

# ***Camponotus* Mayr, 1861 (Hymenoptera: Formicidae) of Cyprus: generic synopsis and description of a new species**

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**ABSTRACT.** Sixteen species of the genus *Camponotus* have been reported from Cyprus. Nevertheless, material sampling on the island confirms the presence of 10 species. *Camponotus (Tanaemyrmex) troodosensis* sp. nov. is described as a new species to science, collected from low and mid altitudes in pine forests of the Troodos mountain range. *Camponotus (Myrmamblys) cf. vitiosus*, an Eastern Palaearctic species, is recorded from the island only from a single site in the Cedar Valley and is presented for the first time as a new alien species. An identification key to the 10 species of *Camponotus* known from Cyprus is provided. *Camponotus kiesenwetteri* var. *cypria* Emery, 1920 is transferred from a junior synonym of *Camponotus kiesenwetteri* (Roger, 1859) to a synonym of *Camponotus libanicus* André, 1885, **new synonymy**.

**ΠΕΡΙΛΗΨΗ.** Δεκαέξι είδη του γένους *Camponotus* έχουν αναφερθεί από την Κύπρο. Ωστόσο, δειγματοληψίες στο νησί επιβεβαιώνουν την παρουσία 10 ειδών. Το *Camponotus (Tanaemyrmex) troodosensis* sp. nov. περιγράφεται ως νέο είδος για την επιστήμη και συλλέχθηκε από χαμηλά και μεσαία υψόμετρα σε πευκοδάση της οροσειράς του Τρόοδους. Το είδος *Camponotus (Myrmamblys) cf. vitiosus*, ένα είδος της Ανατολικής Παλαιαρκτικής, καταγράφεται στο νησί μόνο από μία θέση στην Κοιλάδα των Κέδρων και παρουσιάζεται για πρώτη φορά ως νέο ξενικό είδος. Παρέχεται κλειδά αναγνώρισης των 10 ειδών *Camponotus* που είναι γνωστά από την Κύπρο. Το *Camponotus kiesenwetteri* var. *cypria* Emery, 1920 μεταφέρεται από συνώνυμο του είδους *Camponotus kiesenwetteri* (Roger, 1859) σε συνώνυμο του *Camponotus libanicus* André, 1885, ως νέα συνωνυμία.

**Keywords** alien species, biological invasions, Cyprus, Eastern Mediterranean, identification key, island endemics

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## INTRODUCTION

*Camponotus* Mayr, 1861 is the second most species-rich ant genus globally. Based on present-day data, it consists of 1496 taxa (1086 valid species and 410 valid subspecies). As many as 171 *Camponotus* taxa have been described from the Palearctic region, and most of them occur in the Mediterranean and Turanian Regions (Janicki et al. 2016; Bolton 2023). Salata et al. (2019) considered two Mediterranean subregions as centers of diversity of this genus in the Western part of the Palearctic. The first one covers the Iberian Peninsula and the Atlas Mountains while the second one spreads on the Eastern part of the Mediterranean Basin, where recent intensive studies have resulted in the description of several new species (Tohmé & Tohmé 2000; Ionescu-Hirsch 2010; Karaman 2012; Karaman & Aktaç 2013; Karaman et al. 2017; Seifert 2019; Salata et al. 2020; Borowiec & Salata 2022).

The island of Cyprus is situated at the heart of the Eastern Mediterranean and lies at the crossroads between three continents, Africa, Asia and Europe. Sociopolitically it is considered a part of Europe (with the Republic of Cyprus being a member state of the European Union) although, geographically the island is considered as part of Western Asia or the Middle East (Gourou 2023). The Cypriot myrmecofauna is rather poorly known, while historically, a total of 16 species of the genus *Camponotus* have been recorded from the island hitherto (Table 1). The first records for the genus can be traced back to Emery & Forel (1879) and Forel (1879), mentioning specimens from Cyprus collected by Saussure and identified as *C. kiesenwetteri* (Roger, 1859) and *C. cognatus* (Smith, 1858) (currently a junior synonym of *C. maculatus* (Fabricius, 1782)). Subsequently, Forel (1904) described, and Emery (1908) mentioned *Camponotus maculatus sanctus cypriacus* Forel, 1904 from the island, although this name has since been deemed unavailable. Later, Emery (1920), who treated the Cypriot population of *Camponotus kiesenwetteri* as a separate variety,

described *Camponotus kiesenwetteri* var. *cypria*. The new subspecies was later listed in the following paper (Emery, 1925a) along with *C. cecconii* Emery, 1908 (as *Camponotus sylvaticus* spp. *cecconii* Emery) (Emery 1925a). The same author also indicated in a list of geographical distribution the presence of *C. lateralensis* Olivier, 1792 on the island (Emery 1925b). Santschi (1939) collected from Kerynia, Palaiomylos *C. sanctus* Forel, 1904 (listed as *Camponotus (Myrmoturba) compressus* F. st. *sanctus* For.) and described *Camponotus lateralensis cypridensis* Santschi, 1939 from Yermasoyia (close to Limassol), a species later synonymised with *C. rebecca* Forel, 1913 (Seifert 2019). An aberrant record of *Camponotus herculeanus* (Linnaeus, 1758) was noted by Georghiou (1977) without any precise geographical information. No members of the subgenus *Camponotus* s. str., other than *C. herculeanus*, were indicated in Georghiou's book on "the insects and mites of Cyprus". Thus, by the end of the 20th century, only seven carpenter ant species were known for the island.

In the 21st century, Ionescu-Hirsch (2010 [2009]) examined material collected in Limassol, reporting on the presence of *C. gestroi* Emery, 1878 in Cyprus, and validating records of *C. lateralensis*. Follow-up studies of Borowiec & Salata (2012) and Borowiec (2014) reported Cyprus within the distributional range of 13 species, adding to the list of recorded species: *C. aethiops* (Latreille, 1798), *C. baldaccii* Emery, 1908, *C. compressus* (Fabricius, 1787), *C. honaziensis* Karaman & Aktaç, 2013, *C. jaliensis* Dalla Torre, 1893, *C. libanicus* André, 1881, *C. samius* Forel, 1889, and *C. thoracicus* (Fabricius, 1804) (Table 1). During material surveys in Cyprus, Salata & Borowiec (2015) also collected specimens identified as *C. cecconii*, *C. honaziensis*, *C. jaliensis* and *C. sanctus*. In more recent years, Salata et al. (2019) proposed the formerly known *C. kiesenwetteri* *cypria* as a junior synonym of *C. kiesenwetteri* while Seifert (2019) examined material of *C. lateralensis* (as *Camponotus kossugi* Donisthorpe 1950) from Cedar Valley and proposed *C. lateralensis* *cypridensis* Santschi, 1939 as a junior synonym of *C. rebecca*.

**Table 1.** Species of the genus *Camponotus* previously reported from Cyprus.

No.	Species	Reference(s)	Notes
1	<i>Camponotus aethiops</i> (Latreille, 1798)	Borowiec & Salata (2012) Borowiec (2014)	Cyprus mentioned in distribution
2	<i>Camponotus baldaccii</i> Emery, 1908	Borowiec (2014)	Cyprus mentioned in distribution
3	<i>Camponotus cecconii</i> Emery, 1908	Emery (1925a) Borowiec & Salata (2012) Borowiec (2014) Salata & Borowiec (2015)	as <i>Camponotus sylvaticus</i> spp. <i>ceconii</i> Emery Cyprus mentioned in distribution Specimens collected from Avakas gorge
4	<i>Camponotus compressus</i> (Fabricius, 1787)	Borowiec & Salata (2012) Borowiec (2014)	Cyprus mentioned in distribution Cyprus mentioned in distribution (marked with “?”, indicating a possible misidentification with <i>C. baldaccii</i> )
5	<i>Camponotus gestroi</i> Emery, 1878	Ionescu-Hirsch (2010)[2009] Borowiec & Salata (2012) Borowiec (2014)	Specimens collected from Limassol Cyprus mentioned in distribution
6	<i>Camponotus herculeanus</i> (Linnaeus, 1758)	Georghiou (1977)	Collected from Cyprus
7	<i>Camponotus honaziensis</i> Karaman & Aktaç, 2013	Borowiec (2014) Salata & Borowiec (2015)	Cyprus mentioned in distribution Specimens collected from road of Panagia - Cedar Valley
8	<i>Camponotus jaliensis</i> Dalla Torre, 1893	Borowiec & Salata (2012) Borowiec (2014) Salata & Borowiec (2015)	Cyprus mentioned in distribution Specimens collected from road of Panagia - Cedar Valley
9	<i>Camponotus kiesenwetteri</i> (Roger, 1859)	Emery & Forel (1879) Forel (1879) Emery (1920) Emery (1925) Borowiec & Salata (2012) Borowiec (2014) Salata et al. (2019)	as <i>C. kiesenwetteri</i> Rog. as <i>Camponotus kiesenwetteri</i> var. <i>cypria</i> Emery Cyprus mentioned in distribution <i>Camponotus kiesenwetteri cypria</i> proposed as junior synonym of <i>C. kiesenwetteri</i>
10	<i>Camponotus lateralis</i> Olivier, 1792	Emery (1925b) Ionescu-Hirsch (2010)[2009] Borowiec & Salata (2012) Borowiec (2014) Seifert (2019)	Cyprus mentioned in distribution Specimens collected from Limassol Cyprus mentioned in distribution Specimens from Cedar Valley as <i>Camponotus kossowigi</i> Donisthorpe 1950
11	<i>Camponotus libanicus</i> André, 1881	Borowiec & Salata (2012) Borowiec (2014)	Cyprus mentioned in distribution
12	<i>Camponotus maculatus</i> (Fabricius, 1782)	Emery & Forel (1879) Forel (1879)	as <i>Camponotus cognatus</i> Smith
13	<i>Camponotus rebecca</i> Forel, 1913	Santschi (1939) Seifert (2019)	from Limassol, Yermasogeia as <i>Camponotus (Myrmoturba) lateralis</i> Ol. v. <i>cypridis</i> n. var. <i>Camponotus lateralis cypridis</i> as a junior synonym of <i>C. lateralis</i>
14	<i>Camponotus samius</i> Forel, 1889	Borowiec & Salata (2012) Borowiec (2014)	Cyprus mentioned in distribution
15	<i>Camponotus sanctus</i> Forel, 1904	Santschi (1939) Borowiec & Salata (2012) Borowiec (2014) Salata & Borowiec (2015)	from Kerynia, Palaiomylos [as <i>Camponotus (Myrmoturba) compressus</i> F. st. <i>sanctus</i> For.] Cyprus mentioned in distribution Specimens collected from road of Panagia - Cedar Valley
16	<i>Camponotus thoracicus</i> (Fabricius, 1804)	Borowiec (2014)	Cyprus mentioned in distribution

Recent material surveys have confirmed the occurrence of ten species of *Camponotus* belonging to three subgenera: *Myrmamblys*, *Myrmentoma*, and *Tanaemyrmex*. A new species to science, *C. (Tanaemyrmex) troodosensis* sp. nov., is described from material collected in pine forests at low and mid altitudes of the Troodos mountain range. In addition, *C. (Myrmamblys) cf. vitiosus*, an Eastern Palaearctic species reported only from Israel outside its native range (Ionescu-Hirsch 2010 [2009]), is collected only from a single site in the Cedar Valley and is presented as a new alien species for the island. One taxon, previously described as *Camponotus kiesenwetteri* var. *cypria* Emery, 1920 was recently synonymized with *Camponotus kiesenwetteri* (Roger, 1859) by Salata et al. (2019). Nevertheless, our study of syntypes preserved in the Genoa Museum shows that it is a synonym of *C. libanicus* André, 1885.

## MATERIAL AND METHODS

### Material collection:

Specimens were collected in Cyprus from Ammochostos, Larnaka, Limassol, Nicosia, and Paphos districts as well as the Akrotiri UK Sovereign Base Area in 2012 and 2022. Explored habitats varied in vegetation and land cover, ranging in altitude from sea level to 1928 m. The dominant sampling method was direct sampling (hand collecting), sporadically supplemented with beating sheet or/and sifting. Individual specimens were collected on the ground or close to the nests' entrance on the soil. All specimens were preserved mostly in absolute EtOH and partly in 75% EtOH. If not stated otherwise, the material listed in the species accounts was collected by L. Borowiec, J. Demetriou, C. Georgiadis & S. Salata during the 2022 expedition. Geographic coordinates indicate the general collection site, not the precise location of a nest. Material was collected within a radius of 100 meters from each indicated GPS point.

### Specimen photography:

Photos were taken using a Nikon SMZ 1500 stereomicroscope, Nikon D5200 photo camera, and Helicon Focus software. Label data for type material of the new species are in the original spelling, presented in square brackets; a vertical bar (|) separates data on different rows and double vertical bars (||) separate labels. Type specimens' photographs are available online on AntWeb ([www.AntWeb.org](http://www.AntWeb.org)) and are accessible using the unique CASENT identifying specimen code.

### Museum abbreviations:

<b>JDPC</b>	Jakovos Demetriou Personal Collection;
<b>MNHN</b>	Muséum National d'Histoire Naturelle, Paris, France;
<b>MNHW</b>	Museum of Natural History, University of Wrocław, Poland;
<b>NHMC</b>	Natural History Museum of Crete, Herakleion;
<b>NHMUK</b>	Natural History Museum United Kingdom;
<b>NHMW</b>	Natural History Museum Vienna;
<b>MHNG</b>	Muséum d'Histoire Naturelle, Genève, Switzerland;
<b>MSNG</b>	Natural History Museum, Genoa
<b>MZPW</b>	Museum of Zoology, Poland, Warsaw;
<b>NHMB</b>	Natural History Museum Basel;
<b>PSWC</b>	Philip S. Ward Collection;
<b>TAU</b>	Tel Aviv University;
<b>USMB</b>	Upper Silesian Museum, Bytom, Poland;
<b>ZMUA</b>	Museum of Zoology of the University of Athens, Greece.

The pilosity inclination degree follows that used in Wilson (1955). Appressed (0–5°) hairs run parallel or nearly parallel to the body surface. Decumbent hairs stand 5–20°, subdecumbent hair stands 20–60°, suberect 60–80°, and erect 80–90° from the surface (as per Fig. 3 Wilson 1955).



Figs 1, 2. Worker of *Camponotus* cf. *vitiosus* (DBETCV001) 1 dorsal 2 lateral (scale bar = 1 mm).

## Measurements

All observations and measurements were made using a pin-holding stage, permitting rotations around the X, Y, and Z axes at magnifications from  $32\times$  to  $100\times$  with a Nikon SMZ 1500 microscope and an orthogonal crosshair micrometer. All measurements are presented in millimeters (mm) as an arithmetic mean, with minimum and maximum values in parentheses.

- EL** eye length; maximum diameter of the compound eye;
- HFL** hind femur length; measured on dorsal side from trochanter to apex of femur;
- HL** head length; measured in a 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 posterior of the eyes;
- MSW** in gynes only, mesoscutum width: maximum width of mesoscutum in dorsal view;
- PW** workers only, pronotum width: maximum width of pronotum in dorsal view;
- PTH** petiole height; the chord of ventral petiolar profile at node level is the reference line perpendicular to which the maximum height of petiole is measured, measured from petiolar sternum to apex in lateral view;
- PTW** petiole width; maximum width of the petiolar node in lateral view;
- SL** scape length; maximum straight-line length of scape excluding the basal condylar bulb;
- WL** Weber's length; measured as diagonal length from the anterior end of the neck shield to the posterior margin of the propodeal lobe.

## Indices:

- CI** cephalic index, HL/HW;
- SI** scape index, SL/HL;
- PI** petiole index, PTH/PTW;
- FI** femur index, HFL/WL.

## Abbreviations:

- w.** worker
- q.** queen
- s.** major worker
- m.** male

## Type material of species (or their junior synonyms) noted in the comparative diagnoses

*Camponotus baldaccii* Emery, 1908: 198 (s.,w.): *Camponotus dichroous* var. *baldaccii* Em., Creta, Rettimno Monasterium (MSNG) (leg. Cecconi) [syntype images examined, AntWeb, CASENT0905304, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>]; Creta, Almiros Apocorona (MSNG) (leg. Cecconi) [syntype images examined, AntWeb, CASENT0905305, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

*Camponotus ceconii* Emery, 1908: 198 (s.,w.): *Camponotus maculatus ceconii* Em., Akanthu [Akanthou, Cyprus], 12-J-99 (12/01/1899) (MSNG) [syntype images examined, AntWeb, CASENT0905302 and CASENT0905303, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

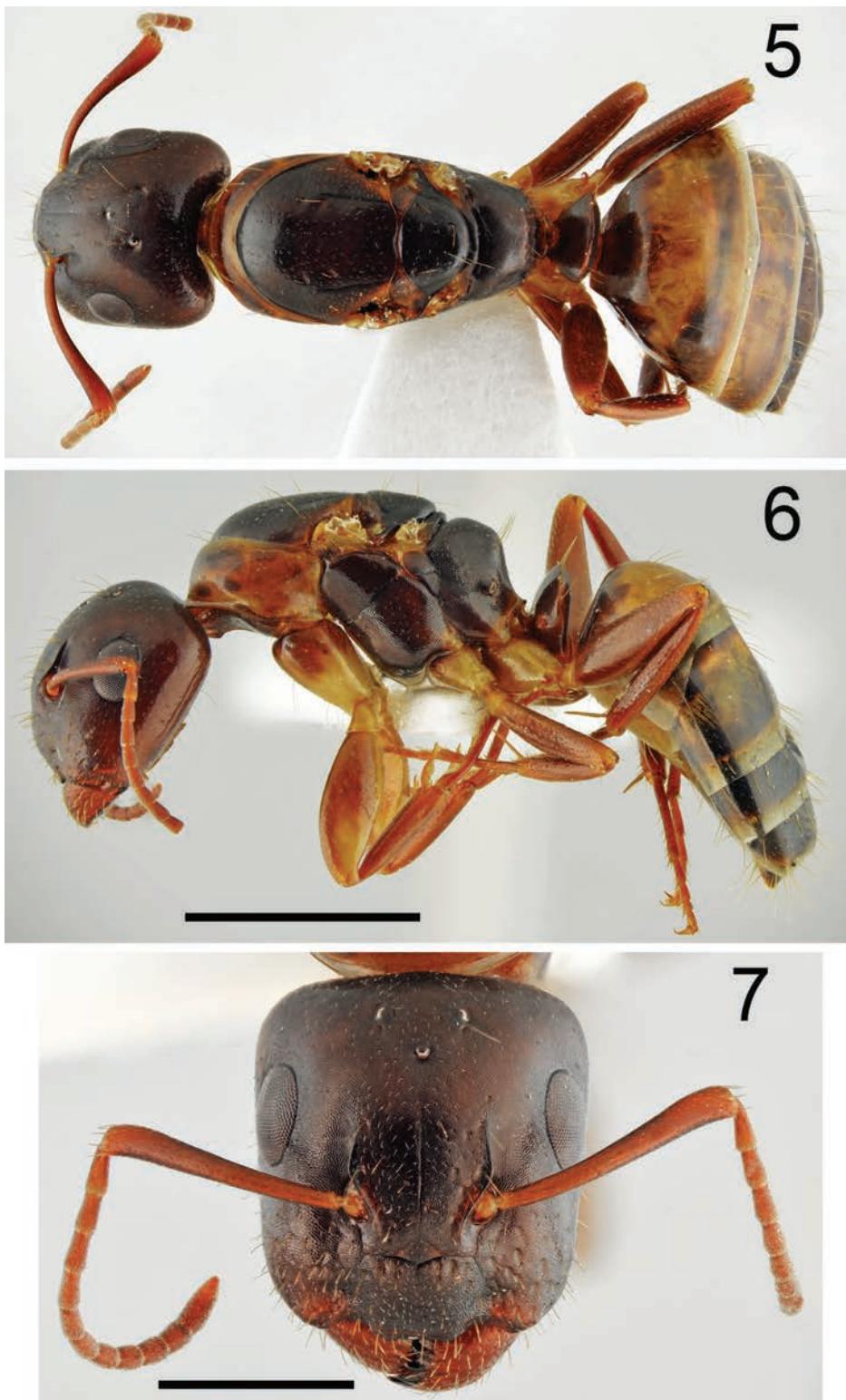
*Camponotus fellah* Dalla Torre, 1893: 245 (s.,w.): *Camponotus fellah* Em., Egypt, Lac Manzalah (MSNG) [syntype images examined, AntWeb, CASENT0911939, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

*Camponotus kugleri* Ionescu-Hirsch, 2010: 78, figs. 4, 12 (s.,w.): Holotype: *Camponotus kugleri* Ionescu, 2010., Israel: Enot Zuqim, 26.x.2008 (TAU on loan to CAS) (leg. A. Ionescu) [holotype images examined, AntWeb, CASENT0281011, photos by Shannon Hartman and Zach Lieberman available on <https://www.AntWeb.org>]; Paratype: Israel, Ein Zik, 16.8.1966 (TAU) (leg. A. Ionescu) [paratype images examined, AntWeb, CASENT0281031, photos by Shannon Hartman and Zach Lieberman available on <https://www.AntWeb.org>].

*Camponotus oasisum* Forel, 1890: lxv (s.,w.,q.): Paratypes of *Camponotus bactrianus*: Afghanistan, Khvadjeh Tchicht 145 km E Herat, 25.8.1957 (MZPW) (leg. K. Lindberg) [paratype images examined, AntWeb, CASENT0917221 and CASENT0917251, photos by Kate Martynova available on <https://www.AntWeb.org>].



**Figs 3, 4.** Worker of *Camponotus* cf. *vitosus* (DBETCV001) **3** worker head and antennae (scale bar = 0.5 mm)  
**4** worker head sculpture.



Figs 5 – 7. Gyne of *Camponotus* cf. *vitosus* (DBETCV002) 5 dorsal  
6 lateral (scale bar = 2 mm) 7 head (scale bar = 1 mm).

*Camponotus sinaiticus* Ionescu-Hirsch, 2010: 89, figs. 9, 44 (s.,w.): Holotype: *Camponotus sinaiticus* Ionescu, 2010., Egypt, Sinai, Wadi Quseib, 15.iii.1982 (TAU) (leg. J. Kugler) [holotype images examined, AntWeb, CASENT0281013, photos by Shannon Hartman and Zach Lieberman available on <https://www.AntWeb.org>]; Paratype: *Camponotus sinaiticus* Ionescu, 2010., Egypt, Sinai, Wadi Quseib, 15.iii.1982 (TAU) (leg. J. Kugler) [paratype images examined, AntWeb, CASENT0281033, photos by Muchele Esposito and Shannon Hartman available on <https://www.AntWeb.org>].

*Camponotus xerxes* Forel, 1904: 424 (w.,q.): *Camponotus maculatus xerxes* For., Turkmenistan, Arman Saad – Kyzyl Arvat Zakasp (Transcaspia) (MSNG) (Ahnger) [syntype images examined, AntWeb, CASENT0905292, photos by Alexandra Westrich and Will Ericson available on <https://www.AntWeb.org>].

*Camponotus abrahami* Forel, 1913: 435 (s.,w.,q.): *Camponotus (Orthonotomymrmex) libanicus* var. *abrahami* Forel, 1913., Libanan (Lebanon) (MHNG) (leg. J. Sahlberg) [syntype images examined, AntWeb, CASENT0910439, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

*Camponotus fallax* (Nylander, 1856): 57 (w.): *Formica fallax* Nylander, 1856., *Camponotus marginatus* var. *ruzskyi* Emery (MSNG) [syntype images examined, AntWeb, CASENT0905398, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

*Camponotus kurdistanicus* Emery, 1898: 151 (w.,q.): *Camponotus gestroi* var. *kurdistanica* Emery., Baku (Cauc), Azerbaijan (MSNG) (leg. Christoph) [syntype images examined, AntWeb, CASENT0905392, photos by Alexandra Westrich and Will Ericson available on <https://www.AntWeb.org>].

*Camponotus tergestinus* Müller, 1921: 46 (w.,q.): *Camponotus tergestinus* J. Müller., Triste dint. Boschetto (NHMW) (leg. Pilleri) [syntype images examined, AntWeb, CASENT0915598, photos by Isidor Plonski available on <https://www.AntWeb.org>].

*Camponotus vogti* Forel, 1906: 187 (w.): *Camponotus vogti* type Forel., Taurus (MHNG) (leg. Vogt) [type images examined, AntWeb, CASENT0249881, photos by Ryan Perry and Shannon Hartman available on <https://www.AntWeb.org>].

## RESULTS

### Synopsis of species of the genus *Camponotus* in Cyprus

Subgenus *Myrmamblys*

*Camponotus cf. vitiosus*

Subgenus *Myrmentoma*

*Camponotus lateralis* (Olivier, 1792)

*Camponotus libanicus* André, 1881

= *Camponotus kiesenwetteri cyprius* Emery, 1920  
**syn. nov.**

*Camponotus rebeccaee* Forel, 1913

Subgenus *Tanaemyrmex*

*Camponotus ceconii* Emery, 1908

*Camponotus gestroi* Emery, 1878

*Camponotus jaliensis* Dalla Torre, 1893

*Camponotus samius* Forel, 1889

*Camponotus sanctus* Forel, 1904

*Camponotus troodosensis* sp. nov.

### Species accounts

#### Subgenus *Myrmamblys* Forel, 1912

*Camponotus cf. vitiosus*

Figs 1–7

**Material examined:** 1w., 1q. (DBETCV001–DBETCV002): CYPRUS, Paphos distr., 1196 m, Cedar Valley, 34.98527, 32.68388, 5 V 2012, L. Borowiec (MNHW).

**Distribution note.** This species is distributed in the Eastern part of the Palearctic Region and was noted from China, Japan, and South Korea (Terayama 1999). Surprisingly, recently it was recorded from Israel by Ionescu-Hirsch (2010 [2009]) based on three workers introduced to Ashod Port transported with bamboo from China. There is no further information as to whether this species is permanently established in Israel. In 2012, one of



Figs 8, 9. Major worker of *Camponotus troodosensis* sp. nov. (DBETCT001)  
8 dorsal 9 lateral (scale bar = 2 mm).

the authors (L. Borowiec) collected this species in natural habitats in the Cedar Valley of Cyprus (NATURA 2000 site: CY2000008) which would indicate a permanent settlement of this species in the Eastern part of the Mediterranean basin. Below we provide a detailed redescription of this species based on specimens from Cyprus to enable a proper identification of this species in the future.

**Note.** The presented diagnosis and redescription are based on Cypriot specimens that belong to the bicolored form of this species. They do not include the entirely black form of this species known from territories of its native range (see AntWeb.org, CASENT0923671).

**Diagnosis.** *Camponotus vitiosus* is the only member of the subgenus *Myrmamblys* known from the Mediterranean but it might be confused with several species of the subgenus *Myrmentoma* known from this region. *Camponotus vitiosus* groups with species characterized by the presence of overall fine body sculpture with shiny at least gaster and mesosoma, regularly convex promesonotal dorsum, and lack of metanotal groove.

In the Eastern part of the Mediterranean Basin, this group consists of: *C. abrahami* Forel, 1913, *C. fallax* (Nylander, 1856), *C. gestroi* Emery, 1878, *C. kurdistanicus* Emery, 1898, *C. tergestinus* Müller, 1921, and *C. vogti* Forel, 1906. *Camponotus abrahami* and *C. gestroi* well differ in entirely black body coloration and well-marked metanotal suture. *Camponotus fallax* differs in lack of erect setae on gena, usually presence of a shallow median emargination on the anterior margin of the clypeus, and predominantly brown body, sometimes with yellowish pronotum. *Camponotus tergestinus* differs in predominantly brown to black body coloration, presence of erect setae on antennal scapus, and a larger body with HL above 1.90 mm (mean 2.28). *Camponotus kurdistanicus* differs in distinctly bicolored body, with dark-brown to black head and gaster and mostly red mesosoma, flat propodeal dorsum.

**Redescription.** Minor worker (n=1): **Measurements.** HL: 1.25; HW: 1.06; SL: 1.23; EL: 0.41; PW: 0.83; PTH: 0.45; PTW: 0.21; WL: 1.82; HFL: 1.25; CI: 1.18; SI: 1.16; PI: 2.14; FI: 0.69.

**Color.** Mandibles and gena yellow, clypeus mostly yellow, medially with a brown, narrow stripe; rest of the head yellowish-brown to brown, paler anteriorly. Pronotal dorsum yellowish-brown except for yellow anterior and posterior margins; lateral sides yellow. Mesonotum and propodeum brown with slightly paler patches on lateral sides. Gaster mostly black, with only anterior slope of first gastral tergite yellowish-brown and with transparent and yellowish posterior margins of subsequent tergites. Coxa yellowish-brown to brown, trochanters yellow, femora brown except yellow knee, tibiae yellowish-brown in the middle and gradually paler apically, tarsi yellow. Antennal scapes yellowish-brown, funicles ochraceous-yellow. (Figs. 1-3).

**Head.** Subrectangular, approximately  $1.17 \times$  as long as wide, sides below eyes softly rounded and softly converging anterad, above eyes regularly rounded, posterior margin almost straight (Figs. 3, 4). Anterior clypeal margin convex, without median emargination. Clypeus densely microreticulated but shiny, covered with short and sparse appressed pubescence. Eyes large and oval, approximately  $1.24 \times$  as long as wide and  $0.76 \times$  as long as the gena. Frontal carinae short, extending to  $1/3$  the length of the head, regularly arched, antennal fossa shallow, without special sculpture. Frons densely microreticulated but shiny, with thin median sulcus, short and sparse appressed pubescence, and with a row of 4 long, erect setae along the frontal carinae. Rest of the head surface distinctly microreticulate from shiny to slightly opalescent, covered with short and sparse appressed pubescence. Gena with several short erect setae, head dorsum immediately posterior to frontal carinae and anterior to vertex each with a pair of long erect setae between these pairs four additional very short erect setae (Figs 3, 4, 6). Antennal scape long; in frontal view almost straight, approximately  $1.2 \times$  as long as the width of the head, apex slightly and gradually widened; funiculus longer than scape, pedicel elongated, approximately  $0.83 \times$  as long as segments 2 and 3 combined and  $1.7 \times$  as long as segment 2 (Fig. 4). Scape densely microsculptured, slightly dull, cov-

ered with short and sparse appressed pubescence, without decumbent or erect setae. Mandibles short, rounded, microreticulated but shiny, apical  $\frac{1}{4}$  of its length with longitudinal grooves, surface with less than 10 moderately long, yellow setae.

**Mesosoma.** Moderately long,  $2.2 \times$  as long as wide, without metanotal groove. Pronotum and mesonotum in profile forming regular arch, propodeal dorsum shallowly concave (Fig. 2). Pronotal sides in dorsal view regularly convex (Figs. 1, 2). Mesosoma densely microreticulated, sculpture tends to form longitudinal, oblique and semicircular striation; background shiny, covered with sparse and short appressed pubescence, on the lateral sides of the pronotum and mesonotum pubescence hardly visible. Pronotum with six short, yellow erect setae, mesonotum usually with long seta on each side, propodeum in posterior half with 4 long, yellow erect setae, slightly longer than the setae on the mesonotum.

**Petiole.** Squamiform, thin, in lateral view approximately  $2.1 \times$  as high as wide, anterior face distinctly convex, posterior face almost flat, apex on sides regularly rounded, centrally truncate, apicolateral corners each with two long, erect setae. (Fig. 2). Petiole distinctly microstriate, shiny.

**Gaster.** With distinct transverse microstriation but shiny. Whole gaster with short and sparse, indistinct appressed pubescence; dorsum of the first tergite with 4 long, yellow erect setae basally, and close to the posterior margin with a row of slightly shorter 6 setae, transparent posterior margin covered with short appressed setae not extending to the posterior margin of tergite; tergites 2 and 3 anteriorly and posteriorly with a row of 6 long yellow setae (Fig. 2). Each of gastral sternites with 3-4 long, yellow, and erect setae.

**Legs.** Stout, hind femora distinctly shorter than the mesosoma (FI approximately 0.69). Dorsal and lateral surfaces of femora and tibiae covered with very sparse, yellow and appressed pubescence, standing hairs absent. Ventral surfaces of hind tibiae with 2-3 erect spiniform setae.

Gyne (n=1): **Measurements.** HL: 1.88; HW: 1.63; SL: 1.40; EL: 0.60; PW: 1.43; PTH: 0.67; PTW: 0.29; WL: 2.80; HFL: 1.60; CI: 1.15 ; SI: 0.86 ; PI: 2.31 ; FI: 0.57 .

**Color.** Head brown, gena with a small reddish patch, mandibles reddish (Figs. 3-4). Mesosoma bicolored (Figs. 5-7); pronotum mostly yellow with brown patches anteriorly, rest of the mesosoma brown except partly yellowish laterobasal margins of scutum; petiolar squama brown with yellowish lateral margins; first gastral tergite brown with a broad yellow band and yellow posterior transparent margin, second tergite mostly brown with a yellow band at the base, subsequent tergites brown; coxa brown at base and yellow posteriorly, trochanters yellow, femora yellowish-brown to brown, apex of fore femora with a yellow patch, tibiae pale brown with yellowish apex, tarsi yellowish-brown; antennae ochraceous-yellow (Fig. 6).

**Head.** Subrectangular, approximately  $1.15 \times$  as long as wide, sides straight, very softly converging anterad, above eyes regularly rounded, posterior margin slightly convex (Fig. 7). Anterior clypeal margin straight, without median emargination, with several long and short yellow setae, the longest with a length of 0.145 mm. Clypeus densely microreticulated but shiny, covered with short and sparse appressed pubescence and numerous erect setae grouping mostly on the sides and base of the clypeal plate. Eyes large and oval, approximately  $1.28 \times$  as long as wide and  $0.7 \times$  as long as the gena. Frontal carinae short, extending to half the length of the head, angularly arched, antennal fossa shallow, without special sculpture. Frons densely microreticulated but shiny, with thin median sulcus, short and sparse appressed pubescence, and with a row of six moderately long, erect setae along frontal carinae and few additional short setae close to median sulcus. Rest of the head surface with distinct microreticulation from shiny to slightly opalescent, covered with short and sparse appressed pubescence. Gena with numerous short erect setae, head dorsum immediately posterior to frontal carinae and anterior to vertex each with a pair of long erect setae. the ocellar area with two pairs each of long and short erect setae. Antennal scape moderately long; in frontal view almost straight, approximately  $0.86 \times$  as long as the width of the head, apex gradually widened; funiculus longer than the scape, pedicel moderately elongate, approximately  $0.63 \times$  as long as segments 2 and 3 combined and  $1.4 \times$  as long as segment 2 (Fig. 7). Scape densely microsculptured, slightly dull,

covered with short and sparse appressed pubescence, with 2-3 short erect setae. Mandibles short, rounded, strongly microreticulated but shiny, in their basal part with setose punctures, apical half with longitudinal grooves, surface with less than 16 moderately long, yellow setae.

**Mesosoma.** Moderately long,  $1.96 \times$  as long as wide. Pronotum elongate, visible from above, microreticulated and microstriate, shiny, covered with short and sparse appressed hairs and basally with 6 long erect setae. Scutum approximately as long as wide, regularly convex (Fig. 6); densely microreticulated and with small, sparse punctures and long basal grooves extending to half the length of the scutum, background shiny, covered with sparse and short appressed pubescence and on each side with two pairs of long erect setae. Scutellum almost regularly semicircular; microreticulated but shiny and with a few sparse punctures and 6 long erect setae. An- and katepisternum with distinct microreticulation, partly tending to form longitudinal and oblique striation, surface shiny and with short and sparse pubescence. Propodeum convex, subangulate in profile, on top with transverse and semicircular striation on the sides with longitudinal striation, posterolateral corners with 2-3 long erect setae (Fig. 6)

**Petiole.** Squamiform, thin, in lateral view approximately  $2.3 \times$  as high as wide, anterior face distinctly convex, posterior face almost flat, apex on the sides regularly rounded, centrally truncate, apicolateral corners with three long, erect setae. Petiole with distinct microstriae, shiny.

**Gaster.** With distinct transverse microstriation but shiny; with short and sparse, hardly visible appressed pubescence; top of the dorsum and close to the posterior margin of the first tergite with rows of 6 long, yellow erect setae, transparent posterior margin covered with short appressed setae not extending to the posterior margin of the tergite; tergites 2 and 3 anteriorly and close to posterior margin with a row of 6-8 long yellow setae (Fig. 6). Each of gastral sternites with 4-5 long, yellow, and erect setae.

**Legs.** Stout, hind femora almost twice shorter than the mesosoma (FI approximately 0.57). Dorsal and lateral surfaces of femora and tibiae covered with very sparse, yellow appressed pubescence and a few subdecumbent hairs. Pos-

teroventral face of fore femora with several erect setae and anteroventral part of hind femora with three erect setae. Ventral surfaces of hind tibiae with 2-3 erect spiniform setae.

**Biological notes.** The only two specimens (worker and gyne) were collected in 2012 under a moderate-sized stone in mixed cedar and pine forest in the famous refuge of Cypriot cedar *Cedrus brevifolia* (Hook. f.) A. Henry named Cedar Valley, at an altitude of 1196 m. During the expedition in 2022, the area was thoroughly penetrated again, but no more specimens were found. Also, this species has not been found at other sites in the surrounding cedar and pine forests. Therefore, its habitat requirements are hard to interpret. The find of just a worker and gyne in 2012 may indicate an initial colony or the temporary residence of two individuals from an abandoned colony.

## Subgenus *Myrmentoma* Forel, 1912

### *Camponotus lateralis* (Olivier, 1792)

*Formica lateralis* Olivier, 1792: 497 (q.): Syntype workers, *Camponotus lateralis* Ol. v. *purius* Santsch., Algeria (NHMB) (leg. Bequaert) [syntype images examined, AntWeb, CASENT0911698 and CASENT0911699, photos by Alexandra Westrich and Will Ericson available on <https://www.AntWeb.org>]; Syntype workers, *Camponotus Orthonotomyrmex kosswigii*, W. Turkey, Erbeyli, 14.vi.1947 (NHMUK) (leg. C. Kosswig) [syntype images examined, AntWeb, CASENT0903594 and CASENT0903595, photos by Alexandra Westrich and Will Ericson available on <https://www.AntWeb.org>].

**Diagnosis.** Seifert (2019): 17 and Borowiec & Salata (2022): 95.

### Distribution in Cyprus

1w.: Akrotiri UK SBA, Limassol Salt Lake loc. 2, 0 m, 34.609878 / 32.946854, 20 IV 2022 (MNHW); 1w.: Limassol, Chantara waterfall, 1047 m, 34.902991 / 32.840241, 25 IV 2022, L. Borowiec & S. Salata (MNHW); 3w.: Limassol, ad Trooditissa loc. 1, 1344 m, 34.913656 / 32.842658, 26 IV 2022 (MNHW); 2w.: Limassol, Platres, 1234 m, 34.8964 / 32.8677, 09 VII

2022, J. Demetriou (JDPC); 2w.: Nicosia, Cedar Valley, 1196 m, 34.99503 / 32.68732, 05 V 2012, L. Borowiec (MNHW); 58w.: Nicosia, Cedar Valley loc. 2, 1138 m, 34.990922 / 32.688463, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 3w.: Nicosia, 1.2 km W of Panagia Machairas monastery, 838 m, 34.937849 / 33.176931, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Nicosia, 3.4 km N of Farmakas, 677 m, 34.941458 / 33.143697, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 3w.: Nicosia, Agios Sozomenos, 169 m, 35.06502 / 33.45026, 21 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3w.: Nicosia, Dipotamos dam, 1215 m, 34.91442 / 33.19712, 23 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1w.: Nicosia, Kionia, 1217 m, 34.9211 / 33.19827, 23 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3 w.: Nicosia, Troodos, Almyrolivado, 1596 m, 34.9305 / 32.9026, 23 VII 2022, J. Demetriou (JDPC); 2w.: Paphos, Agios Neofytos monastery n. Tala, 398 m, 34.84485 / 32.44509, 07 V 2012, L. Borowiec (MNHW); 4w.: Paphos, Diarizos riv., Rock of Chasampoulion, 262 m, 34.79767 / 32.70502, 06 V 2012, L. Borowiec (MNHW); 2w.: Paphos, Panagia-Cedar Valley rd. loc. 1, 755 m, 34.92718 / 32.64728, 05 V 2012, L. Borowiec (MNHW); 4w.: Paphos, Pegeia Forest n. Pegeia loc. 2, 374 m, 34.89579 / 32.37039, 07 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Avakas gorge, 33 m, 34.917575 / 32.332048, 18 IV 2022, L. Borowiec (MNHW); 6w.: Paphos, Tzelefos Bridge, 463 m, 34.890931 / 32.747628, 19 IV 2022 (MNHW); 1w.: Paphos, Ranti Forest, 31 m, 34.673377 / 32.606955, 20 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Kremiotis Waterfall, 330 m, 34.962545 / 32.433563, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Paphos, Paphos Forest loc. 1 ad Pachiamos, 126 m, 35.16617 / 32.591576, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, road F612 ad Ag. Konstantinos loc. 1, 368 m, 34.733589 / 32.64293, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 2 w.: Paphos, ad Dora, 432 m, 34.772575 / 32.750353, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Diarizos river valley, Mamonia-Kidasi, Rocks of Chasampoulion loc. 1a, 272 m, 34.7966 / 32.7024, 19 IV 2022, J. Demetriou (JDPC); 1w.: Paphos, Tzelefos Bridge, 453 m, 34.8899 / 32.7475, 19 IV 2022, J. Demetriou & Georgiadis (JDPC); 1w.: Paphos, Avakas gorge, 38 m, 34.9245 / 32.3462, 18 IV 2022, J.

Demetriou (JDPC); 4w.: Paphos, Avakas gorge, 33 m, 34.9976 / 32.332, 18 IV 2022, J. Demetriou & C. Georgiadis (JDPC).

## Ecology

*Camponotus lateralis* has been collected from a variety of habitats including riparian (waterfall, herbs and bushes at lake shore, streambanks, stream valley) and forest (pine, pine and cedar, deciduous forest) habitats as well as on roadsides and phrygana, usually on bushes or on the soil. Specimens were also collected from an old monastery garden.

## *Camponotus libanicus* André, 1881

*Camponotus libanicus* André, 1881: 54, pl. 3, figs. 14, 15 (w.): Syntype workers, *Camponotus libanicus* André., Liban (Lebanon) (MNHN) (leg. Abeille) [syntype images examined, AntWeb, CASENT0913700, photos by Alexandra Westrich and Will Ericson available on <https://www.Ant-Web.org>].

=*Camponotus kiesenwetteri* var. *cypria* Emery, 1920: 26 (w.) **syn. nov.** Syntype worker, Cipro [Cyprus] (MSNG) [Syntype worker images of *Camponotus kiesenwetteri cyprius* examined, AntWeb, CASENT0905397, photos by Zach Lieberman, available on <https://www.AntWeb.org>].

**Diagnosis.** Salata et al. (2019): 93 and Borowiec & Salata (2022): 99.

## Distribution in Cyprus

2w.: Akrotiri UK SBA, Limassol Salt Lake loc. 2, 0 m, 34.609878 / 32.946854, 20 IV 2022 (MNHW); 2w.: Famagusta, Kavo Greco, 51 m, 34.96647 / 34.06698, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3w.: Larnaka, Dipotamos dam, 181 m, 34.8533 / 33.36168, 23 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 5w.: Larnaka, Skarinou, 156 m, 34.81835 / 33.35652, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 2w.: Limassol, ad. Kyperounta loc. 1, 1324 m, 34.9334 / 32.9667, 15 IV 2001, Efstathiou (MNHW); 2w.: Limassol, ad. Kyperounta loc. 2, 1325 m, 34.9335 / 32.9666, 15 IV 2001, Efstathiou (NHMC); 1w.: Limassol, Agros, 1062 m, 34.9105 / 33.011, 19 VIII 2001, Tsaousis (MNHW); 1w.: Limassol, Apollo Temple 2.5 km W of Kourion, 129 m, 34.673994 / 32.864125, 20 IV 2022, L. Borowiec (MNHW);

1w.: Nicosia, Cedar Valley loc. 3, 1130 m, 34.980568 / 32.693155, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Nicosia, Kapedes, 680 m, 34.9669 / 33.240406, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Nicosia, 1.2 km W of Panagia Machairas monastery, 838 m, 34.937849 / 33.176931, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Nicosia, 3.4 km N of Farmakas, 677 m, 34.941458 / 33.143697, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Nicosia, Dipsotamos dam, 181 m, 34.91442 / 33.19712, 23 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1w.: Paphos, Agios Neofytos monastery n. Tala, 398 m, 34.84485 / 32.44509, 07 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Akamas Pen. Aphrodite Baths, 54 m, 35.05668 / 32.34433, 04 V 2012, L. Borowiec (MNHW); 4w.: Paphos, Kato Paphos, Limnaria riv., 59 m, 34.76443 / 32.44022, 04 VII 2019, G. Hebda (MNHW); 1w.: Paphos, Panagia-Cedar Valley rd. loc. 2, 848 m, 34.94883 / 32.64575, 05 V 2012, L. Borowiec (MNHW); 10w.: Paphos, Pegeia Forest n. Pegeia loc. 1, 364 m, 34.89749 / 32.36742, 04 V 2012, L. Borowiec (MNHW); 18w.: Paphos, Pegeia Forest n. Pegeia loc. 2, 374 m, 34.89579 / 32.37039, 07 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Akamas Pen., Avakas gorge, 33 m, 34.917575 / 32.332048, 18 IV 2022, L. Borowiec (MNHW); 1w.: Paphos, Diarizos river valley, Extreme View Cafe loc. 1, 251 m, 34.789525 / 32.693906, 19 IV 2022 (MNHW); 1w.: Paphos, Diarizos river valley, Rocks of Chasampoulion loc. 1a, 269 m, 34.796595 / 32.702353, 19 IV 2022 (MNHW); 1w.: Paphos, Diarizos river valley, Rocks of Chasampoulion loc. 1a, 269 m, 34.796595 / 32.702353, 19 IV 2022 (MNHW); 3w.: Paphos, Ranti Forest, 31 m, 34.673377 / 32.606955, 20 IV 2022, L. Borowiec & S. Salata (MNHW); 6w.: Paphos, Evretou Dam, 172 m, 34.961659 / 32.477493, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, 2.9 km E of Lisis, 540 m, 35.004479 / 32.54261, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, 6.3 km E of Gialia, 434 m, 35.075019 / 32.565802, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 10w.: Paphos, road F612 ad Ag. Konstantinos loc. 1, 368 m, 34.733589 / 32.64293, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Paphos, road F612 ad Ag. Konstantinos loc. 2, 397 m, 34.743291 / 32.671972, 28 IV 2022,

L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Agios Neofytos Monastery, 424 m, 34.846027 / 32.447846, 29 IV 2022 (MNHW); 4w.: Paphos, ad Kalepia, 414 m, 34.837284 / 32.503188, 29 IV 2022 (MNHW); 1w.: Paphos, Akamas Pen., Avakas gorge, 33 m, 34.9976 / 32.332, 18 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1w.: Paphos, Foini, Asprokremmos dam, 90 m, 34.7276 / 32.5528, 24 X 2022, J. Demetriou (JDPC); 1w.: Paphos, Peyia, sea caves, 20 m, 34.8842 / 32.3335, 18 X 2022, J. Demetriou (JDPC).

## Ecology

*Camponotus libanicus* has been collected from heterogeneous riparian, open or forest habitats such as herbs and bushes at lake shore, stream valleys, bushes at streambanks, shadow valley, marquis, a dry meadow close to dam, a xerothermic meadow, phrygana, and pine forests. It has been also found in agricultural land and urban habitats such as a sowed field next to road, gardens, roadsides, and a parking lot.

## Comment

*Camponotus kiesenwetteri* var. *cypria* Emery, 1920 was recently synonymized with *Camponotus kiesenwetteri* (Roger, 1859) by Salata et al. (2019). However, the reexamination of the syntype worker preserved in Genoa Museum showed that the specimen bears characteristics typical for *C. libanicus* (regularly arched mesosoma in lateral with almost absent metanotal groove, black gaster, and thick petiolar scale). Additionally, the material recently collected in Cyprus confirmed that the only representative of the *kiesenwetteri* group present on the island is *C. libanicus*. Thus, considering the morphological and geographical evidence, we consider *Camponotus kiesenwetteri cypria* a junior synonym of *C. libanicus*.

## *Camponotus rebeccae* Forel, 1913

*Camponotus rebeccae* Forel, 1913: 436 (s.): Syntype workers, *Camponotus (Orthonotomyrmex) lateralis* Ol. v. *Rebeccae* For., Damascus (Syria) (MHNG) (leg. U. Sahlberg) [Syntype worker images examined, AntWeb, CASENT0910432, photos by Alexandra Westrich and Zach Lieberman, available on <https://www.AntWeb.org>].

= *Camponotus lateralis* var. *cypriensis*

Santschi, 1939: 6 (s.,w.,q.,m.): Syntype workers, *Camponotus (Myrmentoma) lateralis* Ol. v. *cypriensis* Santschi., Chypre, Yermasozia Riv. (Cyprus, Limassol, Yermasogeia) (NHMB) (leg. Mavromoustakis erroneously on label as "Mavromoustakis") [Syntype workers images examined, AntWeb, CASENT0911696 and CASENT0911697, photos by Alexandra Westrich and Will Ericson, available on <https://www.AntWeb.org>].

**Diagnosis.** Seifert (2019): 21 and Borowiec & Salata (2022): 105.

### Distribution in Cyprus

1w.: Paphos, Akamas Pen., Aphrodite Baths, 54 m, 35.05668 / 32.34433, 04 V 2012, L. Borowiec (MNHW); 8w.: Paphos, Diarizos riv., Rock of Chasampoulion, 262 m, 34.79767 / 32.70502, 06 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Akamas Pen., Avakas gorge, 38 m, 34.91832 / 32.333109, 18 IV 2022, L. Borowiec & S. Salata (MNHW); 8w.: Paphos, Aphrodite Baths, 47 m, 35.056245 / 32.345005, 27 IV 2022, L. Borowiec & S. Salata (MNHW); 3w.: Paphos, Agios Neofytos Monastery, 424 m, 34.846027 / 32.447846, 29 IV 2022 (MNHW); 2w.: Paphos, Tzelefos Bridge, 453 m, 34.8899 / 32.7475, 19 IV 2022, J. Demetriou & Georgiadis (JDPC).

### Ecology

*Camponotus rebeccaiae* has been collected from an urban garden as well as more humid and shadowy habitats such as a forest along a riverbank, close to a stream, in the Baths of Aphrodite bath cave and botanical garden, bushes and on the ground in a shadow valley as well as riverbanks inside deciduous forests.

### Subgenus *Tanaemyrmex* Ashmead, 1905

#### *Camponotus cecconii* Emery, 1908

*Camponotus cecconii* Emery, 1908: 198 (s.,w.): Syntype workers, *Camponotus maculatus cecconii* Em., Akantu [Akanthou, Cyprus], 12-J-99 (12 I 1899) (MSNG) [syntype images examined, AntWeb, CASENT0905302 and CASENT0905303, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

**Diagnosis.** Borowiec & Salata (2022): 118.

### Distribution in Cyprus

32w., 2m.: Nicosia, 4 km SW of Kapedes, 677 m, 34.956326 / 33.214662, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 5w.: Paphos, Akamas Pen., Avakas Gorge, 114 m, 34.92415 / 32.34564, 03 V 2012, L. Borowiec (MNHW); 29w.: Paphos, Akamas Pen., Avakas Gorge mouth, 17 m, 34.91847 / 32.32871, 02 V 2012, L. Borowiec (MNHW); 7w.: Paphos, Kato Paphos, Limnaria riv., 59 m, 34.76443 / 32.44022, 04 VII 2019, G. Hebda (MNHW); 2w.: Paphos, Panagia-Cedar Valley rd. loc. 1, 755 m, 34.92718 / 32.64728, 05 V 2012, L. Borowiec (MNHW); 2w.: Paphos, Panagia-Cedar Valley rd. loc. 2, 848 m, 34.94883 / 32.64575, 05 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Pegeia Forest n. Pegeia loc. 2, 374 m, 34.89579 / 32.37039, 07 V 2012, L. Borowiec (MNHW); 26w.: Paphos, Kato Paphos, 32-34 m, 34.753684 / 32.433916, 17 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Avakas gorge, 33 m, 34.917575 / 32.332048, 18 IV 2022, L. Borowiec (MNHW); 12w., Paphos, Diarizos river valley, Extreme View Cafe loc. 1, 251 m, 34.789525 / 32.693906, 19 IV 2022 (MNHW); 21w.: Paphos, Diarizos river valley, Extreme View Cafe loc. 2, 254 m, 34.789127 / 32.694768, 19 IV 2022 (MNHW); 1w.: Paphos, Ranti Forest, 31 m, 34.673377 / 32.606955, 20 IV 2022, L. Borowiec & S. Salata (MNHW); 7w.: Paphos, Stavros tis Psokas, Mouflon Enclosure, 842 m, 35.026647 / 32.630986, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Cedar Valley loc. 1, 1067 m, 34.988374 / 32.677486, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 5w.: Paphos, Kato Paphos, Hotel Veronica, 20 m, 34.74958 / 32.428932, 29 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Kato Paphos, 6 m, 34.736479 / 32.435402, 29 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Aphrodite Baths, 47 m, 35.056245 / 32.345005, 27 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, road F612 ad Ag. Konstantinos loc. 1, 368 m, 34.733589 / 32.64293, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 29w.: Paphos, Peyia, Pikni forest, 390 m, 34.8929 / 32.3739, 18 IV 2022, J. Demetriou (JDPC); 20w.: Paphos, Peyia Forest, 389 m, 34.8929 / 32.3739, 18 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 4w.: Paphos, Foini, Asprokremmos dam, 90 m, 34.7276 / 32.5528, 24

X 2022, J. Demetriou (JDPC); 1w.: Paphos, Peyia, sea caves, 20 m, 34.8842 / 32.3335, 18 X 2022, J. Demetriou (JDPC); 1w.: Paphos, Chloraka, Agios Georgios Hotel env., 10 m, 34.8034 / 32.3941, 06 VIII 2022, J. Demetriou (JDPC); 1w.: Paphos, Chloraka, 7 m, 34.7943 / 32.3944, 06 VIII 2022, J. Demetriou (JDPC).

### Ecology

*Camponotus ceconii* has been collected from forests and shadowy habitats (cave, gorge, pine forest), riparian habitats (riverbanks close to the seashore, stream valley), open dry habitats such as seashores, xerothermic meadows and phrygana as well as urban areas including ruderal sites near a citrus orchard, a hotel garden and surroundings, parking lots, and pedestrian roads.

### *Camponotus gestroi* Emery, 1878

*Camponotus gestroi* Emery, 1878: 44, fig. (s.w.); *Camponotus gestroi* n. sp., *gestroi* Em., Sardegna, Oristano (MSNG) (leg. R. Gestrò) [type images examined, AntWeb, CASENT0905794, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>]; *Camponotus gestroi*, Sargegna 1873, Gagliari (MSNG) (leg. R. Gestrò) [syntype images examined, AntWeb, CASENT0905391, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

**Diagnosis.** Borowiec & Salata (2022): 86.

### Distribution in Cyprus

4w., 2m.: Paphos, Diarizos river valley, Extreme View Cafe loc. 1, 251 m, 34.789525 / 32.693906, 19 IV 2022 (MNHW); 14w.: Paphos, Diarizos river valley, Rocks of Chasampoulion loc. 1a, 269 m, 34.796595 / 32.702353, 19 IV 2022 (MNHW); 14w.: Paphos, Evretou Dam, 172 m, 34.961659 / 32.477493, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 3w.: Paphos, Paphos Forest loc. 1 ad Pachiamos, 126 m, 35.16617 / 32.591576, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 7w.: Paphos, road F612 ad Ag. Konstantinos loc. 2, 397 m, 34.743291 / 32.671972, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Paphos, ad Kalepia, 414 m, 34.837284 / 32.503188, 29 IV 2022 (MNHW); 5w.: Paphos, Diarizos river valley, Mamonia-Kidasi, Rocks of Chasampoulion

loc. 1a, 272 m, 34.7966 / 32.7024, 19 IV 2022, J. Demetriou (JDPC); 7w.: Paphos, Lasa, 600 m, 34.9269 / 32.5321, 31 III 2022, J. Demetriou (JDPC).

### Ecology

*Camponotus gestroi* has been collected from pine forests and open habitats (xerothermic meadow, dam lake) on Mediterranean bushes.

### *Camponotus jaliensis* Dalla Torre, 1893

*Camponotus jaliensis* Dalla Torre, 1893: 246 (s.w.): Syntype workers, *Camponotus oertzeni* v. *jaliensis*., Ile Jali (Yali Island) (MHNG) (leg. von Oertzen) [syntype images examined, AntWeb, CASENT0910192 and CASENT0910193, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

**Diagnosis.** Borowiec & Salata (2022): 123. In Cypriot populations only dark forms were collected. Pale forms, common in islands of the Aegean region (Borowiec & Salata (2022): figs. 54.1, 2 and 54.5, 6), were absent in the material collected in Cyprus.

### Distribution in Cyprus

1w.: Larnaka, Skarinou, 156 m, 34.81835 / 33.35652, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1w.: Nicosia, 3.4 km N of Farmakas, 677 m, 34.941458 / 33.143697, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Paphos, Agiou Neofytou monastery n. Tala, 398 m, 34.84485 / 32.44509, 07 V 2012, L. Borowiec (MNHW); 3w.: Paphos, Akamas Pen. - Avakas Gorge, 114 m, 34.92415 / 32.34564, 03 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Diarizos riv. - ad. Nikokleia, 62 m, 34.73005 / 32.58394, 06 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Diarizos riv., Rock of Chasampoulion, 262 m, 34.79767 / 32.70502, 06 V 2012, L. Borowiec (MNHW); 43w.: Paphos, Panagia-Cedar Valley rd. loc. 1, 755 m, 34.92718 / 32.64728, 05 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Lempa - Sonny Hill Aparthotel, 56 m, 34.8042 / 32.40078, 06 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Paphos-Lempa beach area loc. 1, 5 m, 34.79964 / 32.39314, 01 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Pegeia Forest n. Pegeia loc. 1, 364 m, 34.89749 / 32.36742, 04 V 2012, L. Borowiec

(MNHW); 29w.: Paphos, Peyia Forest loc. 2, 396 m, 34.893666 / 32.374942, 18 IV 2022, L. Borowiec (MNHW); 2w.: Paphos, Diarizos river valley, Extreme View Cafe loc. 1, 251 m, 34.789525 / 32.693906, 19 IV 2022 (MNHW); 1w.: Paphos, Evretou Dam, 172 m, 34.961659 / 32.477493, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, 3.3 km W of Helicopter Landing Pad, 800 m, 35.02547 / 32.595378, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 35w.: Paphos, Stavros tis Psokas, Mouflon Enclosure, 842 m, 35.026647 / 32.630986, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 25w.: Paphos, Paphos Forest loc. 3, 756 m, 35.10178 / 32.630162, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 43w.: Paphos, Paphos Forest loc. 4, 808 m, 35.067761 / 32.615137, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Paphos, Kato Paphos, Hotel Veronica, 20 m, 34.74958 / 32.428932, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Aphrodite's Baths, 47 m, 35.056245 / 32.345005, 27 IV 2022, L. Borowiec & S. Salata (MNHW); 9w.: Paphos, road F612 ad Ag. Konstantinos loc. 1, 368 m, 34.733589 / 32.64293, 28 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Paphos, Agios Neofytos Monastery, 424 m, 34.846027 / 32.447846, 29 IV 2022 (MNHW); 1w.: Paphos, ad Kalepia, 414 m, 34.837284 / 32.503188, 29 IV 2022 (MNHW); 1w.: Paphos, Chloraka, Agios Georgios Hotel env., 10 m, 34.8034 / 32.3941, 06 VIII 2022, J. Demetriou (JDPC).

## Ecology

*Camponotus jaliensis* has been collected from agricultural land (sowed field, next to road bushes at streambanks), urban habitats (pedestrian road and roadsides, monastery, hotel and botanical garden), forests and shadowy habitats (cave, gorge, pine forest, shadow valley), open (xerothermic meadow), coastal (beach area) and riparian habitats (riverbanks, close to dam lake).

## *Camponotus samius* Forel, 1889

*Camponotus samius* Forel, 1889: 262 (s.,w.): Lectotype workers, *Camponotus rubripes* r. *samius*, Samos, Marathokampos (MHNG) (leg. von Oertzen) [syntype images examined, AntWeb, CASENT0910259, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

**Diagnosis.** Salata et al. (2020): 554 and Borowiec & Salata (2022): 130.

## Distribution in Cyprus

14w.: Famagusta, Potamos Liopetriou, 9 m, 34.9744 / 33.89466, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 9w.: Limassol, Troodos, ad Kalidonia waterfall loc. 2, 1517 m, 34.909027 / 32.864109, 25 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Limassol, Platres, 1234 m, 34.8964 / 32.8677, 09 VII 2022, J. Demetriou (JDPC); 1w.: Nicosia, Cedar Valley loc. 2, 1138 m, 34.990922 / 32.688463, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 13w.: Nicosia, Cedar Valley loc. 3, 1130 m, 34.980568 / 32.693155, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 1q.: Nicosia, Dipotamos dam, 1215 m, 34.91442 / 33.19712, 23 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1q.: Paphos, Akamas Pen. - Avakas Gorge mouth, 17 m, 34.91847 / 32.32871, 02 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Panagia-Cedar Valley rd. loc. 2, 848 m, 34.94883 / 32.64575, 05 V 2012, L. Borowiec (MNHW); 2w.: Paphos, Pegeia Forest n. Pegeia loc. 1, 364 m, 34.89749 / 32.36742, 04 V 2012, L. Borowiec (MNHW); 12w.: Paphos, Peyia Forest loc. 1, 389 m, 34.89287 / 32.37394, 18 IV 2022 (MNHW); 29w.: Paphos, Cedar Valley loc. 1, 1067 m, 34.988374 / 32.677486, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 15w.: Paphos, Paphos Forest loc. 3, 756 m, 35.10178 / 32.630162, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Lasa, 593 m, 34.9263 / 32.5315, 31 III 2022, J. Demetriou (JDPC); 9w.: Paphos, Peyia, Pikni forest, 390 m, 34.8929 / 32.3739, 18 IV 2022, J. Demetriou & C. Georgiadis (JDPC).

## Ecology

*Camponotus samius* has been collected from roadsides, nature trails, pine, deciduous and cedar forests as well as riverbanks close to the seashore.

## *Camponotus sanctus* Forel, 1904

*Camponotus sanctus* Forel, 1904: 18 (s.,w.,q.m.): Syntype workers, *Camponotus maculatus* v. *sanctus* F., Jerusalem (NHMB) [paratype images examined, AntWeb, CASENT0912037 and CASENT0912036, photos by Alexandra Westrich and Zach Lieberman available on <https://www.AntWeb.org>].

**Diagnosis.** Borowiec & Salata (2022): 132.

### Distribution in Cyprus

2w.: Akrotiri UK SBA, Akrotiri Marsh, -1 m, 34.63282 / 32.934037, 20 IV 2022 (MNHW); 1w.: Akrotiri UK SBA, SBA Police Station, 39 m, 34.6567 / 32.9305, 14 III 2022, J. Demetriou (JDPC); 1w.: Famagusta, Paralimni, 70 m, 35.03886 / 33.9752, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1q.: Larnaka, Tekke mosque, 6 m, 34.88544 / 33.61008, 22 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3w.: Larnaka, Larnaka Salt Lake, hicking trail, 5 m, 34.91103 / 33.60121, 22 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1q.: Larnaka, Aradippou dam, 66 m, 34.98306 / 33.59293, 22 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3w.: Larnaka, Aradippou riverbank, 71 m, 34.98661 / 33.59135, 22 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 3w.: Larnaka, Skarinou, 156 m, 34.81835 / 33.35652, 25 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 5w.: Limassol, Agros, Pitsilia, 1062 m, 34.91113 / 33.0065, 19 VIII 2001, Tsousis (NHMC); 5w.: Limassol, Kyperounta, Mondessi Forest, 970 m, 34.9043 / 32.9372, 15 IV 2001, Efstathiou (NHMC); 2w.: Limassol, Troodos marsh (Almyrolivado), 1604 m, 34.930595 / 32.902493, 26 IV 2022 (MNHW); 2w., 1m.: Limassol, Molos, 2 m, 34.6775 / 33.0505, 28 III 2022, J. Demetriou (JDPC); 7w.: Limassol, Kato Polemidia, 37 m, 34.6808 / 33.0077, 26 III 2022, J. Demetriou (JDPC); 1w.: Limassol, Platres, 1234 m, 34.8964 / 32.8677, 09 VII 2022, J. Demetriou (JDPC); 1q., 14w.: Nicosia, Cedar Valley, 1196 m, 34.99503 / 32.68732, 05 V 2012, L. Borowiec (MNHW); 1q.: Nicosia, 2.5 km S of Kapedes, 675 m, 34.955303 / 33.234559, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 15w.: Nicosia, 1.2 km W of Panagia Machairas monastery, 838 m, 34.937849 / 33.176931, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 4w.: Nicosia, Athalassa Park (west), 140 m, 35.1258 / 33.38463, 21 IV 2022, C. Georgiadis (JDPC); 3w.: Nicosia, Troodos, Almyrolivado, 1596 m, 34.9305 / 32.9026, 23 VII 2022, J. Demetriou (JDPC); 2q., 2w., 2m.: Paphos, Agiou Neofytou Monastery n. Tala, 398 m, 34.84485 / 32.44509, 07 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Akamas Pen. - Aphrodite's Baths, 54 m, 35.05668 / 32.34433, 04 V 2012, L. Borowiec (MNHW); 2w.: Paphos, Akamas Pen. - Aphrodite's Baths

area, 261 m, 35.06008 / 32.32999, 04 V 2012, L. Borowiec, (MNHW); 1q.: Paphos, Akamas Pen. - Avakas Gorge mouth, 17 m, 34.91847 / 32.32871, 02 V 2012, L. Borowiec (MNHW); 1w.: Paphos, Cape Drepiano, 21 m, 34.90024 / 32.31903, 02 V 2012, L. Borowiec (MNHW); 47w.: Paphos, Diarizos riv. - 1 km N of Kidasi, 286 m, 34.81594 / 32.71654, 06 V 2012, L. Borowiec (MNHW); 3w.: Paphos, Diarizos riv. - ad. Nikokleia, 62 m, 34.73005 / 32.58394, 06 V 2012, L. Borowiec (MNHW); 7w.: Paphos, Kato Paphos, Limnaria riv., 59 m, 34.76443 / 32.44022, 04 VII 2019, G. Hebda (MNHW); 6w.: Paphos, Kato Paphos, Palaipafou Ave, 28 m, 34.7591 / 32.4236, 04 VII 2019, G. Hebda (MNHW); 1m.: Paphos, Panagia-Cedar Valley rd. loc. 1, 755 m, 34.92718 / 32.64728, 05 V 2012, L. Borowiec (MNHW); 1q., 1w., 2m.: Paphos, Lempa - Sonny Hill Aparthotel, 56 m, 34.8042 / 32.40078, 06 V 2012, L. Borowiec (MNHW); 1q., 12w., 1m.: Paphos, Lempa - Sonny Hill Aparthotel, 56 m, 34.8042 / 32.40078, 01 V 2012, L. Borowiec (MNHW); 10q., 41w., 7m.: Paphos, Paphos-Lempa beach area loc. 1, 5 m, 34.79964 / 32.39314, 01 V 2012, L. Borowiec (MNHW); 5q., 13w., 4m.: Paphos, Kato Paphos, 32-34 m, 34.753684 / 32.433916, 17 IV 2022, L. Borowiec & S. Salata (MNHW); 1w.: Paphos, Akamas Pen., Avakas gorge, 33 m, 34.917575 / 32.332048, 18 IV 2022, L. Borowiec (MNHW); 1w.: Paphos, 2.9 km E of Lisos, 540 m, 35.004479 / 32.54261, 21 IV 2022, L. Borowiec & S. Salata (MNHW); 7w.: Paphos, Cedar Valley loc. 1, 1067 m, 34.988374 / 32.677486, 22 IV 2022, L. Borowiec & S. Salata (MNHW); 2q., 13w., 1m.: Paphos, Paphos Forest loc. 4, 808 m, 35.067761 / 32.615137, 23 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Paphos, Kato Paphos, Hotel Veronica, 20 m, 34.74958 / 32.428932, 24 IV 2022, L. Borowiec & S. Salata (MNHW); 2w.: Paphos, Kato Paphos, 6 m, 34.736479 / 32.435402, 29 IV 2022, L. Borowiec & S. Salata (MNHW); 1q.: Paphos, Tala, Agios Neofytos Monastery, 424 m, 34.846027 / 32.447846, 29 IV 2022 (MNHW); 1w.: Paphos, Paphos Zoo, 108 m, 34.892369 / 32.340671, 30 IV 2022 (MNHW); 1w.: Paphos, ad Kissonerga, 109 m, 34.833632 / 32.405394, 30 IV 2022 (MNHW); 2q.: Paphos, ad Lemba, 85 m, 34.813211 / 32.410112, 30 IV 2022 (MNHW); 1w.: Paphos, Chloraka, Melanos, 73 m, 34.7892 / 32.4097, 19 III 2022, J. Deme-

trou (JDPC); 2w.: Paphos, Chloraka, Melanos, 76 m, 34.7894 / 32.4113, 19 III 2022, J. Demetriou (JDPC); 2w., 1m.: Paphos, Akamas Peninsula, Lara beach, 7 m, 34.9194 / 32.3275, 18 IV 2022, J. Demetriou (JDPC); 3w.: Paphos, Akamas Pen., Avakas gorge, 33 m, 34.9976 / 32.332, 18 IV 2022, J. Demetriou & C. Georgiadis (JDPC); 1w.: Paphos, Timi, 5 m, 34.7066 / 32.4962, 24 X 2022, J. Demetriou (JDPC); 6w.: Paphos, Timi, Airport area, 5 m, 34.7056 / 32.4986, 24 X 2022, J. Demetriou (JDPC); 6w.: Paphos, G. Tsimouris nursery ad Achelia, 34 m, 34.7345 / 32.498, 24 X 2022, J. Demetriou (JDPC); 3q.: Paphos, Peyia, sea caves, 20 m, 34.8842 / 32.3335, 18 X 2022, J. Demetriou (JDPC); 3w.: Paphos, Yeroskipou, Rikkos beach, 6 m, 34.7371 / 32.4426, 18 X 2022, J. Demetriou (JDPC); 1w.: Paphos, Chloraka, Agios Georgios Hotel env., 10 m, 34.8034 / 32.3941, 06 VIII 2022, J. Demetriou (JDPC); 1w.: Paphos, Polis Chrysochous, 30 m, 35.0335 / 32.425, 20 X 2022, J. Demetriou (JDPC).

## Ecology

*Camponotus sanctus* has been collected from agricultural land and urban habitats (pasture at marshes, roadsides, irrigated gardens, parking lots, sowed field, urban parks, gardens, ruderal sites near a citrus orchard, pedestrian roads, Paphos Zoo, plant nurseries), forests and shadowy habitats (pine forest, mixed pine and cedar forest, shadowed valley), open (coast, meadows, phrygana) and riparian habitats (close to lake, reeds, next to dam close to reservoir, riverbanks, marsh area, stream valley).

## *Camponotus troodosensis* sp. nov.

Figs 8–20

**Type material (pined). Holotype:** major worker (DBETCT001): CYPRUS, Paphos, 540 m | 2.9 km E of Lisis | 35.00447 / 32.54256 | 21 IV 2022, L. Borowiec (MNHW); **16 paratypes** (DBETCT002-DBETCT017): 3 major workers, 8 medium workers, 5 minor workers: the same data as holotype (JDPC, MNHW, MHNG, ZMUA); **13 paratypes** (DBETCT018-DBETCT030): 4 major workers, 4 medium workers, 5 minor workers: CYPRUS, Paphos, 1067 m | Cedar Valley loc. 1 | 34.98837 / 32.67748 | 22 IV 2022, L. Borowiec (MNHW, USMB); **3 paratypes** (DBETCT031-

DBETCT033): one major worker, two minor workers: CYPRUS, Paphos, 72 m | Pomos | 35.1548 / 32.5465 | 22 III 2022, J. Demetriou (MNHW).

**Other material examined (in EtOH).** 17w.: the same data as holotype (MNHW); 34w.: Paphos, 1067 m, | Cedar Valley loc. 1, 34.98837 / 32.67748, | 22 IV 2022, L. Borowiec (MNHW); 5w.: Paphos, 72 m, Pomos, 35.1548 / 32.5465, 22 III 2022, J. Demetriou (MNHW); 2w.: Paphos, Panagia-Cedar Valley rd. loc. 2, 848 m, 34.94883 / 32.64575, 5 V 2012, L. Borowiec (MNHW); 5w.: Paphos, Cedar Valley, 1196 m, 34.99503 / 32.68732, 5 V 2012, L. Borowiec (MNHW).

**Etymology.** Named after Troodos Mts. where most of the sites for this new species were located.

**Diagnosis.** A member of the subgenus *Tanaemyrmex*. It belongs to the complex of large species with very large major workers with a deeply emarginate occipital part of head and scapus, and tibiae with only appressed hairs (hairs not suberect as in the *samius* complex). In the Eastern part of the Mediterranean Basin the complex contains the following species: *Camponotus baldaccii* Emery, 1908, *C. ceconii* Emery, 1908, *C. fellah* Dalla Torre, 1893, *C. kugleri* Ionescu-Hirsch, 2009, *C. oasium* Forel, 1890, *C. sanctus* Forel, 1904, *C. sinaiticus* Ionescu-Hirsch, 2009, *C. thoracicus* (Fabricius, 1804) and *C. xerxes* Forel, 1904. *Camponotus oasium*, *C. sanctus*, *C. sinaiticus*, *C. thoracicus* and *C. xerxes* differ in lack of erect setae on the ventral side of head. The rare form of *C. sanctus* with 1-3 short erect setae in the ventral part of the head differs in its larger body size with HL in major workers up to 4.18 mm (mean 4.05 mm) and distinctly depressed outer surface of hind tibiae with a shallow sulcus on almost the entirety of their length in major workers. *Camponotus fellah* and *C. kugleri* differ in darker body coloration (with predominantly black major workers) and dull body surface with stronger microsculpture. *Camponotus baldaccii* differs in its paler color (in minor workers head, mesosoma and first two tergites of gaster yellow), and slightly larger major workers with HL 2.907-3.453 (mean 3.253) and WL 3.71-4.40. Also, *C. baldaccii* and *C. troodosensis* are separated geographically - the first species does not occur in Cyprus. *Camponotus ceconii* and



10



11

Figs 10, 11. Major worker of *Camponotus troodosensis* sp. nov. (DBETCT001)  
10 head and antennae 11 head sculpture (scale bar = 1 mm).

*C. troodosensis* are sympatric in Cyprus and very similar, but *C. ceconii* differs in its completely dark brown to black gastral tergites (only sometimes the anterior slope of the first gastral tergite in minor and medium workers is slightly paler brown than the posterior dorsum, but its coloration is never yellow and always gradually changes from lighter to darker), while in *C. troodosensis*, if the anterior slope of the first gastral tergite is not yellow but ochraceous to yellowish brown, then the pale color is distinctly separated from the dark posterior dorsum.

**Description. Major worker** (n=7, Figs. 8-11):

**Measurements.** HL: 2.854 (2.60-3.20); HW: 2.661 (2.34-2.83); SL: 2.217 (2.04-2.38); EL: 0.559 (0.49-0.59); PW: 1.677 (1.52-1.83); PTH: 0.763 (0.67-0.89); PTW: 0.314 (0.29-0.34); WL: 3.476 (3.28-3.80); HFL: 2.601 (2.46-2.88); CI: 1.073 (1.025-1.130); SI: 0.834 (0.793-0.872); PI: 2.434 (2.088-2.793); FI: 0.748 (0.726-0.769).

**Color.** Head black or occipital corners slightly paler colored, yellowish-brown or brown; mesosoma bicolored, dorsum brown to brownish-black then gradually paler on sides; pronotal sides close to margin, episterna and petiolar base of propodeum yellow to ochraceous; petiolar squama yellow; gaster predominantly black, anterior slope of first gastral tergite with large yellow patch, transparent posterior margins of tergites yellow, dorsal punctures on first gastral tergite and in anterior rows of subsequent tergites with yellow areola. Femora yellow, tibiae yellowish-brown, tarsi brown but in the palest major workers legs uniformly yellow. Antennal scape brown to black, only base and apex yellowish to reddish-brown (Figs. 8-10).

**Head.** Very large, subrectangular, widest behind eyes, sides in the middle softly converging anterad, gena more converging anterad, occipital corners broadly rounded, posterior margin deeply concave thus posterolateral corners protruding posterad (Figs. 10, 11). Anterior clypeal margin straight, with a row of six large setae; between the large setae and on the sides of the anterior margin, additional setae twice to thrice shorter than large ones; clypeal plate distinctly microreticulate but shiny, sometimes with rudiment of median keel; covered with very sparse and short, hardly visible appressed pubescence; on the sides with 8-10 long

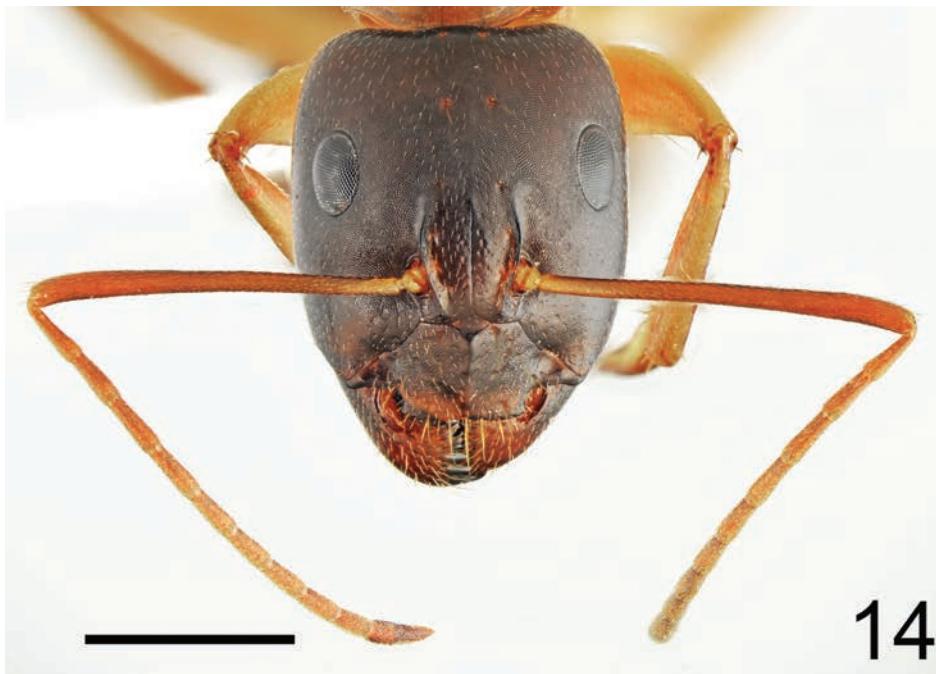
yellow, erect setae. Eyes small and oval, approximately  $1.2 \times$  as long as wide and  $0.4 \times$  as long as gena. Frontal carinae short, extending to half the length of the eyes, regularly arched, frontal plate with thin shiny median groove, surface microreticulated and with very sparse and shallow punctuation, each puncture with very short appressed seta, sides with a row of four long erect setae, as long as setae on clypeus. Antennal fossa shallow, without special sculpture. Head densely microreticulated, below eyes slightly shiny, posterior half dull, with short and sparse appressed pubescence, gena, sides and occipital corners without erect setae, only area behind frons with a group of 4-6 long erect setae. Ventral side with 6-10 erect setae, twice to thrice shorter than the longest setae on clypeus. Antennal scape moderately long; in frontal view almost straight,  $0.8-0.9 \times$  as long as the width of the head, apex slightly and gradually widened; funiculus longer than the scape, pedicel elongated, approximately  $1.3 \times$  as long as segment 2 and  $1.2 \times$  as segment 3 (Fig. 10). Scape densely microreticulated and with sparse punctuation, shiny basally to slightly dull apically, covered with short, sparse yellowish hairs, no decumbent setae. Mandibles rounded, basally diffusely microreticulated but shiny, with moderately coarse and dense setose punctuation, no longitudinal grooves.

**Mesosoma.** Long,  $2.01-2.20 \times$  as long as wide, dorsum of promesonotum forms regular arch, propodeum flat or very shallowly concave (Fig. 9). Pronotum rounded on sides (Fig. 8). Mesosoma is densely microreticulated, slightly dull, with sparse, hairy punctuation. Pronotum sometimes with 3-5, mesonotum 2-5 and propodeum posteriorly 3-6 long, yellow erect setae, as long as setae on clypeus.

**Petiole.** Squamiform, thin,  $2.1-2.9 \times$  as long as broad, apex regularly rounded, anterior face slightly convex, posterior face flat, apicolateral corners with one long and one twice shorter yellow seta, the longer as long as  $\frac{2}{3}$  the length of the longest setae on the clypeus. Petiole distinctly microreticulated, shiny to slightly dull. **Gaster.** With fine transverse striation but shiny. First tergite only posteriorly, subsequent tergites on whole surface with short and sparse appressed pubescence, distance between hair  $4-6 \times$  larger than the length of hair; top of first tergite slightly behind the middle with a pair of long, yellow erect setae



Figs 12, 13. Medium worker of *Camponotus troodosensis* sp. nov. (DBETCT002)  
12 dorsal 13 lateral (scale bar = 2 mm).



**Figs 14, 15.** Medium worker of *Camponotus troodosensis* sp. nov. (DBETCT002) **14** head and antennae  
**15** head sculpture (scale bar = 1 mm).

up to 0.476 mm length and a row of 4 similar setae close to the posterior margin; tergites 2 and 3 at base with a row of 4-6 long yellow setae, and close to the posterior margin a row of 10 setae. Each of gastral sternites with a row of long, yellow erect setae close to posterior margin. **Legs.** Elongate, hind femora  $0.73\text{-}0.77 \times$  as long as mesosoma (mean FI 0.748). Dorsal, lateral and ventral surfaces of femora and tibiae covered with yellow, sparse, appressed hairs. Ventral surfaces of hind tibiae in their apical half with a row of spiniform setae. Lateral surface of hind tibiae flat to slightly convex, sometimes with rudiment of very shallow median sulcus.

**Minor worker (n=7, Figs. 16-19): Measurements.**  
 HL: 1.514 (1.38-1.59); HW: 1.024 (0.92-1.09);  
 SL: 1.831 (1.76-1.90); EL: 0.401 (0.36-0.45); PW:  
 0.920 (0.84-0.97); PTH: 0.433 (0.38-0.47); PTW:  
 0.254 (0.25-0.26); WL: 2.293 (2.13-2.37); HFL:  
 2.014 (1.91-2.20); CI: 1.479 (1.434-1.500); SI:  
 1.792 (1.714-1.913); PI: 1.703 (1.462-1.808); FI:  
 0.880 (0.830-0.987).

**Color.** Head bicolored, mandibles, clypeus and anterior part of gena yellow to ochraceous, frons, vertex, head dorsum anterior to vertex, posterior part of gena and postocular area orange-brown to reddish-brown, the pale parts gradually fade into the darker parts. Mesosoma uniformly yellow or mesonotum and propodeum slightly darker than pronotum, orange; petiolar squama yellow, gaster predominantly dark brown to black, anterior slope of first gastral tergite with large yellow patch, transparent posterior margins of tergites yellow, dorsal punctures on the first gastral tergite and in anterior rows of subsequent tergites often with yellow areola. Legs and antennae uniformly yellow. (Figs. 16-18).

**Head.** Elongate,  $1.7\text{-}1.9 \times$  as long as wide, almost parallel-sided or slightly widest at gena, behind the eyes softly rounded, posterior margin straight (Figs. 18, 19). Anterior clypeal margin straight, with a row of six large setae, the middle two with a length up to 0.238 mm, lateral setae gradually shorter; between the large setae and on the sides of the anterior margin few additional very short setae; clypeal plate distinctly microreticulate but shiny, with obtuse median keel,

covered with very sparse and short, hardly visible appressed pubescence, on sides with 6 long yellow, erect setae. Eyes moderately large and oval, approximately  $1.3 \times$  as long as wide and  $0.7 \times$  as long as the gena. Frontal carinae short, extending to half the length of the eyes, softly arched; frons without median groove but with faint longitudinal line without microreticulation, surface microreticulate, sides with a row of four long erect setae, the longest slightly shorter than the longest setae on clypeus. Antennal fossa shallow, without special sculpture. Head densely microreticulate, below eyes slightly shiny, posterior half from shiny to slightly opalescent, with short and sparse appressed pubescence; gena, sides and occipital corners without erect setae, dorsum of head posterior to frontal carinae lined with three pairs of long erect setae, including one pair on the vertex close to the posterior margin. Ventral side with 5-6 erect setae, twice to thrice shorter than the longest setae on clypeus. Antennal scape long; in frontal view almost straight,  $1.7\text{-}1.9 \times$  as long as the width of the head, apex slightly and gradually widened; funiculus longer than scape, pedicel elongated, approximately  $1.4 \times$  as long as segment 2 and  $1.2 \times$  as segment 3 (Fig. 18). Scape microreticulate but shiny, covered with short, sparse yellowish hairs. Mandibles rounded, surface diffusely to distinctly microreticulated but shiny, with moderately coarse and dense setose punctuation and numerous suberect setae, no longitudinal grooves.

**Mesosoma.** Long,  $2.4\text{-}2.6 \times$  as long as wide, the whole dorsum forms a regular arch or the mesonotum is placed slightly higher than the pronotum (Fig. 17). Pronotum rounded on the sides (Fig. 16). Mesosoma densely microreticulated, sculpture tends to form longitudinal or oblique striation, slightly dull, with short and sparse pubescence. Pronotum with 2, mesonotum 2-3 and propodeum posteriorly with 2 long, yellow erect setae, as long as setae on clypeus.

**Petiole.** Almost cubical, thick,  $1.5\text{-}1.8 \times$  as long as broad, apex angulate, anterior face strongly convex, posterior face almost flat, apico-lateral corners with one long seta, as long as  $2/3$  length of the longest setae on the clypeus. Petiole distinctly microreticulated and striate, shiny.



Figs 16, 17. Minor worker of *Camponotus troodosensis* sp. nov. (DBETCT003) 16 dorsal  
17 lateral (scale bar = 2 mm).

**Gaster.** With fine transverse striation but shiny. First tergite only posteriorly, subsequent tergites on its whole surface with short and sparse appressed pubescence, distance between hair 4–6 × larger than the length of the hair; top of first tergite slightly behind the middle with a pair of long, yellow erect setae up to 0.381 mm in length and a row of 4 similar setae close to the posterior margin; tergites 2 and 3 at base with a row of 4 long yellow setae, and close to the posterior margin a row of 6 setae. Each of gastral sternites with a row of long, yellow erect setae close to the posterior margin.

**Legs.** Elongate, hind femora 0.83–0.98 × as long as the mesosoma (mean FI 0.880). Dorsal and lateral surfaces of femora and tibiae covered with yellow, sparse appressed hairs. Ventral surfaces of hind tibiae in their apical half with a row of spiniform setae. Lateral surface of hind tibiae convex.

**Medium worker** (Figs 12–15): In all characters intermediate between minor and major workers. Head darker than in minor workers, almost completely brown except reddish spots on clypeus, stouter than in minor worker with CI 1.1–1.2 but with posterior margin only slightly concave and occipital corners not or only slightly protruding posterad (Fig. 15). Color of mesosoma darker than in minor workers with dorsum of pro- and mesonotum and propodeum with pale brown patches but never as dark as in major workers (Figs. 12, 13). Antennal scapes yellow as in minor workers. Pale spot at the base of the first gastral tergite often darker than in minor and major workers but never concolor with the posterior half of the first tergite.

**Biological notes.** All nests were located under large stones inside or on the outskirts of a luminous pine forest at low and mid altitudes between 72 and 1196 m.

### Notes on previous checklists

*Camponotus herculeanus* has not been detected in Cyprus following the records of Georgiou (1977). Nevertheless, it is known that Georgiou's list excluded earlier publications and several species were misidentified (Preiss & Platia 2003; Austin et al. 2008). *Camponotus herculeanus* is a species which can be relatively easily recognized among ants of the subgenus *Camponotus* as the scape of the larger majors and females reaches or barely surpasses the posterior lateral corner of the head. No other species of the subgenus *Camponotus* was identified in our material, while the species is also absent from other Mediterranean islands such as Crete, Sicily, Sardinia, Corsica, and the Balearics despite of it being present in neighbouring mainland countries (Janicki et al. 2016; Guénard et al. 2017). Also, there is no habitat suitable for this species in Cyprus. Thus, we tentatively suggest the removal of *C. herculeanus* from the myrmecofauna of Cyprus.

Regarding the subgenus *Myrmentoma*, *C. kiesenwetteri cypria* is now regarded as a junior synonym of *C. libanicus*. Records of *C. honaziensis* mentioned in Borowiec & Salata (2012), Borowiec (2014) and Salata & Borowiec (2015) concern collected material that had been misidentified and corresponds to the setose form of *C. lateralis*. Thus, both species are removed from the *Camponotus* fauna of Cyprus.

Lastly, five species of the subgenus *Tanaemyrmex* were not recovered during our sampling in Cyprus. Records of *C. compressus* and *C. maculatus* in neighboring regions have been deemed dubious (Janicki et al. 2016; Guénard et al. 2017), while the presence of *C. aethiops*, *C. baldaccii* and *C. thoracicus* in Cyprus concerned records repeated by Borowiec & Salata (2012) and Borowiec (2014) based on the Fauna Europaea website (Radchenko 2007). The latter database is known to include several misplaced taxa as indicated in Schifani & Alicata (2018) and Demetriou et al. (2023).

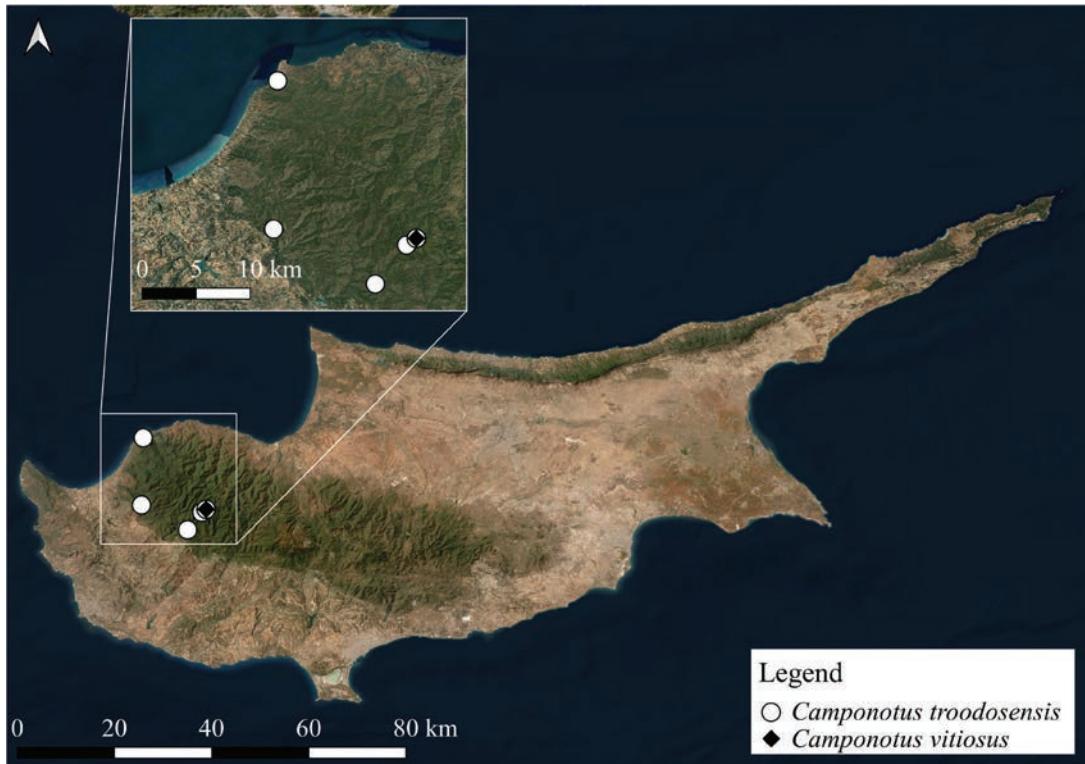


18



19

**Figs 18, 19.** Minor worker of *Camponotus troodosensis* sp. nov. (DBETCT003) **18** head and antennae **19** head sculpture (scale bar = 1 mm).



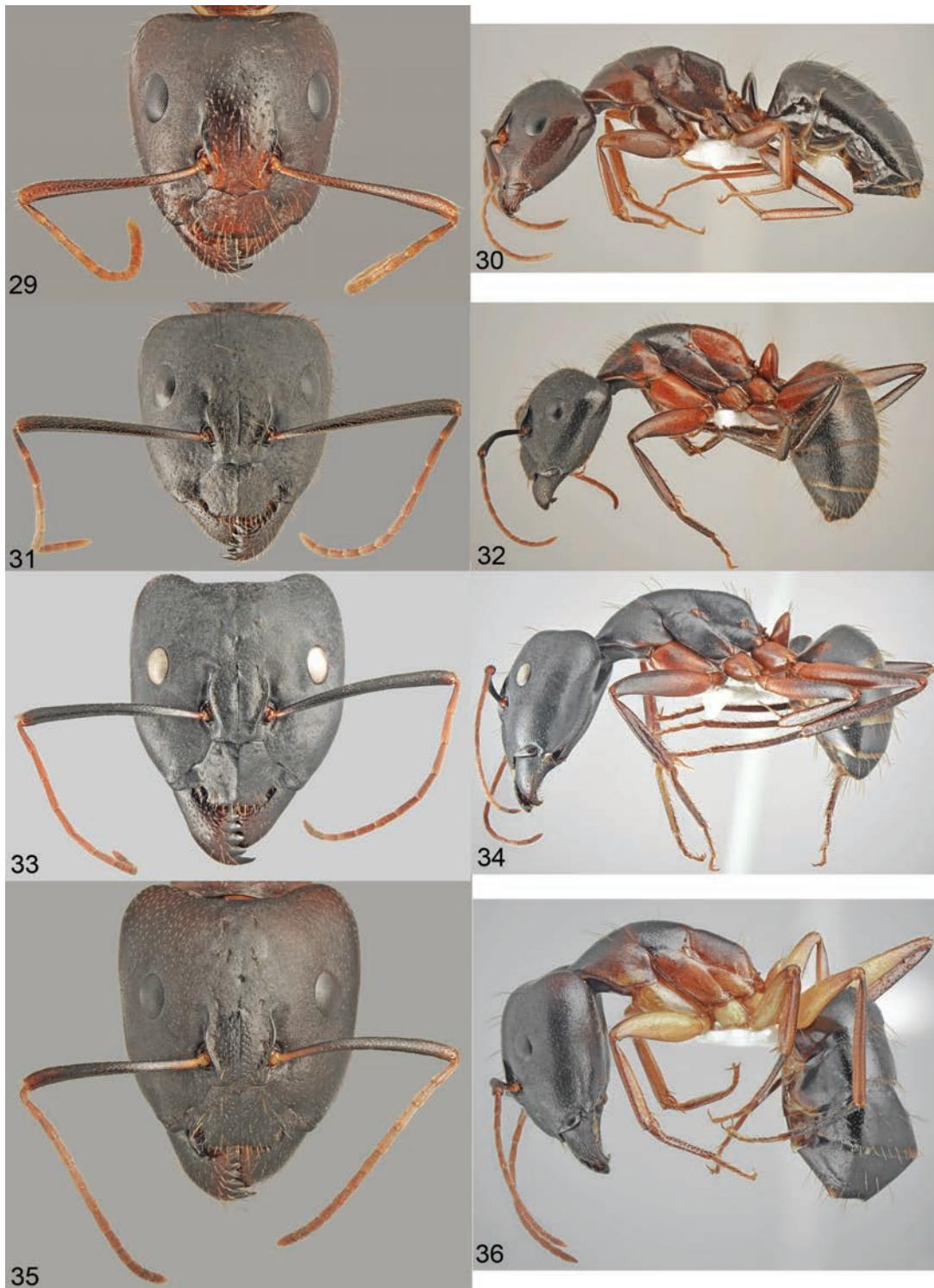
**Fig. 20.** Distribution map of *Camponotus troodosensis* sp. nov. and *Camponotus* cf. *vitiosus*.

#### Key to workers (minor and major) of Cypriot species of the genus *Camponotus*

1. Anterior margin of clypeus rounded, not extending beyond anterior margin of gena (Figs 3, 4, 21, 23, 25, 27) ..... 2.
- . Anterior margin of clypeus projected beyond anterior margin of gena, forms a plate with right-angled anterolateral corners (Figs 10, 11, 18, 19, 29, 31, 33, 35) ..... 6.
- 2(1). At least gaster and mesosoma mostly or completely shiny, with fine microcostulae, microreticulate or sparsely alveolate ..... 3.
- . Entire body matte, head and mesosoma coarsely sculptured, densely alveolate (Figs 21, 22) ..... *C. libanicus* André 3(2). Dorsum of mesosoma in lateral view forms regular arch, metanotal groove absent (Figs 1, 2, 24) ..... 4.
- . Dorsum of mesosoma in lateral view with deep metanotal groove, propodeum saddle shaped (Figs 26, 28) ..... 5.
- 4(3). Head, mesosoma and femora partly reddish, reddish-brown to brown. Propodeal dorsum concave (Figs 1, 2)..... *C. cf. vitiosus* (alien species)
- . Head, mesosoma, and femora deep black. Propodeal dorsum never concave (Figs 23, 24) ..... *C. gestroi* Emery 5(3). Propodeal saddle low and long; mesonotal groove shallow. Transverse ripples on first gastral tergite deeper and denser, mean distance between ripples 7.1–9.5 µm (Fig. 26) ....*C. rebeccae* Forel
- . Propodeal saddle high and short; mesonotal groove deep. Transverse ripples on first gastral tergite shallower and sparser, mean distance between ripples 9.1–13.7 µm (Fig. 28)..... *C. lateralis* (Olivier)
- 6(1). Ventral margin of hind tibiae with a row of chaetae. At least minor workers partly yellow to rusty yellow (Figs 31–36)..... 7.
- . Ventral margin of hind tibiae without a row of chaetae except for apical thorn. Both minor and major workers in Cypriot populations predominantly brown to partly black (Figs 29, 30)..... *C. jaliensis* Dalla Torre
- 7(6). Dorsal surface of antennal scape and hind tibia with completely appressed pubescence. Lateral face of head posterior to the eye without erect setae (Figs 11, 15, 33, 35) ..... 8.



**Figs 21–28.** Major workers. *Camponotus libanicus* André, 1881: 21 – head, 22 – lateral. *Camponotus gestroi* Emery, 1878: 23 – head, 24 – lateral. *Camponotus rebbeiae* Forel, 1913: 25 – head, 26 – lateral. *Camponotus lateralis* (Olivier, 1792): head – 27, lateral – 28.



Figs 29-36. Major workers. *Camponotus jaliensis* Dalla Torre, 1893: 29 – head, 30 – lateral. *Camponotus samius* Forel, 1889: 31 – head, 32 – lateral. *Camponotus sanctus* Forel, 1904: 33 – head, 34 – lateral. *Camponotus cecconii* Emery, 1908: 35 – head, 36 – lateral.

- Dorsal surface of antennal scape and hind tibia with subdecumbent to suberect pubescence. Area posterolateral from eyes with erect setae (Fig. 31) ..... *C. samius* Forel 8(7). Ventral surface of head with several erect setae (Figs 9, 13, 36). Smaller species, HL in major workers up to 3.18 mm (HL 3.01 (2.67-3.18) for *C. ceconii* and 2.854 (2.60-3.20) for *C. troodosensis*) ..... 9.
- Ventral surface of head without or at most with 1-3 very short, erect setae (Fig. 34). Large species, HL in major workers up to 4.18 mm (HL 4.05 (3.7-4.18) ..... *C. sanctus* Forel 9(8). First gastral tergite in minor, medium, and major workers uniformly dark brown to black, sometimes anterior slope slightly paler brown than posterior dorsum but never yellow (Fig. 36) ..... *C. ceconii* Emery
- First gastral tergite in minor, medium, and major workers with yellow anterior slope, occasionally anterior slope reddish brown but distinctly paler than posterior dorsum (Figs 8, 9, 12-15) ..... *C. troodosensis* sp. nov.

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