

[研究文章 Research Article]

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## First Report of the Family Scirtidae (Insecta: Coleoptera) from Kinmen Island and Lanyu Island, Taiwan

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**Abstract:** The beetle family Scirtidae comprises five genera and 15 species in Taiwan. Until now, Scirtidae were not known from the offshore islands of Taiwan. We report the first record of Scirtidae from Kinmen Island and Lanyu Island based on field research and examination of museum collections.

**Keywords:** new records, *Scirtes japonicus*, aquatic insect, offshore islands, Taiwan

### Introduction

The family Scirtidae occur world-wide but are absent from arid areas (Watts & Kwick, 2019). They are common in wetlands where the larvae are mostly aquatic, but all adults are terrestrial insects. Five genera and 15 species are known in Taiwan (Miwa, 1931; Yoshitomi & Satô, 1996, 2004; Yoshitomi, 2001, 2005, 2010, 2012; Ruta, 2010), but until now, all records have been reported from Taiwan Island only.

Since 2020, we have been conducting research on the aquatic insect fauna of offshore islands in Taiwan, including the already published report on aquatic beetles of Penghu Islands (Liu et al., 2020), Dytiscidae and Hydrophilidae of Kinmen Islands and Lanyu Island (Liu et al., 2021; Liu et al., 2021; Wang et al., 2021). Based on this research, we have discovered six families of aquatic beetles, and the number of known species has increased from 16 to over 40. In this study, we report Scirtidae from Kinmen Island and Lanyu Island for the first time.

### Materials and methods

All specimens were collected using water nets and light traps. Male genitalia were dissected from water-relaxed specimens and examined in temporary glycerine slides without cover glasses. The genitalia were then transferred directly to glycerine for examination. After the examination, the aedeagus was rinsed in 95% alcohol and mounted in Euparal on a small slide below the respective specimen. In some duplicate specimens, the aedeagus was mounted on the same card as the specimen using water-soluble glue. Male genitalia and morphological characters were examined using a Leica DM750 compound microscope.

The materials examined in this paper are deposited at the Department of Entomology, National Chung Hsing University, Taichung City, Taiwan (NCHU: Man-Miao Yang, Sheng-Feng Lin); the first author's collection (HCLC: Hsing-Che Liu's private collection, Hsinchu County, Taiwan) and Ehime University Museum (EUMJ).

### Results

#### *Scirtes japonicus* Kiesenwetter, 1874

日本圓花蚤

(Fig. 1)

*Scirtes japonicus* Kiesenwetter, 1874: 244.

*Scirtes japonicus*: Pic, 1914: 42; Yano et al., 1983: 114 (Tainan).

**Material examined. TAIWAN:** 5 ex., Hsinchu County, Beipu Township (北埔鄉), N24.70755 E121.06077, 29.III.2019, H.-C. Liu leg. (HCLC); 7 ex., Kinmen Island (金門島), 5–10.VII.2020, In the pond, H.-C. Liu leg. (NCHU, HCLC); 1 ♂, Taitung, Lanyu (蘭嶼), Kaiyuan Port (開元港), N22.059182 E121.509229, 14.V.2021, C.-H. Ma leg, by light (NCHU); 2 ex., Hualien County, Yuli Township (玉里鄉), N23.30001 E121.32647, 1.IV.2022, H.-C. Liu leg. (HCLC); 1 ex., Lanhsu, Taiwan, 5–10.VIII.1998, M. Sato leg. (EUMJ).

**Diagnosis.** Body length 3.8–4.3 mm. Body elongate, dorsal surface darker brown (Fig. 1A, C); Metatibia are rather well developed; Median lobe slightly longer than parameres, wide basally, narrowing at apex, but slightly rounded at ca.1/9; parameres very slender (Fig. 1B).

**Distribution.** This species is widely distributed in Eastern Asia, Hawaii Islands; it is a common species at low altitude in Taiwan (Yano et al., 1983; Yoshitomi, 2005, 2008), Kinmen Island. (new record) and Lanyu Island. (new record).

**Bionomics.** This species inhabits stagnant water pools with rich aquatic plants (Fig. 1D). Some specimens can be collected from light traps.

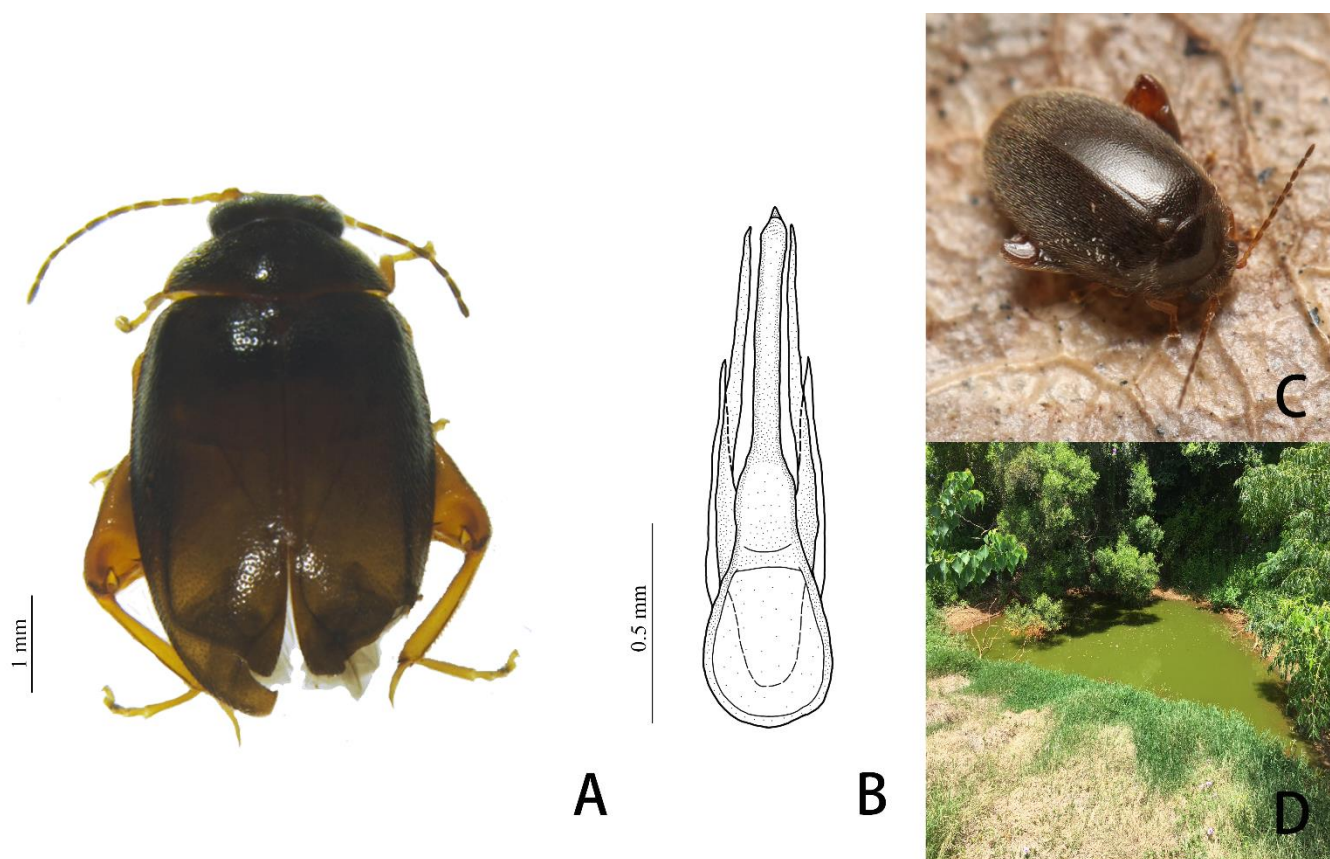


Figure 1. *Scirtes japonicus*. A – dorsal habitus; B – male genitalia, dorsal view; C – living individual, photo from Lanyu Island, photo by C.-H. Ma; D – habitat, from Kinmen Island.

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## 臺灣金門島及蘭嶼的圓花蚤科（昆蟲綱：鞘翅目）首次報告

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**摘要：**圓花蚤科在臺灣已知 5 屬 15 種，但臺灣離島尚未有圓花蚤科的報導。本研究根據實地考察和博物館標本檢查，首次報導金門群島和蘭嶼的圓花蚤科紀錄。

**關鍵字：**新紀錄、日本圓花蚤、水棲昆蟲、離島、臺灣