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A New Species of Rhizoglyphus Claparede (Acari: Acaridae) Infesting Bulbs from Taiwan 【Research report】

台灣產 Rhizoglyphus Claparede 屬（蟎蜱亞綱：粉蟎科）為害鱗莖之一新種【研究報告】

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Abstract

Rhizoglyphus tsutienensis sp. n. collected from bulbs of the lily, green onion, leek, and tuberose from Taiwan is described.

摘要

本文報導台灣在百合、蔥及晚香玉的鱗莖上採得之一新種Rhizoglyphus Claparede(竹田根蟎)。

Key words: Acaridae, bulb mite, Taiwan.
關鍵詞: 粉蟎科、根蟎、台灣

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A New Species of *Rhizoglyphus* Claparede (Acari: Acaridae) Infesting Bulbs from Taiwan

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ABSTRACT

Rhizoglyphus tsutienensis sp. n. collected from bulbs of the lily, green onion, leek, and tuberose from Taiwan is described.

Key words: Acaridae, bulb mite, Taiwan

Introduction

During a field survey of bulb mites in Taiwan, a *Rhizoglyphus* mite collected from lily, green onion (*Allium fistulosum* L.), and leek (*Allium tuberosum* Rottl. ex K. Spreng.) in Tsutien, Pintung County, from tuberose (*Polianthes tuberosa* L.) in Chiayi, and green onion in Putzi, Chiayi County looked different from the normally seen *R. robini* Claparede or *R. setosus* Manson. This mite appeared to be a new species, and is described here. All measurements are in microns. The range is provided when available in parenthesis after the mean. Setal nomenclature of Fain (1963) is followed. Terms of Evans (1992) are referred to for the sperm access system.

Descriptions

Rhizoglyphus tsutienensis sp. n.

Female (Fig. 1): Idiosoma 881.1 (745.5-1036.4) long and 631.8 (522.7-836.4) wide. Length of propodosomal setae: *vi* 102.1 (85.7-116.1), *sc i* 36 (10.7-53.6), and *sc e* 180.1 (146.4-210.7). Supracoxal seta 37.2 (28.6-46.4), thin, sicklelike. *Ve* tiny, not always visible. Grandjean's organ forked apically, with one end slightly shorter. Length of hysterosomal setae: *h* 149.3 (114.3-182.1), *hv* 26.6 (23.2-32.1), *d*1 55.5 (25-89.3), *d*2 54.7 (30.4-89.3), *d*3 110 (94.6-139.3), *d*4 157 (135.7-178.6), *d*5 124.1 (85.7-160.7), *l*1 44.9 (25-67.9), *l*2 25.6 (21.4-32.1), *l*3 110.6 (78.6-135.7), *l*4 86.3 (50-107.1), and *l*5 134.7 (89.3-167.9). *L*2 just anterior to opisthosomal gland opening. Anal setae 3 pairs, the third quite long. Length of anal setae: *a*1 10.5 (6.9-17.2), *a*2 15.6 (8-25.3), and *a*3 47.2 (32.2-59.8). Bursa copulatrix ventral, large, sclerotized on 3 sides except the side toward anal slit, forming a rectangular-looking frame; dorsal side continuing with a small sclerite. Basal disc of sacculus thick. V-shaped efferent duct long.

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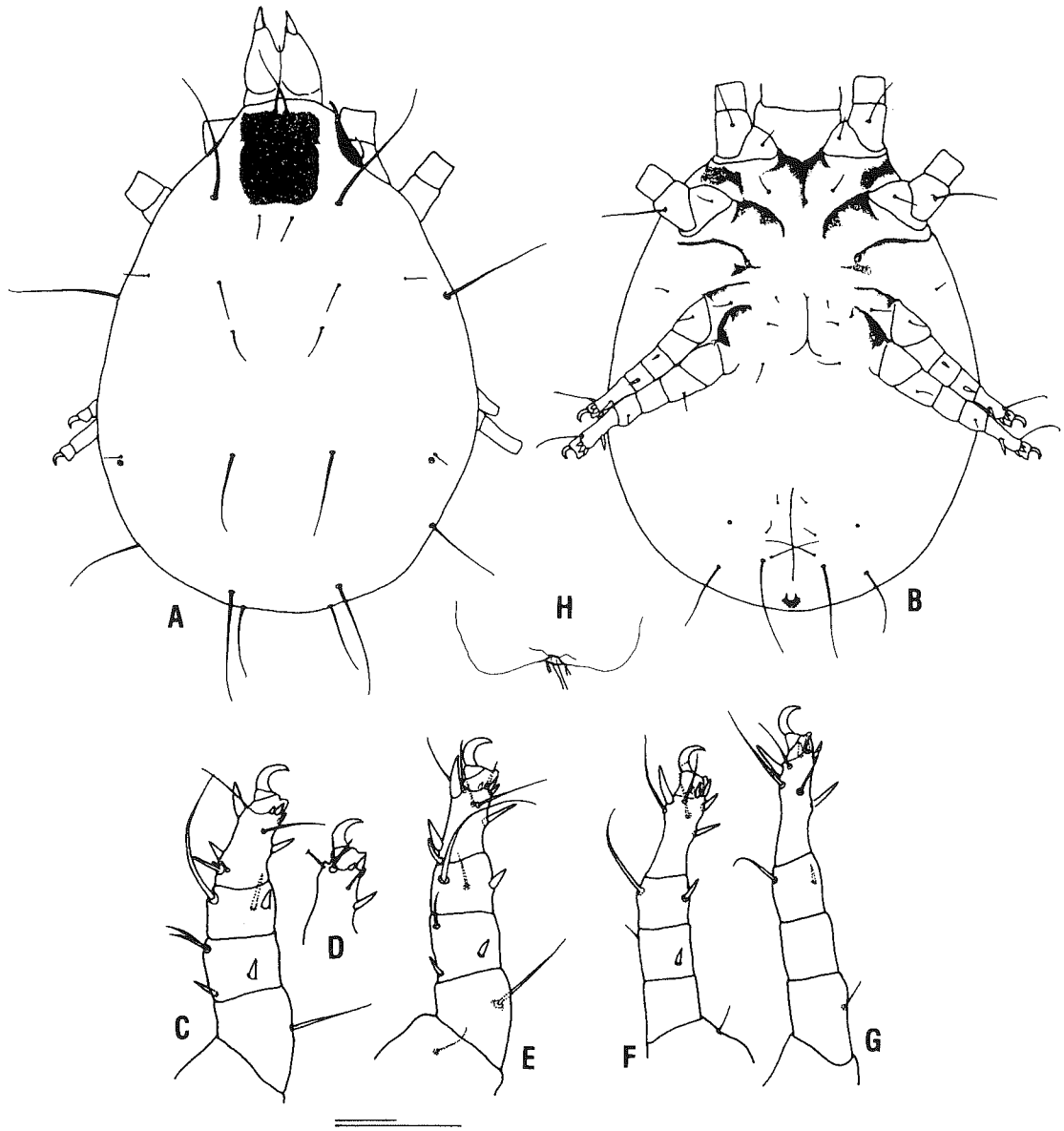

Fig. 1. *Rhizoglyphus tsutienensis* sp. n. female. A. dorsal view, B. ventral view, C. leg 1, dorsal view, D. tarsus 1, ventral view, E~G. legs II~IV, H. receptaculum seminis. Bars represent 100 μ, short bar for A and B, longer bar for legs and aedeagus.

Homeomorphic male (Fig. 2): Idiosoma 725 (677.3-772.7) long and 522.7 (490.9-554.5) wide. Length of propodosomal setae: *vi* 96.4 (92.9-100), *sc i* 36.6 (28.6-42.9), and *sc e* 196 (189.3-210.7). Supracoxal seta 32.1 (28.6-35.7). *Ve* tiny, not always visible. Length of hysterosomal setae: *h* 174.1 (158.9-189.3), *hv* 22.3 (21.4-25.0), *d*1 61.2 (53.6-75), *d*2 62.1 (57.1-64.3), *d*3 147.3 (132.1-160.7), *d*4 195.5 (185.7-200), *d*5 126.8 (119.6-133.9), *l*1 46 (39.3-53.6), l2 26.3 (23.2-

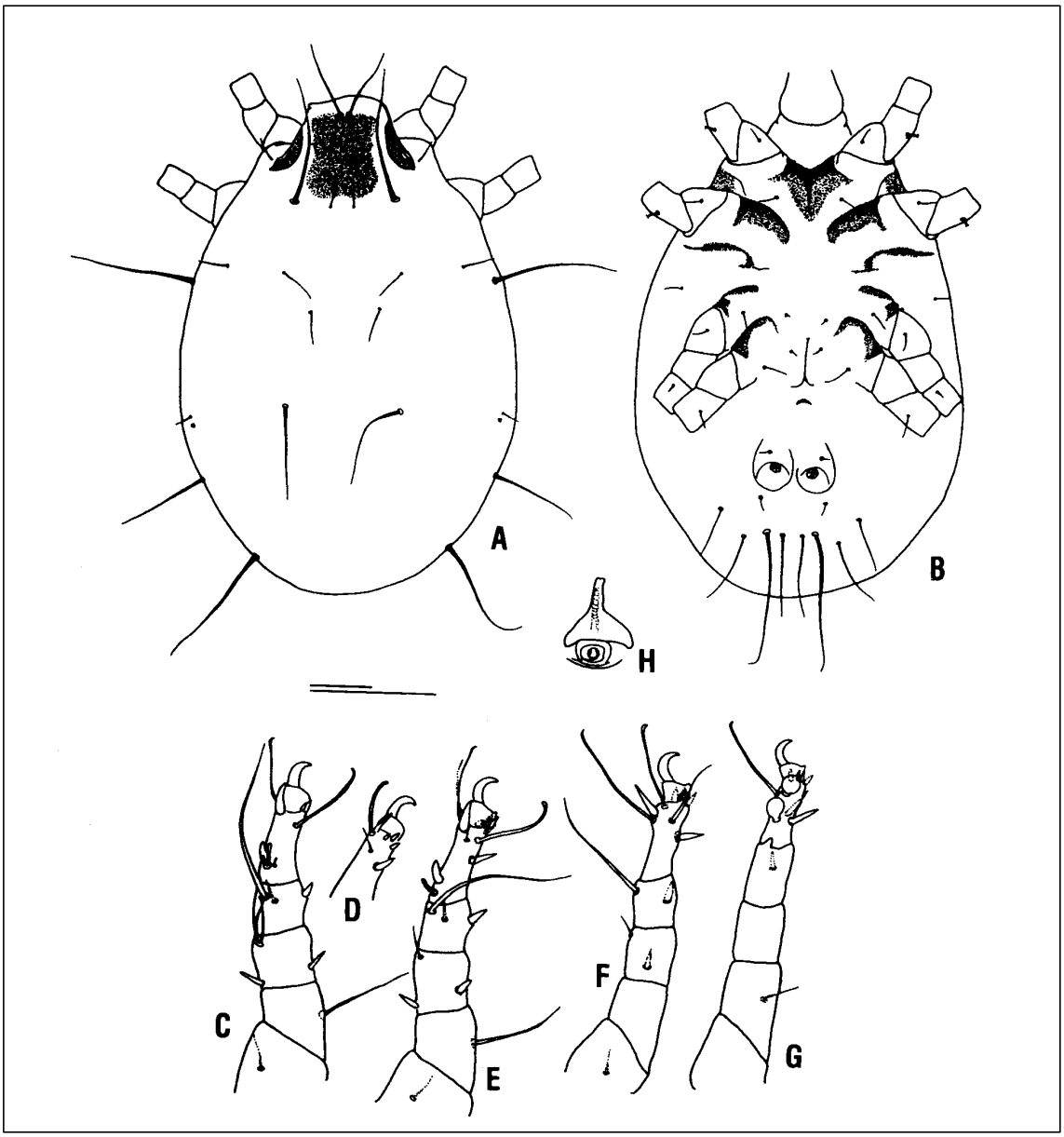

Fig. 2. *Rhizoglyphus tsutienensis* sp. n. male. A. dorsal view, B. ventral view, C. leg 1, dorsal view, D. tarsus 1, ventral view, E~G. legs II~IV, H. aedeagus. Bars represent 100 μ, short bar for A and B, longer bar for legs and aedeagus.

28.6), *l*3 150.4 (146.4-153.6), *l*4 94.2 (82.1-103.6), *l*5 121.3 (112.6-128.7), *a*2 16.4 (13.8-18.4), and *a*3 85.9 (80.5-92). Anal discs with radiating lines. Aedeagus long, protruding anteriorly.

Heteromorphic male: unknown

Specimens examined: Holotype ♀, PINTUNG: Tsutien, ex. lily, 24-IX-1993, M. C. Chen. Paratypes: CHIAYI: Chiayi, 1 ♀, ex. tuberose , 11-II-2000, W. H. Chen. PINTUNG: Tsutien, 2 ♀♀, same data as holotype, 3 ♀♀ and 3 ♂♂, ex.

lily, 20-VI-1997, W. H. Chen, 3 ♀♀ and 3♂♂, ex. green onion, 13-IV-2000, W. H. Chen. Other specimens: CHIAYI: Putzi, 1 ♀, ex. green onion, 29-X-1992, W. H. Chen, Pintung: Tsutien, many ♀♀ and ♂♂, ex. leek, 13-IV-2000, W. H. Chen, Yenpu, 1 ♀, ex. lily, 6-II-1991, J. Hua. All type specimens, TAL081A01, TAL082A01~TAL082A03, TAL086A01~TAL086A06, TAL089A01~TAL089A07, are deposited at the Taiwan Agricultural Research Institute, except for 1 female paratype, TAL082A03, which is deposited at the Acarology Laboratory of Ohio State University.

Distribution: Taiwan.

Etymology: This species was first noticed from a lily in Tsutien, Pintung County. Though also found in two samples collected from Chiayi County, most specimens were collected from various farms of Tsutien. It seems to have wide distributed in Tsutien. This species is therefore named after this town.

Remarks: Like *R. singularis* Manson, 1972, this species is characterized by 1) the relatively long *sc i*, 2) the very short distance between *l*2 and the opisthosomal gland opening, 3) the presence of only 3 pairs of anal setae and the long *a*3 of the female, 4) the long and forward aedaegus of the male, and 5) the radiating lines on the male anal discs.

This species differs from *R. singularis* in 1) the disc at the base of seminar receptacle being shaped differently; 2) *hv* and *l*2 being longer; 3) the *l*5 of the male, 112.6-128.7, being longer than *a*3, 80.5-92, whereas Manson measured a longer *a*3 (*pa*3), 177-181, than *l*5 (*pa*2), 102-123, in the male; and 4) the bursa copulatrix being slightly apart from the end of the anal slit.

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台灣產 *Rhizoglyphus* Claparede 屬(蠕蜱亞綱：粉蠕科)為害鱗莖之一新種

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摘　　要

本文報導台灣在百合、蔥及晚香玉的鱗莖上採得之一新種 *Rhizoglyphus tsutienensis*（**竹田根蠕**）。

關鍵詞：粉蠕科、根蠕、台灣。