INSECTA MUNDI

A Journal of World Insect Systematics

0146

Homophileurus neptunus Dechambre, a new junior synonym of *H. waldenfelsi* Endrödi (Coleoptera: Scarabaeidae: Dynastinae: Phileurini)

Brett C. Ratcliffe
Systematics Research Collections
W436 Nebraska Hall
University of Nebraska
Lincoln, NE 68588-0514 USA

Jochen-P. Saltin
Idsteiner Str. 32
D-65527 Niedernhausen/Taunus GERMANY

Date of Issue: October 15, 2010

CENTER FOR SYSTEMATIC ENTOMOLOGY, INC., Gainesville, FL

Brett C. Ratcliffe and Jochen-P. Saltin
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Insecta Mundi 0146: 1-5

Published in 2010 by
Center for Systematic Entomology, Inc.
P. O. Box 141874
Gainesville, FL 32614-1874 U. S. A.
http://www.centerforsystematicentomology.org/

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Printed Copy ISSN 0749-6737
On-Line ISSN 1942-1354
CD-ROM ISSN 1942-1362

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Homophileurus neptunus Dechambre, a new junior synonym of *H. waldenfelsi* Endrödi (Coleoptera: Scarabaeidae: Dynastinae: Phileurini)

Brett C. Ratcliffe
Systematics Research Collections
W436 Nebraska Hall
University of Nebraska
Lincoln, NE 68588-0514
USA
bratcliffe1@unl.edu

Jochen-P. Saltin
Idsteiner Str. 32
D-65527 Niedernhausen/Taunus
GERMANY
jochen.saltin@gmx.de

Abstract. *Homophileurus neptunus* Dechambre was found to be conspecific with *H. waldenfelsi* Endrödi after examination of types, descriptions, and illustrations. Accordingly, *H. neptunus* is placed in junior synonymy with *H. waldenfelsi*, **new synonymy**. *Homophileurus waldenfelsi* is an uncommon species and occurs in Ecuador, Colombia, Brazil, and Peru. Brazil and Peru are new country records.

Key Words. Phileurini, scarab beetles, taxonomy, nomenclature.

Non semper ea sunt quae videntur.
—— Phaedrus

Homophileurus waldenfelsi Endrödi is a large (44-50 mm), horned phileurine that was described based upon a single female from Colombia (Endrödi 1978). The holotype (Plate 1) was formerly in the private collection of Hans von Waldenfels (Neuburg-Bittenbrunn, Germany). Upon his death, part of his collection was sold to a private collector (Karl Martini, Ingolstadt, Germany), who indicated that the type specimen was not with the collection nor did he know where it might be (personal communication to J.-P. Saltin, April 2010). This illustrates (once more, unfortunately) that type specimens should NOT be housed in private collections but in an institutional collection that can properly safeguard type specimens and that has a policy of open access to facilitate study. Too many times have types been lost that were housed in private collections when an heir had no idea of the scientific value of the collection or what to do with it. In this case, fortunately, we have a good photograph of the holotype taken by Waldenfels before it was "lost."

Homophileurus neptunus Dechambre (Plate 1) was described based upon a single male from Ecuador (Dechambre 1996). Dechambre made a comparison of his new species with *H. luedeckei* Kolbe (another large species occurring from Mexico to El Salvador), but he made no mention of, or comparison with, Endrödi's *H. waldenfelsi*. We conclude that he may not have checked Endrödi's 1978 paper on American phileurines . . . or if he did, he did not recognize *H. waldenfelsi* as being similar to his new species. This is not surprising in this case, since Endrödi did not provide a habitus illustration of *H. waldenfelsi* nor was there an image of the male parameres, since the type was a female. The brief description by Endrödi could have been easily overlooked by Dechambre. The same holds true for Endrödi's (1985) repeat description, again without illustrations, in his English version of *The Dynastinae of the World*.

We studied the images and descriptions of the holotype of *H. neptunus* and *H. waldenfelsi*. The holotype of *H. neptunus* is housed at the Museum National d'Histoire Naturelle in Paris, and the holotype of *H. waldenfelsi* is either lost or lurking unknown in a private collection somewhere.

The principal characters distinguishing each of the "two" species are, in fact, the same between them. They are: form and size of the body; acutely elongated clypeus; distinctive form of the enlarged head horns; sculpturing of the head and pronotum; form of the elytral striae and intervals; shape and sculpturing of the pygidium; quadridentate protibiae; bicarinate meso- and metatibiae; and form of the parameres (for *H. neptunus*). Based upon our analysis of characters in the descriptions, photos, and specimens available to us, we conclude that these "two" species are the same, and so we here place *H. neptunus* in junior synonymy with *H. waldenfelsi*, **new synonymy**.

Specimens of *H. waldenfelsi* are evidently rare because there are so few in collections. The specimens known to us have the following distributional data (map on Plate 1):

COLOMBIA: Putumayo Valley.
Holotype female of *H. waldenfelsi* Endrödi (Plate 1). Type apparently lost.
ECUADOR: Pastaza: Shiona Yacu.
Holotype male of *H. neptunus* Dechambre (Plate 1). Type at the Museum National d'Histoire Naturelle, Paris, France.
PERU: Loreto Province: Pavayacu village (Corrientes River).
Male and female (Plate 2-3). NEW COUNTRY RECORD. Deposited at the University of Nebraska State Museum, Lincoln, NE, U.S.A.
PERU: Loreto Province: Iquitos, Maynas Caserios "San Juan de Polis".
Female. NEW COUNTRY RECORD. Deposited in the Jochen-P. Saltin Collection, Germany.
BRAZIL: Amazonas (upper Rio Negro): District of São Gabriel da Cachoeira, Querari.
Male (Andreazze and da Silva Motta 2002). NEW COUNTRY RECORD. Deposited at the Instituto Naçional de Pesquisas da Amazonia (INPA), Manaus, Brazil.

Acknowledgments

We thank Antoine Mantilleri (Museum National d'Histoire Naturelle, Paris, France) for generously providing the images of the holotype of *H. neptunus* and the late Hans von Waldenfels for the image of the holotype of *H. waldenfelsi*. We thank Ronald Cave (University of Florida) and William Warner (Chandler, AZ) for their comments to improve the manuscript. This project was supported, in part, by an NSF/BS&I grant (DEB 0716899) to B. C. Ratcliffe and R. D. Cave.

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Received October 2, 2010; Accepted October 5, 2010.

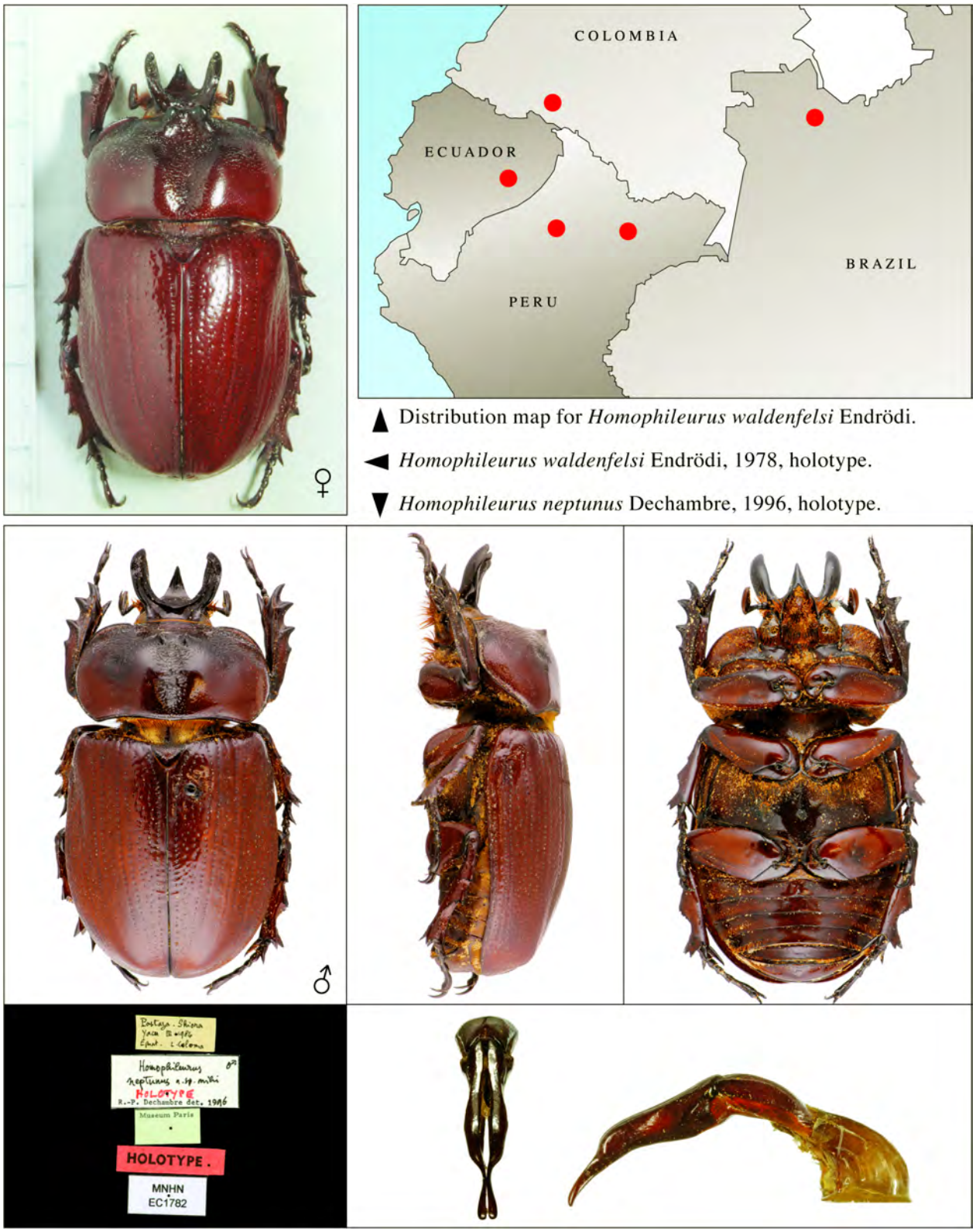

Plate 1. Holotypes of *Homophileurus waldenfelsi* (female) and *H. neptunus* (male) and distribution map of *H. waldenfelsi*.

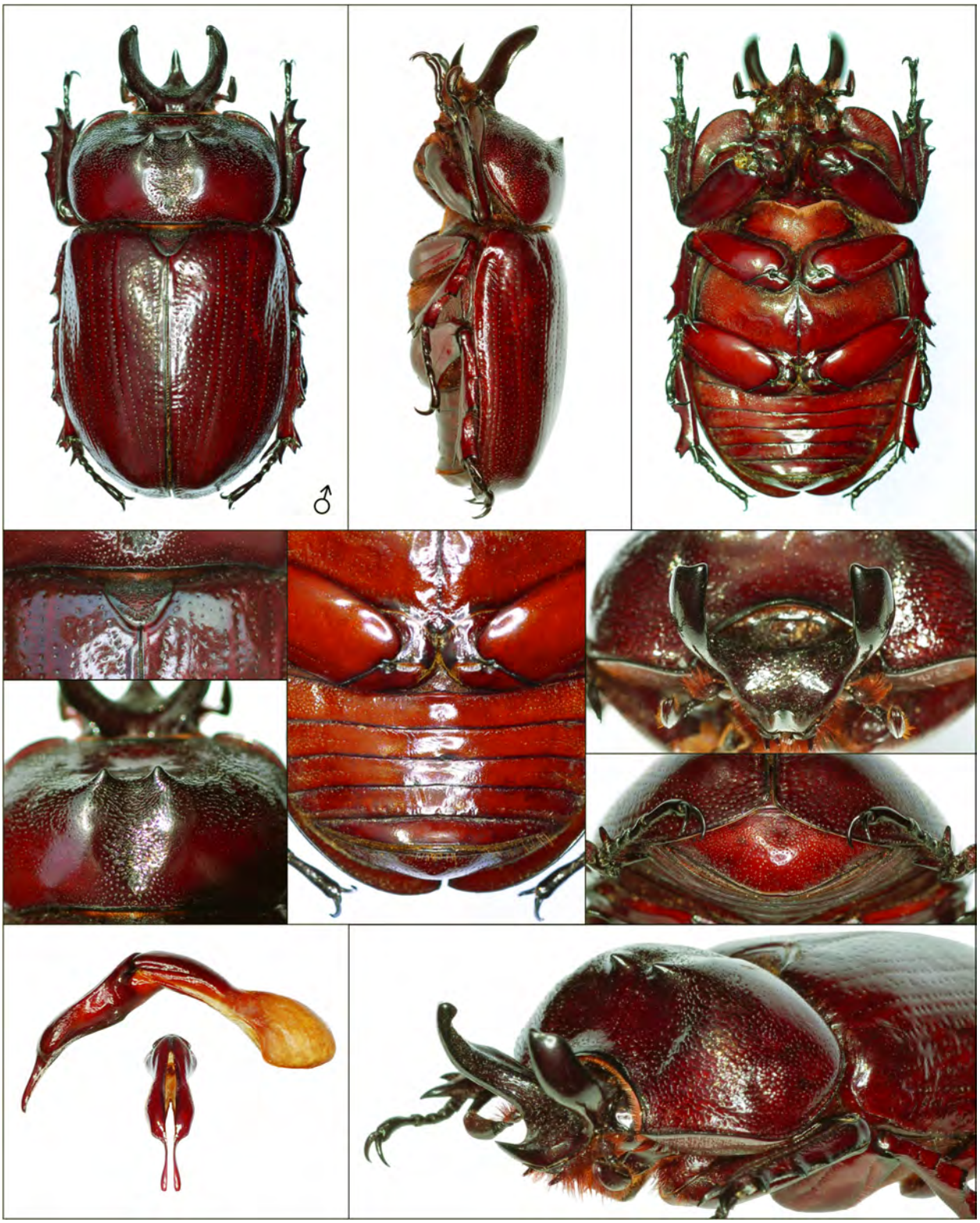

Plate 2. *Homophileurus waldenfelsi*, male, from Peru: Loreto, Payayacu village, 16-II-2010.

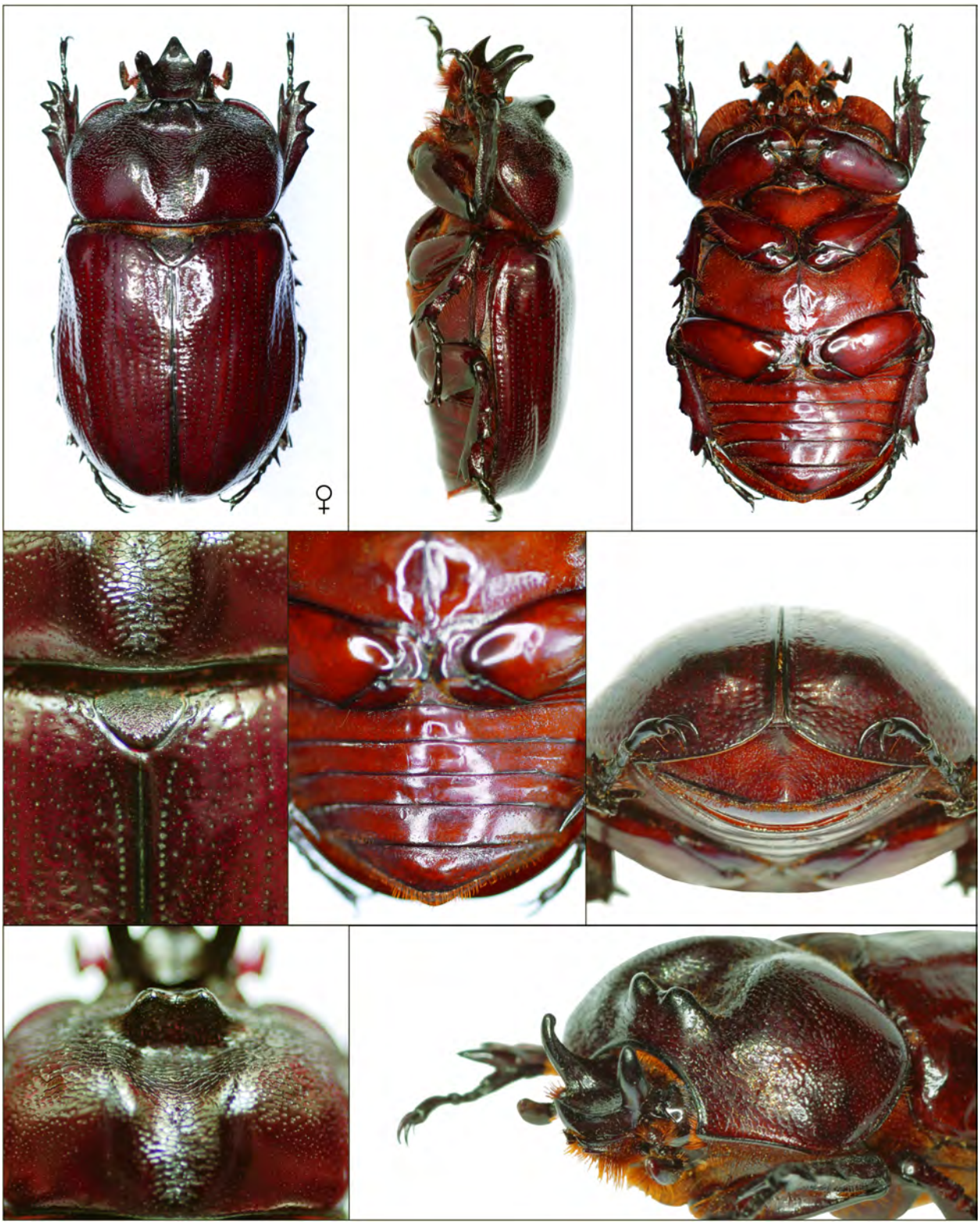

Plate 3. *Homophileurus waldenfelsi*, female, from Peru: Loreto, Payayacu village, 16-II-2010.