Thai Specimens 4: 19–58 (2024)

A Checklist of Known Ant Species (Hymenoptera: Formicidae) in Wangtakrai Park and Surrounding Areas, Central Thailand

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Article History

Received: 21 November 2024

Accepted: 26 December 2024

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Editor

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Abstract

Central Thailand is one of the most underexplored regions in terms of ant biodiversity. To address this knowledge gap, we present the first comprehensive checklist of known ant species in Wangtakrai Park (WTP) and its surrounding areas, based on specimens collected from 20 sampling sites. A total of 90 identified species across 40 genera and eight subfamilies were recorded. The subfamily Myrmicinae was the highest diversity, representing approximately 40% of both genera and species. Following Myrmicinae, the subfamilies Formicinae, Ponerinae, Dolichoderinae, and Pseudomyrmecinae showed notable species richness. The most common species-rich genera were *Polyrhachis* (11 species), *Pheidole* (6), *Crematogaster* (5), *Leptogenys* (5), *Tetraponera* (5), *Technomyrmex* (5), and *Aenictus* (4). Notably, *Camponotus javaensis* Ward, Blaimer & Fisher, 2016 is reported for the first time in Thailand. Twelve alien ant species were recorded in the study area. Additionally, some ant specimens collected from WTP and its surrounding areas are still undergoing identification, with future collection efforts likely to yield additional species records.

Keywords: distribution, diversity, insect, taxonomy

Introduction

Wangtakrai Park (WTP) is a sprawling resort and botanical garden, covering approximately 2.4282 square kilometers. Nestled in Hin Tang Subdistrict, Mueang Nakhon Nayok District, Nakhon Nayok Province. The park serves as a vital buffer zone between the pristine Khao Yai National Park and surrounding communities and agricultural lands. This unique position allows Wangtakrai Park to harbor a diverse ecosystem, teeming with a variety of flora and fauna.

Citation. Jaitrong, W., T. Jeenthong, K. Yodprasit, S. Soo-Jung and W. Tasen. 2024. A Checklist of Known Ant Species (Hymenoptera: Formicidae) in Wangtakrai Park and Surrounding Areas, Central Thailand. *Thai Specimens* 4: 19–58.

Ants are eusocial social insects that can be found in all terrestrial ecosystems, except for the polar regions where snow covers the entire year (Hölldobler and Wilson, 1990; Jaitrong *et al*., 2024). Recently, 14,277 valid species of ants have been recorded worldwide (Bolton, 2024). In Thailand, 529 species and subspecies of ants known in ten subfamilies from Thailand has been published recently (Khachonpisitsak *et al*., 2020). After that, 21 new species and 17 new records from this country were added by several authors (Jaitrong *et al*., 2021a, 2021b; Wang *et al*., 2021; Barabag and Jaitrong, 2022; Jaitrong *et al*., 2022a, 2022b; Jaitrong *et al*., 2023a, 2023b; Jarernkong *et al*., 2023; Tang and Guénard, 2023; Duanchay *et al*., 2024; Jaitrong and Yamane, 2024; Noo-anant and Jaitrong, 2024; Phosrithong *et al*., 2024; Wimolsuthikul *et al*., 2024; Yodprasit *et al*., 2024). Most reports of ant species in Thailand are in the North, West and South, while very few are reported in the Northeast and Central regions. In the Central region, 0–40 ant species were reported in each province (see Figure 1 in Khachonpisitsak *et al*., 2020). This is the first study of ant diversity in WTP, the famous tourist park.

We sought to increase the knowledge of the ant fauna in central Thailand in WTP by compiling data on ant geographic distributions from a review of literature and through new field surveys between March 2022 and July 2024. With this material, we present the first checklist of the known ant species from WTP in order to encourage future research on ants and biodiversity conservation in the region.

Materials and Methods

An extensive collection of ants was acquired from 20 sampling sites in WTP and surrounding areas, Khlong Maduea Waterfall and Nang Rong Temple (Figure 1) over a two-year period (March 2022 to July 2024) by Weeyawat Jaitrong and Tadsanai Jeenthong.

Ants were collected using the following methods:

Arboreal ants: Ten trees per sampling site were selected within the park. Ants on tree trunks approximately 1.5 meters above ground were collected using forceps over a five-minute period.

Leaf Litter and Soil Sifting: Leaf litter and soil samples were collected and sifted through a 20 cm x 25 cm mesh sieve with 8 mm x 8 mm openings onto a white tray. Ants that fell through the sieve were collected over a 30-minute period for each sampling unit.

Foraging Worker Collection: Foraging ants were collected from various habitats such as on leaf, tree trunk, or on the ground to maximize species diversity.

Colony Collection: Ant nests were searched in diverse habitats, including soil, rotting wood, dead twigs, and leaf litter. All castes of ants from each colony were collected.

The collected ant specimens are now deposited in the Natural History Museum of the National Science Museum, Thailand (THNHM). Detailed information on the sampling sites is provided in Table 1.

Table 1. The sampling sites of the ants in Wangtakrai Park and surrounding areas.

Sites	Coordinates	Localities	Type of habitats
S01	14.328171°N, 101.304414°E	Wangtakrai Park	Open area
S02	14.328667°N, 101.304549°E	Wangtakrai Park	Garden
S03	14.332158°N, 101.304623°E	Wangtakrai Park	Forest edge
S04	14.334097°N, 101.304684°E	Wangtakrai Park	Disturbed forest
S05	14.334466°N, 101.305383°E	Wangtakrai Park	Open area
S06	14.335663°N, 101.305878°E	Wangtakrai Park	Forest edge
S07	14.334792°N, 101.306552°E	Wangtakrai Park	Garden
S08	14.333653°N, 101.306094°E	Wangtakrai Park	Roadside
S09	14.331930°N, 101.306978°E	Wangtakrai Park	Garden
S10	14.329916°N, 101.306802°E	Wangtakrai Park	Dry evergreen forest
S11	14.328571°N, 101.306769°E	Wangtakrai Park	Forest edge
S12	14.327708°N, 101.306692°E	Wangtakrai Park	Secondary forest
S13	14.326956°N, 101.307428°E	Wangtakrai Park	Secondary forest
S14	14.325545°N, 101.307527°E	Wangtakrai Park	Evergreen forest
S15	14.328591°N, 101.305191°E	Wangtakrai Park	Secondary forest
S16	14.323159°N, 101.304179°E	Wangtakrai Park	Open area
S17	14.328088°N, 101.303505°E	Wangtakrai Park	Dry evergreen forest
S18	14.325276°N, 101.308270°E	Nang Rong Temple	Dry evergreen forest
S19	14.350404°N, 101.272655°E	Khlong Maduea Waterfall	Agriculture
S20	14.356719°N, 101.270974°E	Khlong Maduea Waterfall	Dry Evergreen Forest

The specimens were identified by W. Jaitrong, comparing them with images of known ant specimens available on AntWeb (2024) and using identification keys created for Southeast Asian ants (*e.g*., Ward, 2001; Bolton, 2007; Eguchi, 2008; Hosoishi and Ogata, 2009; Jaitrong and Yamane, 2011; Jaitrong *et al*., 2011a, 2011b; Jaitrong and Yamane, 2013; Jaitrong and Jeenthong, 2022; Jaitrong *et al*., 2024). Species validity, spelling, and authority were verified using Bolton's Synopsis of the Formicidae and Catalogue of Ants of the World (Bolton, 2024). The list is arranged alphabetically by subfamily, genus, and species. Material examined and distributions are provided for the listed species. Alien ant species are marked with an asterisk "*".

Results and Discussion

This paper documents 90 named species across 40 genera within eight subfamilies of ants from Wangtakrai Park and its surrounding areas. Myrmicinae is the most diverse subfamily, accounting for approximately 40% of both genera and species in the region. It is followed by Formicinae, Ponerinae, Dolichoderinae, and Pseudomyrmecinae (Table 2). Currently, Thailand harbors ten ant subfamilies, 109 genera, and 567 species (Khachonpisitsak *et al*., 2020; Wang *et al*., 2021; Jaitrong *et al*., 2021a, 2021b, 2022a, 2022b, 2023a, 2023b; Barabag and Jaitrong, 2022; Jaitrong and Jeenthong, 2022; Jarernkong *et al*., 2023; Jeenthong *et al*., 2023; Tang and Guénard, 2023; Duanchay *et al*., 2024; Jaitrong and Yamane, 2024; Noo-anant and Jaitrong, 2024; Phosrithong *et al*., 2024; Wimolsuthikul *et al*., 2024; Yodprasit *et al*., 2024). Consequently, the current study represents approximately 16.04% of Thailand's known ant species.

Table 2. Numbers of ant genera and species found in the study area.

Subfamilies	No. of genera	%	No. of species	%
Amblyoponinae	1	2.50	1	1.11
Dolichoderinae	4	10.00	9	10.00
Dorylinae	1	2.50	4	4.44
Ectatomminae	1	2.50	2	2.22
Formicinae	9	22.50	20	22.22
Myrmicinae	16	40.00	36	40.00
Ponerinae	7	17.50	13	14.44
Pseudomyrmecinae	1	2.50	5	5.57
Total	**40**	**100**	**90**	**100**

Our material includes numerous species identified only to the genus level, suggesting a potential increase in the species count upon further identification. Genera for which species-level identification remains uncertain include: *Dorylus* (Dorylinae), *Hypoponera* (Ponerinae), *Myrmecina* (Myrmicinae), *Nylanderia* (Formicinae), *Parasyscia* (Dorylinae), *Philidris* (Dolichoderinae), *Stigmatomma* (Amblyoponinae), and *Vollenhovia* (Myrmicinae). To date, 40 genera have been recorded from the study area. This number is expected to grow, as many widespread Thai genera such as *Cerapachys, Cryptopone, Discothyrea, Emeryopone, Gauromyrmex, Gesomyrmex, Leptanilla, Lordomyrma, Mesoponera, Myopias, Paraparatrechina, Platythyrea, Ponera*, and *Proceratium* are likely present. *Polyrhachis* (11 species), *Pheidole* (6), *Crematogaster* (5), *Leptogenys* (5), *Tetraponera* (5), *Technomyrmex* (5), and *Aenictus* (4) are the most diverse and frequently encountered genera, collectively comprising 45.56% of the known species. Twenty-three genera are currently represented by single species. While genera like *Camponotus* and *Crematogaster* harbor numerous unidentified species in the THNHM collection, they are not included in this study due to a lack of detailed taxonomic work. Over 80% of the identified ant species from the study area are common throughout Thailand.

Kachonpisitsak *et al*. (2020) recorded 16 alien ant species from Thailand. We found 12 alien species from WTP. Most of the alien ants found in this study inhabited open and disturbed areas, while two species: *Anoplolepis gracilipes* (Smith, 1857) and *Paratrechina longicornis* (Latreille, 1802) were able to adapt to life in natural forest.

In the ant collections of THNHM, we recognized about 40 unidentified species from WTP, some of which seem to be new to science; a new species of *Vombisidris* will be described soon (in prep.). Specimens of some genera, e.g., *Nylanderia*, *Philidris*, *Paraparatrechina*, and *Hypoponera*, have not yet been identified as species.

Ants found in flower and ornamental plant gardens, especially exotic species, can easily spread to various areas both domestically and internationally. This is because these ants often inhabit the soil used for cultivating seedlings. If these seedlings are transplanted to different locations, the ants may be transported along with them. For instance, at least 11 ant species have become established in South Korea via plant imports from Thailand.

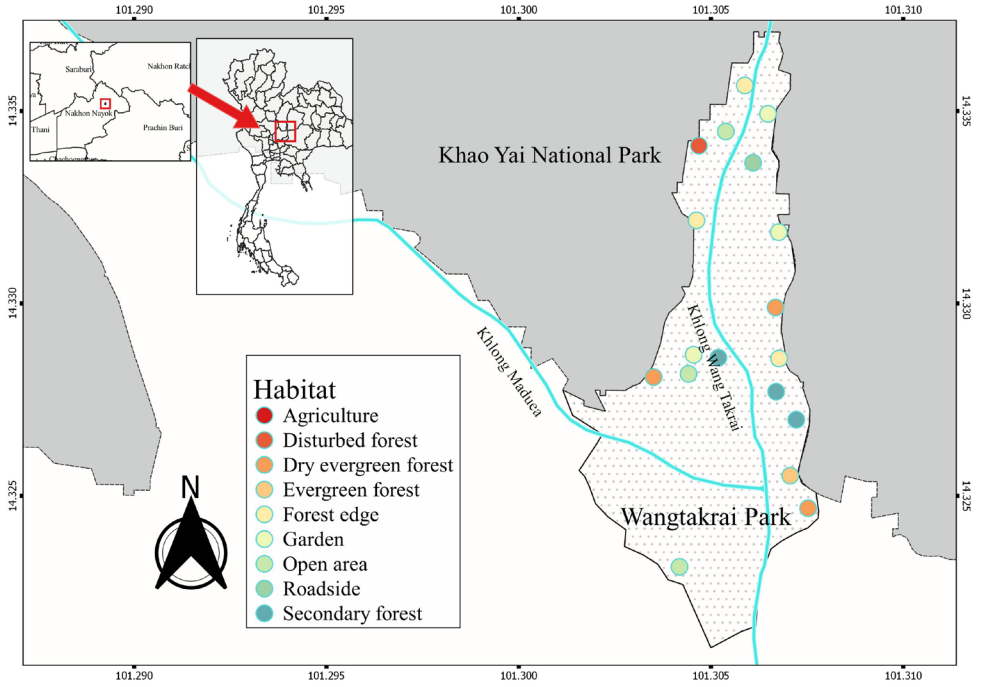

Figure 1. Map of the study area representing the sampling sites.

Checklist of known species in the park

Family Formicidae

Subfamily Amblyoponinae

1. *Mystrium camellae* Emery, 1889 (Figure 2A–B)

Mystrium camillae Emery, 1889: 491, pl. 10, figs. 1-3. Type locality: Myanmar.

Material examined. 10.VIII.2018, W. Jaitrong leg., WJT100818-2.

Habitat. This species was found to nest in soil under a stone in a dry evergreen forest.

Distribution in the study area. S18.

Subfamily Dolichoderinae

2. *Dolichoderus thoracicus* (Smith, 1860) (Figure 2C–D)

Tapinoma thoracica Smith, 1860a: 69. Type locality: Indonesia (Sulawesi). Combination in *Dolichoderus*: Dalla Torre, 1893: 162.

Material examined. Wangtakrai Park: 14.XI.2022, W. Jaitrong leg., TH22-WJT-602; 9.VII.2024, W. Jaitrong leg., general collection.

Habitat. *Dolichoderus thoracicus* was found nesting in dead twig. Workers associated with scale insects.

Distribution in the study area. S01, S09, S18, and S19.

3. *Iridomyrmex anceps* (Roger, 1863)* (Figure 2E–F)

Formica anceps Roger, 1863a: 164. Type locality: West Malaysia. Combination in *Iridomyrmex*: Dalla Torre, 1893: 168.

Material examined. Wangtakrai Park: 10.VII.2024, W. Jaitrong leg., general collection.

Habitat. This is an alien ant species (Khachonpisitsak *et al*., 2020; Jaitrong *et al*., 2024) found in the study area. It nested in soil in open areas. The workers were fast runners and usually appeared on the ground.

Distribution in the study area. S16.

4. *Tapinoma indicum* Forel, 1895 (Figure 2G–H)

Tapinoma indicum Forel, 1895: 472. Type locality: India.

Material examined. Khlong Maduea Waterfall: 9.VII.2024, W. Jaitrong leg., general collection; 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species can be found in open areas. We often found it moving on the ground.

Distribution in the study area. S16 and S20.

5. *Tapinoma melanocephalum* (Fabrucius, 1793)* (Figure 2I–J)

Formica melanocephala Fabricius, 1793: 353. Type locality: French Guiana. Combination in *Tapinoma*: Mayr, 1862: 651.

Material examined. Wangtakrai Park: 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. *Tapinoma melanocephalum* is a common species found in the study area. We found this species in almost all habitats such as open areas, disturbed forest, and primary forest (dry evergreen forest). Khachonpisitsak *et al*. (2020) included *T. melanocephaum* in the list of the alien ant species of Thailand.

Distribution in the study area. S01.

6. *Technomyrmex albipes* (Smith, 1861)* (Figure 2K–L)

Formica (*Tapinoma*) *albipes* Smith, 1861: 38. Type locality: Indonesia (Sulawesi). Combination in *Technomyrmex*: Emery, 1888: 392.

Material examined. Khlong Maduea Waterfall: 9.VII.2024, T. Jeenthong leg., TJ090724-01.

Habitat. *Technomyrmex albipes* is an alien ant species in Thailand (Khachonpisitsak *et al*., 2020). It nested in dead twigs hanging on shrubs or in rotting wood on ground. We found this species in almost all habitats in the study area.

Distribution in the study area. S19.

7. *Technomyrmex brunneus* Forel, 1895* (Figure 3A–B)

Technomyrmex albipes r. *brunneus* Forel, 1895: 467. Type locality: India. Raised to species: Bingham, 1903: 302.

Material examined. Nang Rong Temple: 18.VII.2022, W. Jaitrong leg., TH23-WJT-1608.

Habitat. *Technomyrmex brunneus* is an alien ant species in Thailand (Khachonpisitsak *et al*., 2020). It nested in dead wood on the forest floor in a forest edge.

Distribution in the study area. S18.

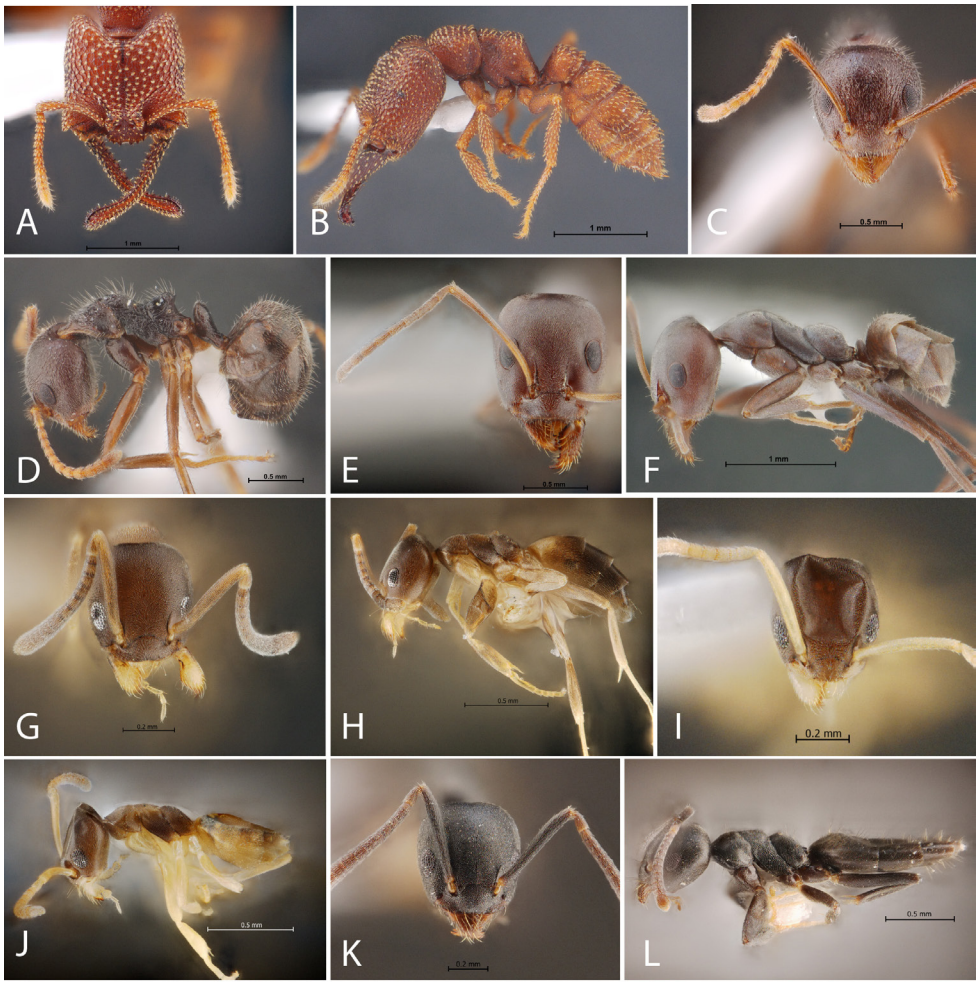

Figure 2. Amblyoponinae: A–B, *Mystrium camellae.* **Dolichoderinae:** C–D, *Dolichoderus thoracicus*; E–F, *Iridomyrmex anceps*; G–H, *Tapinoma indicum*; I–J, *Tapinoma melanocephalum*; K–L, *Technomyrmex albipes*.

8. *Technomyrmex elatior* Forel, 1902 (Figure 3C–D)

Technomyrmex modiglianii r. *elatior* Forel, 1902: 293. Type locality: India. Raised to species: Bingham, 1903: 302.

Material examined. Wangtakrai Park: 15.XI.2023, T. Jeenthong leg., TJ-NYK-08.

Habitat. *Technomyrmex elatior* is a rare species for the study area. We found only one colony nesting in dead twig.

Distribution in the study area. S09.

9. *Technomyrmex kraepelini* Forel, 1905 (Figure 3E–F)

Technomyrmex kraepelini Forel, 1905: 23. Type locality: Indonesia (Java).

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-02.

Habitat. The species was found to nest in leaf litter.

Distribution in the study area. S13.

10. *Technomyrmex pratensis* (Smith, 1860) (Figure 3G–H)

Tapinoma pratensis Smith, 1860b: 97. Type locality: Indonesia (Batjan I.). Combination in *Technomyrmex*: Shattuck, 1992: 161.

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., TH23-WJT-617; 16.XI.2023, W. Jaitrong leg., WJT161123-03.

Habitat. *Technomyrmex pratensis* was found nesting in rotting wood on the forest floor.

Distribution in the study area. S09 and S18.

Subfamily Dorylinae

11. *Aenictus binghami* Forel, 1900 (Figure 3I–J)

Aenictus (sic.) *binghaniri* Forel, 1900a: 76. Type locality: Myanmar.

Material examined. Wangtakrai Park: 5.XI.2023, W. Jaitrong leg., TH23-WJT-618.

Nang Rong Temple: 12.VI.2022, W. Jaitrong leg., TH22-WJT-254.

Habitat. *Aenictus binghami* was found moving on the ground. It foraged both in the day and the night.

Distribution in the study area. S15 and S18.

12. *Aenictus hodgsoni* Forel, 1901 (Figure 3K–L)

Aenictus fergusoni var. *hodgsoni* Forel, 1901a: 474. Type locality: Myanmar. Raised species by Jaitrong *et al*., 2011a.

Material examined. Wangtakrai Park: 19.VII.2023, W. Jaitrong leg., TH23-WJT-1612.

Habitat. This species was found moving on the ground in a dry evergreen forest at night.

Distribution in the study area. S15.

13. *Aenictus parahuonicus* Jaitrong & Yamane, 2011 (Figure 4A–B)

Aenictus parahuonicus Jaitrong and Yamane, 2011: 19, figs. 17–19. Type locality: Thailand.

Material examined. Wangtakrai Park: 13.III.2024, W. Jaitrong leg., WJT130324-06.

Habitat. This species was found moving on the ground in a dry evergreen forest at night.

Distribution in the study area. S15.

14. *Aenictus wiwatwitayai* Jaitrong & Yamane, 2013 (Figure 4C–D)

Aenictus wiwatwitayai Jaitrong and Yamane, 2013: 218, fig. 20A–C. Type locality: Thailand.

Material examined. Nang Rong Temple: 29.VII.2020, W. Jaitrong leg., TH20-WJT-98.

Habitat. This species was found moving underground at a forest edge.

Distribution in the study area. S18.

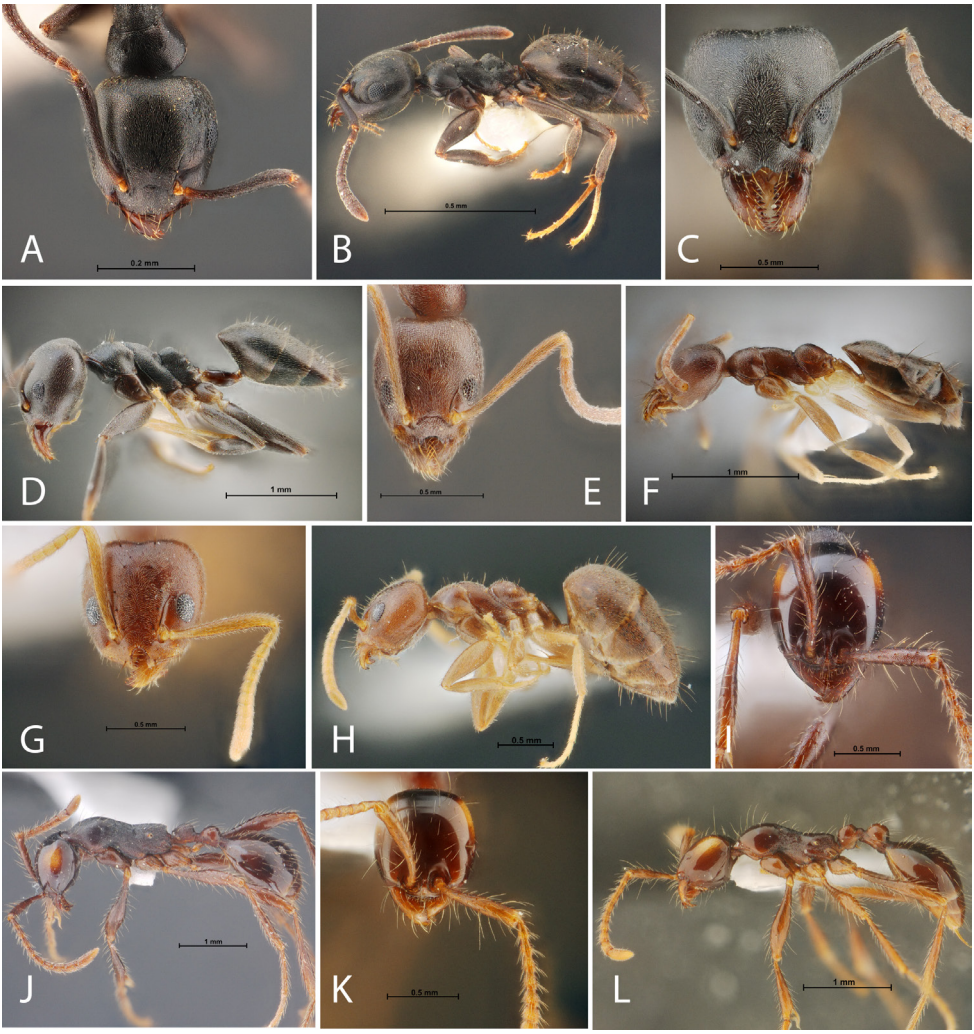

Figure 3. Dolichoderinae: A–B, *Technomyrmex brunneus*; C–D, *Technomyrmex elatior*; E–F, *Technomyrmex kraepelini*; G–H, *Technomyrmex pratensis.* **Dorylinae:** I–J, *Aenictus binghami*; K–L, *Aenictus hodgsoni.*

Subfamily Ectatomminae

15. *Stictoponera bicolor* (Emery, 1889) (Figure 4E–F)

Ectatomma (*Stictoponera*) *bicolor* Emery, 1889: 493. Type locality: Myanmar. Combination in *Stictoponera*: Camacho *et al*., 2022: 12.

Material examined. Wangtakrai Park: 14.XI.2023, W. Jaitrong leg., general collection; 17.VII.2023, W. Jaitrong leg., WJT171723-01.

Habitat. *Stictoponera bicolor* nested in rotting wood in dry dipterocarp forests. Kachonpisitsak *et al*. (2020) cited the species as *Gnamptogenys bicolor*. Jaitrong *et al*. (2024) reported that this species has no dealate queen for each colony.

Distribution in the study area. S02 and S06.

16. *Stictoponera binghamii* (Forel, 1900) (Figure 4G–H)

Ectatomma (*Stictoponera*) *binghamii* Forel, 1900b: 317. Type locality: Myanmar. Combination in *Stictoponera*: Camacho *et al*., 2022: 12.

Material examined. Wangtakrai Park: 16.XI.2022, TH22-WJT-624; 19.VII.2023, W. Jaitrong leg., TH23-WJT-1626; 16.XI.2023, W. Jaitrong leg., general collection; 14.XI.2023, T. Jeenthong leg., TJ-NYK-03. **Nang Rong Temple:** 31.X.2019, W. Jaitrong leg., general collection.

Habitat. *Stictoponera binghamii* nested in soil in a dry evergreen forest and a disturbed area. Kachonpisitsak *et al.* (2020: 37) cited the species as *Gnamptogenys bicolor.*

Distribution in the study area. S02, S07, S09, and S18.

Subfamily Formicinae

17. *Acropyga butteli* Forel, 1912 (Figure 4I–J)

Acropyga (*Atopodon*) *butteli* Forel, 1912a: 772. Type locality: West Malaysia.

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., TH22-WJT-610.

Habitat. This species has been observed nesting in the soil of a dry evergreen forest.

Distribution in the study area. S06.

18. *Anoplolepis gracilipes* (Smith, 1857)* (Figure 4K–L)

Formica gracilipes Smith, 1857: 55. Type locality: Singapore. Combination in *Anoplolepis*: Bolton, 1995: 67.

Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., TH22-WJT-633; 15.XI.2022, W. Jaitrong leg., general collection; 11.VII.2024, W. Jaitrong leg., general collection; 10.VII.2024, W. Jaitrong leg., general collection; 9.VII.2024, W. Jaitrong leg., general collection.

Habitat. *Anoplolepis gracilipes* can be found in all habitats of the study area. Nests were in soil, leaf litter, rotting wood, and dead parts of standing trees. This species can be found in all seasons. This species is an alien species (Khachonpisitsak *et al*., 2020).

Distribution in the study area. This species can be found in all habitats of the study area.

19. *Camponotus javaensis* Ward, Blaimer & Fisher, 2016 (Figure 5A–F)

Camponotus javaensis Ward *et al*., 2016: 349. Replacement name for *Forelophilus overbecki* Kutter, 1931: 193. [Junior secondary homonym of *Camponotus dolichoderoides* subsp. *overbecki* Viehmeyer, 1916: 162.]

Material examined. Wangtakrai Park: 20.VII.2023, W. Jaitrong leg., TH23–WJT–1628.

Description of workers

Measurements and indices. Non–type major workers Non–type major workers (n = 10): TL 5.10–6.03; EL 0.30–0.35; HW 1.33–1.53; HL 1.15–1.38; SL 1.00–1.10; SI 72–91; PW 0.75–0.95; ML 1.16–1.75; PL. 1.10–1.45. Non–type minor workers (n = 10): TL 3.40–4.28; EL 0.25–0.28; HW 0.80–0.93; HL 0.85–0.95; SL 0.99–1.05; SI 106–124; PW 0.55–0.56; ML 1.05–1.25; PL 0.85–0.95. Dimorphic in worker castes. Minor worker. Body blackish brown; mandible yellowish; flagellum orange; legs brown, tibiae slightly darker than femora, tarsi black. Head round, eye large and convex, located posterior to mid-length of head; antennal scape long, extending about two-third of its length; mandible subtriangular, masticatory margin with apical large tooth, followed by medium subapical tooth, and 3 smaller teeth. Mesosoma in profile is smaller than head and gaster; propodeum with transverse ridge separating dorsal and caudal surface.

Figure 4. Dorylinae: A–B, *Aenictus parahuonicus.* C–D, *Aenictus wiwatwitayai.* **Ectatomminae:** E–F, *Stictoponera bicolor*; G–H, *Stictoponera binghamii.* **Formicinae:** I–J, *Acropyga butteli*; K–L, *Anoplolepis gracilipes.*

Petiole sessile anterior face clearly shorter than long. Body entirely densely punctate. Body with erect setae on head, mesosoma, petiole, and gaster and with the appressed pilosity dense only on gaster.

Major workers are similar to the major workers in structure, sculpture, coloration and pilosity, with the following conditions that should be noted: body larger than minor workers; head sub-rectangular, posterior margin weakly concave; scape relatively short compared with minor workers. The body color is relatively darker.

Habitat. This species was observed nesting in a dead twig hanging from a shrub in a disturbed area.

Distribution in the study area. S01 (**new record for Thailand**).

Figure 5. Formicinae: A–F, *Camponotus javaensis.* A–C, Major worker; D–F, minor worker.

20. *Camponotus rufoglaucus* (Jerdon, 1851) (Figure 6A–D)

Formica rufoglauca Jerdon, 1851: 124. Type locality: India (Karnataka). Combination in *Camponotus*: Roger, 1863b: 3.

Material examined. Wangtakrai Park: 17.XI.2023, W. Jaitrong leg., general collection; 13.III.2024, W. Jaitrong leg., light trap; 10.VII.2024, W. Jaitrong leg., general collection. **Khlong Maduar Waterfall:** 9.VII.2024, W. Jaitrong leg., general collection. **Habitat.** *Camponotus rufoglaucus* is a common species found in the study area. It nested in soil in open areas. The species was usually found to forage individually on ground. **Distribution in the study area.** S01, S16, S19.

21. *Cladomyrma sirindhornae* Jaitrong, Laedprathom et Yamane, 2013 (Figure 6E–F)

Cladomyrma sirindhornae Jaitrong *et al*., 2013: 15, figs 1–4.

Material examined. Wangtakrai Park: 14.III.2023, W. Jaitrong leg., TH23-WJT-211;

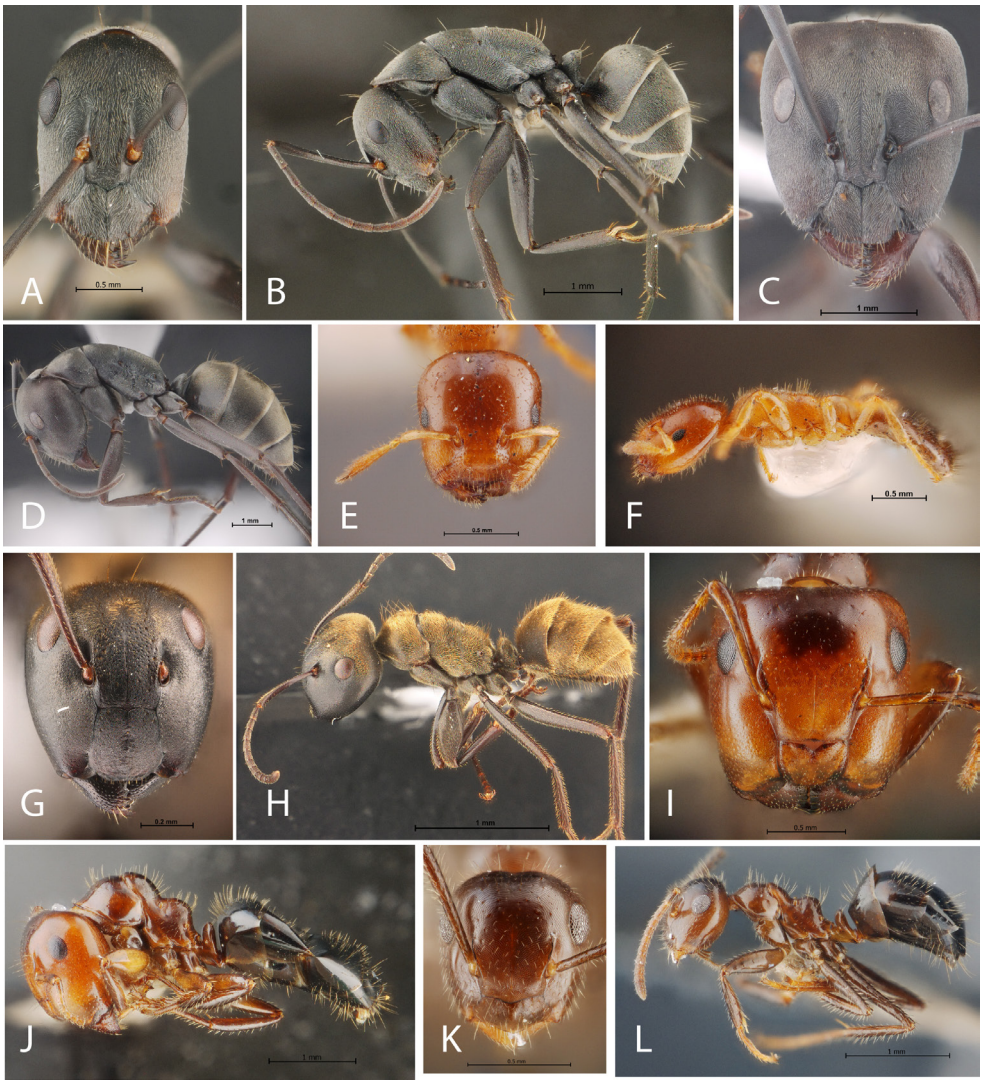

Figure 6. Formicinae: A–D, *Camponotus rufoglaucus*; E–F, *Cladomyrma sirindhornae*; G–H, *Colobopsis leonardi*; I–L, *Colobopsis vitrea.*

16.III.2023, W. Jaitrong leg., TH23-WJT-218.

Habitat. This species was found nesting within the stem of *Spenodesme pantandra* Jack plants at the forest edge.

Distribution in the study area. S08.

22. *Colobopsis leonardi* Emery, 1889 (Figure 6G–H)

Camponotus (*Colobopsis*) *leonardi* Emery, 1889: 515, pl. 11, figs. 22, 23. Type locality: Myanmar. Combination in *Colobopsis*: Ward *et al*., 2016: 350.

Material examined. Wangtakrai Park: 20.VII.2023, T. Jeenthong leg., general collection; 13.III.2024, W. Jaitrong leg., light trap; 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species nests in rotting logs.

Distribution in the study area. S01 and S02.

23. *Colobopsis vitrea* (Smith, 1860) (Figure 6I–L)

Formica vitrea Smith, 1860b: 94. Combination in *Colobopsis*: Ward *et al*., 2016: 350.

Material examined. Wangtakrai Park: 17.VII.2023, W. Jaitrong leg., TH23-WJT-1602; 17.VII.2023, W. Jaitrong leg., TH23-WJT-1600; 17.VII.2023, W. Jaitrong leg., TH23-WJT-1603; 14.III.2023, W. Jaitrong leg., TH23-WJT-205.

Habitat. This species nests in dead twigs in disturbed areas and forest edge.

Distribution in the study area. S01, S03, S04, and S12**.**

24. *Oecophylla smaragdina* (Fabricius, 1775) (Figure 7A–B)

Formica smaragdina Fabricius, 1775: 828. Type locality: India. Combination in *Oecophylla*: Smith, 1860b: 102.

Material examined. Wangtakrai Park: 14.XI.2022, W. Jaitrong leg., general collection; 11.VII.2024, W. Jaitrong leg., general collection; 10.VII.2024, W. Jaitrong leg., general collection. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., general collection.

Habitat. The species was found to nest on trees. We usually find this ant in disturbed forests.

Distribution in the study area. S01, S02, S13, S14, S15, S16, S17, S18, S19, and S20.

25. *Paratrechina longicornis* (Latreille, 1802)* (Figure 7C–D)

Formica longicornis Latreille, 1802: 113. Type locality: Senegal. Combination in *Paratrechina*: Wheeler, 1921: 112.

Material examined. Wangtakrai Park: 20.VII.2023, W. Jaitrong leg., general collection.

Habitat. *Paratrechina longicornis* is a prevalent species encountered throughout the study area, inhabiting diverse habitats including open areas, disturbed forests, and primary dry evergreen forests. This species has been identified as an alien ant species in Thailand by Khachonpisitsak *et al.* (2020).

Distribution in the study area. S01–S20.

26. *Polyrhachis armata* (Le Guillou, 1842) (Figure 7E–F)

Formica armata Le Guillou, 1842: 313. Type locality: Philippines. Combination in *Polyrhachis*: Roger, 1863b: 9.

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., general collection; 13.III.2024, W. Jaitrong leg., WJT130324-03; 13.III.2024, W. Jaitrong leg., light trap, general collection.

Habitat. This is an arboreal species. It was found nesting on a shrub at the forest edge.

Distribution in the study area. S01, S10, and S12.

27. *Polyrhachis bicolor* Smith, 1858 (Figure 7G–H)

Polyrhachis bicolor Smith, 1858: 65. Type locality: Myanmar.

Material examined. Wangtakrai Park: 20.VII.2023, T. Jeenthong leg., general collection.

Habitat. This was found on a high tree.

Distribution in the study area. S01.

28. *Polyrhachis furcata* Smith, 1858 (Figure 7I–J)

Polyrhachis furcatus Smith, 1858: 64, pl. 4, fig. 20. Type locality: Myanmar. Combination in *Polyrhachis* (*Myrmhopla*): Wheeler, 1919: 131.

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., light trap; 16.III.2023, W. Jaitrong leg., light trap.

Habitat. This is an arboreal species. A few specimens were collected by light trap.

Distribution in the study area. S01.

Figure 7. Formicinae: A–B, *Oecophylla smaragdina*; C–D, *Paratrechina longicornis*; E–F, *Polyrhachis armata*; G–H, *Polyrhachis bicolor*; I–J, *Polyrhachis furcata*; K–L, *Polyrhachis laevissima.*

29. *Polyrhachis hippomanes* Smith, 1861

Polyrhachis hippomanes Smith, 1861: 43, pl. 1, fig. 21. Type locality: Indonesia (Sulawesi).

Material examined. Nang Rong Temple: 7.IX.2022, W. Jaitrong leg., TH22-WJT-206.

Habitat. This species was found to nest under a broad leaf in a dry evergreen forest.

Distribution in the study area. S18.

30. *Polyrhachis laevissima* Smith, 1858 (Figure 7K–L)

Polyrhachis laevissimus Smith, 1858: 64, pl. 4, fig. 42. Type locality: Myanmar. Combination in *Polyrhachis* (*Cyrtomyrma*): Wheeler, 1919: 137.

Material examined. Wangtakrai Park: 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species was found in open areas. Workers foraged on lower vegetation.
Distribution in the study area. S01.

31. *Polyrhachis illaudata* Walker, 1859 (Figure 8A–B)

Polyrhachis illaudatus Walker, 1859: 373. Type locality: Sri Lanka. Combination in *Polyrhachis* (*Myrma*): Donisthorpe, 1932: 576.
Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., light trap.
Habitat. Alate queens were collected using light traps.
Distribution in the study area. S01.

32. *Polyrhachis javanica* Mayr, 1867 (Figure 8C–D)

Polyrhachis thrinax var. *javanica* Mayr, 1867: 52. Raised to species: Kohout, 1998: 510.
Material examined. Wangtakrai Park: 14.III.2023, W. Jaitrong leg., light trap; 16.III.2023, W. Jaitrong leg., light trap; 11.VII.2024, W. Jaitrong leg., light trap.
Habitat. Alate queens were collected using light traps.
Distribution in the study area. S01.

33. *Polyrhachis lama* Kohout, 1994 (Figure 8E–F)

Polyrhachis lama Kohout, 1994: 137, fig. 1. Type locality: Tibet.
Material examined. Nang Rong Temple: 29.VIII.2019, W. Jaitrong leg., general collection.
Habitat. This is a rare species found in the study area. We collected a specimen from a tree trunk in a dry evergreen forest.
Distribution in the study area. S18.

34. *Polyrhachis proxima* Roger, 1863 (Figure 8G–H)

Polyrhachis proxima Roger, 1863a: 155. Type locality: Indonesia (Lingga Island). Combination in *Polyrhachis* (*Myrma*): Viehmeyer, 1916: 166.
Material examined. Wangtakrai Park: 13.III.2024, W. Jaitrong leg., general collection.
Habitat. This species was found in a dry evergreen forest. Workers foraged on lower vegetation.
Distribution in the study area. S18.

35. *Polyrhachis tibialis* Smith, 1858 (Figure 8I–J)

Polyrhachis tibialis Smith, 1858: 63. Type locality: Myanmar.
Material examined. Wangtakrai Park: 12.III.2024, W. Jaitrong leg., WJT120324-04; 13.III.2024, W. Jaitrong leg., general collection; 14.III.2023, W. Jaitrong leg., TH23-WJT-200.
Habitat. This species was found to nest between leaves in dry evergreen forests.
Distribution in the study area. S10 and S14.

36. *Polyrhachis varicolor* Viehmeyer, 1916 (Figure 8K–L)

Polyrhachis (*Campomyrma*) *fruhstorferi* subsp. *varicolor* Viehmeyer, 1916: 163. Type locality: Singapore. Raised to species: Kohout, 2008: 259.
Material examined. Wangtakrai Park: 11.VII.2024, W. Jaitrong leg., light trap. **Nang Rong Temple:** 26.III.2021, W. Jaitrong leg., TH21-WJT-003.
Habitat. This species was found to nest between leaves in a dry evergreen forest.
Distribution in the study area. S01 and S18.

Figure 8. Formicinae: A–B, *Polyrhachis illaudata*; C–D, *Polyrhachis javanica*; E–F, *Polyrhachis lama*; G–H, *Polyrhachis proxima*; I–J, *Polyrhachis tibialis*; K–L, *Polyrhachis varicolor.*

Subfamily Myrmicinae

37. *Acanthomyrmex mizunoi* Jaitrong & Asanok, 2019 (Figure 9A–B)

Acanthomyrmex mizunoi Jaitrong and Asanok, 2019: 124, figs. 4–6. Type locality: Thailand.

Material examined. Nang Rong Temple: 1.IX.2022, W. Jaitrong leg., TH22-WJT-200.

Habitat. This species nests in the soil in a primary dry evergreen forest. Jaitrong and Asanok (2019) described *A. mizunoi* from Nakhon Nayok Province in a hill evergreen forest. Thus, this species inhabits lowland to highland.

Distribution in the study area. S18.

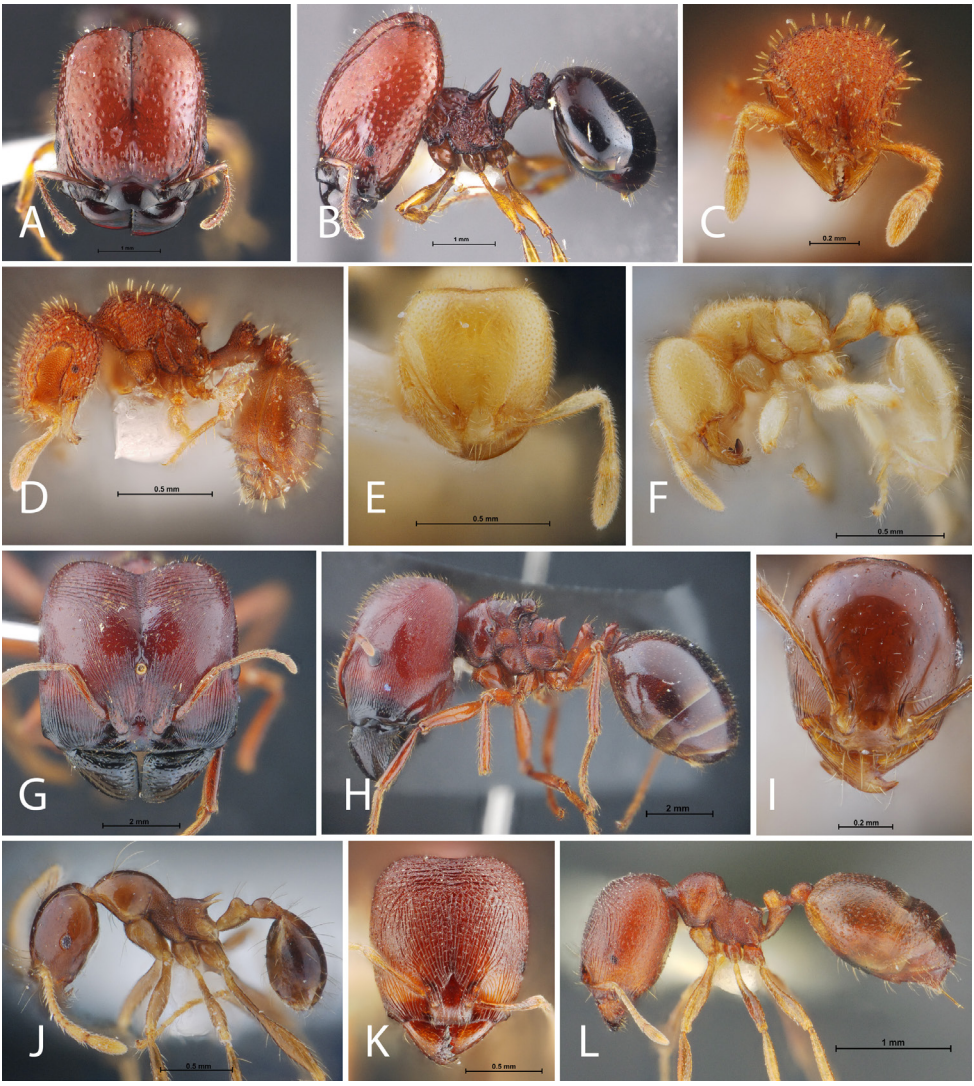

Figure 9. Myrmicinae: A–B, *Acanthomyrmex mizunoi*; C–D, *Calyptomyrmex rectopilosus*; E–F, *Carebara castanea*; G–J, *Carebara diversa*; K–L, *Carebara pygmaea.*

38. *Calyptomyrmex rectopilosus* Dlussky & Radchenko, 1990 (Figure 9C–D)

Calyptomyrmex rectopilosus Dlussky and Radchenko, 1990: 124, figs. 7, 8. Type locality: Vietnam.

Material examined. Nang Rong Temple: 29.VII.2020, W. Jaitrong leg., TH20-WJT-101.

Habitat. This is a rare species and can be found in leaf litter on the edge of dry evergreen forest.

Distribution in the study area. S18.

39. *Carebara castanea* Smith, 1858 (Figure 9E–F)

Carebara castanea Smith, 1858: 178. Type locality: China (Hong Kong).

Material examined. Wangtakrai Park: male genitalia, 13.III.2024, W. Jaitrong leg., light trap.

Habitat. This species was found in a disturbed area. Alate queens and males were collected from a light trap.

Distribution in the study area. S01.

40. *Carebara diversa* (Jerdon, 1851) (Figure 9G–J)

Oecodoma diversa Jerdon, 1851: 109. Type locality: India (Kerala). Combination in *Carebara*: Fischer *et al*. 2014: 71.

Material examined. Wangtakrai Park: male genitalia, 13.III.2024, W. Jaitrong leg., light trap; 10.VII.2024, W. Jaitrong leg., WJT100724-04. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., TH17-WJT-115.

Habitat. *Carebara diversa* can be found in open areas and on the edge of dry evergreen forest. This species had a large colony and nested in the soil.

Distribution in the study area. S01, S02, S03, S04, S05, S06, S07, S08, S09, S11, S12, S14, S15, S16, S17, S18, S19, and S20.

41. *Carebara pygmaea* (Emery, 1887) (Figure 9K–L)

Pheidologeton pygmaeus Emery, 1887: 465. Type locality: Indonesia (Ternate I.).

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-12.

Habitat. This species was found to nest in a rotting log on forest floor on the edge of dry evergreen forest.

Distribution in the study area. S09.

42. *Cataulacus granulatus* (Latreille, 1802) (Figure 10A–B)

Formica granulata Latreille, 1802: 275, pl. 12, fig. 75. Type locality: Grand Indes. Combination in *Cataulacus*: Smith, 1853: 226.

Material examined. Nang Rong Temple: 12.VI.2022, W. Jaitrong leg., general collection.

Habitat. *Cataulacus granulatus* was found in a dry evergreen forest. Nests were in dead twigs.

Distribution in the study area. S18.

43. *Crematogaster bouvardi* Santschi, 1920 (Figure 10C–D)

Crematogaster walshi st. bouvardi Santschi, 1920: 160. Type locality: Vietnam.

Material examined. Wangtakrai Park: 20.VII.2023, W. Jaitrong leg., TH23-WJT-1641.

Habitat. This species nests in dead twigs and can be found at the forest edge.

Distribution in the study area. S12.

44. *Crematogaster fraxatrix* Forel, 1911 (Figure 10E–F)

Crematogaster fraxatrix Forel, 1911: 28. Type locality: Borneo (Sarawak).

Material examined. Wangtakrai Park: 14.III.2023, W. Jaitrong leg., TH22-WJT-201; same locality, date, and collector, TH23-WJT-208; 15.XI.2022, W. Jaitrong leg., TH22-WJT-611; 16.XI.2023, W. Jaitrong leg., TH161123-07; 12.III.2024, W. Jaitrong leg., WJT120324-06. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., WJT130617-001; same locality, date, and collector, TH17-WJT114.

Habitat. This species nests in dead twigs and can be found both in dry evergreen forest and forest edge.

Distribution in the study area. S04, S04, S10, and S18.

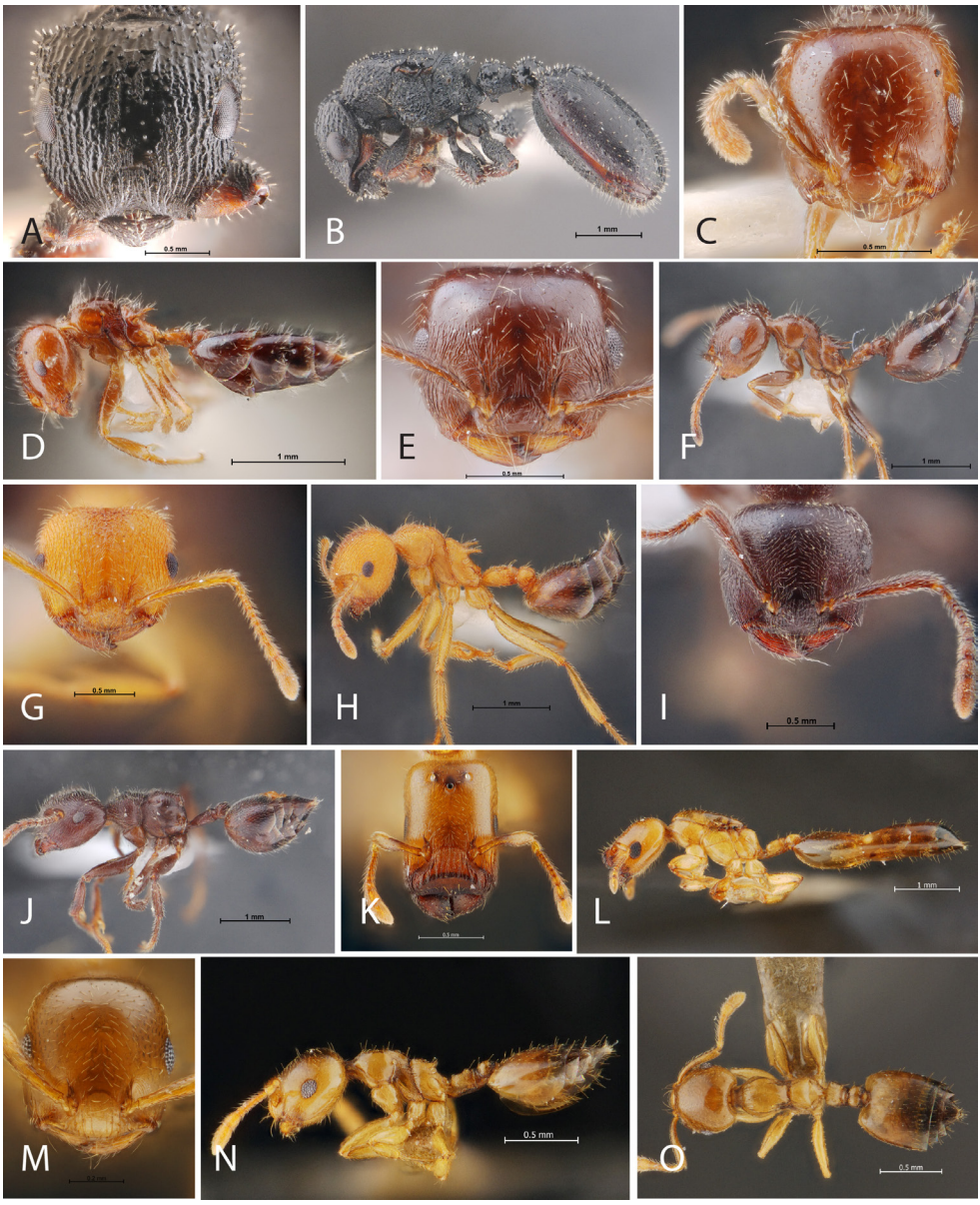

Figure 10. Myrmicinae: A–B, *Cataulacus granulatus*; C–D, *Crematogaster bouvardia*; E–F, *Crematogaster fraxatrix*; G–H, *Crematogaster rogenhofer*i; I–J, *Crematogaster sewardi*; K–O, *Crematogaster* cf. *cylindriceps.*

45. *Crematogaster rogenhoferi* Mayr, 1879 (Figure 10G–H)

Crematogaster rogenhoferi Mayr, 1879: 683. Type locality: Myanmar, India (West Bengal), Sri Lanka.

Material examined. Wangtakrai Park: 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. We found this species walking on a tree trunk.

Distribution in the study area. S02.

46. *Crematogaster sewardi* Forel, 1901 (Figure 10I–J)

Crematogaster deformis r. *sewardi* Forel, 1901b: 64. Type locality: Borneo. Raised to species: Hosoishi and Ogata, 2009: 7 (redescription).

Material examined. Wangtakrai Park: 14.III.2023, W. Jaitrong leg., TH23-WJT-209; 14.III.2023, W. Jaitrong leg., TH23-WJT-204; 15.XI.2022, W. Jaitrong leg., TH22-WJT-612; 18.VII.2023, W. Jaitrong leg., general collection.

Habitat. *Crematogaster sewardi* is a common species. It nests in rotting wood or dead part tree trunk.

Distribution in the study area. S08 and S09.

47. *Crematogaster* cf. *cylindriceps* Wheeler, 1927 (Figure 10K–O)

Material examined. Wangtakrai Park: 16.III.2023, W. Jaitrong leg., TH23-WJT-214; 16.III.2023, W. Jaitrong leg., TH23-WJT-215; 15.XI.2023, W. Jaitrong leg., general collection.

Habitat. This species nests inside the concavity of the hostplant, *Spenodesme pantrandra* Jack.

Distribution in the study area. S08.

48. *Lophomyrmex bedoti* Emery, 1893 (Figure 11A–B)

Lophomyrmex bedoti Emery, 1893a: 192, pl. 8, fig. 17. Type locality: Indonesia (Sumatra).

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., general collection; same locality, and collector, 14.XI.2022, general collection.

Habitat. We found this species nesting in the soil in an open area.

Distribution in the study area. S02.

49. *Meranoplus bicolor* (Guérin-Méneville, 1844) (Figure 11C–D)

Cryptocerus bicolor Guérin-Méneville, 1844: 425. Type locality: India (Puducherry). Combination in *Meranoplus*: Smith, 1853: 224.

Material examined. Wangtakrai Park: 20.VII.2023, W. Jaitrong leg., general collection.

Habitat. This is a common species that is usually found in open areas or disturbed forests. It nested in the soil.

Distribution in the study area. S16.

50. *Monomorium chinense* Santschi, 1925* (Figure 11E–F)

Monomorium minutum var. *chinensis* Santschi, 1925: 86. Type locality: China (Shanghai).

Material examined. Khlong Maduar Waterfall: 9.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species is found in an open area.

Distribution in the study area. S19.

51. *Monomorium floricola* (Jerdon, 1851)* (Figure 11G–H)

Atta floricola Jerdon, 1851: 107. Type locality: India (Kerala). Combination in *Monomorium*: Mayr, 1879: 671.

Material examined. Wangtakrai Park: 20.VI.2023, W. Jaitrong leg., TH23-WJT-1637; 16.III.2023, W. Jaitrong leg., general collection; 10.VII.2024, T. Jaitrong leg., TJ100724-02.

Habitat. *Monomorium floricola* is a common alien species for Thailand (Khachonpisitsak *et al*., 2020). In the Wangtakrai Park, this species can be found in almost all habitats. Nests were usually found in dead twigs.

Distribution in the study area. S01 and S16.

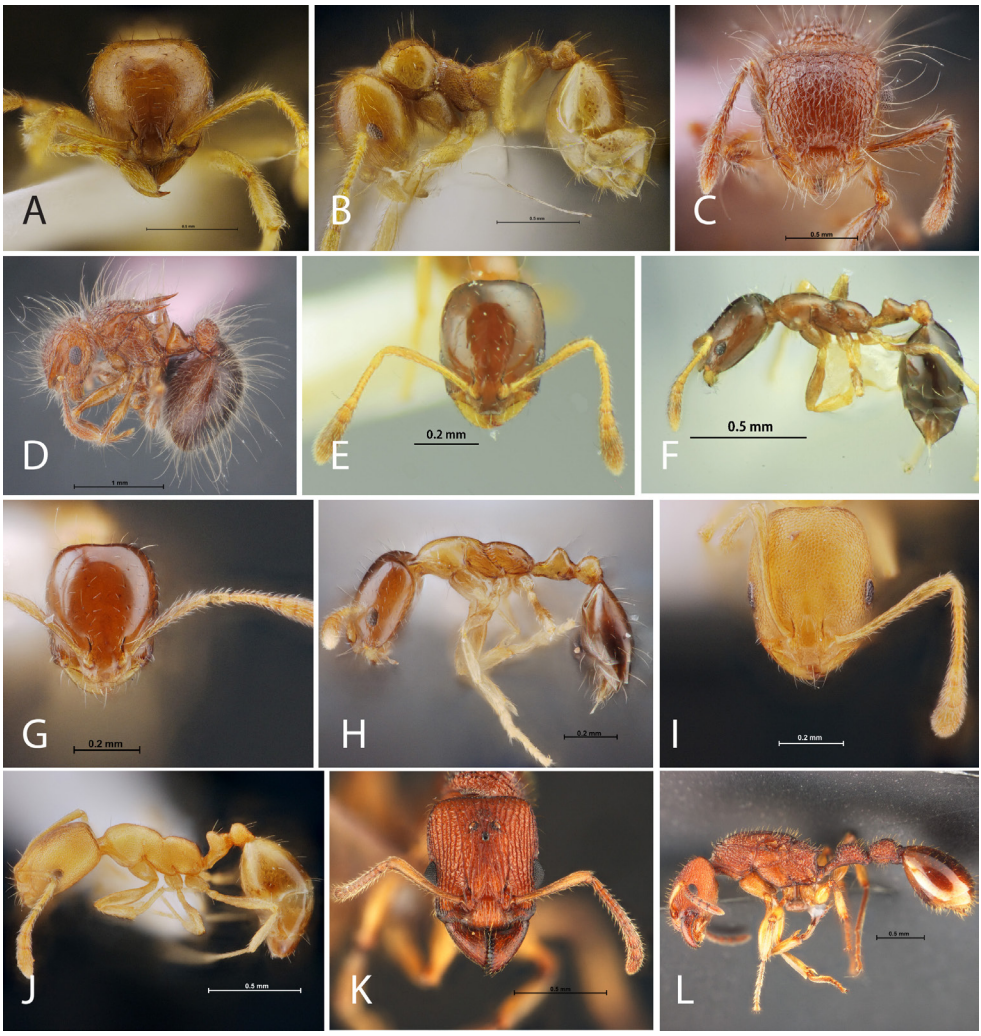

Figure 11. Myrmicinae: A–B, *Lophomyrmex bedoti*; C–D, *Meranoplus bicolor*; E–F, *Monomorium chinense*; G–H, *Monomorium floricola*; I–J, *Monomorium pharaonic*; K–L, *Paratopula macta.*

52. *Monomorium pharaonis* (Linnaeus, 1758)* (Figure 11I–J)

Formica pharaonis Linnaeus, 1758: 580. Type locality: Egypt. Combination in *Monomorium*: Mayr, 1862: 752.

Material examined. Wangtakrai Park: 14.III.2023, W. Jaitrong leg., TH23-WJT-206; 15.XI.2023, W. Jaitrong leg., TH23-WJT-609; 11.VII.2024, W. Jaitrong leg., general collection. **Khlong Maduar Waterfall:** 9.VII.2024, W. Jaitrong leg., WJT090724-02.

Habitat. *Monomorium pharaonis* is a common alien species for Thailand (Khachonpisitsak *et al*., 2020). In the Wangtakrai Park, this species can be found in almost all habitats. Nests were usually found in dead twigs.

Distribution in the study area. S02, S16, and S19.

53. *Paratopula macta* Bolton, 1988 (Figure 11K–L)

Paratopula macta Bolton, 1988: 140, fig. 2. Type locality: Borneo (Brunei, Sabah, Sarawak), Philippines (Luzon I., Negros I.).

Material examined. Wangtakrai Park: 16.III.2023, W. Jaitrong leg., light trap; 14.III.2023, W. Jaitrong leg., light trap; 13.III.2024, W. Jaitrong leg., light trap; 10.VII.2024, W. Jaitrong leg., general collection.

Habitat. We collected the specimens of this species using a light trap in an open area.

Distribution in the study area. S01.

54. *Pheidole aristotelis* Forel, 1911 (Figure 12A–D)

Pheidole aristotelis Forel, 1911: 43. Type locality: Borneo.

Material examined. Wangtakrai Park: 19.VII.2023, W. Jaitrong leg., TH23-WJT1622.

Habitat. This species was found to nest in rotting wood.

Distribution in the study area. S06.

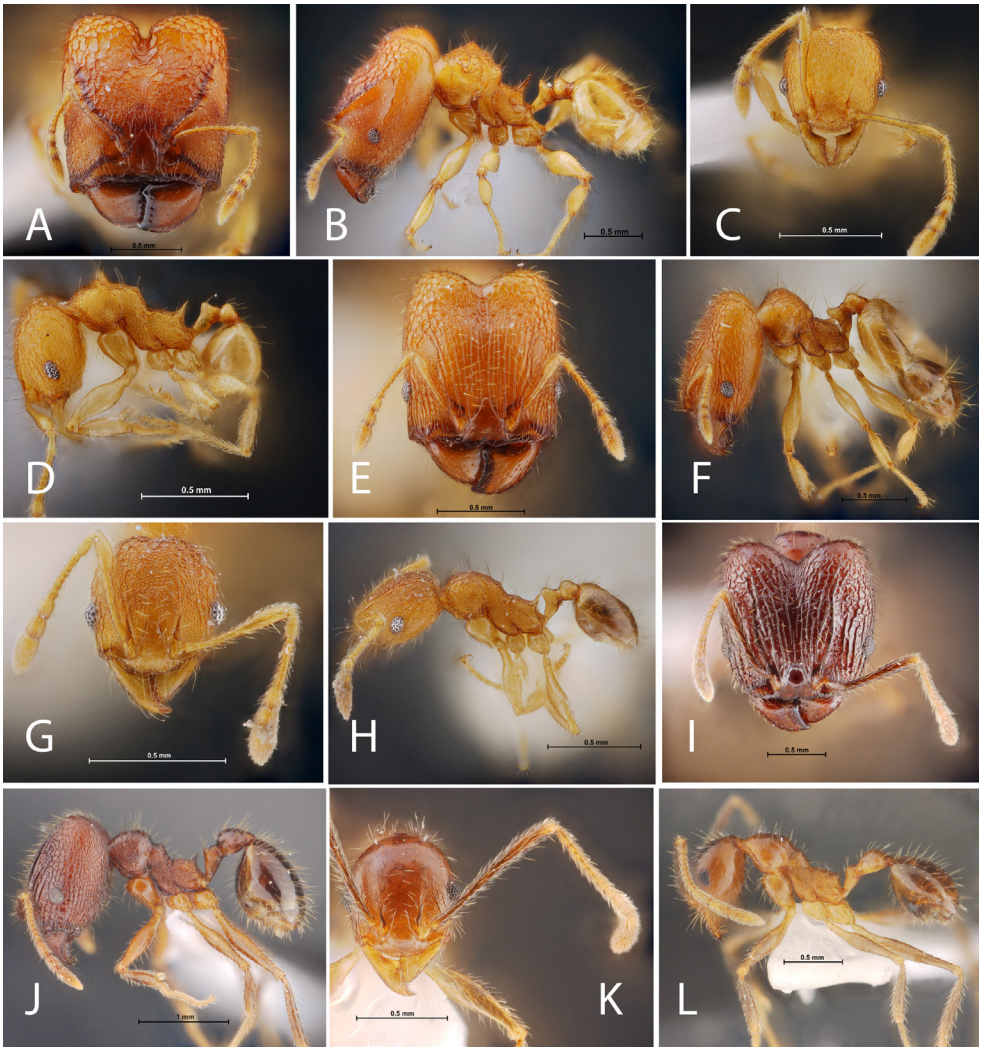

Figure 12. Myrmicinae: A–D, *Pheidole aristotelis*; E–H, *Pheidole parva*; I–L, *Pheidole protea.*

55. *Pheidole inornata* Eguchi, 2001

Pheidole inornata Eguchi, 2001: 66, fig. 22. Type locality: Borneo.

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., TH22-WJT614; 10.VII.2024, W. Jaitrong leg., WJT100724-06. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., TH17-WJT-106; same locality, date and collector, TH17-WJT-112; same locality, date, and collector, TH17-WJT-118.

Habitat. This species was found to nest in rotting wood. It usually nests in the same rotting wood as *Odontomachus rixosus*.

Distribution in the study area. S10 and S17.

56. *Pheidole nodifer* (Smith, 1858)

Atta nodifer Smith, 1858: 165. Type locality: China. Combination in *Pheidole*: Mayr, 1886: 360.

Material examined. Nang Rong Temple: 29.VII.2020, W. Jaitrong leg., general collection.

Habitat. This species was found to nest in rotting wood. It can be found in primary evergreen forests.

Distribution in the study area. S18.

57. *Pheidole parva* Mayr, 1865 (Figure 12E–H)

Pheidole parva Mayr, 1865: 98, pl. 4, fig. 28. Type locality: Sri Lanka.

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-11; 15.NOV.2023, W. Jeenthong leg., TJ-NYK-07; 19.VII.2023, W. Jaitrong leg., TH23-WJT-1625. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., TH17-WJT-119.

Habitat. This species was found to nest in soil in disturbed areas.

Distribution in the study area. S01, S02, and S05.

58. *Pheidole protea* Forel, 1912 (Figure 12I–L)

Pheidole javana subsp. *proteus* Forel, 1912b: 55. Type locality: Indonesia (Sumatra). Raised to species: Eguchi, 2004: 205.

Material examined. Nang Rong Temple: 7.II.2022, W. Jaitrong leg., TH22-WJT-203.

Habitat. This species was found nest in rotting wood at the forest edge.

Distribution in the study area. S18.

59. *Pheidole tjibodana* Forel, 1905 (Figure 13A–D)

Pheidole nodgii var. *tjibodana* Forel, 1905: 16. Type locality: Indonesia (Java).

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-09; same locality, date and collector, WJT151123-21; 16.XI.2022, W. Jaitrong leg., TH22-WJT-625. **Nang Rong Temple:** 30.X.2019, W. Jaitrong leg., TH19-WJT-64.

Habitat. This species was found to nest in rotting wood.

Distribution in the study area. S06, S09, and S10.

60. *Pristomyrmex punctata* (Smith, 1860) (Figure 13E–F)

Myrmica punctata Smith, 1860b: 108. Type locality: Indonesia (Batjan Island). Combination in *Pristomyrmex*: Mayr, 1886: 361.

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., TH151123-22.

Habitat. This species was found at the forest edge. Workers foraged on ground and ground vegetation.

Distribution in the study area. S09.

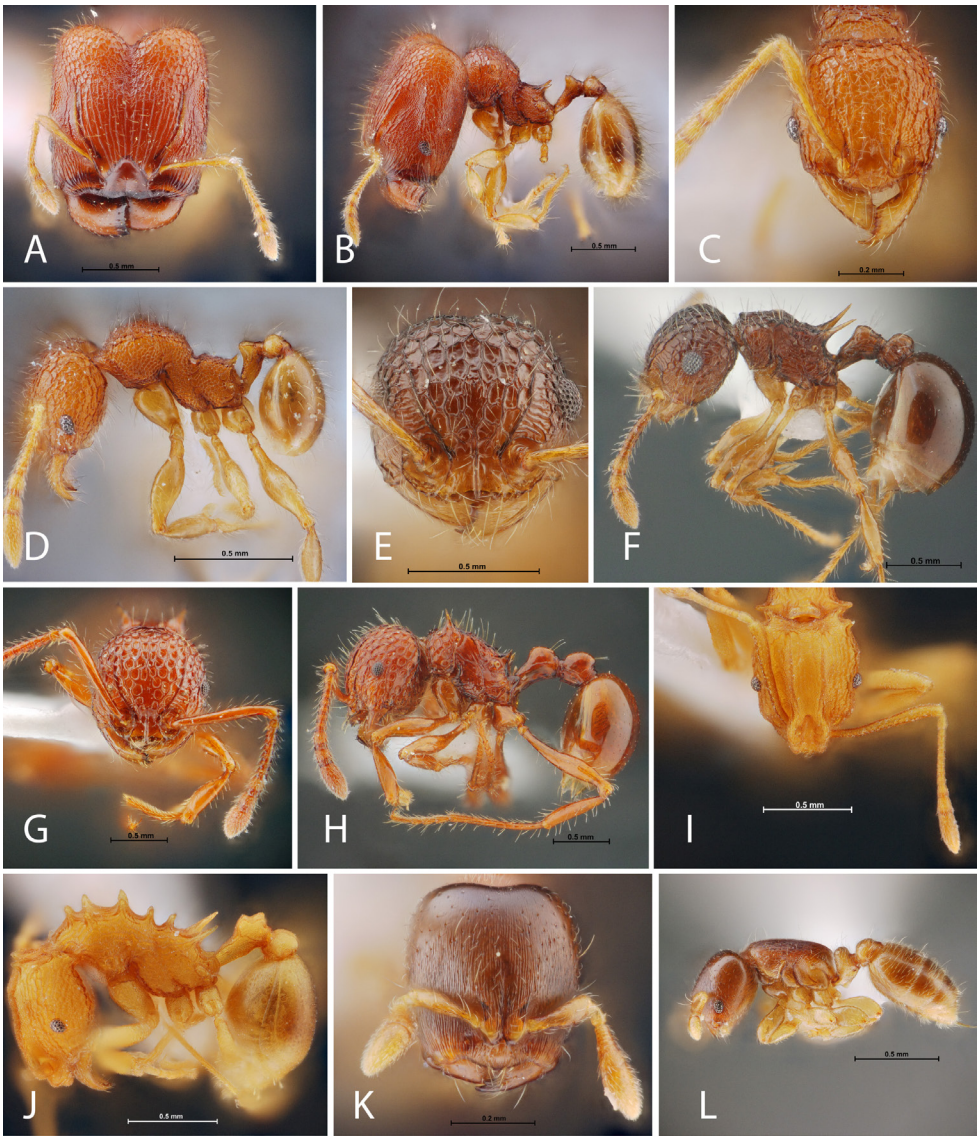

Figure 13. Myrmicinae: A–D, *Pheidole tjibodana*; E–F, *Pristomyrmex punctata*; G–H, *Pristomyrmex sulcatus*; I–J, *Proatta butteli*; K–L, *Rhopalomastix johorensis*.

61. *Pristomyrmex sulcatus* Emery, 1895 (Figure 13G–H)

Pristomyrmex brevispinosus subsp. *sulcatus* Emery, 1895: 464. Type locality: Myanmar. Raised to species: Wang, 2003: 469.

Material examined. Wangtakrai Park: 17.XI.2022, TH22-WJT-632; 14.III.2023, W. Jaitrong leg., TH23-WJT-210. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., general collection. **Khlong Maduar Waterfall:** 29.X.2019, W. Jaitrong leg., TH19-WJT-019; same locality and collector, 30.X.2019, TH19-WJT-43.

Habitat. This species was found to nest in rotting wood. We found this species in dry evergreen forest.

Distribution in the study area. S07, S09, S18, and S20.

62. *Proatta butteli* Forel, 1912 (Figure 13I–J)

Proatta butteli Forel, 1912a: 769. Type locality: Indonesia (Sumatra).

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-10; 17.XI.2022, W. Jaitrong leg., TH22-WJT-631; 19.VII.2023, W. Jaitrong leg., TH23-WJT-1627.

Habitat. This species was a rare species in the study area. It was found to nest in rotting wood at the forest edge.

Distribution in the study area. S06, S09, and S10.

63. *Rhopalomastix johorensis* Wheeler, 1929 (Figure 13K–L)

Rhopalomastix rothneyi subsp. *johorensis* Wheeler, 1929: 96. Type locality: Singapore.

Rhopalomastix johorensis: Wang *et al*., 2018: 316.

Material examined. Wangtakrai Park: 14.XI.2023, W. Jaitrong leg., WJT141123-05.

Habitat. This species was found to nest under bark of mango tree in the forest edge.

Distribution in the study area. S06.

64. *Solenopsis geminata* (Fabricius, 1804)* (Figure 14A–D)

Atta geminata Fabricius, 1804: 423. Type locality: South America (no state data).

Material examined. Wangtakrai Park: 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species was found in disturbed areas.

Distribution in the study area. S16.

65. *Strumigenys elegantula* (Terayama & Kubota, 1989) (Figure 14E–F)

Smithistruma elegantula Terayama and Kubota, 1989: 788, figs. 23–27. Type locality: Taiwan.

Combination *Strumigenys*: Baroni Urbani and De Andrade, 2007: 119.

Material examined. Wangtakrai Park: 16.XI.2022, W. Jaitrong leg., general collection.

Habitat. This species was found to nest in rotting wood at the forest edge.

Distribution in the study area. S06.

66. *Strumigenys kraepelini* Forel, 1905 (Figure 14G–H)

Strumigenys kraepelini Forel, 1905: 8. Typelocality: Indonesia (Java).

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., WJT151123-13; 17.XI.2022, W. Jaitrong leg., general collection; 19.VII.2023, W. Jaitrong leg., WJT190723-01; 15.XI.2023, W. Jaitrong leg., WJT151123-14.

Habitat. This species was found to nest in rotting wood in primary forest and at the forest edge.

Distribution in the study area. S06, S07, 09, and S10.

67. *Strumigenys sydorata* Bolton, 2000 (Figure 14I–J)

Strumigenys sydorata Bolton, 2000: 876. Type locality: Indonesia, Java.

Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., TH23-WJT-634; 16.XI.2022, W. Jaitrong leg., TH22-WJT-626; 19.VII.2023, W. Jaitrong leg., TH23-WJT-1621; same locality, date, and collector, TH23-WJT-1624; same locality, date, and collector, TH23-WJT-1616; 18.VII.2023, W. Jaitrong leg., general collection.

Habitat. This species was found to nest in rotting wood in primary forest and at the forest edge.

Distribution in the study area. S06, S07, 09, and S10.

68. *Tetramorium bicarinatum* (Nylender, 1846) (Figure 14K–L)

Myrmica bicarinata Nylander, 1846: 1061. Type locality: U.S.A. Combination in Tetramorium: Mayr, 1862.

Material examined. Wangtakrai Park: 20.VII.2023, W. Jaitrong leg., TH23-WJT-1636; 14.III.2023, W. Jaitrong leg., general collection (queen).

Habitat. This species nests in dead twigs that can be found in disturbed areas.

Distribution in the study area. S01 and S02.

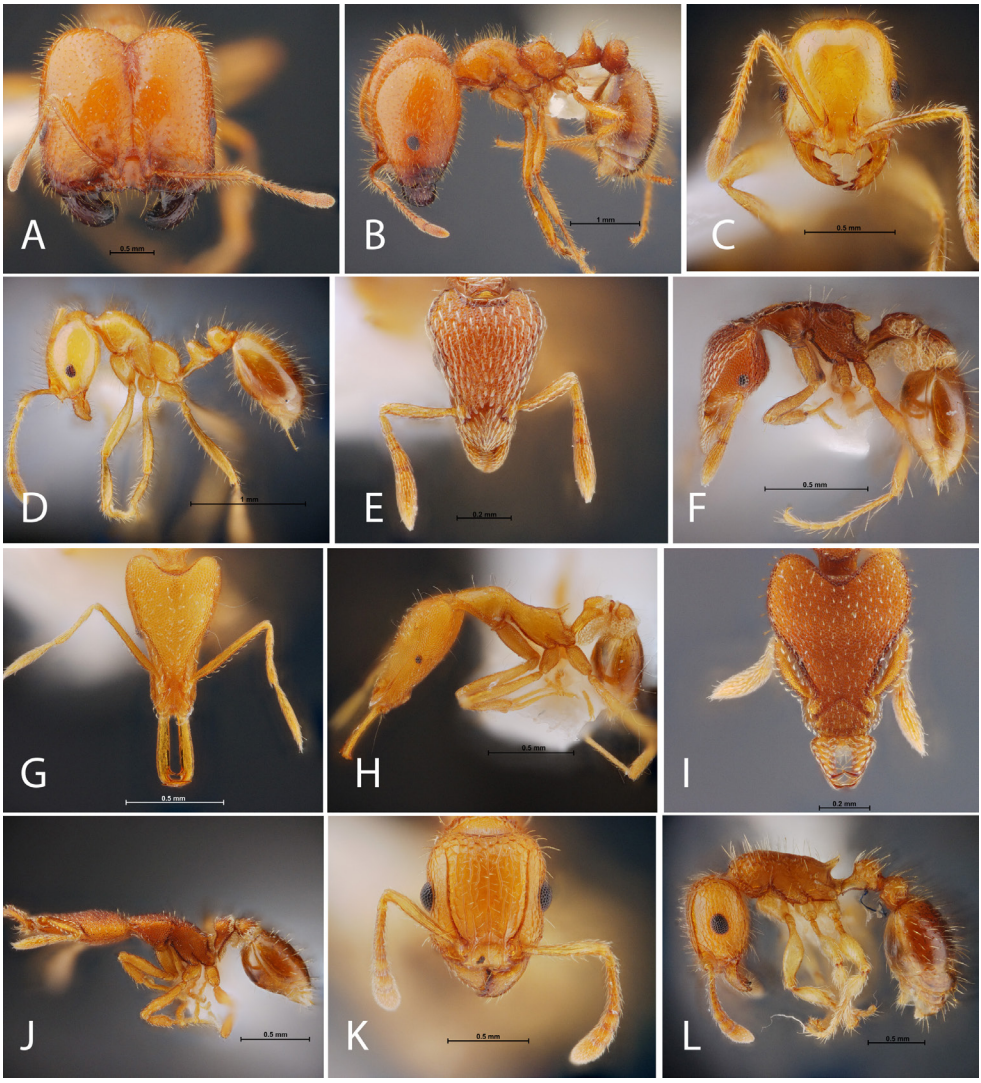

Figure 14. Myrmicinae: A–D, *Solenopsis geminata*; E–F, *Strumigenys elegantula*; G–H, *Strumigenys kraepelini*; I–J, *Strumigenys sydorata*; K–L, *Tetramorium bicarinatum.*

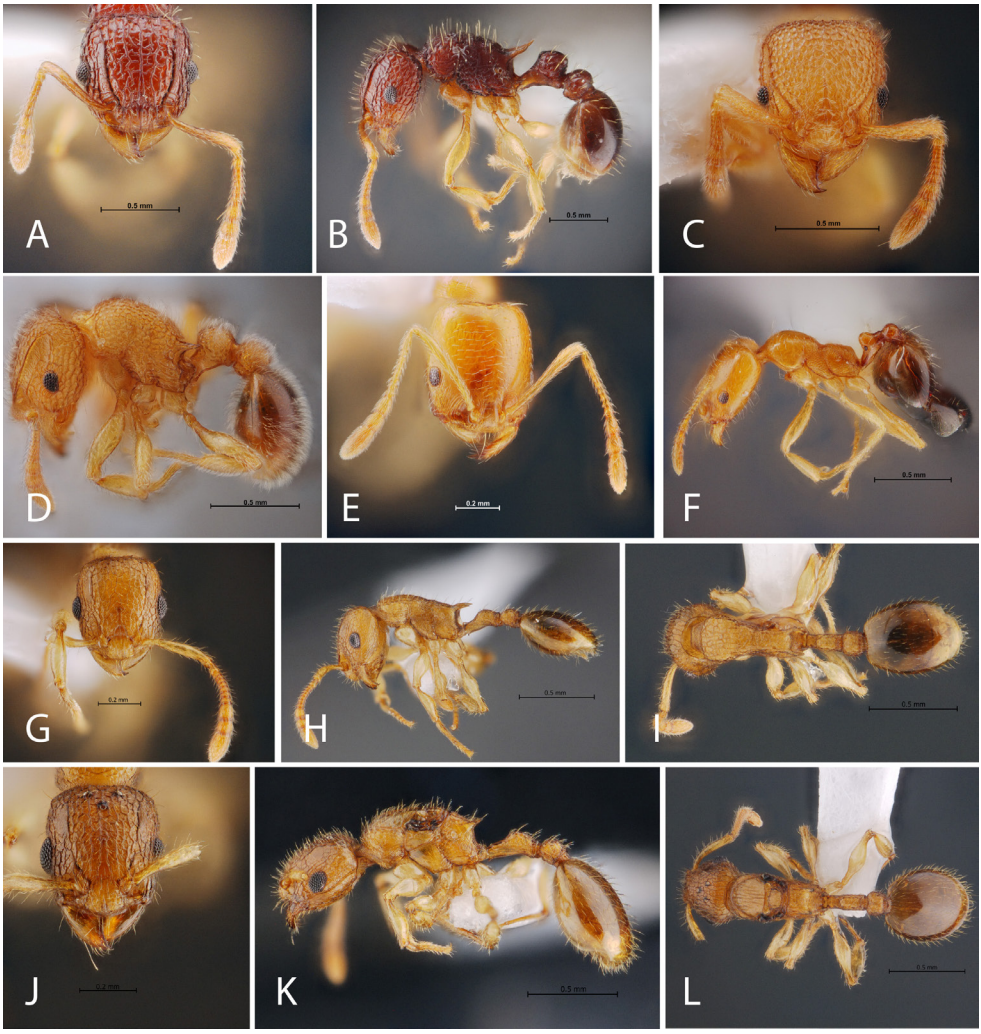

Figure 15. Myrmicinae: A–B, *Tetramorium flavipes*; C–D, *Tetramorium kheperra*; E–F, *Trichomyrmex destructor*; G–L, *Vombisidris* cf. *satunensis.*

69. *Tetramorium flavipes* Emery, 1893 (Figure 15A–B)

Tetramorium (*Xiphomyrmex*) *flavipes* Emery, 1893b: 247 (footnote). Type locality: Thailand.

Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., TH22-WJT-529; 16.XI.2022, W. Jaitrong leg., general collection; 14.XI.2023, W. Jaitrong leg., general collection. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., TH17-WJT-104.

Habitat. This species nests in soil that can be found in disturbed areas.

Distribution in the study area. S02, S09, and S18.

70. *Tetramorium kheperra* Bolton, 1976* (Figure 15C–D)

Triglyphothrix kheperra Bolton, 1976: 349, fig. 71. Type locality: Indonesia (Java). Combination in *Tetramorium*: Bolton, 1985: 247.

Material examined. Wangtakrai Park: 17.VII.2023, W. Jaitrong leg., TH23-WJT-1604; 15.XI.2023, W. Jaitrong leg., WJT151123-19; same locality, date, and

collector, WJT151123-06; same locality, date, and collector, WJT151123-07; same locality, date, and collector, WJT151123-23.
Habitat. We usually find this species in disturbed areas. It is an alien species for Thailand (Khachonpisitsak *et al*., 2020).
Distribution in the study area. S01, S06, S10, S13, and S15.

71. *Trichomyrmex destructor* Jerdon, 1851* (Figure 15E–F)
Atta destructor Jerdon, 1851: 105. Type locality: India. Combination in *Trichomyrmex*: Ward *et al*., 2015: 76.
Material examined. Nang Rong Temple: 15.XI.2022, W. Jaitrong leg., TH22-WJT-615.
Habitat. We usually find this species in disturbed areas. It is an alien species for Thailand (Khachonpisitsak *et al*., 2020).
Distribution in the study area. S05 and S16.

72. *Vombisidris* cf. *satunensis* Jeenthong, Jaitrong & Tasen, 2023 (Figure 15G–L)
Material examined. Nang Rong Temple: 14.III.2024, W. Jaitrong leg., WJT140324-01; 16.XI.2023, W. Jaitrong leg., WJT161123-01.
Habitat. This species was found to nest in dead twigs at the forest edge. A colony (WJT140324-01) was collected from a canopy of a high tree.
Distribution in the study area. S12.

Subfamily Ponerinae

73. *Anochetus graeffei* Mayr, 1870 (Figure 16A–B)
Anochetus graeffei Mayr, 1870: 961. Type locality: Samoa.
Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., general collection.
Nang Rong temple: 13.VI.2017, W. Jaitrong leg., general collection.
Habit. We found *A. graeffei* in disturbed areas. The species nested in the soil.
Distribution in the study area. S02, S03 and S18.

74. *Diacamma orbiculatum* Santschi, 1932 (Figure 16C–D)
Diacamma ceylonensis var. *orbiculatum* Santschi, 1932: 14. Type locality: Laos.
Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., general collection; 13.III.2024, W. Jaitrong leg., WJT130324-02. **Nang Rong temple:** 29.X.2019, W. Jaitrong leg., WJT290819-06.
Habitat. *Diacamma orbiculatum* was found in dry evergreen forest. It nested in the soil.
Distribution in the study area. S06 and S18.
Distribution in the study area. S06, S09, S18.

75. *Ectomomyrmex leeuwenhoeki* (Forel, 1886) (Figure 16E–F)
Ponera leeuwenhoeki Forel, 1886: 244. Type locality: India. Combination in *Ectomomyrmex*: Schmidt and Shattuck, 2014: 193.
Material examined. Wangtakrai Park: 19.VII.2023, W. Jaitrong leg., TH23-WJT-1619. **Nang Rong Temple:** 31.X.2019, W. Jaitrong leg., general collection.
Habitat. This species nests in soil under rooting logs in dry evergreen forests.
Distribution in the study area. S06, S09, and S18.

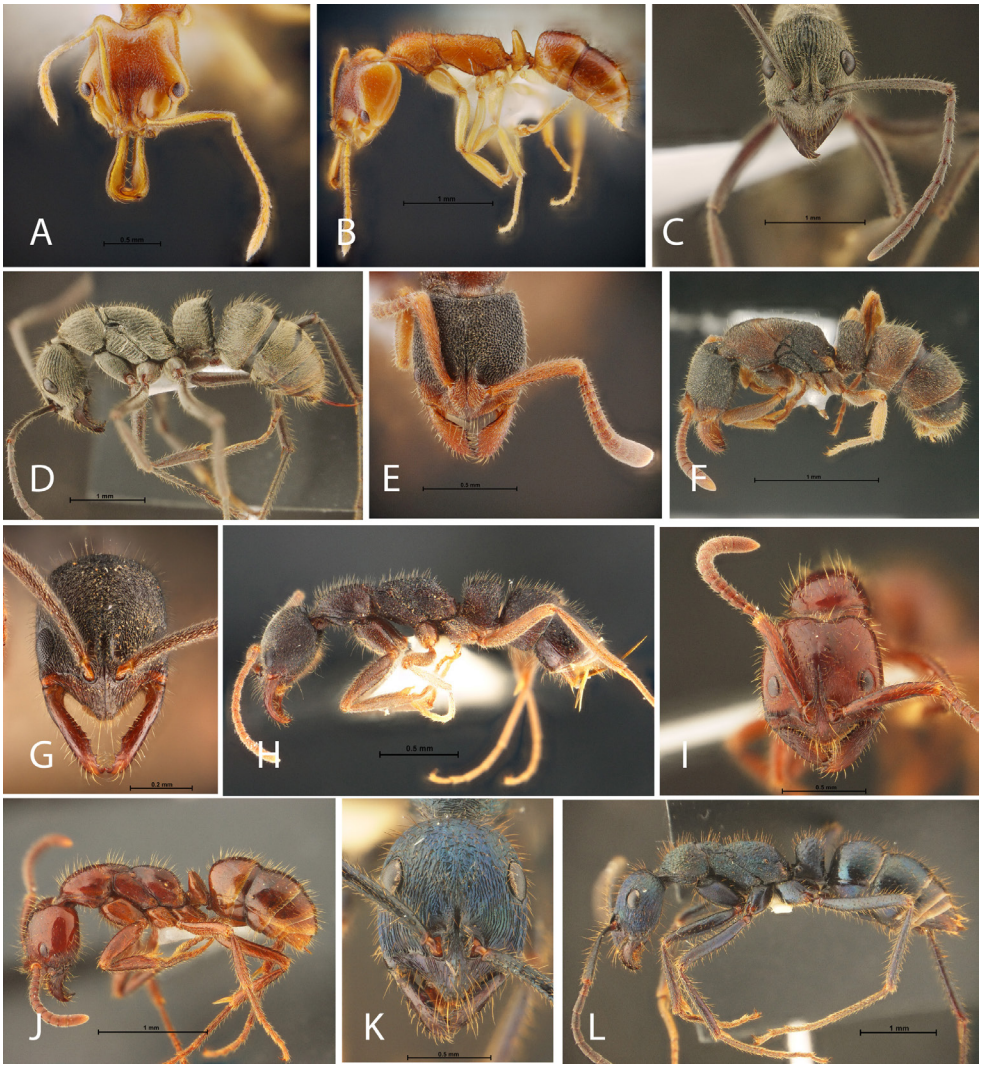

Figure 16. Ponerinae: A–B, *Anochetus graeffei*; C–D, *Diacamma orbiculatum*; E–F, *Ectomomyrmex leeuwenhoeki*; G–H, *Leptogenys aspera*; I–J, *Leptogenys birmana*; K–L, *Leptogenys cyanicatena.*

76. *Ectomomyrmex overbecki* Viehmeyer, 1916

Pachycondyla (*Ectomomyrmex*) *overbecki* Viehmeyer, 1916: 113. Type locality: Singapore. Combination in *Ectomomyrmex*: Schmidt and Shattuck, 2014: 193.

Material examined. Wangtakrai Park: 15.XI.2022, W. Jaitrong leg., general collection; 15.XI. 2023, W. Jaitrong leg., WJT231123-04. **Nang Rong Temple:** 31.X.2019, W. Jaitrong leg., TH19-WJT-67.

Habitat. This species nests in rooting wood in dry evergreen forests.

Distribution in the study area. S06, S09, and S18.

77. *Leptogenys aspera* (André, 1889) (Figure 16G–H)

Lobopelta aspera André, 1889: 222. Type locality: Vietnam. Wheeler and Wheeler, 1976: 52. Combination in *Leptogenys*: Forel, 1900b: 310.

Material examined. Wangtakrai Park: w, 15.XI.2023, W. Jaitrong leg., WJT151123-B; w, 15.XI.2023, W. Jaitrong leg., WJT151123-03; w, 14.XI.2023, W. Jaitrong leg., WJT141123-03.

Habitat. *Leptogenys aspera* nested in rotting wood in dry evergreen forests and disturbed areas.

Distribution in the study area. S06 and S09.

78. *Leptogenys birmana* Forel, 1900 (Figure 16I–J)

Leptogenys (*Lobopelta*) *birmana* Forel, 1900b: 310 (w). Type locality: Myanmar.

Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., TH22-WJT-637; 15.XI.2023, T. Jeenthong leg., TJ-NYK-09; 13.III.2024, W. Jaitrong leg., general collection; 16.III.2023, TH23-WJT-217.

Habitat. *Leptogenys birmana* nested in soil in disturbed areas.

Distribution in the study area. S01 and S08.

79. *Leptogenys cyanicatena* Arimoto & Yamane, 2018 (Figure 16K–L)

Leptogenys cyanicatena Arimoto and Yamane, 2018: 22, figs. 3, 10–14, 15C, F, 16E, F. Type locality: Thailand.

Material examined. Nang Rong Temple: 29.VIII.2019, W. Jaitrong leg., WJt290819-01.

Habitat. We found this species in a dry evergreen forest. Workers were carrying millipeds.

Distribution in the study area. S08.

80. *Leptogenys kitteli* (Mayr, 1870) (Figure 17A–B)

Lobopelta kitteli Mayr, 1870: 966. Type locality: India. Combination in *Leptogenys*: Emery, 1895: 461.

Material examined. Wangtakrai Park: 17.XI.2022, W. Jaitrong leg., TH22-WJT-638; 14.XI.2023, W. Jaitrong leg., WJT141123-01; 16.XI.2023, W. Jaitrong leg., WJT161123-04; 19.VII.2023, W. Jaitrong leg., TH23-WJT-1610; 17.XI.2022, W. Jaitrong leg., TH22-WJT-638; 10.VII.2024, W. Jaitrong leg., WJT100724-07.

Habitat. *Leptogenys kitteli* nested in rotting wood or soil in dry evergreen forests and disturbed areas.

Distribution in the study area. S06, S07, S09, S15, and S17.

81. *Leptogenys peuqueti* (André, 1887) (Figure 17C–D)

Lobopelta peuqueti André, 1887: 292. Type locality: Vietnam. Combination in *Leptogenys*: Emery, 1895: 461.

Material examined. Wangtakrai Park: 14.XI.2023, W. Jaitrong leg., general collection; 15.XI.2023, W. Jaitrong leg., WJT151123-06; 16.XI.2023, W. Jaitrong leg., WJT161123-05; 16.XI.2022, W. Jaitrong leg., WJT22-WJT-622. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., general collection.

Habitat. *Leptogenys peuqueti* nested in rotting wood in dry evergreen forests. This species was associated with ant cricket (Myrmecophilidae: *Myrmecophilus*).

Distribution in the study area. S09, S10, and S18.

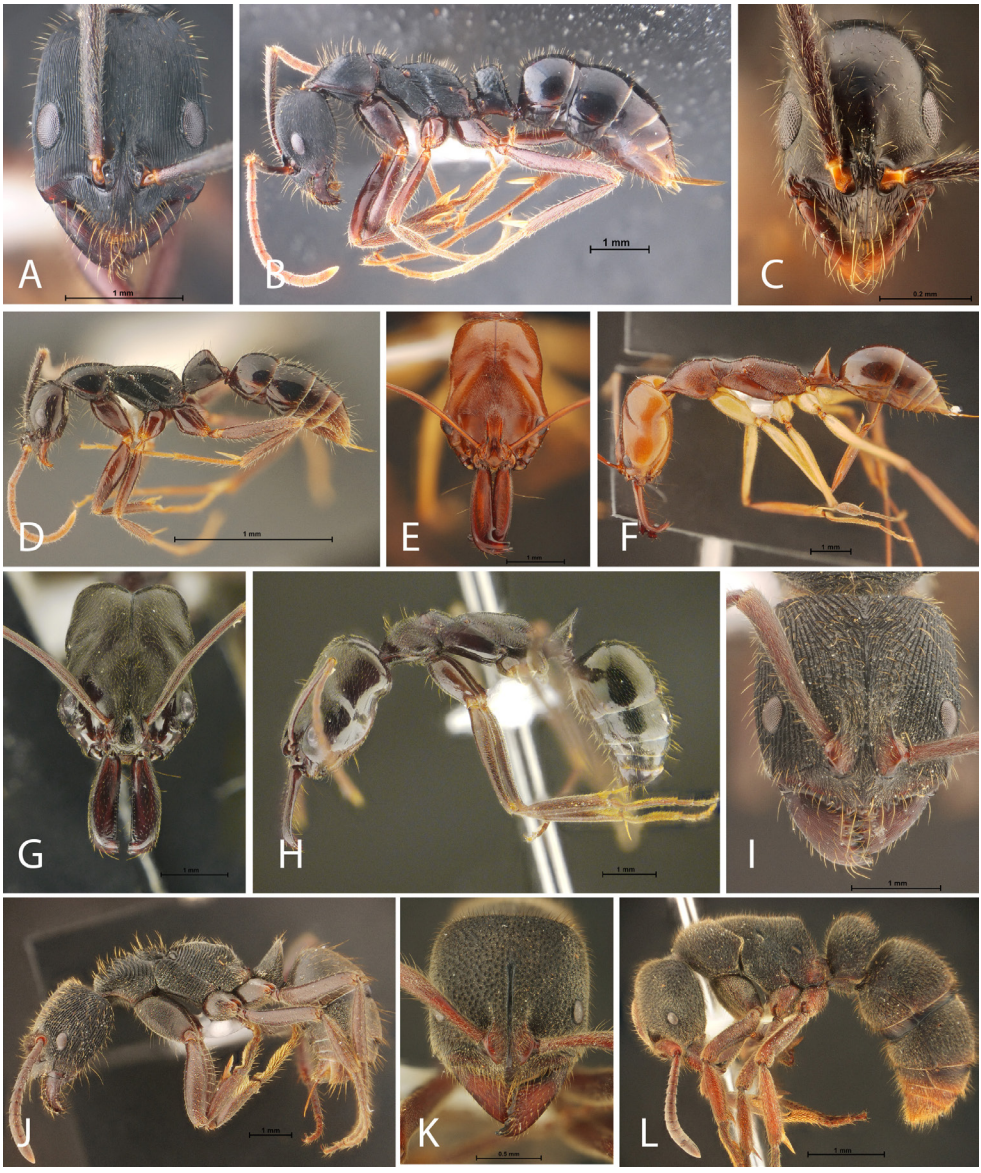

Figure 17. Ponerinae: A–B, *Leptogenys kitteli*; C–D, *Leptogenys peuqueti*; E–F, *Odontomachus rixosus*; G–H, *Odontomachus simillimus*; I–J, *Odontoponera denticulata*; K–L, *Pseudoneoponera rufipes.*

82. *Odontomachus rixosus* Smith, 1857 (Figure 17E–F)

Odontomachus rixosus Smith, 1857: 64. Type locality: Singapore.

Material examined. Nang Rong temple: 13.VI.2017, W. Jaitrong leg., TH17-WJT-113.

Habitat. This species was found in a dry dipterocarp forest. It nests in rotting wood.

Distribution in the study area. S18.

83. *Odontomachus simillimus* Smith, 1858 (Figure 17G–H)

Odontomachus simillimus Smith, 1858: 80, pl. 5, figs. 8–9. Type locality: Fiji Island, Sri Lanka.

Material examined. Wangtakrai Park: 10.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species was found in disturbed areas. Nests were in the soil or rotting wood.

Distribution in the study area. S16.

84. *Odontoponera denticulata* (Smith, 1858) (Figure 17I–J)

Ponera denticulata Smith, 1858: 90, pl. 6, figs. 13–14. Type locality: South Africa: Cape of Good Hope, "?C.G.Hope" on label. Locality in error (Donisthorpe, 1943: 677), specimen mislabeled.

Material examined. Wangtakrai Park: 12.III.2024, W. Jaitrong leg., WJT120324-03; 14.XI.2022, W. Jaitrong leg., general collection; 10.VII.2024, W. Jaitrong leg., general collection. **Nang Rong Temple:** 13.VI.2017, W. Jaitrong leg., TH17-WJT-102.

Habitat. *Odontoponera denticulata* is a common ant species found in the study area. The species was found in open and disturbed areas throughout Wangtakrai Park. This ant has a venomous sting.

Distribution in the study area. S01, S02, S03, S04, S05, S06, S07, S08, S09, S11, S12, S14, S15, S16, S17, S18, S19, and S20.

85. *Pseudoneoponera rufipes* (Jerdon, 1851) (Figure 17K–L)

Ponera rufipes Jerdon, 1851: 119. Type locality: India (Karnataka/Kerala; "Malabar"). Combination in *Pseudoneoponera*: Schmidt and Shattuck 2014: 135.

Material examined. Wangtakrai Park: 16.XI.2022, W. Jaitrong leg., general collection; 15.XI.2023, W. Jaitrong leg., general collection; 18.XI.2022, W. Jaitrong leg., general collection; 14.XI.2022, W. Jaitrong leg., general collection.

Habitat. This is a rare ant species that can be found walking on the ground. The nest might be in soil under rotting log.

Distribution in the study area. S10 and S01.

Subfamily Pseudomyrmecinae

86. *Tetraponera allaborans* (Walker, 1859) (Figure 18A–B)

Pseudomyrma allaborans Walker, 1859: 375. Type locality: Sri Lanka. Combination in *Tetraponera*: Smith, 1877: 69.

Material examined. Wangtakrai Park: 7.IX.2023, W. Jaitrong leg., general collection.

Habitat. This species was found to nest in a dead twig in a dry evergreen forest.

Distribution in the study area. S02.

87. *Tetraponera attenuata* Smith, 1877 (Figure 18C–D)

Tetraponera attenuata Smith, 1877: 71. Type locality: Borneo.

Material examined. Wangtakrai Park: 14.V.2023, W. Jaitrong leg., TH23-WJT-207; w, 17.VII.2023, W. Jaitrong leg., TH23-WJT1606; 15.XI.2023, T. Jeenthong leg., general collect.

Habitat. This species was found to nest in dead twigs in disturbed areas and forest edge.

Distribution in the study area. S02.

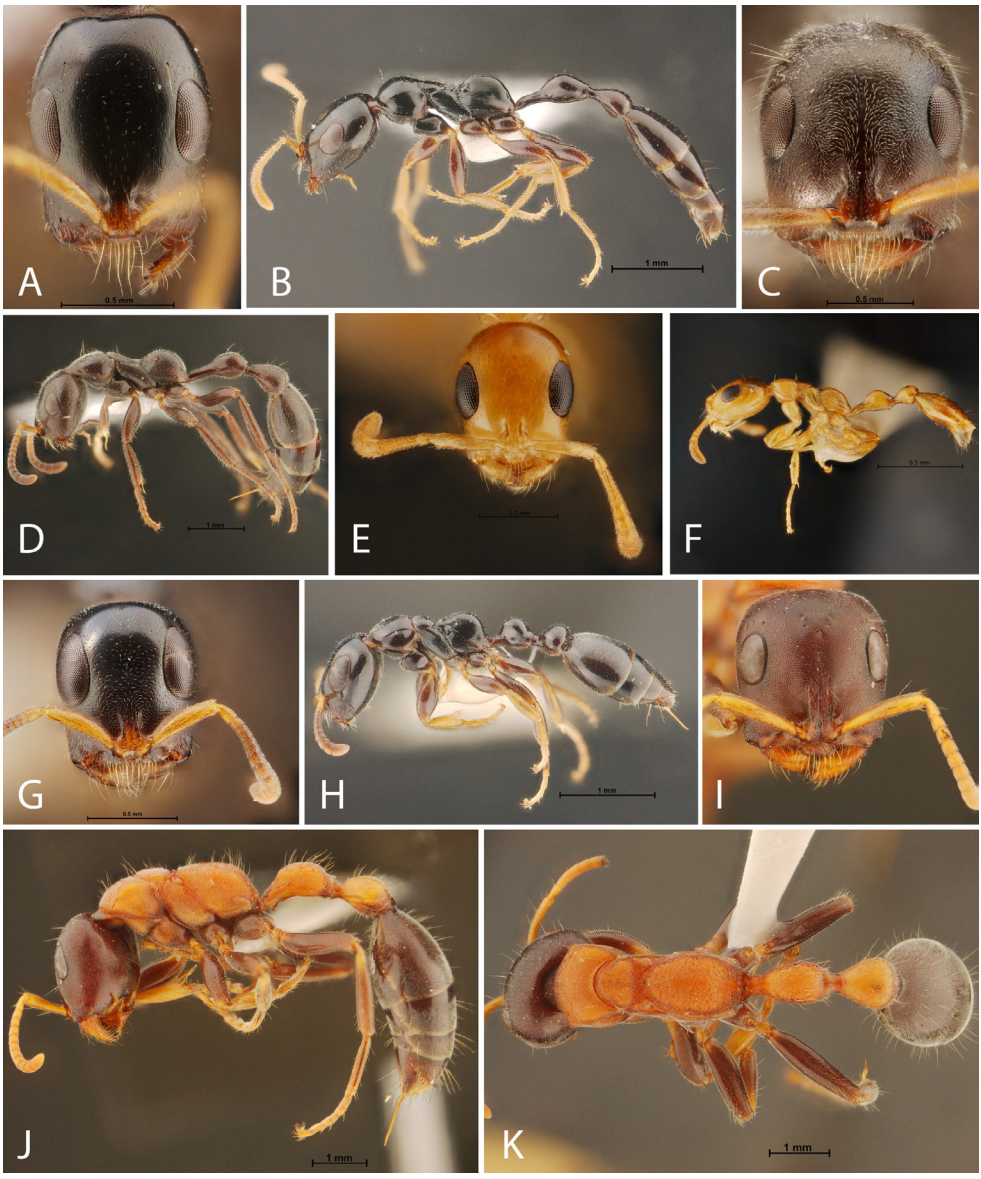

Figure 18. Pseudomyrmecinae: A–B, *Tetraponera allaborans*; C–D, *Tetraponera attenuata;* E–F, *Tetraponera modesta*; G–H, *Tetraponera nitida*; I–K, *Tetraponera rufonigra.*

88. *Tetraponera modesta* (Smith, 1860) (Figure 18E–F)

Pseudomyrma modesta Smith, 1860b: 106. Type locality: Indonesia (Batjan I.). Combination in *Tetraponera*: Donisthorpe, 1932: 462.

Material examined. Wangtakrai Park: 18.VII.2023, W. Jaitrong leg., general collection; 11.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species was found to nest in dead twigs in disturbed areas and forest edge.

Distribution in the study area. S01 and S02.

89. *Tetraponera nitida* (Smith, 1860) (Figure 18G–H)

Pseudomyrma nitida Smith, 1860b: 106. Type locality: Indonesia (Batjan I.). Combination in *Tetraponera*: Donisthorpe, 1932: 462.

Material examined. Wangtakrai Park: 15.XI.2023, W. Jaitrong leg., general collection; 10.VII.2024, W. Jaitrong leg., general collection.

Habitat. This species was found on shrub at a forest edge.

Distribution in the study area. S01 and S02.

90. *Tetraponera rufonigra* (Jerdon, 1851) (Figure 18I–K)

Eciton rufonigrum Jerdon, 1851: 111. Type locality: India. Combination in *Tetraponera*: Smith, 1877: 68.

Material examined. Wangtakrai Park: 14.IV.2023, W. Jaitrong leg., TH23-WJT-206.

Habitat. *Tetraponera rufonigra* was found in disturbed areas. This species has a venomous sting.

Distribution in the study area. S01.

Acknowledgments

We would like to express our sincere gratitude to the Chumphot-Phanthip Foundation for their generous support. We also thank Yudthana Samung (Mahidol University, Thailand) for kindly assisting us in capturing photograph images of ant specimens. Additionally, we extend our thanks to Michael Cota (National Science Museum Thailand) for his valuable insights and feedback on an earlier draft of the manuscript. This research was partly supported by the Office of Thailand Science Research and Innovation; partly by an APQA Research Fund (I-1543086-2024-26-01). The animal use protocol (No. MUSC67-044-749) was approved by the Faculty of Science, Mahidol University Animal Care and Use Committee.

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