Taxonomy and Biology of a New West African Ant Belonging to the Genus *Amblyopone* (Hymenoptera: Formicidae)[1]

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ABSTRACT

Amblyopone ***pluto,*** n. sp., has been discovered in unburned savannas of central Ivory Coast. It represents the 3rd *Amblyopone* species to be found in sub-Saharan Africa, although the conspicuous absence of the genus from the central Ethiopian region now appears less an indication of abundance than of collecting procedures. This new, moderately sized species is hypogaeic, its cryptobiotic lifeways preventing its discovery until only recently. A taxonomic description of the species is given. This species is narrowly specialized, particularly regarding prey specificity, feeding only on geophilomorph chilopods. The workers forage alone and paralyze the prey with their sting. The prey is then dragged into the nest and is deposited in the vicinity of the brood. The workers penetrate the chilopod integument and feed, but they do not subdivide the prey. Eventually the larvae are carried by the workers to the prey and begin feeding, characteristically thrusting their heads into the soft interior of the chilopod. Several of the behavior patterns of this species, particularly with respect to the level of larval autonomy, reflect a primitive social organization, which supports the placement of the genus *Amblyopone* near the base of the formicid line represented by the Ponerinae, Myrmicinae, and Dorylinae.

The genus *Amblyopone* has up to now been known in Africa from samples of only 5 species: *denticulata* (Roger), *emeryi* Saunders, *mutica* (Santschi), *normandi* (Santschi), and *santschii* (Menozzi). Of these, only *mutica* and *santschii* are sub-Saharan. The distribution of these 5 species is peripheral, being limited to the northern and western fringes of the continent. The absence of the genus from the central Ethiopian region now is being proven more apparent than real. First, excavations by one of us (J.L.) in the inland wet savanna region of the Ivory Coast have revealed a subterranean faunule of Amblyoponini, including the genus *Apomyrma* (Brown et al. 1971) and at least 4 species of *Amblyopone* (*A. mutica, A. pluto,* n. sp., described hereinafter, and 2 or 3 other species related to *A. normandi* and *A. santschii*). Workers of another undescribed species of the *normandi-santschii* group from the Congo have recently been shown us by A. Francoeur. Thus our ideas about the African *Amblyopone* fauna are undergoing radical changes, and doubtless will be further transformed as systematic investigation of soil-inhabiting arthropods is extended in Africa.

One of the most interesting of the soil-inhabiting *Amblyopone* is *A. pluto* and it is the purpose of this paper to describe this new species and to offer a series of preliminary observations on its biology.

METHODS

Measurements were made of a series of 15 workers, 5 queens, and 2 ♂. Several abbreviations are used in the presentation of these data: TL = total length, HL = head length, HW = head width, CI = cephalic index, AL = alitrunk length, PL = petiole length, GL = gaster length.

The mouthparts of several specimens were prepared and examined according to the methods outlined by Gotwald (1969). The genital capsule was removed from 1 ♂, and its components were mounted on microscope slides.

The drawings were done with the aid of microprojector and a Wild M-5 dissecting microscope equipped with a drawing tube. All of the drawings were made by the 1st author. The photographs are by the 2nd author.

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