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## TWO NEW HIMALAYAN ANT SPECIES (HYMENOPTERA, FORMICIDAE) RELATED TO MYRMICA INDICA

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Two New Himalayan Ant Species (Hymenoptera, Formicidae) Related to *Myrmica indica*. Elmes. W., Radchenko A. G. — *Myrmica weberi* Elmes et Radchenko, sp. n. and *M. alperti* Elmes et Radchenko, sp. n. from the Himalaya are described. Morphometric comparisons of the new species and their close relative *M. indica* Weber, 1950 were made using Principal Component Analysis and Discriminant Analysis.

Key words: ants, Formicidae, taxonomy, Myrmica, ritae-group, new species, Himalaya.

Два новых вида гималайских муравьев (Hymenoptera, Formicidae), близких к *Myrmica indica*. Элмс Г. В., Радченко А. Г. — Описаны *Myrmica weberi* Elmes et Radchenko, sp. n. и *M. alperti* Elmes et Radchenko, sp. n. из Гималаев. Проведено морфометрическое сравнение новых видов с близким *M. indica* Weber, 1950 с использованием главного компонентного и дискриминантного анализов.

Ключевые слова: муравьи, Formicidae, таксономия, *Myrmica*, группа *ritae*, новые виды, Гималаи.

## Introduction

In 2005 Conservation International organised an international team of scientists to make a biological survey of the Makalu-Barun National Park in the Everest region of Nepal (see http: // school. discoveryeducation. com/everest/). One of the expedition team, Gary Alpert (Harvard University, USA), organised a survey of ant species, generally taking fairly large series either from Winkler traps or from nests. In 2006, Alpert kindly sent us sub-samples of the *Myrmica* that included several series which he keyed to *M. indica* Weber, 1950 using our key to Himalayan *Myrmica* (Radchenko, Elmes, 1998, 2001): hereafter these series are referred to as the "Makalu material". Alpert asked us to confirm his identifications and pointed out that the variation among the Makalu material was sufficient for him think that it might comprise two different species (*M. indica* and an unknown "small species"). We agreed with him; although the small specimens are superficially similar to *M. indica* and conformed to no other known species of *Myrmica*, they were nevertheless very easy to separate visually, not least because they were much smaller and somewhat differently coloured, a more glossy black. This led us to re-examine the status of former "*M. indica*"in our previous napers.

*M. indica* belongs to the *ritae* species-group of the genus *Myrmica* (Radchenko, Elmes 1998). This group was considered to comprise rare and unusual species found only in a few places in the Himalaya and Southeast Asia, but our recent studies have shown that in fact the *ritae*-group is diverse, widespread and locally common in Southern and South-eastern Asia (Radchenko, Elmes, 1998, 2001; Radchenko et al., 2001, 2006). Originally, *M. indica* was described by Weber (1950) from two specimens collected in 1910 by C. W. Beebe from Tonglu in the Darjeeling region of India and preserved in the collection of the Museum of Comparative Zoology, Harvard, USA (MCZ). Prior to the Makalu material, the only significant collection of *M. indica* was held in the Naturhistorisches Museum, Basle (NHMB), comprising about 60 specimens mostly collected during the Museum's Nepal and Bhutan expeditions (Radchenko, Elmes, 1998, 2001). After our revisions a small amount of this Basle material was exchanged and retained in the collections of