Philippines only in the south. In other words, the first set exclusively includes species with broad distributions, whether in terms of habitat preferences or geography.

The second set of species contains a set of forest-inhabiting, endemic species all belonging to BROWN's (1976) *O. infandus* species group. This clade is distributed from the Philippines eastwards to Fiji. In BROWN's (1976) treatment of Philippine *O. infandus* group species, only two species, *O. infandus* and *O. banksi*, were recognised. Brown's studies of Philippine *Odontomachus* were mainly based on collections by Dr. James W. Chapman (most of which are housed in the Museum of Comparative Zoology, Harvard University, Cambridge, USA). Unfortunately, according to BROWN (1976), this material "is afflicted with some problems" because of "some label uncertainties." Wrongly labelled material obviously blurred Brown's view on endemic taxa (which we will show are now more clear, based on new and correctly labelled samples). After discussing the difficulties, BROWN (1976) finally decided against splitting the group into four species and decided instead to describe *O. banksi* "provisionally as a distinct species", and then to group the remaining forms (*O. infandus*, *O. papuanus philippinus*, and a third form described here as *O. alius* sp.n.) as *O. infandus*.

In revisiting the ants of this second set, we found the characters of island populations (except for the large island of Luzon) surprisingly stable. Based on this work, a new and interesting problem emerges, that of deciding which island populations represent separate species and which are only local forms of a more widely distributed species, a point to which we will turn in the results and the discussion.

For a bit of broader context, *Odontomachus* is not the only trap-jaw ant in the Philippines. The trap-jaw ants here include species from three subfamilies: Ponerinae (*Odontomachus*, *Anochetus*), Myrmicinae (*Pyramica*, *Strumigenys*) and Formicinae (*Myrmoteras*). Practically speaking, trap-jaw ants in Myrmicinae and Formicinae can be distinguished from *Odontomachus* by subfamily characters. *Anochetus* MAYR, 1861, the other ponerine trap-jaw ant, is closely related to *Odontomachus* and can be distinguished by head morphology (BROWN 1978): In *Anochetus* the nuchal carina is evenly curved while it forms into a sharp edge medially in *Odontomachus*. For the Philippine fauna, body length usually readily differentiates the two genera. *Anochetus* are small (total length of workers ca. 3.5 - 8.5 mm), *Odontomachus* are large (total length of workers ca. 7.5 - 16.0 mm) and only the relatively small *Odontomachus* species, *O. simillimus*, overlaps with *Anochetus* in size; however, this species has a very blunt mandible apex, while *Anochetus* species always possess sharp mandibles.

The aims of this study are to improve the taxonomy of Philippine *Odontomachus* species with special regard to the *O. infandus* species group; to present a key for identification; to delimit regional endemism; and to address conservational aspects of regionally endemic species.

Material and methods

All specimens were dry mounted on card squares or triangles. Examination of specimens was carried out with an Olympus SZH10 Research and a Wild Heerbrugg stereomicroscope and measurements were taken at magnifications of 30× and 50×. Digital photographs (Figs. 1 - 45) were taken with a Leica DFC camera attached to a Leica MZ16 binocular microscope by help of Image Manager IM50 or Leica Application Suite V, and were processed with Helicon Focus 5.1, ZereneStacker 64-bit and Adobe Photoshop 7.0. Locality data are arranged zoogeographically based on the regions and subregions listed by ONG & al. (2002).

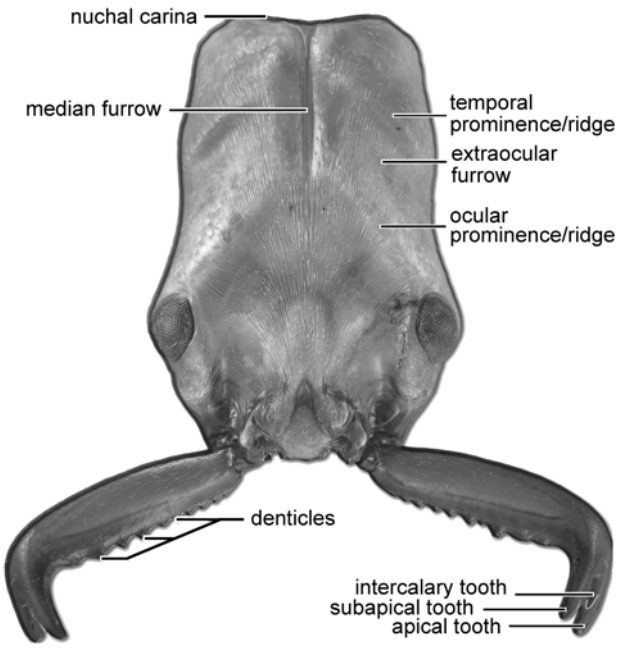

Fig. 1: *Odontomachus infandus* head with terms for head structures and mandibular dentition.

Acronyms of repositories:

BMNH The Natural History Museum, London, Great Britain (= British Museum of Natural History)
CSW Coll. D.M. Sorger, Vienna, Austria
CZW Coll. H. & S. V. Zettel, Vienna, Austria
FMNH Field Museum of Natural History, Chicago, Illinois, USA
MCSNG Museo Civico di Storia Naturale, "Giacomo Doria", Genoa, Italy
MNHU Museum für Naturkunde, Humboldt Universität, Berlin, Germany
MHNG Muséum d'histoire naturelle, Genève, Switzerland
NHMW Natural History Museum, Vienna, Austria
UPLB University of the Philippines, Los Baños, Philippines
USC University of San Carlos (Entomological Collection), Cebu City, Philippines
ZMUC Zoological Museum, University Copenhagen, Denmark

Measurements and indices:

CI Cephalic index. HW / HL × 100.
HL Head length. Maximum length of head in full-face view, excluding mandibles, measured from anterior-most point of clypeal margin to posterior-most point of head vertex, parallel to midline.
HW Head width. Maximum width of head in full-face view (including eyes when surpassing head outline).
MdI Mandible index. MdL / HL × 100.
MdL Mandible length. Maximum length of mandible in frontal view of head measured from mandibular insertion to apex.