

(excluding helcium); petiolar node high, in posterior view not emarginate at apex. Postpetiole 2.0-2.2 times as broad as petiolar node.

Clypeus smooth and shining, or very weakly punctured and weakly shining with several rugulae; remainder of dorsal face of head above subocular level weakly rugoso-reticulate, with enclosures smooth and shining or punctured and dull; ventral face of head below subocular level punctured and dull, or reticulate with enclosures very weakly punctured; dorsum of promesonotum reticulate, with enclosures smooth and shining or punctured and dull; remainder of alitrunk punctured and dull; lateral face of petiolar pedicel weakly punctured; dorsum of petiole, and postpetiole and gaster smooth and shining. Body yellowish-brown to brown with lighter waist and gaster; legs lighter than alitrunk.

**Variation** Both the subcastes collected from Mahua Waterfall area are much larger in size and darker in color than those from Lambir; horns on promesonotal dome of the major are well developed in the latter than in the former.

**Recognition** This species is very peculiar among Indo-Chinese and Indo-Malayan congeners in having the following characteristics in the major: each dorsolateral portion of promesonotal dome develops into a stout horn on each side (Fig. 5D); head without frontal carina and antennal scrobe (Fig. 5A); eye relatively small; postpetiole relatively large.

**Distribution** Borneo.

**Bionomics** This species inhabits well-developed forests in lowlands and hill areas. A colony collected from Mahua Waterfall area (Eg00-BOR-100) nested in the soil under a stone, and consisted of only one dealate queen, majors, minors and immatures.

#### 4. *Pheidole annexus* sp. nov. (Fig. 6)

**Holotype** Major, colony: Eg96-BOR-478, Sepilok forest, Sabah, E. Malaysia (Borneo), K. Eguchi leg., 1998, deposited in UMS.

**Paratypes** 5 majors and 6 minors from the same colony to which the holotype belongs, deposited in BMNH, MCZ, NHMW and UMS.

**Other specimens examined** BORNEO. Sabah, Malaysia: Danum Valley, 7 majors, 18 minors and 1 queen (Eg96-BOR-129, 170, 248) / 1 minor, CB, 1998-1999; Deramakot Forest Reserve, 1 minor, CB, 1998-1999; Sepilok forest, 21 majors, 43 minors and 3 queens (Eg97-BOR-419, 423, 467, 472, 483; Eg98-BOR-874); Tawau Hills Park, 1 major, 4 minors and 1 queen (Eg96-BOR-023). Brunei: Merimbun Heritage Park, 1 major, 2 minors and 1 queen (Eg99-BOR-607). MALAY PENINSULA. Malaysia: Ulu Gombak, 1 major and 1 minor (FI99-135). SUMATRA, Indonesia. Sungai Dareh, W. Sumatra, 1 major and 2 minors (FI92-214).

**Major** Measurements and indices (n=5): TL 2.4-2.7 mm, HL 1.08-1.22 mm, HW 1.03-1.16 mm, SL 0.64-0.78 mm, FL 0.85-1.03 mm, CI 95-96, SI 60-67, FI 81-89. Head broadest at about 1/2-3/5 distance of head (as measured from the mid-point of a transverse line spanning the anteriormost and posteriormost projecting points, respectively (cf. Fig. 2A)) (Fig. 6A), in profile not impressed on vertex (Fig. 6B). Hypostoma with three poorly developed median processes, of which each lateral one is partly combined with the process just mesal to mandibular base (Fig. 6C). Clypeus with a weak median longitudinal carina, with anterior margin emarginate medially. Eye situated at about 1/3 distance of head; distance between mandibular insertion and anterior margin of eye 1.5-1.7 times as long as maximal diameter of eye. Frontal carina extending backward to 3/4 distance of head. Antennal scrobe inconspicuous, running along frontal carina. Antenna with 3-segmented club; scape extending backward to about 3/4 distance of head; terminal segment ca. 0.9 times as long as preceding two