

The Ant Tribe Amblyoponini (Hymenoptera, Formicidae)
of Taiwan, with Description of a New Species

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Abstract Four Taiwanese species of the tribe Amblyoponini are recognized: *Prionopelta kraepelini* FOREL, *Amblyopone bruni* (FOREL), *A. sakaii* sp. nov. and *A. silvestrii* (WHEELER). Of these, the first and last species are recorded from Taiwan for the first time, and the new species is unique in having 8-toothed clypeus, 11-segmented antennae, relatively long petiolar node and low subpetiolar process. A key to these species is also provided.

The ant tribe Amblyoponini, belonging to the subfamily Ponerinae, is represented by about 90 described species in five genera distributed in all zoogeographical regions. FOREL (1912, 1922) described two forms, *Stigmatomma bruni* and *S. bruni juergi* from Peinan (=Pilam), southeast of Taiwan. In 1960, however, BROWN synonymized the latter form with the former. At the same time, he synonymized the genus *Stigmatomma* with the genus *Amblyopone*. Thus, only a single species of the tribe, namely *Amblyopone bruni*, has been known to occur in Taiwan.

Recently, I have examined several specimens of the tribe Amblyoponini from Taiwan. As a result, I recognized three species, of which one is new to science and the other two are new to the Taiwanese fauna. In this short report, I will briefly review the Taiwanese species of the tribe Amblyoponini with a description of a new species. For diagnosis of Amblyoponini see BROWN (1960).

Genus *Prionopelta* MAYR, 1866

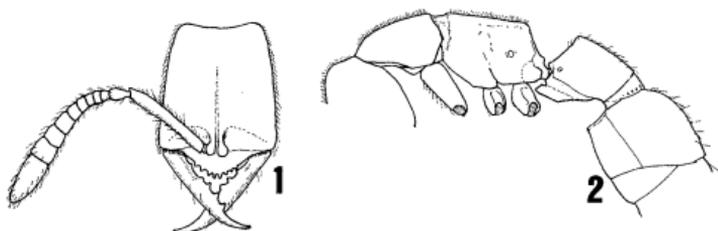
Prionopelta kraepelini FOREL, 1905

Prionopelta kraepelini FOREL, 1905, Mitt. naturh. Mus., Hamburg, 22: 3.

Material examined. 3 alate females, 22 workers, Liuguei, Kaohsiung Hsien, 17-VIII-1987, H. SAKAI leg.

Distribution. Taiwan, Philippines, Java, Samoa, Micronesia, Queensland.

Remarks. This is the first record of this genus from Taiwan. According to Mr. H. SAKAI, the colony was nesting in a small rotting branch half buried in the moist soil.



Figs. 1-2. *Amblyopone sakaii* sp. nov. (worker). — 1, Head, full-face view; 2, alitrunk and petiole, lateral view.

Genus *Amblyopone* ERICHSON, 1842.

Amblyopone bruni (FOREL, 1912)

Stigmatomma bruni FOREL, 1912, Ent. Mitt., 1: 45.

Amblyopone bruni: BROWN, 1960, Bull. Mus. comp. Zool., 122: 167.

Stigmatomma bruni juergi FOREL, 1922, Rev. suisse Zool., 30: 87. [Syn. by BROWN, 1960.]

No additional material.

Distribution. Taiwan.

Remarks. For male wings, mandible, genitalia and worker's clypeal apron of this species, see BROWN (1960).

Amblyopone sakaii sp. nov.

(Figs. 1-2)

Holotype worker. Head length 0.55 mm; head width 0.45 mm; scape length 0.38 mm; cephalic index 82; scape index 84; WEBER's length of alitrunk 0.73 mm; dorsal alitrunk width 0.30 mm; petiolar node length 0.28 mm; petiole height 0.28 mm; dorsal petiole width 0.28 mm; total length 2.2 mm.

Head rectangular and truncate posteriorly, with concave occipital border. Mandibles narrow; outer margins almost straight except for the apical part. Mandibular teeth except for the projecting apices composed of five sets of paired ones at the inner margins; distal second tooth longest and the basalmost smallest and obscure. Anterior border of clypeus convex, with 8 small teeth; median teeth longer than broad and the outermost smallest. Frontal lobes broad, close to each other, covering antennal insertions. Antennae with 11 segments; scape broad and short, not reaching the posterior corner of the head; segment II subglobose, as long as following two segments together; segment III through X each broader than long, not forming segmental club; segment XI large, $2.0\times$ as long as broad. Eyes completely lacking.

Alitruncal dorsum horizontal in profile. Posterolateral corner of propodeum dully angulate. Promesonotal suture complete; mesonoto-propodeal suture indistinct, almost absent. Petiole squariform; anterior border almost straight, feebly concave; anterodorsal corner angulate; dorsal border straight. Subpetiolar process low, trapezoidal, anteroventral corner dully angulate, ventral border straight. Seen from above, first gastric segment $1.4\times$ as long as broad, $1.27\times$ broader than dorsal petiolar width; second gastric segment $1.07\times$ broader than the first gastric segment. Sting well developed.

Body including head microreticulate and opaque; microreticulum of the posterior 1/4 of second gastric tergite weakly developed. Antennae microreticulate, mandibles microreticulate with rugosity. All dorsal surface of head and body with numerous short erect or suberect pubescence. Color reddish brown; antennae, mandibles, legs and tip of gaster yellowish.

Holotype. Worker, Nanshanchi, Nantou Hsien, 21-VIII-1987, H. SAKAI leg.

Type depository. The holotype is kept in the collection of the National Institute of Agro-Environmental Sciences, Tsukuba, Japan.

Remarks. This species is similar to *A. pertinax* BARONI URBANI from India and *A. zwaluwenburgi* (WILLIAMS) from Hawaii in having 11-segmented antennae and small body size. However, it is easily distinguished from the latter two by the longer head (cephalic index 82), 8-toothed clypeus, relatively long petiolar node and low subpetiolar process.

Amblyopone silvestrii (WHEELER)

Stigmatomma silvestrii WHEELER, 1928, Boll. Lab. Zool. gen. agrar. Portici, 21: 97.

Amblyopone silvestrii: BROWN, 1960, Bull. Mus. comp. Zool., 122: 169.

Material examined. 1 female, 24 workers, Nanshanchi, Nantou Hsien, 15-VII-1982, M. TERAYAMA leg.; 1 female, same locality, 21-VIII-1987, S. KUBOTA leg.; 4 workers, same locality, 21-VIII-1987, H. SAKAI leg.; 8 workers, Wushe, Nantou Hsien, 27-III-1987, M. TERAYAMA leg.; 5 workers, same locality, 23-VIII-1987, A. KAWAZOE leg.

Distribution. Taiwan, Japan, Korea.

Remarks. This is the first record of this species from Taiwan.

Key to the Taiwanese Species of the Tribe Amblyoponini

(Worker)

1. Mandibles short, closing tightly against clypeus, their apical border distinct and occupied by 3 teeth; size very small, head ca. 0.38 mm wide.....
.....*Prionopelta kraepelini* FOREL.
- Mandibles falcate, strongly projecting beyond clypeus when closed, their inner borders armed with more than 3 teeth; size larger, head wider than 0.40 mm

- 2.
2. Antennae 11-segmented; eyes lacking; head ca. 0.45 mm wide.....
 *Amblyopone sakaii* sp. nov.
- Antennae 12-segmented; eyes present; head wider than 0.50 mm..... 3.
3. Clypeal apron straight, with 12 rectangular teeth, flanked by triangular corner
 tooth on each side..... *Amblyopone bruni* (FOREL).
- Clypeal apron feebly convex, with 8 slender oblique teeth.....
 *Amblyopone silvestrii* (WHEELER).

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References

- BROWN, W. L., JR., 1960. Contribution toward a reclassification of the Formicidae. III. Tribe Amblyoponini (Hymenoptera). *Bull. Mus. comp. Zool.*, **122**: 145-230.
- FOREL, A., 1905. Ameisen aus Java. Gesammelt von Prof. Karl KRAEPELIN 1904. *Mitt. naturh. Mus., Hamburg*, **22**: 1-26.
- 1912. H. SAUTER'S Formosa-Ausbeute. Formicidae (Hym.). *Ent. Mitt.*, **1**: 45-61; 67-81.
- 1922. Glanures myrmécologiques en 1922. *Rev. suisse Zool.*, **30**: 87-102.
- WHEELER, W. M., 1928. Ants collected by Professor F. SILVESTRI in Japan and Korea. *Boll. Lab. Zool. gen. agrar. Portici*, **21**: 96-125.