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## Cyclommatus taiwanus Bomans, a New Synonym of *C. asahinai* Kurosawa (Coleoptera: Lucanidae) 【Scientific note】

### Cyclommatus taiwanus Bomans為*C. asahinai* Kurosawa的新異名 (鞘翅目：鍬形蟲科) 【科學短訊】

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#### Abstract

*Cyclommatus taiwanus* Bomans was described based on the specimens obtained from central Taiwan. By examining its types and the holotype of *Cyclommatus asahinai* Kurosawa, we agree that *C. taiwanus* is a junior synonym of *C. asahinai*, and the allotype female of *C. taiwanus*, in fact, belongs to *C. scutellaris* Möllenkamp.

#### 摘要

Bomans依據得自南投縣埔里的標本描述*Cyclommatus taiwanus*。經檢查其正模式 (holotype) 標本後，確認該名為艷細身赤鍬形蟲*C. asahinai* Kurosawa之次異名，而其別模式 (allotype) 雌蟲標本實為細身赤鍬形蟲*C. scutellaris* Möllenkamp。

#### Key words:

#### 關鍵詞:

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## *Cyclommatus taiwanus* Bomans, a New Synonym of *C. asahinai* Kurosawa (Coleoptera: Lucanidae)

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### ABSTRACT

*Cyclommatus taiwanus* Bomans was described based on the specimens obtained from central Taiwan. By examining its types and the holotype of *Cyclommatus asahinai* Kurosawa, we agree that *C. taiwanus* is a junior synonym of *C. asahinai*, and the allotype female of *C. taiwanus*, in fact, belongs to *C. scutellaris* Möllenkamp.

The family Lucanidae in Taiwan is diverse. More than 50 species have been known from the island and its islets, and several additional species are awaiting identification. Three *Cyclommatus* species, *C. scutellaris* Möllenkamp, *C. asahinai* Kurosawa, and *C. mnischechi* (Thomson), were recognized from Taiwan after several decades of extensive collecting by Japanese and Taiwanese researchers and enthusiasts (Sakaino, 1980; Wang, 1990, 1994; Chang, 1993, 1999; Mizunuma and Nagai 1994; Sakaino *et al.*, 1994; anonymous, 2002). Bomans (1990) described *Cyclommatus taiwanus* based on the type series of six specimens obtained (probably purchased) from Puli Township, Nantou County, central Taiwan. He gave a detailed comparison, including illustrations of the male genitalia, between this species and *C. scutellaris* Möllenkamp. Since then the identity of *C. taiwanus* has been little

understood, and a few authors suspected that it is a synonym of *C. asahinai* (Tanikado, 1992; Araya, 1996; anonymous, 2002).

Recently we were able to examine the type specimens of *C. taiwanus* and *C. asahinai*. The holotype of *C. taiwanus* has a patch of hairs near the apex of each front tibia; its elytra are smooth and very weakly punctate. These traits are shared with *C. asahinai*. Further, the male genitalia of *C. taiwanus* illustrated by Bomans (1990) exactly match those of *C. asahinai*. The mandibles of the holotype of *C. taiwanus* are similar to the form of *C. asahinai* shown in Fig. N<sub>2</sub>-3 in Chang (1993, p.29). Accordingly we agree that *C. taiwanus* is a junior synonym of *C. asahinai*. The allotype of *C. taiwanus* is featured with two short black stripes on the humeri and this character is identical in *C. scutellaris*.

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***Cyclommatus asahinai* Kurosawa, 1974**

*Cyclommatus arbersi asahinai* Kurosawa, 1974: 103. Sakaino, 1980: 24. Wang, 1990: 65; 1994: 85. Chang, 1993: 67. Sakaino *et al.*, 1994: 122.

*Cyclommatus strigiceps asahinai* Kurosawa: Lacroix, 1988: 7.

*Cyclommatus asahinai* Kurosawa: Mizunuma and Nagai, 1994: 231. Chang, 1999: 46; 2000: 116.

*Cyclommatus taiwanus* Bomans, 1990: 263. (**syn. nov.**) Tanikado, 1992: 25. Araya, 1996: 22.

Type material of *C. asahinai* examined: holotype ♂, "10 VIII 1936 Taiheizan TAIHEIZAN/ HOLOTYPE *Cyclommatus albersi asahinai* Y. KUROSAWA 1974" (in the National Science Museum, Tokyo); types of *C. taiwanus* examined: holotype ♂, "Holotype/ H. Bomans det., 1974. *Cyclommatus taiwanus* n.sp./ TAIWAN- Puli- iv-1972 coll. H. Bomans/ 5176a/ H.E. Bomans BMNH(E) 1999-248"; allotype ♀, with identical data except "Allotype" and "5176b"; paratypes: 1 ♂, "Paratype/ TAIWAN- Puli-iv-1972 coll. H. Bomans/ 5177a/ H.E. Bomans BMNH(E) 1999-248"; 1 ♀, "Paratype/ TAIWAN- Puli- iv-1972 coll. H. Bomans/ 5178a/ H.E. Bomans BMNH(E) 1999-248" (in the Natural History Museum of London).

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# *Cyclommatus taiwanus* Bomans 爲 *C. asahinai* Kurosawa 的新異名 (鞘翅目：鍬形蟲科)

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## 摘 要

Bomans 依據得自南投縣埔里的標本描述 *Cyclommatus taiwanus*。經檢查其正模式 (holotype) 標本後，確認該名爲艷細身赤鍬形蟲 *C. asahinai* Kurosawa 之次異名，而其別模式 (allotype) 雌蟲標本實爲細身赤鍬形蟲 *C. scutellaris* Möllenkamp。