Genus	Vol. 17(2): 307-310	Wrocław, 30 VI 2006

A new species of the genus *Holonothrus* from Ecuador (Acari: Oribatida: Crotoniidae)

MAŁGORZATA KUTY
Department of Animal Taxonomy and Ecology, A. Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland, cardamina@interia.pl

ABSTRACT. The morphology of a new Neotropical crotoniid mite *Holonothrus ecuadoriensis* n. sp. from Ecuador is described, illustrated and compared with similar species.

Key words: acarology, taxonomy, *Acari*, *Oribatida*, *Crotoniidae*, new species, Ecuador, Neotropical Region.

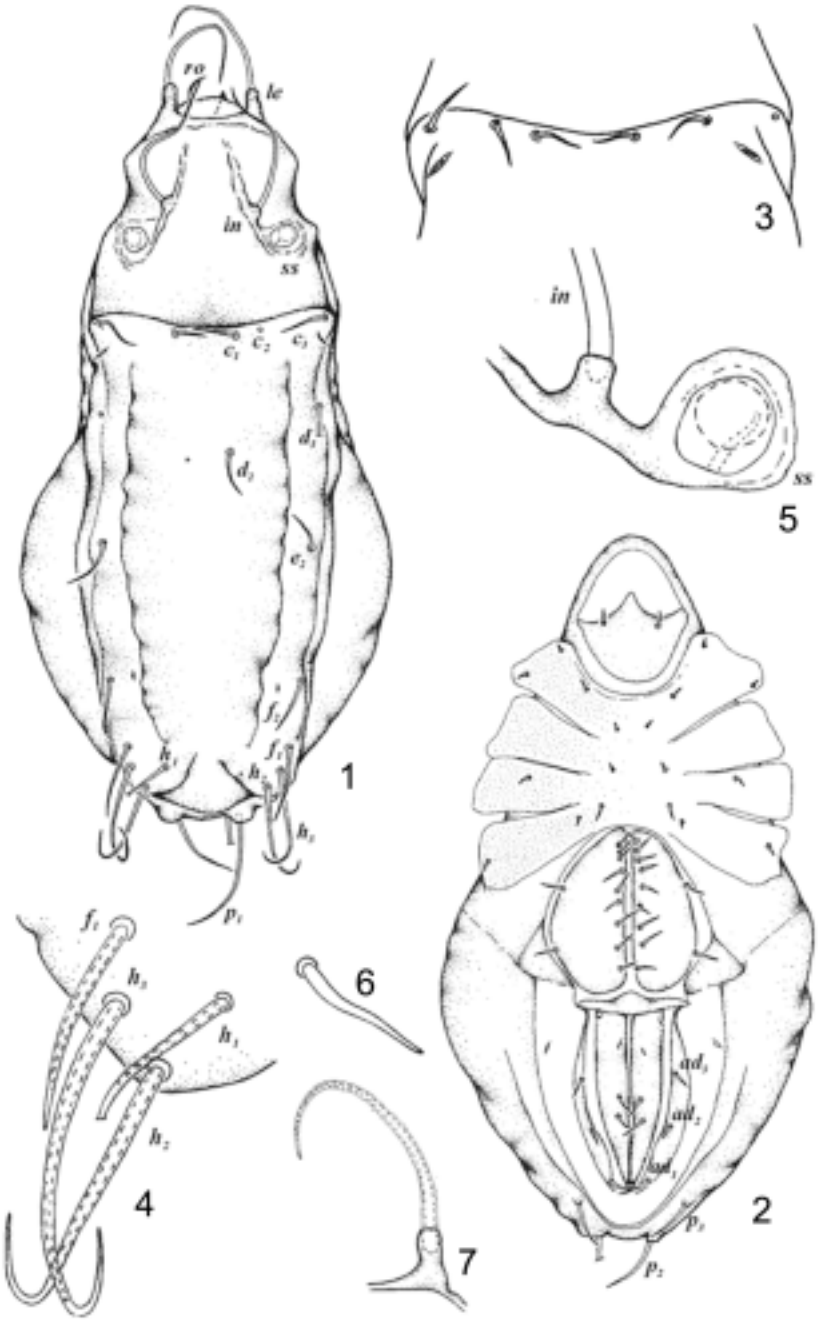
INTRODUCTION

The family *Crotoniidae* contains about 50 species from two genera: *Crotonia* THORELL, 1876 and *Holonothrus* WALLWORK, 1963 (SUBÍAS 2004). Representatives of these species occur on southern continents and islands (lack in Holarctic and Oriental regions). Only 2 species of *Holonothrus* have been described from Neotropical region so far (SUBÍAS 2004). NORTON and OLSZANOWSKI (1989) noticed that genus *Holonothrus* is less widespread than *Crotonia* and it may prove a relict.

The family *Crotoniidae* is characterized by: lack of rostral incision, well developed lamellar apophises, sensillus completely contained within bothridium, 13-14 pairs of notogastral setae in adult stage (lack of e_1 and one of setae *d*; setae f_1 present), 8-10 pairs of genital, 2 pairs of aggenital, 2-3 pairs of anal and 3 pairs of adanal setae.

MATERIALS AND METHODS

The description presented here is based on the material from Hungarian National Museum, Budapest. Two specimens of *Holonothrus ecuadoriensis* n. sp. studied come from two samples from Ecuador.



1-7. *Holonothrus ecuadoriensis* n. sp.: 1 - dorsal view, 2 - ventral view, 3 - setae *c* of paratype, 4 - posteriorly, notogastral setae, 5 – sensillus, 6 - seta c_3, 7 - seta *le*

The mites were preserved in 70% ethanol and cleared in lactic acid. The type material is stored in the collection of the Hungarian National Museum, Budapest.

***Holonothrus ecuadoriensis* n. sp.**

TYPE MATERIAL

Holotype: Ecuador: Naranhito /Prov. Cotopaxi/, on the way to San Francisco de las Pampas, 2 200 m – 9.II.1986 – forest patch, litter and soil; debris and moss cover of decomposing tree stump; paratype: the same data.

DESCRIPTION

Adult (Figs. 1-7)

Body length: 890-940 µm; body width: 470-480 µm; colour: dark brown. Rostrum rounded. Surface of prodosomal plate glabrous. Setae *ro* almost as long as distance between their bases. Setae *le* barbed, curved, almost twice longer than distance between them, set on large apophyses connected by band of thickened chitin. Setae *in* longer than *le*, set on small apophyses, which are on longitudinal fold of chitin. Sensillus completely contained within bothridium. Lack of setae *ex*. Notogastral plate broadest on level of setae e_2. Surface of notogaster glabrous.

Table 1. Comparison of selected morphological characters of *Holonothrus ecuadoriensis* n. sp. with *H. gracilis* (after OLSZANOWSKI 1997 and own studies)

Characters	*H. ecuadoriensis* n. sp.	*H. gracilis*
Body length	890-940 µm	740 µm
Body width	470-480 µm	320 µm
Setae *ro*	*ro* > ½ (*ro*-*ro*)	*ro* < ½ (*ro*-*ro*)
Setae *le*	*le* > (*le*-*le*)	*le* > (*le*-*le*)
Setae *in*	in > le	*in* > *le*
Notogastral setae	14 pairs, antherolateral similar, longer posterior	16 pairs, all setae similar
Setae *c*	$c_1 < c_3$	$c_1 < c_2$, $c_2 = c_3$
Setae *d*	lack of d_1, $d_2 = d_3$	$d_1 = d_2$, $d_1 < d_3$
Setae *e*	lack of e_1, $e_2 \geq c_3$	$e_1 = e_2$
Setae *f*	$f_1 > f_2$	$f_1 = f_2$
Setae *h*	$h_1 = 2\ h_2$, $h_2 = h_3$	$h_1 = h_2 = h_3$
Setae *p*	$p_1 = 2p_2 = 3p_3$, $p_3 = c_3$	$p_1 = p_2 = p_3 < c_1$
Genital setae	9 pairs	7-10 pairs
Epimers	4-1-1-3	4-2-3-2

With 14 pairs of delicately barbed setae (lack of d_1 and e_1). Length of shortest setae c_1 is similar to *ro*, longest p_1 – to *le*. Pairs of epimers connected. Epimeral setation: 4-1-1-3. Genital plates with 9 pairs of setae, 2 pairs of aggenital setae; 2 pairs of anal and 3 pairs of adanal short setae (ad_1 two times longer than ad_3).

DIAGNOSIS

Holonothrus ecuadoriensis n. sp. shows similarity to species *H. gracilis* OLSZANOWSKI, 1997 from New Zealand. The length of prodorsal and anterolateral setae is similar in both species. *H. ecuadoriensis* n. sp. differs distinctly from *H. gracilis* by more roundly notogastral plate and notogastral setae (Table 1).

ETYMOLOGY

Named after its terra typica.

ACKNOWLEDGMENTS

The author would like to thank Dr. Ziemowit OLSZANOWSKI (Department of Animal Taxonomy and Ecology, A. Mickiewicz University, Poznań, Poland) for his help in preparation of this article and curator of Hungarian National Museum, Budapest, for loanig the material.

REFERENCES

SUBÍAS, L.S., 2004. Listado Sistemático, Sinonímico Y Biogeográfico De Los Ácaros Oribatidos (Acariformes: Oribatida) Del Mundo (1758-2002). Graellsia, **60**(número extraordinaro): 3-305.

NORTON, R. A., OLSZANOWSKI, Z., 1989. A new *Holonothrus* (Oribatida: Crotoniidae) from Zaïre, with notes on the distribution of crotoniid mites. Rev. Zool. afric., **103**: 405-412.

OLSZANOWSKI, Z., 1997. On the genus *Holonothrus* (Acari: Oribatida) in the Austaralian region. Acarologia, **38**(4): 385-402.