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Eriophyoid Mites of Taiwan: Description of One New Species of Aberoptinae from Hueysuen (Acari: Eriophyoidea: Eriophyidae) 【Scientific note】

臺灣產節蟬：描述惠蓀林場畸羽節蟬亞科一新種（蟬蟬亞綱：節蟬總科：節蟬科）【科學短訊】

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Abstract

In this work, one vagrant eriophyoid mite, *Aberoptus championus* sp. nov., of Aberoptinae is described and illustrated from Hueysuen, central Taiwan.

摘要

本文描述及繪圖惠蓀林場畸羽節蟬亞科1新種：*Aberoptus championus* sp. nov. 為害菊花木 (*Bauhinia championii*)。

Key words: Aberoptinae, Hueysuen, Taiwan

關鍵詞: 畸羽節蟬亞科、惠蓀、臺灣

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Eriophyoid Mites of Taiwan: Description of One New Species of Aberoptinae from Hueysuen (Acari: Eriophyoidea: Eriophyidae)

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ABSTRACT

In this work, one vagrant eriophyoid mite, *Aberoptus championus* sp. nov., of Aberoptinae is described and illustrated from Hueysuen, central Taiwan.

Key words: Aberoptinae, Hueysuen, Taiwan

Introduction

This is the fourth species of *Aberoptus* and the first species of this genus in Taiwan. This new species was found as a vagrant on the lower leaf surface of *Bauhinia championii*, and was found associated with *Cosella championi* Huang, 2001 and *Diptilomiopus chiampioni* (Huang, 1992) on the same host plant.

The subfamily Aberoptinae consists of two genera: *Aberoptus* and *Cisaberiptus*. This subfamily is easy to differentiate from all other Eriophyidae by having spatulate or shovel-shaped projections on either the anterior end of the rostrum or on the foreleg. Although Amrine *et al.* (2003) treated *Cisaberiptus* Keifer, 1966 as a junior synonym of *Aceria* due to the generic assignment based on the deutogyne, according to the collection data in Taiwan, *C. kenyae* Keifer, 1966 occurs through the entire year, but *A. kenyae* Amrine jr., 1996 was not found at all times. If *A. kenyae* Amrine jr., 1996 was

a protogyne type, it should be easier to find than *C. kenyae* Keifer, 1966. The author thinks that since *C. kenyae* and *A. kenyae* coexisted on the same host plant of *Mangifera indica* in Thailand, this mite, *C. kenyae*, is not the deutogyne of *A. kenyae*. and *Cisaberiptus* is a valid name in the Eriophyidae.

Besides *Aberoptus championus*, the other three species of *Aberoptus* all live under the wax-like layer on the surface of leaves (Keifer, 1966; Huang, 1974; Meyer Smith, 1989; Flechtmann, 2001). It is interesting that *C. kenyae* is reported to live under a wax-like layer on the leaves of host plants in different part of the world but, in Taiwan was reported as a vagrant (Huang, 1974).

Specimens are deposited in the National Museum of Natural Science (NMNS), Taichung, Taiwan. All measurements are in micrometers (μm). The terminology and abbreviations in the diagrams follow those of Lindquist (1996) and Huang (1999).

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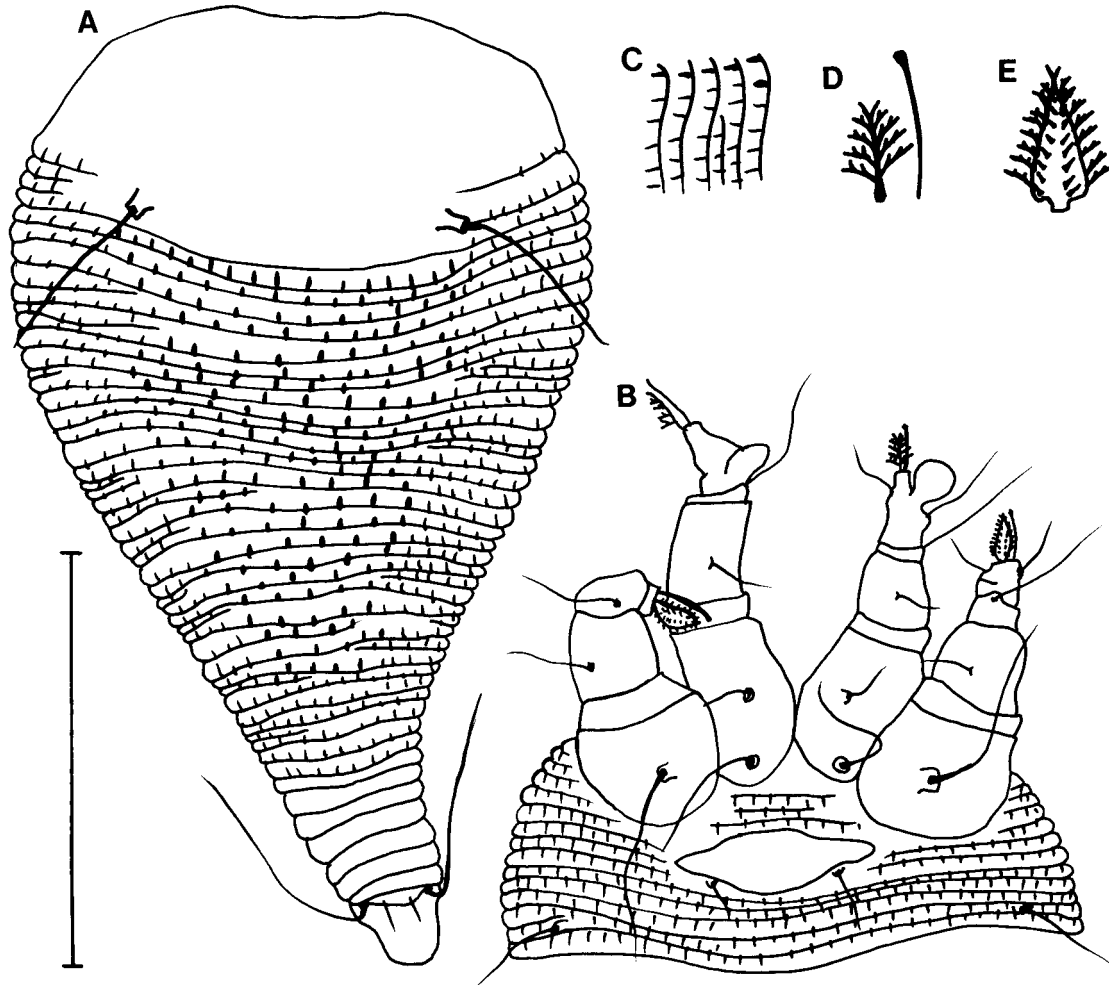


Fig. 1. *Aberoptus championus* sp. nov. (♀) sp. nov. A, Dorsal view; B, Legs and genital region, ventral view; C, Detail of some annuli in lateral view; D, Empodium, fore leg; E, Empodium, hind leg. (scale A, B = 50 μ m; C = 40 μ m; D, E = 15 μ m)

In the text, measurement of the oblique distance between tubercles is indicated by a backslash (\), and that of the straight distance between tubercles is indicated by a dash (—).

***Aberoptus championus* sp. nov.**
(Fig. 1)

Female: Body flattened, fusiform, 120

long, shield 11 long, 68 wide, shield lobe absent; rostrum short and downcurved; shield smooth; scapular tubercles on rear shield margin, seta (sc) 23 long, directed posteriorly and diverging, Dt-Dt 37 apart; legs stout, tibial fused with tarsus, fore tibia seta (1') absent, tarsus with projection expanded shovel-shaped; coxal area smooth; 1st coxal seta (1b) 6

long, Ct1-Ct1 11 apart, 2nd coxal seta (1a) 16 long, Ct2-Ct2 10 apart, 3rd coxal seta (2a) 25 long, Ct3-Ct3 31 apart, Ct1\Ct2 14, Ct1-Ct2 8, Ct2\Ct3 20, Ct2-Ct3 10; solenidion ending as knob; empodium simple, fore empodium 5 rayed, hind empodium expanded, bristle.

Opisthosoma: dorsum flattened, with about 45 microtuberculate rings, microtubercles elongated-like in middle, spine-like laterally, smooth posteriorly; 1st 3 dorsal annuli 6 long; ventral annuli with about 47 microtuberculate rings; lateral seta (c2) 13 long, Lt-Lt 34 apart, Lt\Vt1 47, Lt-Vt1 34; 1st ventral seta (d) 19 long, Vt1-Vt1 33 apart, Vt1\Vt2 28, Vt1-Vt2 17; 2nd ventral seta (e) 16 long, Vt2-Vt2 16 apart, Vt2\Vt3 36, Vt2-Vt3 31; 3rd ventral seta (f) 17 long, Vt3-Vt3 17 apart; accessory seta (h1) present. Coverflap: 23 wide, 7 long, smooth, genital seta (3a) 7 long, Gt-Gt 15 apart.

Male: not seen.

Type data: **Holotype**, ♀, NANTOU: Renai Township: Hueysuen Experimental Forest; 2-Nov.-1990, K. W. Huang & C. F. Wang; ex. *Bauhinia championii* Benth. (Caesalpiniaceae). (deposited at NMNS). **Paratypes**, 2 ♀, data same as for holotype.

Relation to host: A vagrant on the lower leaf surface. No apparent damage was observed.

Note: This new species is close to *A. platessoides* Meyer, 1989 but differs in the absence of shield lobes and foretibial setae.

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臺灣產節蟬：描述惠蓀林場畸羽節蟬亞科一新種（蟬蟬亞綱： 節蟬總科：節蟬科）

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摘 要

本文描述及繪圖惠蓀林場畸羽節蟬亞科1新種：*Aberoptus championus* sp. nov
為害菊花木 (*Bauhinia championii*)。

關鍵詞：畸羽節蟬亞科、惠蓀、臺灣。