

of the gastral tergites (dorsal part of gastral tergites 2 and 3 lacks setae).

**BIOLOGY AND DISTRIBUTION:** Collected only from an unidentified *Neonauclea* species and *N. gigantea* in the Hose Mountains, Sarawak, East Malaysia. The natal colony inhabited the first, single domatium of a *N. gigantea* sapling 0.42 m in height.

**MATERIAL EXAMINED:** HOLOTYPE: E-MALAYSIA, Sarawak, Kapit, SE side Hose Mountains, 2/3/1997, Joachim Moog, 97-082, ex: *Neonauclea gigantea*, colony size small (worker = nanitics), AMNH. PARATYPE: E-MALAYSIA, Sarawak, Kapit, SE side Hose Mountains, 2/3/1997, Joachim Moog, 97-088, ex: *Neonauclea* sp. AMNH, FRIM, NHM. OTHER SPECIMENS: E-MALAYSIA, Sarawak, Kuching, Kubah NP, 2/8/1997, Joachim Moog, 97-093, ex: *Neonauclea* sp.

*Cladomyrma crypteroniae*, new species

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**DIAGNOSIS: Major worker.** AL 1.12–1.28, HL 1.20–1.28, HW 1.06–1.13, EL 0.18–0.20, SL 0.48–0.58, CI 88–92, EI 17–19, SI 46–52 (n = 8). Clypeus smooth, not longitudinally striate; body color yellow; long erect hair all over alitrunk; appressed, dense gastral pubescence; large ants. **Minor worker.** AL 0.76–0.88, HL 0.68–0.80, HW 0.66–0.74, EL 0.14–0.16, SL 0.34–0.42, CI 87–95, EI 19–23, SI 53–61 (n = 8). Whole body evenly yellowish; dorsum of mesonotum with many erect hairs. **Queen.** AL 2.40–2.72, HL 1.60–1.74, HW 1.34–1.52, EL 0.54–0.58, SL 0.78–0.84, CI 85–87, EI 37–40, SI 52–58 (n = 8). Clypeus smoothly rounded; head slightly elongate with rounded sides in lateral view; genae same color as remainder of head; dorsal part of katepisternum punctulate and with pubescence; metapleural gland orifice large; petiole in lateral view high, dorsally truncated with the posterior face meeting the dorsal in an angle; whole body covered with long, erect hairs; gaster with long semidecumbent pubescence, space between hairs as long as hairs; whole body evenly yellowish, sometime with gaster slightly darker. HOLOTYPE: Queen AL 2.64, HL 1.72, HW 1.48, EL 0.58, SL 0.78, CI 86, EI 39, SI 53.

**COMMENTS:** The combination of yellow

body color and smooth clypeus surface is unique among *Cladomyrma* workers. *Crypteroniae* workers are distinguished from *maschwitzii* workers by the smooth clypeus, more numerous and smaller ommatidia, more densely set, long pubescence on alitrunk and along posterior margins of gastral tergites, darker yellow golden body color, and larger size of both workers and queens. As in *maschwitzii*, the Sumatran material differs from the rest by having somewhat smaller and darker-colored queens with slightly longer heads (CI 82–84), showing otherwise the typical character set of *crypteroniae*.

**BIOLOGY AND DISTRIBUTION:** This species was collected from *Crypteronia griffithii* in Borneo (Lambir NP, Sarawak, Danum Valley, Sabah) and from Muarabungo district in Sumatra. Both ant partners associated with *Crypteronia* (*maschwitzii* and *crypteroniae*) are the only *Cladomyrma* species extending to Sumatra. *C. crypteroniae* shares its host with *maschwitzii*, and preliminary data suggest *crypteroniae* to be a competitor for the host plant (see above). In Borneo, as indicated by herbarium material, *crypteroniae* (or *maschwitzii*) appears to be associated with another *Crypteronia* species, *C. macrophylla*, but field data are lacking. *C. macrophylla* is restricted to the central part of Sarawak and field trips to the collecting sites known from herbarium specimens have not been successful due to the rapid and destructive exploitation of formerly untouched primary forest. Two collections (#0022, #0032) by Diane Davidson were made from a *Crypteronia* species supposed to be different from *C. griffithii* and *C. macrophylla* (D. Davidson, personal commun.). However, all *Crypteronia* specimens, other than *griffithii* and *macrophylla*, seen by JM in several herbaria did not show signs of former ant occupation, but sample size for some species was low. Lack of ant occupation, as indicated by herbarium studies, may not reflect the proportion of occupied trees in the field. For instance, the very high proportion of ant habitation in young *C. griffithii* trees is not seen in herbarium specimens because botanists usually collect plant parts from adult, flowering trees (Moog et al., 1998). Thus, we cannot yet exclude or verify a third *Crypteronia* species as host plant of *C. crypteroniae*.