and *C. riedeli* have a row of erect coarse setae on the dorsal surface of the scape, in addition to decumbent pilosity and distal bristles, and suberect to erect bristle-like setae on the dorsal surface of the hindtibia, whereas *C. samius* has no such setae. *C. festai* differs from *C. riedeli* Pisarski by the shorter, suberect bristle-like setae on the hindtibia (in *C. riedeli*, the length of such setae sometimes exceeds the maximum tibial diameter) and by the usually unicolorous mesosoma and legs, as opposed to a variable color of the mesosoma and legs (in *C. riedeli*, the mesosoma ventrolaterally and the coxae are distinctly paler than the mesosomal dorsum); in only five out of 80 specimens of *C. festai* is the dorsum of the mesosoma and tarsi dark brownish-black, and the pleura of mesosoma and coxae red. *C. festai* differs from *C. samius* by having prismatic hindtibia, as opposed to flattened hindtibia without a distinct dorsomedial ridge, and more abundant pilosity. *C. festai* has distinctly more erect setae on the scape: on average 13.4 (range = 3–21, n = 34) compared to 5.9 (range = 1–12, n = 14). The major worker has on the dorsum of the mesosoma more than 90 setae (n = 10) in *C. festai* and 56–60 setae (n = 10) in *C. samius*. *C. festai* has a distinctly broader head in the major workers: HW/HL ranges 0.91–1.10 (n = 10) in *C. festai*, and 0.87–0.90 (n = 10) in *C. samius*.

Measurements: Worker: TL = 6.9–13.4, HL = 1.60–3.55, HW = 1.13–3.75, EL = 0.40–0.65, SL = 2.09–3.13, ML = 2.66–4.57, PW = 1.04–1.99, mTbL = 1.76–2.85, hTbL = 2.54–3.87 (n = 20).

Material examined

ISRAEL: Panyas, 12.v.1971, H. Bytinski-Salz (6☿); Har Dov, 15.viii.1976, J. Kugler (1☿); Nahal Keziv, 11.iv.1984, J. Kugler (2☿); 11.iv.1984, D. Simon (12☿); Har Meron, 27.iv.1984, C.A. Collingwood (2☿); J. Kugler (3☿); A. Shlagman (4☿); 25.v.2006, N. Angel (5☿); 11.vii.2007, S. Bleicher (2☿); 6.ix.2007, A. Ionescu (20☿).

TURKEY: Dortyol, 3.ii.1939, F.S. Bodenheimer (10☿); Taurus, Bürücek, 29–31.vii.1947 (13☿); Teknepinar, 10.v.2000, A. Freidberg (1☿).

SYRIA: Kuneitra, 1.vii.1967, J. Kugler (9☿).

LEBANON: Beirut, iv.1966, C.A. Collingwood (4☿); 8.vii.1982, A. Hefetz (12☿); Baq'a Amiq, 15.vi.1982, A. Valdenberg (1☿); Kfar Kuk, 5.vii.1982, D. Simon (2☿).

Distribution

Turkey to Israel.

Notes

This species was recorded from Israel by Kugler (1988) and Alpert and Martinez (2007).

Camponotus (Myrmentoma) gestroi Emery, 1878

(Figs. 30, 31)

Recognition

Radchenko (1997c) included in the *C. gestroi* complex of the *C. lateralis* species group *C. rebeccae*, *C. kurdistanicus*, and *C. vogti* Forel, together with *C. gestroi*. *C. gestroi* differs from these species by having erect setae scattered all over the propodeal dorsum, as opposed to a single transversal row of erect setae restricted to the junction of the propodeal dorsum with declivity, and by a completely black body, whereas the pronotum at least is red in *C. kurdistanicus*, and the head and mesosoma are always paler than the gaster in *C. rebeccae* and *C. vogti*.

Major workers from Israel differ from western Mediterranean specimens by having the dorsum of the mesonotum more convex and distinctly posterior to the level of the propodeum, and by a distinct metanotal groove (Figs. 30,31).

Measurements: ☿: TL = 4.6–8.3, HL = 1.09–2.01, HW = 0.91–1.91, EL = 0.31–0.39, SL = 1.11–1.52, ML = 1.58–2.58, PW = 0.74–1.41, mTbL = 0.90–1.37, hTbL = 1.19–1.88 (n = 15).

Material examined

ISRAEL: Har Dov, 1350 m, 22.vi.1971, H. Bytinski-Salz (3☿); Har Hermon, 1600 m, 27.v.1980, J. Kugler (2☿); 1400 m, 8.xi.1975, J. Kugler (4☿); 1400 m, 1.iii.2003, A. Ionescu (2☿); Har Meron, 1000 m, 16.vi.1971, H. Bytinski-Salz (3☿); 27.v.1980, J. Kugler (3☿); Nahal Dishon, 3.v.1982, J. Kugler (1☿); Dan, 20.iii.1941, H. Bytinski-Salz (1☿).

CYPRUS: Limassol, 1938, H. Bytinski-Salz (3☿).

LEBANON: Baq'a Amiq, 15.vi.1982, A. Valdenberg (2☿); Beirut, 8.vii.1982, A. Hefetz (1☿).

ALGERIA: Tlemcen, A. Forel (1☿).

Distribution

Western Mediterranean and southern Europe to southern Transcaucasus (Radchenko, 1997c), Near East and Iran (Paknia et al., 2008).

Notes

This species was recorded from Israel by Forel (1913), Menozzi (1933), Bodenheimer (1937), Kugler (1988), and Alpert and Martinez (2007).

Camponotus (Myrmentoma) interjectus Mayr, 1877

Recognition

According to Menozzi (1933), the Israeli specimens of *C. interjectus* have the metanotal groove distinctly impressed, similar to *C. rebeccae*, but differ from *C. rebeccae* by having erect setae scattered all over the propodeal dorsum, as opposed to a single transversal row of erect setae restricted to the junction of the propodeal dorsum with declivity; they have a black head and gaster, as opposed to the head paler than the gaster in *C. rebeccae*.

Material examined

No material was available for examination.

Distribution

Afghanistan and central Asia (Radchenko, 1997c); also recorded from Israel (Menozzi, 1933), Jordan (Wheeler and Mann, 1916), and Dagestan (Radchenko, 1997c).

Notes

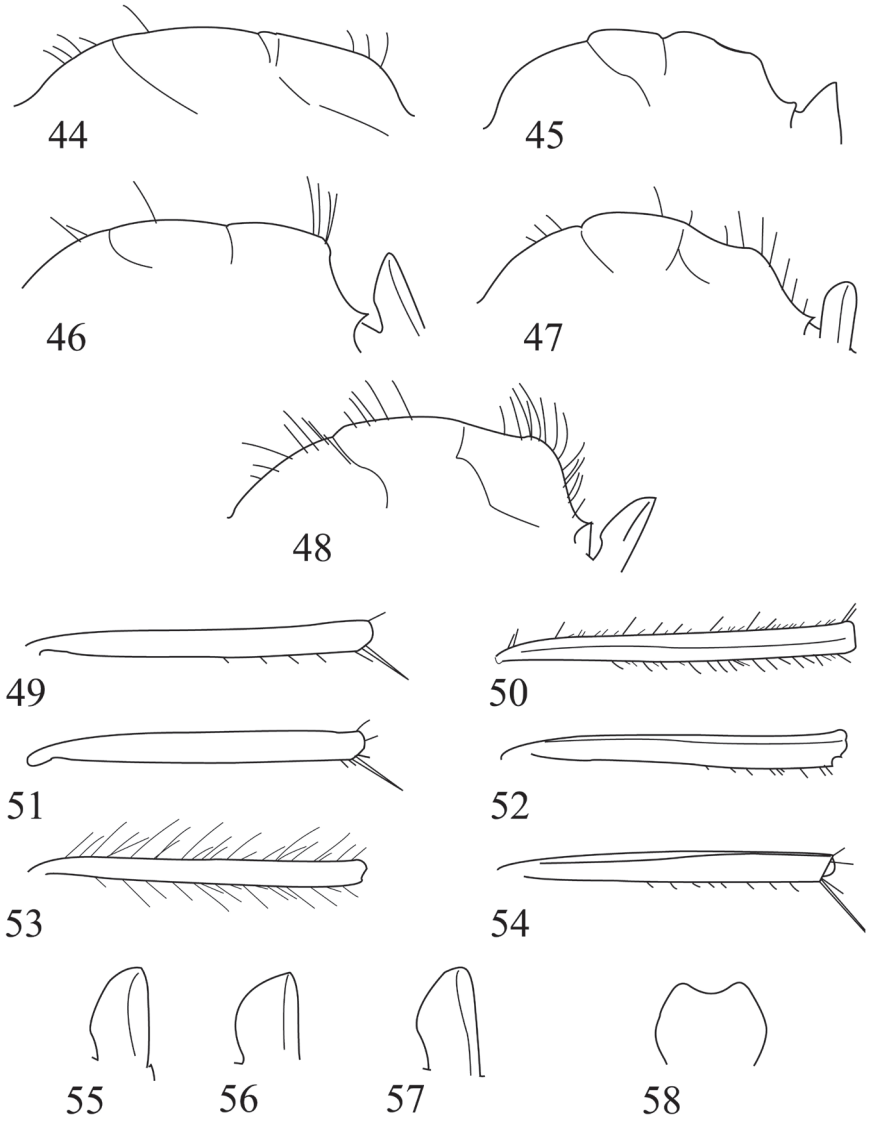
This species is included in this list because it was recorded from the study area by Menozzi (1933) and Bodenheimer (1937), despite the fact that no specimens could be located in TAUI, and the ants examined by Menozzi (1933), labeled "Deserto di Bir Seba", could have been mislabeled (Bytinski-Salz, 1953, J. Kugler, personal communication).

Camponotus (Tanaemyrmex) jaliensis Dalla Torre, 1893

(Figs. 17, 32, 51)

Recognition

C. jaliensis and the closely-related *C. shaqualavensis* Pisarski (Radchenko, 1997b) are small species of the subgenus *Tanaemyrmex*, recognizable by the erect setae on the genae (Fig. 17), and by the shape and pilosity of the hindtibia that is slightly compressed laterally, without a dorsomedial ridge, covered only with apressed pubescence, and lacking a ventral row of bristles (Fig. 51). Specimens from Israel differ from the syntypes by shorter erect setae on the gena and the presence in about half of the specimens of pale yellowish areas on the first gastral tergite (J. Kugler, personal communication), features that recall *C. shaqualavensis*. However, they differ from *C. shaqualavensis* in many details. In *C. jaliensis*, the mesosoma is dorsally arched, with an elongated pro-



Figs. 44–48. Mesosoma outline in lateral view, pilosity omitted except setae on mesosoma dorsum. 44. *Camponotus sinaiticus*, holotype. 45. *C. truncatus*, major worker. 46. *C. vogti*, major worker. 47. *C.* sp. near *vitiosus*, major worker. 48. *C. tergestinus*, media worker. Figs. 49–54. Hindtibia in dorsolateral view. 49. *C.* sp. near *baldaccii*, media worker. 50. *C. festai*, major worker. 51. *C. jaliensis*, major worker. 52. *C. kefir*, holotype. 53. *C. floridanus*, media worker. 54. *C. thoracicus* var. *delta* Santschi, minor worker. Figs. 55–58. Petiolar scale, pilosity omitted. 55. *C. libanicus*, media worker, lateral view. 56. *C. libanicus*, minor worker, lateral view. 57. *C. nadimi*, major worker, lateral view. 58. *C. truncatus*, minor worker, anterior view.

podeum (Fig. 32), while in *shaqualavensis*, the propodeal dorsum is straighter, forming a better defined angle with the declivity (Fig. 33). The head and mesosoma sculpture of *C. jaliensis* is stronger than in the shiny *C. shaqualavensis*; the color of *C. shaqualavensis* is darker, with larger and bright yellow gastral maculae. *C. jaliensis* has size, shape, and hindtibia morphology and pilosity similar to *C. alii* Forel, but differs from it by having erect setae on the genae, as opposed to the glabrous genae in *C. alii*.

Measurements: ☿: TL = 5.5–9.0, HL = 1.46–2.22, HW = 1.11–2.11, EL = 0.45–0.57, SL = 1.84–2.01, ML = 2.30–2.93, PW = 0.98–1.41, mTbL = 1.45–1.68, hTbL = 1.95–2.27 (n = 20).

Material examined

ISRAEL: Nahariya, 19.vi.1942, H. Bytinski-Salz (3☿, 6♂); Binyamina, 10.viii.19??, H. Bytinski-Salz (2☿, 4♀); Har Kefir, 1.ix.2008, A. Ionescu (50☿, 1♀); Tirat Zvi, 29.vi.1985, Q. Argaman (4♂); Newe Ativ, 28.viii, 1981, J. Kugler (6☿, 2♀, 1♂); Hadera, 21.vii.1982, Q. Argaman (3☿); Herzliyya, 10.vii.1991, J. Kugler (3☿, 1♀, 1♂); 5.viii.2009, A. Freidberg (5☿); Tel Aviv, 16.vii.1948, H. Bytinski-Salz (9☿, 12♀, 10♂); 28.vii.1965, H. Bytinski-Salz (3☿, 8♀, 8♂); 8.ii.2006, A. Hefetz (6☿); Lod, 17.ii.2008, E. Ziron (2♀, 6♂); Einot Kanne, 25.iii.1987, A. Shlagman (2☿).

Distribution

Greece and the Near East (Radchenko, 2007).

Notes

This species was recorded from Israel by Kugler (1988) and Alpert and Martinez (2007).

Camponotus (Tanaemyrmex) kefir n. sp.

(Figs. 3, 34, 52)

Description

Worker

Head. Longer than wide in major worker (HW/HL = 0.91–0.96, n = 10), with arched margins laterally (Fig. 3), distinctly elongate in minor worker (HW/HL = 0.63–0.71, n = 27), with parallel margins; frontal carina strongly sinuous, frons broad; clypeus projected anteriorly, truncated, subcarinate in major worker, distinctly carinate in minor worker; scape long (SL/HW = 0.92–2.00), surpassing occipital margin by 0.33 of its length in major worker and by 0.5 of its length in minor worker; mandible usually with six (19 out of 21), rarely, with five teeth.

Mesosoma. Outline in lateral view smoothly arched; propodeum dorsum forms obtuse angle with declivity (Fig. 34); propodeum compressed laterally; petiolar scale broad, dorsally convex; tibia compressed laterally, with distinct longitudinal ridge (Fig. 52).

Sculpture. Clypeus, frons, and vertex transversally striate and carinulate; gena densely punctuate; mesosoma laterally shagreened; head, mesosoma dorsum, and gaster with scattered hair-bearing foveolae. Entire body shiny.

Pilosity. Yellowish; clypeus, frons, vertex, mesosoma, and all gaster segments, with dense, erect, long setae; gena, entire ventral surface of head and mandible with shorter erect and suberect setae; in major worker, at least 17 long erect setae (in indistinct rows) on dorsum of pronotum and mesonotum, 12 on dorsum of propodeum, and up to 8 on petiole scale; fewer on coxa; scape with short, subapressed hairs and 0–10 (average = 2.1, n = 20) longer, decumbent and suberect setae, not bristles; hindtibia with row of decumbent bristles on ventral surface (Fig. 52); body covered with very short, apressed, white pubescence, more distinct on head and gaster.

Color. Body bicolorous, regardless of size: head and gaster brown to black, mesosoma dorsum dark brown, mesosoma lateroventrally, and petiole scale light brown; legs brown with coxae and femora proximally yellowish.

Measurements: TL = 9.6–13.3, HL = 2.15–3.53, HW = 1.33–3.36, EL = 0.52–0.70, SL = 2.50–3.20, ML = 3.59–4.84, PW = 1.48–2.19, mTbL = 1.80–2.46, hTbL = 3.24–3.71 (n = 50).

Differential diagnosis

C. kefir is similar to *C. festai* and *C. riedeli* Pisarski in size and habitus and has color pattern similar to *C. riedeli*. It differs from *C. festai* and *C. riedeli* by weaker ground sculpture (distinctly more shiny) and by lack of erect setae on dorsal surface of hindtibia (Figs. 52 and 50). It differs from *C. festai* also by straight propodeal dorsum, as opposed to arched in lateral view (Figs. 34 and 29, respectively), and by the narrower head of minor workers (HW/HL = 0.63–0.70, n = 20, as opposed to 0.70–0.79, n = 20). It differs by having distinctly fewer erect setae (an average of 2.1) on the dorsal surface of the scape, as opposed to 13.4 setae. *C. kefir* has body sculpture and pilosity similar to *C. samius*, but differs from *C. samius* in many details. The head of the major worker of *C. kefir* is broad (HW/HL = 0.91–0.96) and has lateral margins strongly curved (Fig. 3), while in *C. samius* the head is narrower (HW/HL < 0.91) and has lateral margins medially straight or only slightly arched; the scape of the small worker (HL < 2 mm) is longer relative to head length in *C. kefir* (SL/HL = 1.23–1.31, n = 20) than in *C. samius* (SL/HL = 1.10-1.23, n = 10). Major workers of *C. kefir*, although having similar sculpture, are more shiny than the almost matte *C. samius*. The dorsum of hindtibia is covered with short apressed pubescence in *C. kefir*, as opposed to decumbent to suberect pubescence in *C. samius*.

Material examined

Holotype ☿, ISRAEL: Har Kefir, 6.ix.2007, A. Ionescu, (deposited in TAUI). Paratypes: same collection data as holotype (10☿); 2.ix.2008, A. Ionescu (10☿); Golan Heights, Mas'ade Forest, 21.i.1994, M. Warburg (2☿); Har Meron, 27.iv.1984,

C.A. Collingwood (2☿); 27.iv.1984, J. Kugler (2☿); 25.v.2006, N. Angel (21☿); 25.v. 2007, S. Bleicher (4☿); 11.vii.2007, S. Bleicher (5☿, 1♀).

Etymology

The new species is named after Mount (= Har in Hebrew) Kefir, the type locality. "Kefir" means "young lion" in Hebrew. It is a noun in apposition.

Notes

C. kefir belongs to the *C. festai* species complex (Radchenko, 1997b), together with *C. festai*, *C. riedeli*, and *C. samius*. Collingwood and Kugler (J. Kugler, personal communication) considered specimens collected on Har Meron as belonging to a subspecies of *C. festai* that is paler and lacks bristle-like setae on the scape and dorsum of the tibiae, on account of the similar habitus of the major workers and the fact that a few specimens of *C. festai* have mesosoma color variable (referred to as *C. caeciliae* in Tohmé, 1969a, junior synonym of *C. festai*). However, I consider *C. kefir* to be closely related to *C. samius*, given the similarity of minor workers of *C. kefir* to *C. samius*, especially to minor workers in a sample of 22 specimens of var. *spagnolinii* Emery (junior synonym of *C. samius*) from Turkey.

***Camponotus (Tanaemyrmex) kugleri* n. sp.**

(Figs. 4, 12)

Description

Worker

Head. As long as wide in major worker (HW/HL = 0.98–1.04), strongly rounded laterally (Fig. 4); scape relatively short (SL/HW = 0.70–0.79), barely surpassing occipital margin; head of minor worker longer than wide (HW/HL = 0.73–0.80), rectangular, with lateral margins parallel, abruptly rounded posterior to eye, posteromedially slightly convex; scape of minor worker relatively long (SL/HW = 1.40–1.56), surpassing occiput by half of its length.

Mesosoma. Short, much narrower than head in major worker, only slightly narrower than head in minor worker. Hindtibia distinctly compressed laterally, with feeble longitudinal ridge in major worker, without ridge in minor worker.

Sculpture. Head and mesosoma densely punctuate-reticulate, matte; gaster and leg shiny, with widely scattered piligerous pits; minor worker shiny with sub-opaque mesosoma.

Pilosity. Erect setae: at most, 6 on dorsum of head (except clypeus), 4 on dorsum of pronotum, 3 on dorsum of mesonotum, 4 on dorsum of propodeum, 3 on dorsal margin of petiolar scale; gena without setae, ventral head surface with 10 short setae (Fig. 12); hindtibia with row of suberect bristles along its ventral surface; setae length ranges

0.18–0.55 mm on dorsum of head and mesosoma and on gaster, and 0.21–0.27 mm on ventral head surface. Entire body with short, apressed, scattered pubescence; on dorsum of first gaster, tergite hairlets length ranges 0.04–0.06 mm, distance between hairlets ranges 0.05–0.10 mm.

Color. Major worker with head, mesosoma, and gaster uniformly brown to black, legs uniformly yellow to light brownish-red, petiole yellow to dark brown; media worker as major, rarely with mesosoma ventrally, and gaster anteriorly, yellowish-brown; petiole yellow; minor worker with head and gastral apex brownish-yellow; mesosoma, gaster anteriorly and legs yellowish-brown.

Measurements: TL = 5.6–11.7, HL = 1.43–3.24, HW = 1.04–3.24, EL = 0.43–0.63, SL = 1.56–2.42, ML = 2.07–3.59, PW = 0.86–1.88, mTbL = 1.25–2.23, hTbL = 1.84–3.01 (n = 40).

Gyne

Head. Broader than mesosoma, trapezoidal, longer than wide, broadest posterior to eye.

Mesosoma. Tibia without distinct longitudinal ridge.

Sculpture. Similar to major worker. Head and mesosoma matte, gaster and leg shiny.

Pilosity. Gena without setae; ventral head surface with numerous short, erect setae, anteroapically curved; hindtibia with row of bristles along ventral surface. Pubescence as in worker, one gyne without pubescence on gaster.

Color. Entire body brownish-black to black.

Measurements: TL = 13.4–13.8, HL = 2.85–2.98, HW = 2.582.66, EL = 0.700.74, SL = 2.34–2.50, ML = 5.16–5.35, PW = 2.38–2.54, mTbL = 2.07, hTbL = 3.01 (n = 2).

Differential diagnosis

C. kugleri is similar to *C. fellah*, but is much smaller: TL = 5.6–11.7 mm, as compared to 7.8–17.2 mm of *C. fellah*. At equal body size, *C. kugleri* has broader head and shorter legs: major workers of *C. kugleri* (HL = 3 mm) have HW/HL = 0.98–1.04 and mTbL/HL = 0.66–0.74 (n = 10), while *C. fellah* with similar HL have HW/HL = 0.72–0.90 and mTbL/HL = 0.83–1.12 (n = 20); minor workers of *C. kugleri* (HL < 2 mm) have HW/HL = 0.73–0.80 and mTbL/HL = 0.88–0.99 (n = 10), while *C. fellah* with similar HL have HW/HL = 0.62–0.70 and mTbL/HL = 1.08–1.18 (n = 10). *C. kugleri* major worker has legs uniformly colored, always paler than mesosoma, as opposed to uneven brownish, with coxae paler than tibiae, or black in *C. fellah*. *C. kugleri* is similar to the Afrotropical *C. kersteni* Gerstäcker and *C. empedocles* Emery (studied specimens identified by C.A. Collingwood) from Saudi Arabia in size, shape, stoutness (with short mesosoma and appendages), and pilosity pattern, but differs from these species in several details. Major workers of *C. kugleri* differ from the Arabian specimens by having the head with the lateral margins arched, medially subparallel, as opposed to medially straight and

parallel, hindtibia with row of suberect bristles, as opposed to decumbent to subapressed bristles or setae, and mesosoma uniformly dark and legs uniformly pale, as opposed to mesosoma and legs uniformly dark in *C. kersteni*, or mesosoma ventrally, coxae and femora basally paler than mesosoma dorsum and tibiae in *C. empedocles*. *C. kugleri* differs from *C. empedocles* by having the ventral surface of the head with short setae (0.21–0.27 mm) and the body pubescence short and sparse (on dorsum of the first gaster tergite hairlets length = 0.04–0.06 mm, distance between them = 0.05–0.10 mm), whereas *C. empedocles* has the ventral surface of the head with longer setae (0.35–0.41 mm) and the body pubescence longer and more abundant (on dorsum of the first gaster tergite hairlets length = 0.06–0.09 mm, distance between them = 0.04–0.06 mm); minor workers of *C. kugleri* have longer head, scape and tibiae, and variable color, as opposed to shorter head and appendages, and uniformly dark minor of *C. empedocles*. *C. kugleri* major worker has the size, shape, and stoutness similar to *C. barbaricus sensu lato*, but differs from *C. barbaricus barbaricus* Emery by the lack of erect setae on the gena, as opposed to abundant pilosity on the gena, and from *C. barbaricus xanthomelas* Emery by dark mesosoma and gaster, and by uniformly pale legs, as opposed to variable color of mesosoma, legs, and gaster in the latter species.

Material examined

Holotype ☿, ISRAEL: ‘Enot Z̲uqim, 26.x.2008, A. Ionescu (deposited in TAUI). Paratypes: same collection data as holotype (14☿, 1♀); “Mer Morte”, E. Schmitz (*Camponotus maculatus* subsp. *thoracicus* var. *mortis* Forel, 1910: 13, unavailable name, in Bolton, 1995: 112; 3☿, TAUI and MNHG); ‘Enot Z̲uqim, 25.xii.1944, H. Bytinski-Salz (3☿); 26.v.2008, L. Zalman (1☿); ‘En Ziq, 16.viii.1966, J. Kugler (6☿; 1♀).

EGYPT: Sinai, Wadi Kseb, 15.iii.1982, J. Kugler (9☿).

Etymology

This species is named after the late Prof. Jehoshua Kugler, who collected some of the paratypes and was the first to recognize this taxon as a good species.

Notes

This species was previously reported from Israel by Forel (1910), Schmitz (1911), Menozzi (1933), and Bodenheimer (1937) as *C. maculatus thoracicus* var. *mortis* Forel (unavailable name), and as *Camponotus mortis* (not yet made available) by Kugler (1988). Other records are from Sinai, Egypt (Wheeler and Mann, 1916).

Camponotus (Myrmentoma) kurdistanicus Emery, 1898

(Fig. 35)

Recognition

C. kurdistanicus belongs to the *C. gestroi* complex of the *C. lateralis* species group

(Radchenko, 1997c). It is morphologically similar to *C. vogti* and to *C. abrahami*, from which it differs only in color: *C. kurdistanicus* and *C. vogti* have the mesosoma lighter than the coxae and femora, while *C. abrahami* has the mesosoma darker than the legs; *C. kurdistanicus* and *C. abrahami* have a black head and gaster, while *C. vogti*'s head is paler (red to brown) than the gaster. *C. kurdistanicus*, *C. vogti*, and *C. abrahami* differ from *C. dalmaticus*, *C. lateralis*, and *C. rebeccae* by having the clypeus with anterior margin truncated, medially entire (Fig. 21), as opposed to rounded anteriorly and incised medially (Fig. 20), by a lack of metanotal groove (Figs. 35 and 46), as opposed to a metanotal groove generally present (Figs. 24, 25, 28, and 38), and by a distinctly narrower head when comparing specimens with equal pronotum width: for specimens with PW > 1 mm, HW/PW ranges 1.15–1.36 (n = 10), as opposed to 1.36–1.58 (n = 24). *C. kurdistanicus*, *C. vogti* and *C. abrahami* further differ from *C. rebeccae* by a distinctly broader petiolar scale: the ratio of maximum petiolar width to pronotum width equals 0.54–0.60 (n = 14), as opposed to 0.41–0.53 (n = 47).

Measurements: ☿: TL = 4.9–5.2, HL = 1.14–1.37, HW = 1.01–1.25, EL = 0.17–0.38, SL = 1.11–1.25, ML = 1.69–2.03, PW = 0.88–1.05, mTbL = 0.98–1.09, hTbL = 1.27–1.48 (n = 16).

Material examined

ISRAEL: Hirbet Nafeh, 650 m, 18.iv.2010, A. Freidberg (5☿); A. Ionescu (8☿); Nahal Qazrin, 7.v.2008, L. Friedman (1☿); Qazrin, 16.v.2000, E. Fonio (1☿).

TURKEY: Gaziantep, 18.viii.1947, H. Bytinski-Salz (1☿).

Distribution

C. kurdistanicus is distributed from Turkey (Asia Minor) (Radchenko, 1997c) to Israel. This is the first record of this species from Israel.

Camponotus (Myrmentoma) lateralis (Olivier, 1792)

(Fig. 25)

Recognition

C. lateralis is characterized by a deep metanotal groove and a flat or concave propodeal dorsum posteriorly (Fig. 25). The petiolar scale is strongly convex anterodorsally and flat posteriorly (Fig. 25). The body is feebly sculptured and shiny. The pilosity on the dorsum of the propodeum consists of a transversal row of six erect setae at the junction with declivity and short apressed pubescence. *C. lateralis* has a weak ground sculpture, is mostly shiny, and has yellowish-brown head and mesosoma, occasionally reddish-brown to dark blackish-brown, and black gaster. *C. lateralis* and *C. staryi* Pisarski (its sister species, according to Radchenko, 1997c) are similar, except for the propodeal dorsum being lower than the highest point of the mesonotum in *C. lateralis*, as opposed to a propodeal dorsum exceeding the highest point of the mesonotum in *C. staryi* (Fig. 39),

and a uniformly dark gaster, as opposed to a mostly dark brown gaster with the first segment ochraceous. *C. lateralis* is similar to *C. dalmaticus* except for its head being paler than gaster, as opposed to the head equally dark as the gaster. *C. lateralis* is similar to *C. rebeccae* in coloration but differs from it by a deep metanotal groove, as opposed to a shallow metanotal groove and by a flat or concave propodeal dorsum, as opposed to a convex propodeal dorsum in *C. rebeccae*.

Measurements: Worker: TL = 3.9–7.0, HL = 0.98–1.80, HW = 0.84–1.68, EL = 0.26–0.37, SL = 1.02–1.29, ML = 1.46–2.23, PW = 0.64–1.07, mTbL = 0.70–1.04, hTbL = 0.96–1.45 (n = 5).

Material examined

ISRAEL: Cremison Monastery, 12 km S Jerusalem [Kremison], 1910, E. Schmitz (3☿), identified by A. Forel as *C. lateralis* Olivier.

SPAIN: Meda Gran Girona, 12.iv.1979, X. Espadaler (7☿).

ITALY: Mt. Portofino, 25.iv.1983, J. Kugler (3☿); Sardinia, Macomer, 21.v.1974, B. Poldi (2☿); Sicily, "Pal. Adriana", 21.ix.1966, H. Bytinski-Salz (1☿); "Capo Marcia", 28.viii.1928, H. Bytinski-Salz (3☿).

GREECE: Crete, "Elos", 19.vii.1981, J. Kugler (1☿); Rhodes, 3.vii.1981, A. Freidberg (3☿).

CYPRUS: Limasol, v.1937, H. Bytinski-Salz (9☿, 6♀). Turkey, Taurus, Kazan, 8–9.viii.1947 (1☿).

SYRIA: Chtoura (on road to Damascus), 5.vii.1933, F. Santschi (2☿).

Distribution

Southern and central Europe, Crimea, Caucasus, northwestern Morocco, and eastern Mediterranean (Radchenko, 1997c).

Notes

This species was previously recorded from Israel by Schmitz (1911), Bodenheimer (1937), and Alpert and Martinez (2007).

Specimens from Jerusalem are identical to those from Syria identified as var. *rhodia* Emery by Santschi (1934) (*C. lateralis rhodius* Santschi in Bolton (2009)), and differ from *C. rebeccae* only by propodeal dorsum slightly concave (Fig. 25), as opposed to convex. I did not identify these specimens to subspecies level because the specimens from Israel and Syria, as well as specimens from Rhodes identified as ssp. *rhodius* Santschi by Kugler, differ significantly from Emery's (1925a) original description, and because I have not examined the types.

Camponotus (Myrmentoma) libanicus André, 1881
(Figs. 18, 36, 55, 56)

Recognition

C. libanicus belongs to the *C. kiesenwetteri* species group (Radchenko, 1997c). The Israeli specimens vary in size and show allometric relationships between body measures. Major workers (n = 7) have a slightly wider than long head and a short scape (SL/HW = 0.86–1.01), while minor workers (n = 10) have a more elongate head (HW/HL = 0.91–0.96) and a relatively longer scape (SL/HW = 1.04–1.13). Petiolar scale thickness of *C. libanicus* is variable (0.29–0.35 mm), and its shape in lateral view varies from thin, anteriorly concave proximally and moderately convex distally (Fig. 55), to thick and anteriorly strongly convex (Fig. 56). *C. libanicus* specimens from Israel are similar to *C. nadimi* Tohmé, from which they differ only by the anteriorly convex or truncated clypeus with slight indentation medially in major workers (Fig. 18) and gyne, as opposed to an anteromedially emarginated clypeus in *C. nadimi* (Fig. 19), and by a generally thicker petiolar scale in media and minor workers (range = 0.29–0.35 mm, n = 12, as compared to 0.27–0.33 mm, n = 7). According to Emery (1915), *C. libanicus* is similar to *C. aegaeus* Emery, from which it differs by the thickness of the petiolar scale. One minor worker of *C. aegaeus* from Turkey has a thin scale (0.26 mm), with the outline of the anterior surface straight proximally and slightly convex distally, identical in shape to the petiolar scale of a minor worker depicted by Emery (1915, fig. 2b, p. 5), and thinner than in the examined specimens of *C. libanicus* of similar size.

Measurements: ☿: TL = 5.1–7.3, HL = 1.31–1.80, HW = 1.21–1.82, EL = 0.32–0.41, SL = 1.35–1.64, ML = 2.19–2.54, PW = 1.17–1.50, mTbL = 1.02–1.39, hTbL = 1.45–1.85 (n = 20). Gyne: TL = 11.6, HL = 2.23, HW = 2.11, EL = 0.51, SL = 1.72, ML = 3.98, PW = 2.09, mTbL = 1.56, hTbL = 2.34 (n = 1).

Material examined

ISRAEL: Upper Galilee, 16.x.2008, M. Vonshak (9☿); Dafna, 15.vi.1943, H. Bytinski-Salz (1☿); Monfort, 23.x.1970, J. Kugler (3☿); Elon, 23.vii.1946, H. Bytinski-Salz (4☿, 1♀); Meiron, 15.vi.1971, J. Kugler (3☿); Har Meron, 1100 m, 10.vi.1987, A. Shlagman (3☿); Har Kefir, 6.ix.2007, A. Freidberg (3☿); 6.ix.2007, A. Ionescu (1☿).

TURKEY: Bürücek (Taurus), 29–31.vii.1947 (2☿).

LEBANON: Baq'a (Amiq), 15.vi.1982, A. Valdenberg (4☿).

Distribution

Eastern Mediterranean to Iran (Radchenko, 1997c; Paknia et al., 2008).

Notes

C. libanicus was previously recorded from Israel by Kugler (1988) and Alpert and Martinez (2007). The Israeli specimens show much greater variability of size than that described in Tohmé's (1969b) redescription of the species, i.e., they are not monomorphic, as stated by Tohmé (1969b). Minor workers with thin petiolar scale cannot be distinguished from *C. nadimi* minors when collected in isolation.

Camponotus (Myrmentoma) nadimi Tohmé, 1969

(Figs. 19, 57)

Recognition

C. nadimi has an allometric relationship between body measures and variable thickness of petiolar scale similar to *C. libanicus* (0.27–0.35 mm as compared to 0.29–0.35 mm), but major workers and gyne of *C. nadimi* have the clypeus emarginated anteromedially (Fig. 19), as opposed to being entire in *C. libanicus*.

Measurements: ☿: TL = 4.7–8.8, HL = 1.09–2.27, HW = 0.89–2.42, EL = 0.29–0.41, SL = 1.15–1.72, ML = 1.84–2.69, PW = 1.00–1.48, mTbL = 0.92–1.52, hTbL = 1.13–2.07 (n = 11). Gyne: TL = 10.6, HL = 2.21, HW = 2.15, EL = 0.55, SL = 1.58, ML = 4.06, PW = 2.05, mTbL = 1.64, hTbL = 2.30 (n = 1).

Material examined

ISRAEL: Har Kefir, 6.ix.2007, A. Ionescu (1☿); 1.ix.2008, A. Ionescu (2☿, 1♀).
LEBANON: Beirut, 8.vii.1982, A. Hefetz (12☿).

Distribution

This species is endemic to the Near East and was previously known only from Lebanon (Tohmé, 1969b). This is the first record of *C. nadimi* from Israel.

Notes

The Israeli specimens of *C. nadimi* were not compared with types but fit the original description (Tohmé, 1969b), except for being completely black.

The emarginated condition of the anterior clypeal border of major workers of *C. nadimi* is also present in *C. aegaeus*, according to Emery's original description (Emery, 1915, Fig. 1) (I have not examined major workers of *C. aegaeus*). The major workers apparently differ only by the shape of the petiolar scale in lateral view, which has the dorsum rounded in *C. nadimi* (Fig. 57), as opposed to pointed in *C. aegaeus* (Emery, 1915, fig. 2d).

Comparison of the original descriptions of *C. nadimi* and *C. aegaeus* suggests that the two species are closely related. Reexamination of their types and a better knowledge of the variability of *C. libanicus* may clarify the relationships between these species.

Camponotus (Myrmentoma) rebeccae Forel, 1913
(Figs. 20, 37–39)

Recognition

According to Radchenko (1997c), *C. rebeccae* belongs to the *C. gestroi* species complex in the *C. lateralis* species group, together with *C. gestroi*, *C. kurdistanicus*, and *C. vogti*. *C. rebeccae* differs from the three other species by the petiolar scale with anterior surface strongly convex dorsally (as in *C. dalmaticus* (Fig. 28) and *C. lateralis*), as opposed to being slightly convex and meeting the posterior surface at an acute angle (Fig. 46), and by the scale distinctly narrower: in major workers with HW > 1.5 mm the ratio of petiolar scale width to head width ranges 0.30–0.35 (n = 20) in *C. rebeccae*, as opposed to 0.40–0.44 (n = 20) in *C. gestroi* and 0.39–0.42 (n = 5) in *C. kurdistanicus* and *C. vogti*.

C. rebeccae is similar to *C. lateralis*, from which it differs only in the convex propodeal dorsum, as opposed to the concave or posteriorly flat propodeal dorsum (Fig. 25), and by a shallow metanotal groove (Figs. 37–39), as opposed to a deep metanotal groove in *C. lateralis*.

Measurements: ☿: TL = 4.0–7.7, HL = 0.98–1.76, HW = 0.82–1.88, EL = 0.24–0.39, SL = 1.07–1.45, ML = 1.41–2.34, PW = 0.70–1.25, mTbL = 0.73–1.09, hTbL = 1.00–1.52 (n = 20).

Material examined

ISRAEL: Panyas, 24.v.1978, A. Freidberg (1☿, 1♀); Meron, 13.v.1973, J. Kugler (8☿); Golan, x.1981, J. Kugler (7☿, 2♀, 2♂); Tel-Dan, 11.iii.1942, H. Bytinski-Salz (6☿, 1♀); 6.v.1972, J. Kugler (3☿); 1.xi.2008, A. Ionescu (12☿, 1♀); Dan, 20.iii.1941, H. Bytinski-Salz (3☿); 27.v.1979, J. Kugler (3☿); Har Kefir, 6.xi.2007, A. Ionescu (1☿); Birya, 2.iv.1978, J. Kugler (1☿); 3.v.1990, O. Soussan (2☿); Ma'agan Mikha'el, 24.vii.1998, N. Metzler and V. Kravchenko (1☿); Nof-Yam, 13.ix.1981, J. Kugler (3☿); Nahal Poleg, 26.i.1982, J. Kugler (6☿, 4♀, 4♂); Nahal Qana Reserve, 120 m, 6.5 km SW Qarne Shomeron, 32º08′N 35º02′E, 9.vii. 2007, A. Freidberg (4☿); 9.vii. 2007, A. Ionescu (1☿); Tel Aviv, 3.iii.2008, A. Shlagman (3☿, 2♀, 3♂); Jerusalem, 15.v.1980, J. Kugler (2☿, 1♀); 'Enot Zuqim, 15.xii.1944, H. Bytinski-Salz (3☿); 'Enot Zuqim, 26.xi.1971, H. Bytinski-Salz (3☿).

LEBANON: Beirut, 8.vii.1982, A. Hefetz (1☿).

Distribution

C. rebeccae is endemic to the Near East.

Notes

This species was previously recorded from Israel by Menozzi (1933), Bodenheimer (1937), Kugler (1988), and Alpert and Martinez (2007).

Almost entirely black specimens of three nest series from the central coastal plain are provisionally considered as belonging to *C. rebeccae* because they are morphologically similar to the paler specimens of this species, and because Cagniant (1996) recorded similar variability in Morocco, with dark colored "littoral populations" of the usually bicolorous (red and black) *C. lateralis*. However, the dark specimens fit the description of *C. lateralis ebneri* Finzi in Ebner (1930) and key out to this species in Tohmé (1969a), and comparison with types may clarify their affinities.

Until more material is collected, one media worker (TL = 5.6 mm, HW = 1.21 mm) with very high propodeal dorsum exceeding the highest point of mesonotum (Fig. 39) is here considered as an extreme variation. In addition, it has the first gastral segment testaceous (whereas the following segments are black).

Camponotus (Tanaemyrmex) sanctus Forel, 1904
(Figs. 5–7, 40–41)

Camponotus oasium Forel, Tohmé and Tohmé, 2000: 387, misidentification

Recognition

C. sanctus is a large species of *Tanaemyrmex* with broad head, moderate ground sculpture (the major worker is mostly shiny), and prismatic hindtibia ventrally with a row of bristles.

The *C. sanctus* worker is similar to *C. oasium* syntypes in size and color pattern, but differs from them by its smaller eye (Figs. 5–8, Figs. 7 and 8 depict specimens with equal head length), distinctly shorter mesosoma (Figs. 40–42), scape and legs; generally larger and more abundant punctures on gena; feebler ground sculpture; presence of erect setae on ventral head surface; and more abundant pilosity (mesosoma dorsum with 12–14 erect setae in *C. sanctus*, as opposed to 9–10 in *C. oasium*). One to four erect setae on the ventral surface of the head were found in all syntypes of *C. sanctus*, *C. maculatus thoracicus sanctoides* Forel and *C. compressus sanctus* var. *confellah* Santschi, and in examined specimens misidentified by Tohmé and Tohmé (2000: 387) as *C. oasium* ("oasium" morph), and in all the examined gyne, as well as in 150 workers from 50 localities. Three specimens from one nest series from Mount Hermon lack such setae. They have relatively large eyes (Figs. 5–7) and an infuscate body similar to *C. compressus sanctus* var. *confellah*. They are similar to *C. ninivae* Pisarski from Iraq in habitus, but differ from it by the larger eye, longer scape and leg, less accentuated sculpture of the mesosoma pleura, distinctly more abundant body pilosity, and darker color.

Measurements: ☿: TL = 8.0–15.6, HL = 1.76–4.34, HW = 1.25–4.38, EL = 0.46–0.78, SL = 2.29–3.59, ML = 2.89–5.32, PW = 1.09–2.46, mTbL = 1.88–3.31, hTbL = 2.81–4.65 (n = 120).

Material examined

ISRAEL: Har Hermon, 1750 m, 22.vi.1975, M. Kaplan (3☿, 1♀); 1600 m, 1.iii.2003,

A. Ionescu (9☿); Metulla, 19.iii.1947, H. Bytinski-Salz (7☿, 1♀); Nahal Qazrin, 9.v.2006, R. Nuriel (2☿); Montfort, 10.iii.1981, J. Kugler (1☿); 5.iii.2008, A. Ionescu (20☿); Nahal Keziv, 5.iii.2008, A. Ionescu (20☿, 3♀); Sasa, 15.iii.1959, J. Halperin (2☿, 2♀, 1m); 7.v.1985, J. Kugler (7☿, 1♀); Alon-Tavor (field school), 4.iv.1982, J. Kugler (12☿, 2♀); Har Meron, 27.iv.1984, C.A. Collingwood (1☿); 7.v.1985, J. Kugler (9☿); 6.xi.2007, A. Ionescu (20☿); Har Kefir, 6.xi.2007, A. Ionescu (20☿); 1.xi.2008, A. Ionescu (20☿); Nahal 'Ammud, 17.ix.1981, A. Hefetz (2☿, 1♀); Alonim, 7.iii.1942, H. Bytinski-Salz (3☿); Haifa, 21.xii.1935, H. Bytinski-Salz (3☿); Karmell, 25.iii.1940, H. Bytinski-Salz (3☿); Rehan Forest, 11.iv.2007; A. Ionescu (9☿, 1♀); Afiqim, 22.iii.2006, M. Vonshak (2☿); Biq'at Bet Zayda (Btekha), 11.v.1942, J. Palmoni (4☿); 'En Gev, 3.iii.1972, J. Kugler (4☿, 3♀); Hawat 'Eden, 23.i.1986, Q. Argaman (3☿, 3♀, 1m); Jerusalem, M. Th. Schmidt (9☿, syntypes; MHNG); 12.xi.1939, H. Bytinski-Salz (3☿, 1♀, 1m); 24.iii.1983, E. Shney-Dor (2☿, 1♀); E. Schmitz (3☿, 1♀, syntypes of *Camponotus maculatus* subsp. *thoracicus* var. *sanctoides* Forel; MHNG); (1☿, syntype of var. *sanctoides*; NHMB); Jerusalem RR, iii.1940, H. Bytinski-Salz (3☿); 20.iii.1968, H. Bytinski-Salz (9☿); B. Shemen, 17.iii.1981, E. Shney-Dor (2☿, 2♀); Emeq HaEla, 4.iv.2007, D. Lavee and S. Simchi (2☿); 'En Mor (Nahal Zin), 17.viii.2008, A. Freidberg (1☿); 17.viii.2008, A. Ionescu (4☿).

TURKEY: Ankara (Cyan Kiri Rd.), 12.iii.1938, F. S. Bodenheimer (1☿); Kokluce, 25.i.1939, F.S. Bodenheimer (1☿); Emiralem, 26.i.1939, F.S. Bodenheimer (1☿); Erzurum, 27.iv.1942, F.S. Bodenheimer (3☿).

SYRIA: Doummar, H. Gadeau de Kerville (5☿, 1♀, syntypes of *Camponotus* (*Myrmoturba*) *compressus* F. st. *sanctus* For. var. *confellah* Santschi; NHMB); Tel Shams, 25.xi.1973, A. Freidberg (3☿); Kuneitra, 4.iv.1968, H. Bytinski-Salz (12 ☿).

LEBANON: Byblos, iv.1966, C.A. Collingwood (5☿, 1♀); Baq'a Amiq, 15.vi.1982, A. Valdenberg (1☿); Baalbek, H. Gadeau de Kerville (3☿; NHMB), identified by F. Santschi as *C. compressus sanctus* var. *sanctoides* For.; Souq el-Gharb, 27.iv.1980, G. and H. Tohmé (2☿; MNHN).

Distribution

Near East (Wheeler and Mann, 1916; Santschi, 1939) to Iran and Afghanistan (Radchenko, 1997b).

Notes

C. sanctus was previously recorded from Israel by Schmitz (1911), Wheeler and Mann (1916), Menozzi (1933), Bodenheimer (1937), Kugler (1988), and Alpert and Martinez (2007).

This is a variable species, in which were described five varieties (Santschi, 1939) distinguished by head shape and width, eye length (Figs. 5–6), mesosoma length and height (Figs. 40–41), and body color. However, comparison of a larger sample of specimens from Israel, Lebanon, and Syria, some of them identified in the past as *C. sanctus* and *C. compressus sanctus* var. *sanctoides*, and the respective syntypes, showed variation of these features among and within the nest series.

C. sanctus and *C. compressus cosensis* Finzi are indistinguishable morphologically, and may be synonyms.

Camponotus (Tanaemyrmex) sannini Tohmé and Tohmé, 1999
(Fig. 43)

Recognition

C. sannini paratypes are hardly distinguishable from *C. aethiops* in having a straight propodeal dorsum (Fig. 43), as opposed to a variable propodeal dorsum, scape and tibiae with decumbent pubescence, as opposed to apressed, and dark brown mesosoma with very superficial lateral striation, as opposed to a generally darker and matte mesosoma in major workers of *C. aethiops*. However, specimens from Beirut have a distinctly concave propodeum and scape with apressed pubescence. Furthermore, in the original description of *C. sannini* completely black nest series are also mentioned.

Measurements: ☿: TL = 6.9–9.4, HL = 1.95–2.42, HW = 1.80–2.34, EL = 0.47–0.48, SL = 1.70–1.88, ML = 2.54–3.05, PW = 1.29–1.52, mTbL = 1.47–1.60, hTbL = 1.91–2.19 (n = 10).

Material examined

ISRAEL: Har Hermon, (Astra), 1950 m, 9.vii.1987, J. Kugler (1☿); 1900 m, 25.vi.1971, J. Kugler (2☿); 1800 m, 11.vi.2003, A. Freidberg (2☿).

LEBANON: Mahraga, 25.viii.1980, Tohmé and Tohmé (2☿, paratypes; MNHN); Beirut, 8.vii.1982, A. Hefetz (4☿).

Distribution

C. sannini was previously known only from Syria and Lebanon (Tohmé and Tohmé, 1999), and this is its first record from Israel.

Notes

The original description of *C. sannini* (Tohmé and Tohmé, 1999) refers to Bernard's (1968) redescription of *C. aethiops*, in which he mentioned the matte head and black color of *C. aethiops* specimens from France (Bernard, 1968). However, *C. aethiops* in its current concept is a variable species, so that the diagnostic characters of *C. sannini* are weak. A further study of these species from their entire distribution area will clarify the affinities between the Israeli and other specimens.

Camponotus (Orthonotomyrmex) sericeus (Fabricius, 1798)
(Fig. 26)

Recognition

This species can be recognized by the robust build (the major worker with very broad

head and mesosoma), the coarse sculpture of the head and mesosoma, and by the gaster covered with thick, apressed, golden-mossy pubescence. The head of major workers is truncated posteriorly, with the anterior margin of the clypeus not extending beyond the anterior margin of the gena, broadly rounded and incised medially. The mesosoma has a distinct metanotal groove, the propodeal dorsum is broad and flat, margined laterally and posteriorly, with obtuse teeth (Fig. 26).

Measurements: ☿: TL = 7.1–11.1, HL = 1.56–2.86, HW = 1.46–3.48, EL = 0.47–0.78, SL = 1.64–2.21, ML = 2.58–4.02, PW = 1.27–2.30, mTbL = 1.52–2.23, hTbL = 2.19–3.13 (n = 10).

Material examined

ISRAEL: ‘En Hazeva, 20.iii.1946, H. Bytinski-Salz (2☿, 1♀); ‘En Tamar, 24.iv.1960, J. Kugler (3☿); Neot Hakikar, 21.iii.1980, J. Kugler (3☿); Nahal Gidron, 18.vi.1997, A. Maklakov (6☿).

Distribution

This species is distributed from Sudan, Egypt, and Israel (Taylor, 2007), to Afghanistan and India (Radchenko, 1997b).

Notes

C. sericeus was previously recorded from Israel by Bytinski-Salz (1953), Kugler (1988) and Alpert and Martinez (2007).

Camponotus (Tanaemyrmex) sinaiticus n. sp.

(Figs. 9, 44)

Description

Worker

Head. Head of major worker narrow (HW/HL = 0.88–0.91, for HL > 3.8 mm, n = 8), with lateral margins parallel or very slightly arched, with “occipital lobes” moderately developed (Fig. 9); head of minor worker distinctly elongate (HW/HL = 0.66–0.71, for HL ≤ 2.5 mm, n = 4), with lateral margins parallel medially, convergent posteriorly, occiput straight; frons narrow, frontal area triangular; eye small (EL/HL = 0.20–0.23); clypeus projected forward, truncated, carinate; scape long (SL/HW = 1.00–2.05), surpasses occipital margin by about one-third of its length in major worker, by more than half of its length in minor worker.

Mesosoma. Dorsum in profile smoothly arched, propodeal dorsum straight, forming an obtuse angle with the declivity, at least twice as long as the latter (Fig. 44); petiolar scale higher than wide, dorsally convex; legs long (mTbL/HL = 0.89–1.25), strongly compressed laterally, tibia prismatic with longitudinal ridge.

Sculpture. Body finely reticulate-punctate, matte, covered with scattered piligerous pits.

Pilosity. Erect setae sparse: at most, 6 on head dorsum, 4 on pronotum, 1 on mesonotum, 3 on propodeum, 4 on dorsal margin of petiolar scale; hindtibia ventrally with row of bristles; entire body with short, apressed, scattered pubescence.

Color. Major and media workers completely black to dark brown, dorsally infuscate, with antennal flagellum and coxa brown, and mandible distally red; minor worker with head and antennal scape black, gaster dark brown, mesosoma, flagellum, and leg pale brown.

Measurements: TL = 9.1–15.2, HL = 1.99–4.14, HW = 1.45–3.75, EL = 0.59–0.86, SL = 2.77–3.98, ML = 3.63–5.78, PW = 1.21–2.34, mTbL = 2.54–3.95, hTbL = 3.67–5.35 (n = 18).

Differential diagnosis

C. sinaiticus is a large, dark species of the subgenus *Tanaemyrmex,* with accentuated ground sculpture and prismatic hindtibia with a row of bristles ventrally. It has the ventral head surface devoid of erect setae, similar to *C. tahatensis* Santschi and *C. xerxes*. It has habitus and color similar to dark specimens of *C. fellah* (var. *herodes*), but differs from all these species by longer scape and legs relative to head width and length. All examined specimens of *C. sinaiticus* have SL/HW ≥ 1, but I measured SL/HW < 1 in specimens with HL < 4.0 mm among six syntypes of *C. tahatensis* from central Sahara, among ten specimens of *C. xerxes*, and among 60 dark specimens of *C. fellah* from southern Israel and Sinai. *C. sinaiticus* minor workers with HL ≤ 2.5 mm have SL/HW = 2.00–2.05, whereas similar minors of *C. tahatensis* (n = 1), *C. xerxes* (n = 3), and *C. fellah* (n = 12), have SL/HW = 1.45–1.97; the same minor workers have mTbL/HL = 1.24–1.25 in *C. sinaiticus* and mTbL/HL = 1.05–1.17 in the other species. *C. sinaiticus* differs from dark specimens of *C. fellah* by lacking erect setae on the ventral head surface, as opposed to 1–3 erect setae in *C. fellah* (var. *herodes*). The major worker of *C. sinaiticus* differs from the major worker of *C. tahatensis* by the head margins laterally parallel or very slightly arched, as opposed to distinctly arched (Figs. 9 and 10 depict specimens with equal head width), and by the body uniformly black, as opposed to variable (dark body with yellowish-ochre coxa and petiole) in *C. tahatensis*. It differs from *C. xerxes* Forel by the slender build, the head distinctly narrower, especially in minor workers (at HL ≤ 2.5 mm, HW/HL = 0.66–0.71, as opposed to 0.76–0.80), the eye distinctly smaller at equal head length (Figs. 9 and 11 depict specimens with equal head length), and in the major workers by petiole black, as opposed to brown or dark red.

C. sinaiticus has a larger scape length than head width in all workers, similar to the North African *C. erigens* Forel, from which it differs by the lack of erect setae on ventral head surface, as opposed to very abundant (>10) such setae.

Material examined

Holotype ☿, EGYPT [Sinai]: Wadi Kseb, 15.iii.1982, J. Kugler, (deposited in TAUI);

Paratypes: same collection data as holotype (6☿). Additional paratypes: EGYPT: Sinai: Wadi el-Arbain, 10.iv.1974, L. Kinarty (1☿); Wadi Thach, 14.iii.1982, J. Kugler (3☿); Wadi Natzab, 24.iii.1969, J. Kugler (1☿); Wadi Sebal, 26.ix.1974, L. Kinarty (1☿); Wadi Tala, 8.iv.1973, D. Furth (1☿).

ISRAEL: Ein Gedi, parcel #2, 3.iv.2003, M. Vonshak (2☿); Eilat, 12.vii.1954, J. Halperin (1☿).

JORDAN: Karak, 25.v.2007, T. Katzav-Bojansky (1☿).

Etymology

This species is named after the Sinai Desert, Egypt, its main known distribution area.

Camponotus (Colobopsis) truncatus (Spinola, 1808)

(Figs. 13, 45, 58)

Recognition

This is a small dimorphic species with a phragmotic "soldier". The major worker has a cylindrical, abruptly truncate head (Fig. 13). The minor worker has a rounded head and can be recognized by the straight frontal carina, antennal insertion close to the middle of the frontal carina, propodeum dorsum distinctly concave in lateral view (Fig. 45), and by the petiole scale with acute summit in lateral view and indented dorsum in front view (Figs. 45 and 58).

Measurements: ☿: TL = 3.5–4.4, HL = 0.92–1.21, HW = 0.78–1.05, EL = 0.29–0.31, SL = 0.72–0.66, ML = 1.23–1.23, PW = 0.59–0.78, mTbL = 0.66–0.62, hTbL = 0.82–0.78 (n = 10).

Material examined

ISRAEL: Panyas, 13.vi.1982, J. Kugler (1♀); Nahal Bezet, 20.vii.1982, J. Kugler (1♀); Alonim, 17.vi.1942, H. Bytinski-Salz (3☿); Carmel, Muhraqa, 21.ix.1994, D. Wool (3☿); Hawat 'Eden, 27.vii.1984, Q. Argaman (1♀); Nahal Oren, 24.v.1995, A. Freidberg (1☿); Hadera, 2.iv.1945, H. Bytinski-Salz (3☿);Tel Aviv, 1.vii.1943, H. Bytinski-Salz (2g); 12.vii.1965, H. Bytinski-Salz (1♀).

CYPRUS: Paphos Forest, 22.iv.1972, M. Halevi (2☿).

Distribution

Mostly southern and central Europe, also northwest Africa, Crimea, Caucasus, eastern Mediterranean, and the Middle East (Radchenko, 1997b).

Notes

This species was previously recorded from Israel by Menozzi (1933), Bodenheimer

(1937), Kugler (1988), and Alpert and Martinez (2007), and from Lebanon in Tohmé (1969a).

Camponotus (Tanaemyrmex) turkestanus Er. André, 1882

Recognition

This species is recognized by its mainly yellow body with at most the last two gastral segments brownish. It has a sparse pilosity; the gena and ventral surface of the head are devoid of erect setae. The hindtibia is tubular, oval in cross section, and without a longitudinal ridge. Minor workers of pale *Tanaemyrmex* species may occasionally show the color pattern of *C. turkestanus*, especially callow workers, but their hindtibia are prismatic with a distinct dorsomedial ridge (Fig. 54).

Measurements: ☿: TL = 6.9–8.1, HL = 1.43–1.76, HW = 1.09–1.27, EL = 0.45–0.57, SL = 1.99–2.15, ML = 2.62–2.81, PW = 0.92–0.98, mTbL = 1.56–1.76, hTbL = 2.23–2.46 (n = 10).

Material examined

ISRAEL: ‘En ‘Avedat, 31.iii.1981, J. Kugler (10☿).

Distribution

Near East to central Asia (Radchenko, 1997b).

Notes

This species was previously recorded from Israel by Menozzi (1933) and Bodenheimer (1937).

Camponotus (Myrmentoma) vogti Forel, 1906
(Figs. 21, 46)

Recognition

C. vogti is the sister-species of *C. kurdistanicus* in the *C. gestroi* species complex of the *C. lateralis* group (Radchenko, 1997c). The Israeli specimen in the collection is similar morphologically to *C. kurdistanicus*, but its head is dorsally brown and ventrally light ferruginous, as opposed to the completely black head in *C. kurdistanicus*.

Measurements: ☿: TL = 7.2, HL = 1.74, HW = 1.74, EL = 0.42, SL = 1.39, ML = 2.30, PW = 1.25, mTbL = 1.21, hTbL = 1.74 (n = 1).

Material examined

ISRAEL: Bet Netofa, 11.x.1968, J. Kugler (1☿).
IRAQ: Shaqlawa, 10.v.1978, M. S. A. Rasoul (1☿).

Distribution

Balkans, Turkey (Asia Minor) (Radchenko, 1997c), Lebanon (Tohmé, 1969a), Israel, and Iran (Paknia et al., 2008). This is the first record of *C. vogti* from Israel.

Notes

The Israeli specimens of *C. vogti* and *C. kurdistanicus* may be color varieties of a single species. A final decision must await a collection of more material and a comparison with types.

Camponotus (Tanaemyrmex) xerxes Forel, 1904

(Fig. 11)

Recognition

This species has affinities with the *C. thoracicus* species complex and is closely related to *C. fellah*, according to Radchenko (1997b). According to Collingwood and Agosti (1996) and Radchenko (1997b), *C. xerxes* can be distinguished from *C. fellah* only by the absence of erect setae on the ventral surface of the head.

Measurements: ☿: TL = 13.3–17.0, HL = 3.16–4.49, HW = 2.50–4.38, EL = 0.86–1.05, SL = 3.48–3.67, ML = 4.53–5.94, PW = 1.84–2.58, mTbL = 3.36–3.79, hTbL = 4.61–5.23 (n = 10).

Material examined

IRAN, Bushire (1☿, 1♀); 120 km S. Shiraz, 7.viii.1972, D. Gerling (3☿).

EGYPT: Sinai: Wadi Um Anfei, 45 km SW of Hurgadia, 8.viii.1983, J. Kugler (1☿).

SAUDI ARABIA: Araida, 8.x.1975, W. Büttiker (3☿); El Rijadh, 1.vi.1960, Dr. Diehl (4☿).

Distribution

Near East and the Sinai Peninsula to Central Asia (Radchenko, 1997b; Taylor, 2007).

Notes

C. xerxes was previously recorded from Israel by Ebner (1930) and Bodenheimer (1937). A record from "Joppe", the former name of Jaffa, Israel, by Forel (1913), is dubious because Forel mentioned the locality in "Asie Mineure".

Despite the fact that no specimens could be located in TAUI, this species was recorded from the study area and is therefore included in the list of species of Israel.

B. Imported species not considered part of the ant fauna of Israel (not known to be established in Israel).

Camponotus (Myrmentoma) fallax (Nylander, 1856)

Material examined

ISRAEL: Ashdod Port (in wood from Ukraine), 29.i.2007, (2☿); 12.iii.2007, (1☿); 10.vi.2007, (1☿); 27.5.2008, (5☿); (in wood from "East Europe"), 6.iii.2007, (5☿); all specimens collected by L. Gahanama.

SPAIN: Palautordera, Barcelona, v.1981, Amable (2☿).

Distribution

Europe, northwestern Morocco, Caucasus, northwestern Kazakhstan, southern part of western Siberia (Czechowski et al. 2002).

Camponotus (*Myrmothrix) floridanus* (Buckley, 1866)

(Fig. 53)

Material examined

ISRAEL: in PPIS collections (1☿).

USA: Dade Co. Everglades (Florida), 17.vi.1979, A. Freidberg (9☿).

Distribution

Florida and neighboring states (Hedlund, 2006).

Camponotus (Tanaemyrmex) irritans carinifer (Viehmeyer, 1916)

(Fig. 22)

Material examined

ISRAEL: (on mangustan fruit from Singapore), 27.xii.1950 (4☿; PPIS).

Distribution

Burma to Oceania (Emery, 1925b). The type locality of the subspecies *carinifer* is Singapore.

Camponotus (Camponotus) pennsylvanicus (De Geer, 1773)

Material examined

ISRAEL: Tel Aviv, 23.iii.1978, J. Kugler (1☿).

USA: Maryland, Montgomery County, 21.iii.1979, A. Freidberg (2☿); Massachusetts, Fells Reservation, 29.vi.1986, J. Kugler (4☿, 1♀).

Distribution

Central and eastern USA (Hedlund, 2006).

Notes

Although the label of the imported specimen indicates Israel, Tel Aviv, the fact that during the past 30 years no new specimens were collected suggests that the species is not established in Israel.

Camponotus (Myrmentoma) sayi Emery, 1893

Material examined

ISRAEL: (from USA, California, on dates), 14.vi.1953, (6☿; PPIS); Ashdod Port (in wood—railway sleeper from Texas, USA), 15.iv.2008, L. Gahanama (1♀).

Distribution

Central and southern USA (Hedlund, 2006).

Camponotus (Myrmamblys) sp. near *vitiosus* Smith, F., 1874

(Figs. 14, 47)

Material examined

ISRAEL: Ashdod Port (in bamboo from China), 22.x.2006, L. Gahanama (1☿); 2.iv.2009, L. Gahanama (2☿).

Distribution

Korean Peninsula, Japan, and China.

Notes

The specimens key to *C. tokioensis* Ito in Wang and Wu (1994), junior synonym of *C. vitiosus*. The specimen imported in 2006, a major worker (HW = 1.5 mm), has 5-toothed mandibles and gena with abundant short, suberect setae in addition to apressed pubescence; the minor workers (HW = 1.1 mm) imported in 2009 have 6-toothed mandibles and gena without suberect setae.

Camponotus (Myrmentoma) tergestinus Müller, 1921

(Figs. 23, 48)

Material examined

ISRAEL: Haifa Port (in wood—railway sleeper from Romania), 4.iv.2007, L. Gahanama (2☿), identified as *C. tergestinus* by F. Rigato, 2007.

Distribution

This species shows a scattered distribution. It is currently known from a few locations in Italy (F. Rigato personal communication), Slovenia, Hungary, Romania and the European part of Turkey (Ionescu-Hirsch et al. 2009).

Camponotus (Camponotus) vagus (Scopoli, 1763)

Material examined

ISRAEL: Ashdod Port (in wood from "East Europe"), 6.iii.2007, L. Gahanama (2☿); in wood from "Russia", 29.iv.2007, L. Gahanama (5☿); in wood from Ukraine, 10.vi.2007, L. Gahanama (4☿); in wood from Bulgaria, 9.iv.2007, L. Gahanama (4☿).

SPAIN: Pena Oroel Huesca, 26.viii.1982, X. Espadaler (3☿).

Distribution

C. vagus is a common European species which can be found from southern Finland and Sweden to the north-western parts of North Africa, and from the Atlantic shore through the northern Mediterranean shore, Asia Minor, Caucasus, and northern Kazakhstan to the Altai Mountains (Czechowski *et al*. 2002).

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