

tral to the opening; petiole low and dorsally truncate; gaster with many long, erect hairs scattered all over the tergites and generally appressed, widely set pubescence. PARATYPE: Queen AL 2.28, HL 1.36, HW 1.14, SL 0.68, EL 0.53, CI 84, EI 46, SI 60.

COMMENTS: The species belongs to the larger Bornean species of *Cladomyrma*. At the same time, it is the most variable in size, in head shape from a very short to a medium long head, an almost black body color to brown (rarely uniform yellowish [one collection]), and long to short gastral hairs. The synonymy with *cryptata* indicates that the status of this species is similar to that of *petalae* (see below). Though there might be several species included, it is at the very moment impossible to separate them.

The typical *cryptata* and *andrei* differ somewhat in the fine chagrinata sculpture on the head and the matte surface, which is very distinct in *cryptata* as opposed to the brilliant shining and completely smooth surface in *andrei*. The type series of *cryptata* includes one queen with a short head and one with an elongate head, which is similar to the type of *andrei*.

Another variation includes workers from Poring Hot Springs (J. Moog, 95-018 and 95-017) which have a slightly elongated head, and very conspicuous long, heterogeneous hairs (some longer than others) on the dorsum of the alitrunk. In contrast, the workers of the typical *andrei* have subhomogeneous shorter setae. This variation is also the only population of *andrei* living in *Drypetes longifolia* (Euphorbiaceae). One collection (J. Moog, 93-061) shows a uniform yellowish-colored queen that closely resembles *andrei* (*cryptata* form) in most characters except body color. We observed a very slight difference in the density of the pubescence on the anterior and lateral parts of the mesonotum but since this character exhibits some variation in *andrei*, it was not used to erect a new species. Considerable variation in

body color of queens may be a rather common phenomenon in *Cladomyrma* (see under *petalae*).

BIOLOGY AND DISTRIBUTION: The species has been found colonizing the endemic woody climbers *Callerya* (formerly *Millettia*) *nieuwenhuisii* (Maschwitz et al., 1989), *Spatholobus oblongifolius* (both Papilionaceae) and the tree genus *Neonauclea* (Rubiaceae). In general, liana saplings usually possess a primary stem diameter too thin to allow ant inhabitation. However, saplings of these host lianas (*Callerya*, *Spatholobus*) provide some stem internodes with distinctly enlarged diameter (ant domatia) to permit colonization by foundress queens (Moog et al., in press). In Poring Hot Springs, Sabah, samples of this species have been obtained on a canopy walkway from a huge *Callerya*, about 40m above ground. Its supposed that *andrei* is distributed over all of Borneo since the type specimen was collected in South Kalimantan (Poulo Laut). Most records are, however, from Sabah and Sarawak, but Kalimantan is poorly sampled.

MATERIAL EXAMINED: TYPE: INDONESIA, South Kalimantan, Poulo Laut, Doherty, MCSN, queen. OTHER SPECIMENS: E-MALAYSIA, Sabah, Ranau, Poring Hot Springs, 11/14/1992, Brigitte Fiala, 0052, ex: *Callerya* (= *Millettia*) *nieuwenhuisii*; Sabah, Ranau, Poring Hot Springs, 1/22/1989, Ulrich Maschwitz, 0815, ex: *Callerya* (= *Millettia*) *nieuwenhuisii*; Sabah, Ranau, Poring Hot Springs, 1/28/1993, Joachim Moog, 93-061, ex: *Callerya* (= *Millettia*) *nieuwenhuisii*, alt.: ca. 600 m, colony size: 11 workers; Sabah, Ranau, Poring Hot Springs, 1/26/1995, Joachim Moog, 95-017, ex: *Drypetes longifolia*, young colony: ca. 200 workers in total, alt.: ca. 800 m; Sabah, Ranau, Poring Hot Springs, 1/26/1995, 95-018, Joachim Moog, ex: *Drypetes longifolia*, mature colony, alt.: ca. 800 m; Sabah, Ranau Poring Hot Springs, 5/2/1987, Burckhardt and Löbl; Sarawak, Lambir NP, Miri, 2/25/1992, Ulrich Ma-

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Figs. 12–23. Lateral view of queens of *Cladomyrma*. 12–18. Depressed petiole group: 12. *andrei*; 13. *hobbyi*; 14. *maschwitzii*; 15. *nudidorsalis*; 16. *yongi*; 17. *petalae*, dark form; 18. *petalae*, yellow form. 19–23. Raised petiole group: 19. *aurochaetae*; 20. *crypteroniae*; 21. *dianeae*; 22. *hewittii*; 23. *maryatiae*.