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## Genus Ernestinus Distant (Hemiptera: Miridae) of Taiwan 【Research report】

### 臺灣產芋盲椿屬(半翅目：盲椿科)【研究報告】

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#### Abstract

In this paper, three species of the genus Ernestinus Distant in Taiwan are described including two species new to science: Ernestinus nigriscutum sp. n. and Ernestinus brevis sp. n. volume of the corpus of spermatophores.

#### 摘要

本文描述臺灣產芋盲椿屬 (Genus Ernestinus Distant) 昆蟲三種，包括兩新種：微芋盲椿 (Ernestinus brevis sp. n.) 及黑胸芋盲椿 (Ernestinus nigriscutum sp. n.)。重新描述黑點芋盲椿 (Ernestinus pallidiscutum (Poppius, 1915)) 模式標本，並附各種之背面觀及外生殖器圖。

**Key words:** Miridae, Bryocorinae, Ernestinus, sp. n.

**關鍵詞:** 盲椿科、單室盲椿亞科、芋盲椿屬、新種

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Genus *Ernestinus* Distant (Hemiptera: Miridae) of Taiwan

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## ABSTRACT

In this paper, three species of the genus *Ernestinus* Distant in Taiwan are described including two species new to science: *Ernestinus nigriscutum* sp. n. and *Ernestinus brevis* sp. n.

Key words: Miridae, Bryocorinae, *Ernestinus*, sp. n.

## Introduction

Distant (1911) erected a new genus *Ernestinus* and described a new species (*Ernestinus mimicus*) based on the specimens collected from India. This genus can be recognized by the following: broader than long, eyes almost touching the anterior margin of the pronotum, and extending beyond the anterior pronotal angles; antennae inserted in front of eyes, basal joint extending in front of head, its apical area moderately thickened, second joint moderately thickened, about or almost twice as long as first; pronotum about as long as breadth at base, excluding the anterior area convexly rounded and there thickly punctated, anterior area distinctly foveolate near middle, posterior margin truncate, not covering base of scutellum; scutellum small, triangular, somewhat transversely impressed at basal margin; corium about twice as long as broad, lateral margins nearly parallel, very slightly rounded; cuneus narrow, longer than broad; membrane considerably passing abdominal apex, with a large somewhat subquadrate basal cell; legs moderately slender, not

spinulose". Poppius (1915) and Miyamoto (1965) reported one species of the genus *Ernestinus* from Taiwan. In this paper two new species are added. Type specimens were deposited in National Museum of Natural Science.

Key to species of genus *Ernestinus* Distant

1. Body length less than 3 mm, terminal portion of left paramere long narrowed and curved, sickle-like-----  
----- *Ernestinus brevis* sp. n.  
- Body length more than 3 mm, terminal portion of left paramere not sickle-like-----2
2. Terminal portion of left paramere enlarged with finger-like protrusion-----  
----- *Ernestinus nigriscutum* sp. n.  
- Terminal portion of left paramere without finger-like protrusion-----  
----- *Ernestinus pallidiscutum* Poppius (1915)

*Ernestinus brevis* sp. n.

Male: Head including eyes black. Clypeus yellow brown. Rostrum yellow brown. First antennal segment green gray,

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second segment dark green, basal segment yellow brown. Pronotum and scutellum pale green. Corium, clavus, and cuneus pale yellow green. Membrane semi-hyline, yellowish white. Underneath the body and leg yellowish white.

Body elongate oval, covered with small but distinct punctures. Head semi-globular, broader than long; eyes large and globular, almost touching the anterior margin of the pronotum. Antennae inserted in front of eyes, extending on front of head, first antennal segment cylindrical and smaller basally, its apical area moderately thickened, second segment moderately thickened, about twice as long as first, is the thickest and the longest, pubescent with long hairs, the apical 2 segments smaller and slender. Rostrum long, reaching the third coxa. Pronotum about as long as breadth at base, excluding the anterior area convexly rounded and there thickly punctated, anterior area distinctly foveolate near middle, posterior margin truncate, not covering base of scutellum, shortly and more or less sparsely pubescent; scutellum small, triangular. Corium about twice as long as broad, lateral margins nearly parallel. Cuneus narrow, longer than broad. Peritreme of metathoracic glands small. Membrane with a large somewhat subquadrate basal cell; legs moderately slender, not spinulose.

Right paramere broad, plate-like. Left paramere with apical portion strongly curved, narrowed, and sickle-like.

Measurement (in mm): Head length 0.2, width 0.6, interocular length 0.3; antennal segment length 0.3, 0.6, 0.3, 0.3; rostrum length 1. Pronotal length 0.55, width 0.9, claval commissure length 0.5. Scutellum length 0.3, width 0.3, cuneus length 0.5, width 0.2; cuneus apex to membrane apex 0.3, largest width of both hemelytra at response 0.8; basal width 0.8, body length 2.6.

Holotype: Taitung: Lanhu, VIII-10-2000, W. T. Yang. Paratype same as holotype, 2 and 5.

This species is similar to *E. pallidiscutum* (Poppius, 1915), but can be identified by the greenish color, small body size and the shape of genitalia.

Remark: Both *E. pallidiscutum* (Poppius, 1915) and *E. brevis* sp. n. can be collected from the leaves of *Alocasia macrorrhiza* (L.) Schott & Endl.

*Ernestinus nigriscutum* sp. n.

Male: Head including eyes black. First antennal segment whitish gray, second segment black, basal 1/2 of third segment whitish gray, the remaining segments black. Rostrum yellow whitish. Pronotum and scutellum black. Corium black or fuscous except basal and apical whitish; clavus black; cuneus whitish with apical 1/3 black; membrane shining whitish hyaline, the basal cellular area fuscous. Body beneath black. Legs whitish gray, apical 1/5 of tibia and tarsus brown.

Body elongate oval, covered with punctures which are small but distinct, Head semi-globular, broader than long; eyes large and globular, almost touching the anterior margin of the pronotum. Antennae inserted in front of eyes, longly extending on front of head, first antennal segment cylindrical and smaller basally, its apical area moderately thickened, second segment moderately thickened, about twice as long as first, is the thickest and the longest, pubescent with long hairs, the apical 2 segments smaller and slender. Rostrum reaching the third coxae. Pronotum about as long as breadth at base, excluding the anterior area convexly rounded and there thickly punctated, anterior area distinctly foveolate near middle, posterior margin truncate, not covering base of scutellum, shortly and more or less sparsely pubescent; scutellum small, triangular. Corium about twice as long as broad, lateral margins nearly parallel. Cuneus narrow, longer than broad. Peritreme of metathoracic glands small. Membrane with a large somewhat subquadrate basal cell; legs moderately slender, not spinulose.

Right paramere broad, plate-like and inwardly folded. Left paramere with apical portion strongly narrowed and beak-like.

Measurement (in mm): Head length 0.2, width 0.75, interocular length 0.45; antennal segment length 0.4, 0.8, 0.45, 0.45; rostrum length 1. Pronotal length 0.8, width 1.1, claval commissure length 0.5. Scutellum length 0.4, width 0.4, cuneus length 0.7, width 0.25; cuneus apex to membrane apex 0.8, largest width of both hemelytra at response 1.1; basal width 1.4, body length 3.5.

Female: Very similar to male except underneath of thorax light brown instead of black.

Holotype: TAINAN: Paihoshuiku, 17-IV-1992, C. Y. Li (NMNS/ENT1446-2149); Paratype: NANTOU: Tongpu, 18-23-XI-1981, T. Lin & W. S. Tang, 1 ; PINTUNG: Kenting, 18-23-III-1981, K. S. Lin & T. Lin, 1 , 27-1/XI-XII-1990, C. K. Starr, 1 (NMNS/ENT 756-54); NANTOU: Lienhuachih (650m), VI-1984, XI-1984, K. S. Lin & K. C. Chou (Malaise trap), 2

This species is very similar to *E. pallidiscutum* (Poppius, 1915), but can be distinguished by the first antennal segment whitish gray, second antennal segment black with long hairs, corium black and the shape of parameres.

*Ernestinus pallidiscutum* (Poppius, 1915)

*Pycnofurius pallidiscutum* Poppius, 1915, Arch. Naturg. 80: 58-59

*Ernestinus pallidiscutum* (Poppius 1915), Kontyū 33:158.1965, comb. nov.

Male: Head including eyes black. First antennal segment whitish gray, second segment black with basal one half pale gray, the remaining joints fuscous. Rostrum pale brown. Scutellum black except apical tip brown. Corium whitish gray, a little beyond middle with a fuscous spot; clavus black; cuneus whitish with apical 1/3 fuscous. Membrane shining whitish, the basal cellular areas fuscous. Body underneath

shining black. Legs whitish gray.

Body elongate oval, covered with punctures which are small but distinct on pronotum, few on basal half of scutellum, shortly and more or less sparsely pubescent. Head semi-globular; eyes large and globular. First antennal segment cylindrical and smaller basally, second segment the thickest and the longest, pubescent with long hairs, the apical 2 segments smaller and slender. Pronotum with anterior portion moderately convex, distinctly foveolate in the center of constriction; scutellum triangular. Peritreme of metathoracic glands small.

Right paramere broad, irregularly swollen, apical portion with round end; left paramere with apical portion strongly narrowed but the extreme apex obtuse.

Measurement (in mm): Head length 0.2, width 0.6, interocular length 0.3; antennal segment length 0.4, 0.7, 0.6, 0.6; rostrum length 1. Pronotal length 0.6, width 1.0, claval commissure length 0.5. Scutellum length 0.3, width 0.3, cuneus length 0.6, width 0.3; cuneus apex to membrane apex 0.5, largest width of both hemelytra at response 1.1; basal width 1.2, body length 3.2.

Female: Redescription of the holotype

Head including eyes fuscous. First antennal segment whitish gray, second segment fuscous with basal half gray whitish, the remaining 2 segments grayish white. Rostrum pale brown. Pronotum black. Scutellum brown except basal with fuscous. Corium whitish gray, a little beyond half with circular fuscous spot; clavus fuscous, cuneus whitish gray with apical 1/2 fuscous. Membrane shining whitish gray, the basal cellular areas fuscous. Body underneath fuscous. Legs whitish gray.

Body elongate oval, covered with punctures which are small but distinct on pronotum, shortly and more or less sparsely pubescent. Head semiglobular; eyes large and globular. Antennae pubescent with long hairs, first segment cylindrical and small basally, second segment the longest,

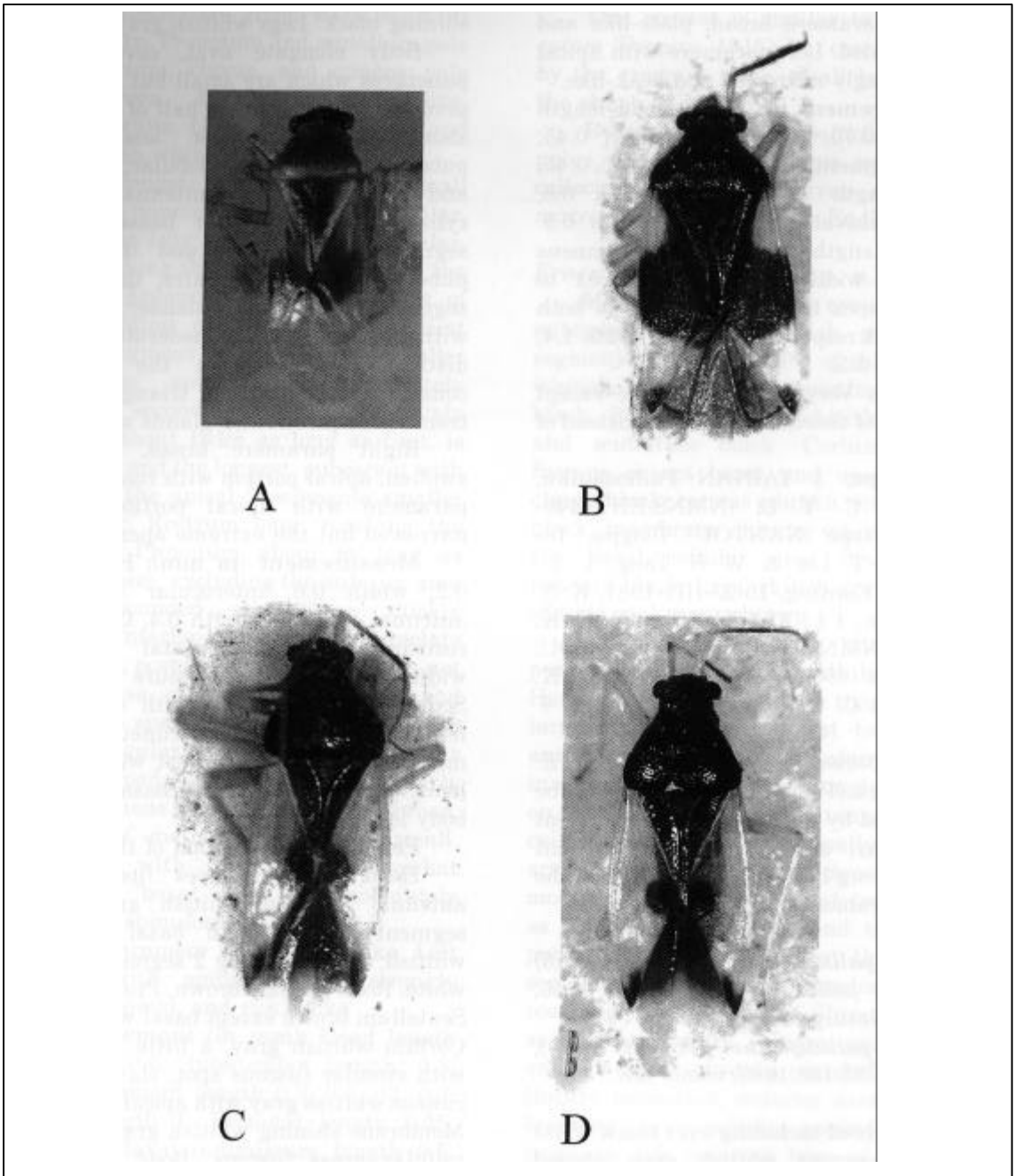


Fig. 1 Dorsal views of A. *Ernestinus brevis* sp. n.; B. *Ernestinus nigriscutum* sp n.; C. *Ernestinus pallidiscutum*. (Poppius, 1915) holotype; D. *Ernestinus pallidiscutum*(Poppius, 1915).

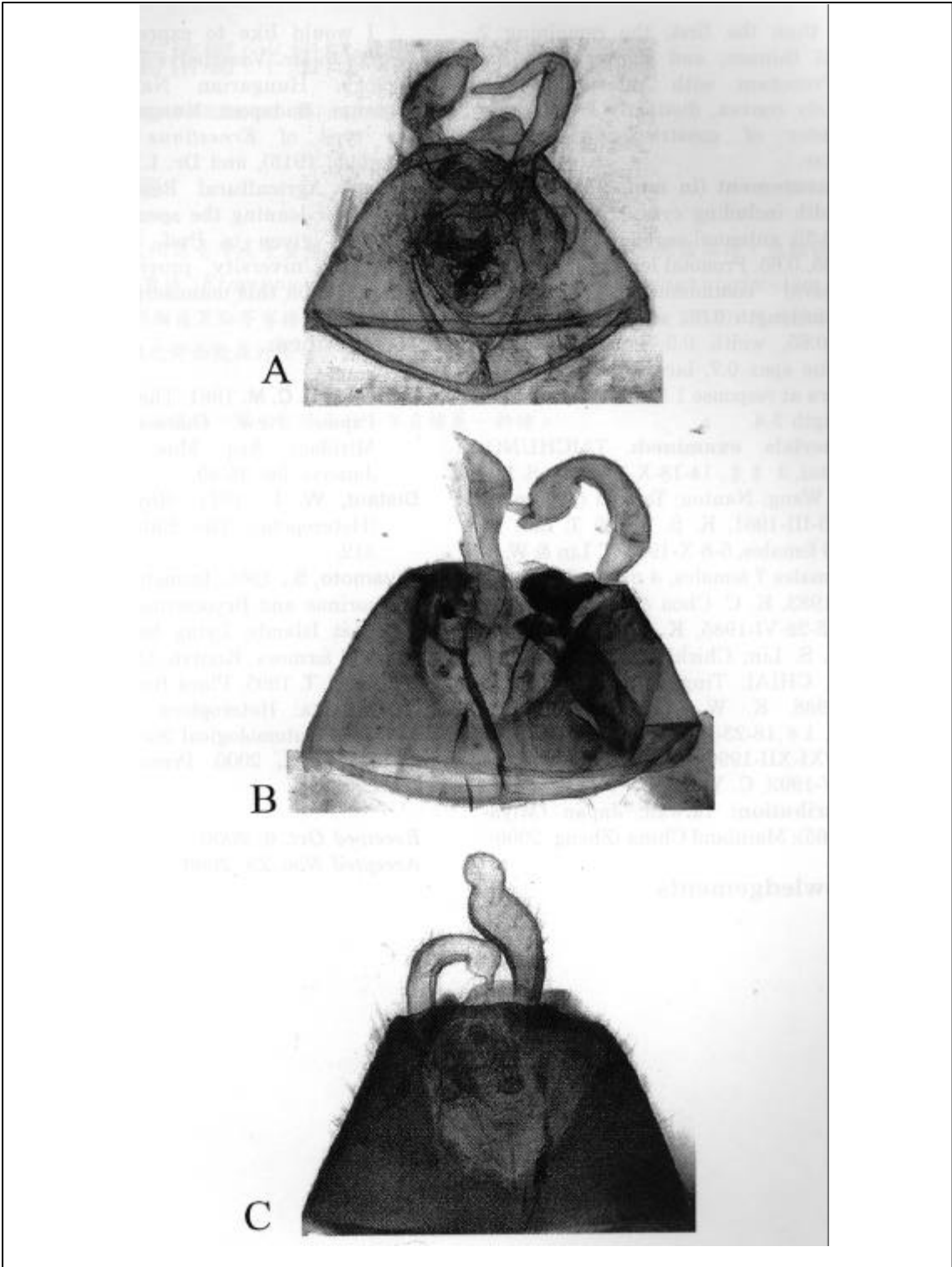


Fig. 2 Genitalia and parameres of A. *Ernestinus brevis* sp. n.; B. *Ernestinus nigriscutum* sp. n.; C. *Ernestinus pallidiscutum* (Poppius, 1915).

thinner than the first, the remaining 2 segments thinner, and shorter than the second. Pronotum with anterior portion moderately convex, distinctly foveolate in the center of constriction; scutellum triangular.

Measurement (in mm): Head length 0.15, width including eyes 0.6, interocular length 0.32; antennal segment length 0.45, 0.75, 0.65, 0.65. Pronotal length 0.85, width 1.0, claval commissure length 0.5. Scutellum length 0.35, width 0.35, cuneus length 0.65, width 0.3; cuneus apex to membrane apex 0.7, largest width of both hemelytra at response 1.5; basal width 1.25, body length 3.4.

Materials examined: TAICHUNG: Chiapaotai, 3, 14-18-X-1980, K. S. Lin & C. H. Wang; Nantou: Tongpu (1200m), 1, 18-23-III-1981, K. S. Lin & T. Lin; 16 males 16 females, 5-8-X-1981, T. Lin & W. S. Tang; 6 males 7 females, 4 males 7 females, 10-14-I-1983, K. C. Chou & S. P. Huang; 1, 25-28-VI-1985, K. S. Lin; 1, XII-1985, K. S. Lin; Chichitashan, 2, 12-XI-1987; CHIAI: Tingpinglin, 3, 1, 16-XII-1988, K. W. Huang; PINTUNG: Kenting, 1, 18-23-III-1981, K. S. Lin; 4, 27-1/XI-XII-1990, C.K. Star; 3, 3, 26-IV-1992, C. Y. Li,

Distribution: Taiwan, Japan (Miyamoto, 1965); Mainland China (Zheng, 2000).

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# 臺灣產芋盲椿屬(半翅目：盲椿科)

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## 摘 要

本文描述臺灣產芋盲椿屬 (Genus *Ernestinus* Distant) 昆蟲三種，包括兩新種：微芋盲椿 (*Ernestinus brevis* sp.n.) 及黑胸芋盲椿 (*Ernestinus nigriscutum* sp.n.)。重新描述黑點芋盲椿 (*Ernestinus pallidiscutum* (Poppius, 1915)) 模式標本，並附各種之背面觀及外生殖器圖。

關鍵詞：盲椿科、單室盲椿亞科、芋盲椿屬、新種。