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Monograph of *Nylanderia* (Hymenoptera: Formicidae) of the World, Part I: *Nylanderia* in the Afrotropics

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Abstract

The taxonomy of the Afrotropical *Nylanderia* fauna is revised for the first time. Fourteen native species are revealed, of which eight are described as new: *N. boltoni* LaPolla and Fisher, *N. brevisetula* LaPolla and Fisher, *N. impolita* LaPolla and Fisher, *N. luteafra* LaPolla and Fisher, *N. scintilla* LaPolla and Fisher, *N. silvula* LaPolla and Fisher, *N. umbella* LaPolla and Fisher, and *N. usambarica* LaPolla, Hawkes and Fisher. Two species, *N. jaegerskioeldi* and *N. natalensis*, have workers that are indistinguishable from each other, and males are the only reliable way to separate these two species. Three non-native *Nylanderia* species are thought to have been introduced to Africa: *N. bourbonica*, *N. vaga*, and *N. vividula*. An identification key to the worker caste is provided.

Key words: Afrotropics, Formicidae, *Nylanderia*, *Paraparatrechina*, *Prenolepis* genus-group

Introduction

The Afrotropical *Nylanderia* fauna has been poorly known since the first native species from the region was described by Emery over 100 years ago (for a global review of the genus see LaPolla *et al.* earlier in this issue). Most species were described in the early part of the twentieth century, but these species descriptions were completed outside of a comparative framework and, apart from a cursory treatment by Bernard (1953), the fauna has been neglected taxonomically. Part of the reason for this neglect stems from the fact that to this day the Afrotropics remain one of the least collected regions for ants, and specimens of Afrotropical *Nylanderia* are still difficult to find in museum collections.

The Afrotropical *Nylanderia* fauna comprises 14 native species (and 3 introduced species) that display a wide range of morphological variation. For example, propodeal shape provides a key diagnostic feature for many species. Species such as *N. lepida* and *N. impolita* have strongly convex, dome-like dorsal faces of the propodeum, while species such as *N. boltoni* and *N. umbella* have very short, angular dorsal faces of the propodeum. Coloration ranges from light brown to yellowish colored workers as observed in *N. incallida* and *N. luteafra* to dark brown workers as observed in *N. lepida* and *N. mendica*. All castes of one species, *N. silvula*, are a deep reddish-brown (males and queens are darker than workers), an unusual coloration for *Nylanderia* species. Another interesting feature of several Afrotropical *Nylanderia* is that they display cuticular rugulae; globally, the vast majority of *Nylanderia* species have smooth cuticles. The species *N. brevisetula*, *N. incallida*, *N. impolita*, and *N. mendica* all possess rugulose cuticles, particularly on the head and mesopleuron. One species, *N. mendica*, stands out because it possesses distinct striations on the dorsum of the gaster.

Males are known in only a few Afrotropical Nylanderia species, but these show an interesting degree of morphological diversity in the genitalia, particularly the digiti and cuspi. While *N. boltoni*, *N. lepida*, *N. natalensis*, and *N. silvula* all have similar digiti and cuspi that are not particularly different from what is observed in male *Nylande-*

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