

than long in profile (as long as it is high at least), 5) posterodorsal end of petiolar node carinate. These morphological similarities and geographical distributions suggest that they belong to the same phyletic group.

Measurements, indices and abbreviations used in this paper follow those in part 1 of this series.

Vollenhovia benzai sp. nov.

(Figs. 2, 6)

Holotype. Worker. HL 0.53 mm; HW 0.48 mm; SL 0.29 mm; CI 90; SI 60; WL 0.60 mm; PL 0.23 mm; PH 0.21 mm; DPW 0.14 mm; TL 2.0 mm.

Head slightly longer than wide, with subparallel sides and weakly concave posterior margin in frontal view. Mandibles with 7 teeth; basalmost tooth minute. Clypeal carinae subparallel. Antennae with 12 segments; scape 0.55 x head length. Eyes 0.13 mm in diameter.

Dorsum of promesonotum straight in profile; metanotal groove not incised dorsally; posterodorsal corner of propodeum dully angulated, without a dorsal tooth in profile.

Petiole higher than long, with convex dorsal outline in profile; anterodorsal corner rounded, not forming distinct angle. Subpetiolar process low and small; its thin lamellar wall ca. 0.12 mm in height. Postpetiole as long as high and highest at midlength, with convex dorsal outline in profile; posterodorsal margin convex.

Head shagreened with large coarse punctures; space between punctures less than 0.5 x their own diameters; dorsum of alitrunk coarsely punctated with numerous longitudinal ruglae and without unsculptured longitudinal band medially; mesopleura, propodeum and petiole reticulate; sculpture on petiole weaker than that on propodeum; postpetiole smooth in most part; gaster and legs smooth and subopaque.

Color: reddish brown; mandibles, antennae, and legs yellowish brown; frons without dark brown spot.

Paratype female. HL 0.53 mm; HW 0.50 mm; SL 0.35 mm; CI 95; SI 70; WL 0.78 mm; PL 0.25 mm; PH 0.24 mm; DPW 0.35 mm; TL 2.5 mm (one measured).

Head slightly longer than wide, with weakly concave posterior margin in frontal view; eyes 0.13 mm in diameter; ocelli small, forming a right angled triangle.

Alitrunk 0.48 mm in maximum dorsal width; dorsum of metanotum coarsely punctated with longitudinal unsculptured band medially; interspaces among punctures smooth; posterodorsal corner of propodeum dully angulate, not forming a distinct tooth in profile.

Petiole almost as long as wide, with strongly convex dorsal margin in profile; subpetiolar process low and small. Postpetiole with convex dorsal margin highest at midlength in profile; posterodorsal margin convex.

Color: reddish brown; ocellar triangular area blackish brown; frons without dark brown spot.

Variation. Five paratype workers with the following measurements and indices: HL 0.50-0.53 mm; HW 0.43-0.48 mm; SL 0.29-0.31 mm; CI 93-95; SI 63-64; WL 0.60-0.63 mm; PL 0.20-0.24 mm; PH 0.19-0.21 mm; DPW 0.14-0.16 mm; TL 2.0-2.2 mm.

Eye diameter varied from 0.12 to 0.13 mm.

Holotype. Worker, Onoma, Yaku-shima, Kagoshima Pref., 16.VIII.1986, K. Kinomura leg.

Paratypes. 2 females, 4 workers, same data as holotype; 2 females 4 workers, same locality, 17.VIII.1986, K. Kinomura leg.; 1 female, 2 workers, Nagata, Yaku-shima, Kagoshima Pref., 14.VIII.1986, K. Kinomura leg.; 3 workers, Yaku-shima, Kagoshima Pref., 19.III.1991, T. Satoh leg.; 1 female, 3 workers, Yaku-shima, Kagoshima Pref., 25.III.1981, M. Terayama leg.

Other material examined. 6 workers, Fukuoka-shi, Fukuoka Pref., 20.VIII.1983, M. Terayama leg.; 3 workers, Misawa, Tokushima Pref., 5.VIII.1977, K. Kinomura leg.; 1 worker, Sukumo, Kochi Pref., 7.VIII.1977, K. Kinomura leg.; 3 workers, Amami-oshima, Kagoshima Pref., 24.III.1980, M. Terayama leg.; 5 workers, same locality, 29.VI.1983, M. Terayama leg.; 1 female, 3 workers, same locality, 19.III.1980, M. Terayama leg.; 3 workers, Tokuno-shima, Kagoshima Pref., 20.III.1980, M. Terayama leg.

Type depository. The holotype and some paratypes are deposited in the Museum of Nature and Human Activities, Hyogo, and the other paratypes are in the National Institute of Agro-Environmental Sciences, Tsukuba, and National Science Museum, Tokyo.

Etymology. One of the seven deities of good fortune in Japanese Folklore.

Remarks. Among the 4 described species from East Asia, this species is distinguishable as follows: differs *V. benzai* from *V. emeryi* Wheeler, 1906, of Japan and *V. pyrrhorhina* Wu and Xiao, 1989, of China by having a low and small subpetiolar process, dully angulate posterodorsal corner of propodeum, lacking large brown spot on frons, and smaller body size (HL 0.50-0.53 mm and HW 0.43-0.48 mm in *benzai* workers; HL 0.55-0.59 mm and HW 0.50-0.54 mm in *emeryi* workers (n = 10), and HL 0.60 mm and HW 0.55 mm in *pyrrhorhina* worker (one paratype is measured); *V. benzai* differs from *V. satoi* Santschi, 1937, from Taiwan by having less incised metanotal groove