A new species of *Rhizoglyphus* Claparede (Acari: Acaridae) from Taiwan infesting the taro and giant alocasia

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(Accepted for publication: Dec. 15, 2000)

ABSTRACT

Ho C. C.* and Chen W. H. 2001. A new species of *Rhizoglyphus* Claparede (Acari: Acaridae) from Taiwan infesting the taro and giant alocasia. Plant Prot. Bull. 43: 47-49

Rhizoglyphus longispinosus sp. n. infesting the taro (*Colocasia formosana* Hayata) and giant alocasia (*Alocasia macrorrhiza* (L.) Schott & Endl.) is described.

(Key words: Acaridae, bulb mite, Taiwan)

INTRODUCTION

A *Rhizoglyphus* mite was found on taro (*Colocasia formosana* Hayata) and giant alocasia (*Alocasia macrorrhiza* (L.) Schott & Endl.) from Taiwan. Attempts to rear it on artificial diet were failed. The original colony brought to laboratory contained also *R. setosus*, and *R. setosus* replaced this species before we realized what was progressing. The slide specimens of this mite indicate that it is new to science. We describe this new species here. All measurements are in microns. The range are provided when available in parenthesis after the mean. Setal nomenclature of Fain[2] is followed. Terms of Evans[1] are referred to for the sperm access system.

Descriptions

Rhizoglyphus longispinosus sp. n.

Female (Fig. 1): Idiosoma 697.4 (565.2-800.0) long and 442.5 (391.3-504.3) wide. Length of propodosomal setae: *vi* 90.5 (75.9-103.4), *sc i* 39.0 (27.6-48.3), *sc e* 227.0 (182.8-258.6). *Ve* tiny, not always visible. Supracoxal seta 51.5 (41.4-62.1),

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straight or slightly curved. Grandjean's organ forked apically. Length of hysterosomal setae: *h* 208.6 (155.2-234.5), *hv* 37.6 (27.6-44.8), *d*1 28.9 (20.7-34.5), *d*2 40.5 (27.6-51.7), *d*3 190.2 (158.6-224.1), *d*4 250.2 (213.8-293.1), *d*5 225.4 (193.1-269.0), *l*1 41.9 (34.5-48.3), *l*2 37.7 (31.0-48.3), *l*3 208.2 (182.8-255.2), *l*4 204.7 (165.5-241.1), and *l*5 205.5 (172.4-241.4). *L*2 closer to opisthosomal gland opening than *l*3. Anal setae 3 pairs, *a*1 48.8 (37.9-62.1), *a*2 68.6 (55.2-82.8), *a*3 59.0 (41.4-79.3). Setae *vi, hv, d*1, *d*2, *l*1, *l*2, and anal setae pilose. Bursa copulatrix ventral, large, oval; dorsal with a small sclerite. Canalis copulator large at both end. Basal disc of sacculus oval. Efferent duct v-shaped.

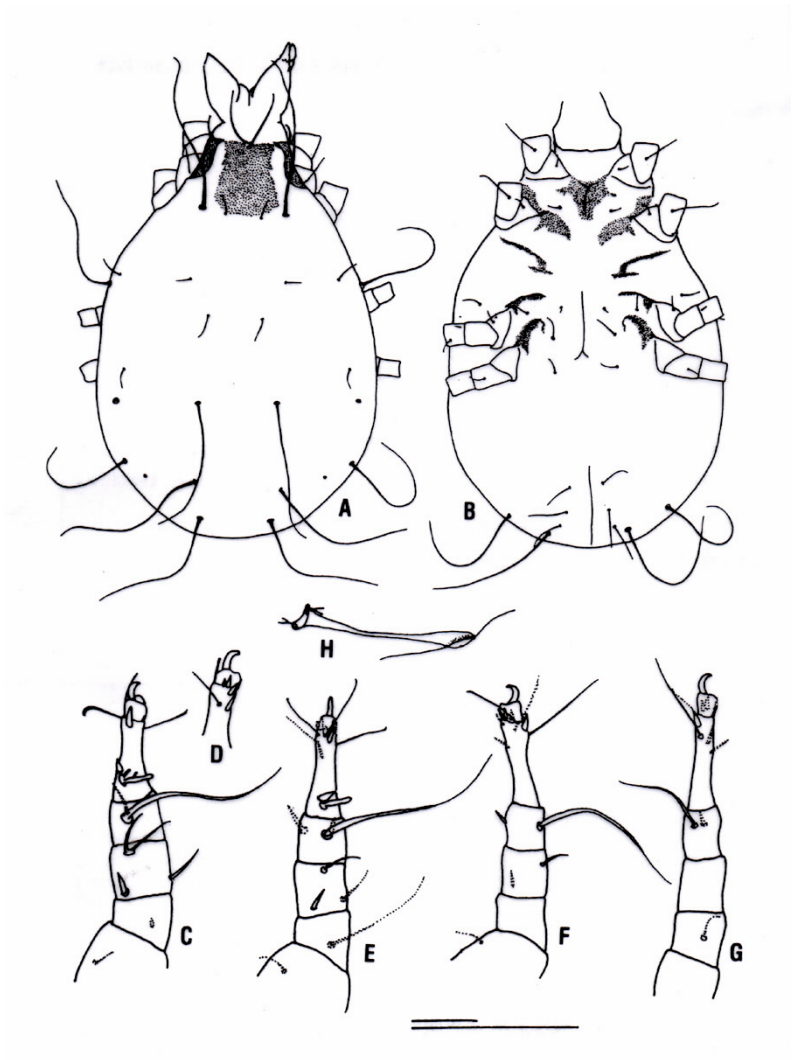

Fig. 1. *Rhizoglyphus longispinosus* **sp. n.** female. A. dorsal view, B. ventral view, C. leg 1, dorsal view, D. tarsus 1, ventral view, E~G. legs II~IV, dorsal or lateral view, H. receptaculum seminis. Bars represent 100 μ, short bar for A and B, longer bar for legs and receptaculum seminis.

Male: unknown

Habitats and Localities: Holotype: ♀♀ CHIAYI: Fenchihu, ex. taro, 11-II-2000, W. H. Chen. Paratypes: CHIAYI: Fenchihu, 3 ♀♀♀♀ ex tar 11-II-2000, W. H. Chen, Lichia, Alisan, 12 ♀♀Ali san*Alocasia macrorrhiza* (L.) Schott & Endl., 9-II-2000, W. H. Chen. All type specimens, TAL089A11~TAL089A26, are deposited in Taiwan Agricultural Research Institute, except one ♀one ♀para t TAL089A23, is deposited in the Acarology Laboratory of the Ohio State University.

Distribution: Taiwan.

Etymology: This species has long setae. Setae *d*3, *d*4, *d*5, *l*3, *l*4, *l*5, and *sc e* are quite long. The anal setae are extraordinary long in comparison with other *Rhizoglyphus* mites. The supracoxal seta is also longer than that in general. This species is therefore named on its long setae.

Remarks: This species resemble *R. caladii* Manson, 1972[3] in having 3 long anal setae, small ba, long *d*3. However, the copulatory organ is differerent. The basal disc of sacculus of *R. caladii* is thick, like *R. setosus*, but the basal disc of sacculus of this species is not so. Also, the supracoxal seta of this species is longer, 41.4-62.1, than that of *R. caladii*, 32-42.

LITERATURE CITED

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摘　要

伊琦琛*、陳弋華 2000 台灣 *Rhizoglyphus* Claparede 屬（蜱亞綱：粉 科）為害山芋及姑婆芋之一新種 植保會刊 43： 47－49.（行政院農委會農業試驗所應用動物系）

本文報導台灣為害山芋及姑婆芋塊莖之一新種--長肛毛根 *Rhizoglyphus longispinosus*。

(關鍵詞：粉 科、根 、台灣)

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