

琉球大学学術リポジトリ

石垣島におけるピサヤアカアシカタゾウムシの発生 (コウチュウ目ゾウムシ科クチブトゾウムシ亜科)

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Occurrence of *Metapocyrtus (Trachycyrtus) adspersus* (Waterhouse) (Coleoptera, Curculionidae, Entiminae) on Ishigakijima Island, the Ryukyus, Japan

Hiraku Yoshitake¹, Ryota Seki², Hiroaki Kojima³, Takafumi Onuma²
& Tomomi Kagiya⁴

¹Tsukuba, Ibaraki 305-0035, Japan
(e-mail: ceutorhynchinae@gmail.com)

²Graduate School of College of Agriculture, Tamagawa University, 6-1-1 Tamagawagakuen, Machida, Tokyo 194-0041, Japan

³Laboratory of Entomology, Tokyo University of Agriculture, 1737 Funako, Atsugi, Kanagawa 243-0034, Japan

⁴Ishigaki, Okinawa 907-0332, Japan

Abstract. An alien Pachyrhynchini weevil, *Metapocyrtus (Trachycyrtus) adspersus* (Waterhouse, 1843), is newly recorded from Ishigakijima Island, the Yaeyama Islands, Ryukyus, Japan. On Ishigakijima Island, the adults were found on shrubbery at an airport and a resort. There are concerns that this weevil will expand its distribution range on Ishigakijima Island, cause damage to cultivated plants, and subsequently disperse from Ishigakijima to other islands in the Yaeyama Islands.

Introduction

Metapocyrtus (Trachycyrtus) adspersus (Waterhouse, 1843) is a flightless curculionid weevil belonging to the tribe Pachyrhynchini, subfamily Entiminae (Yap 2008). This weevil was originally distributed in the Visayas in the Philippine Islands, but has been accidentally introduced to Peninsular Malaysia, Singapore, and Japan (Yoshitake et al. 2016; Yoshitake & Tsuji 2019). This weevil is associated with a remarkably wide variety of plants and the larvae grow and pupate in the rhizospheric soil of their host (Yoshitake et al. 2023).

In the Ryukyus, southwestern Japan, *M. (T.) adspersus*, which was introduced unintentionally to Okinawajima Island from the Philippines in the 2010s, has hitherto been recorded from Okinawajima, Yagajishima, and Senagajima in the Okinawa Islands, as well as from Ikemajima Island in the Miyako Islands (Yoshitake et al. 2023; Yoshitake & Fujita, 2024). On Okinawajima Island, this polyphagous weevil has rapidly expanded its distribution range since 2018, attacking fruit trees in orchards (Yoshitake et al. 2023; Okinawa Prefectural Plant Protection Center 2023). Yoshitake et al. (2023)

pointed out the risk of its invasion to Miyakojima and Ishigakijima islands, which have active human and material exchanges with Okinawajima Island, in addition to further distribution expansion within the Okinawa Islands.

We herein record *M. (T.) adspersus* for the first time from Ishigakijima Island, the Yaeyama Islands, Ryukyus, Japan. The survey at one locality was conducted by R. Seki and T. Onuma, while the survey at the other locality was conducted by H. Kojima and T. Kagiya. Plant nomenclature follows Yonekura & Kajita (2003–). Voucher specimens are primarily preserved in the Laboratory of Entomology, Tokyo University of Agriculture, Atsugi, as well as in the private collections of H. Yoshitake, R. Seki, and T. Onuma.

Metapocyrtus (Trachycyrtus) adspersus (Waterhouse, 1843)

(Figs. 1, 2)

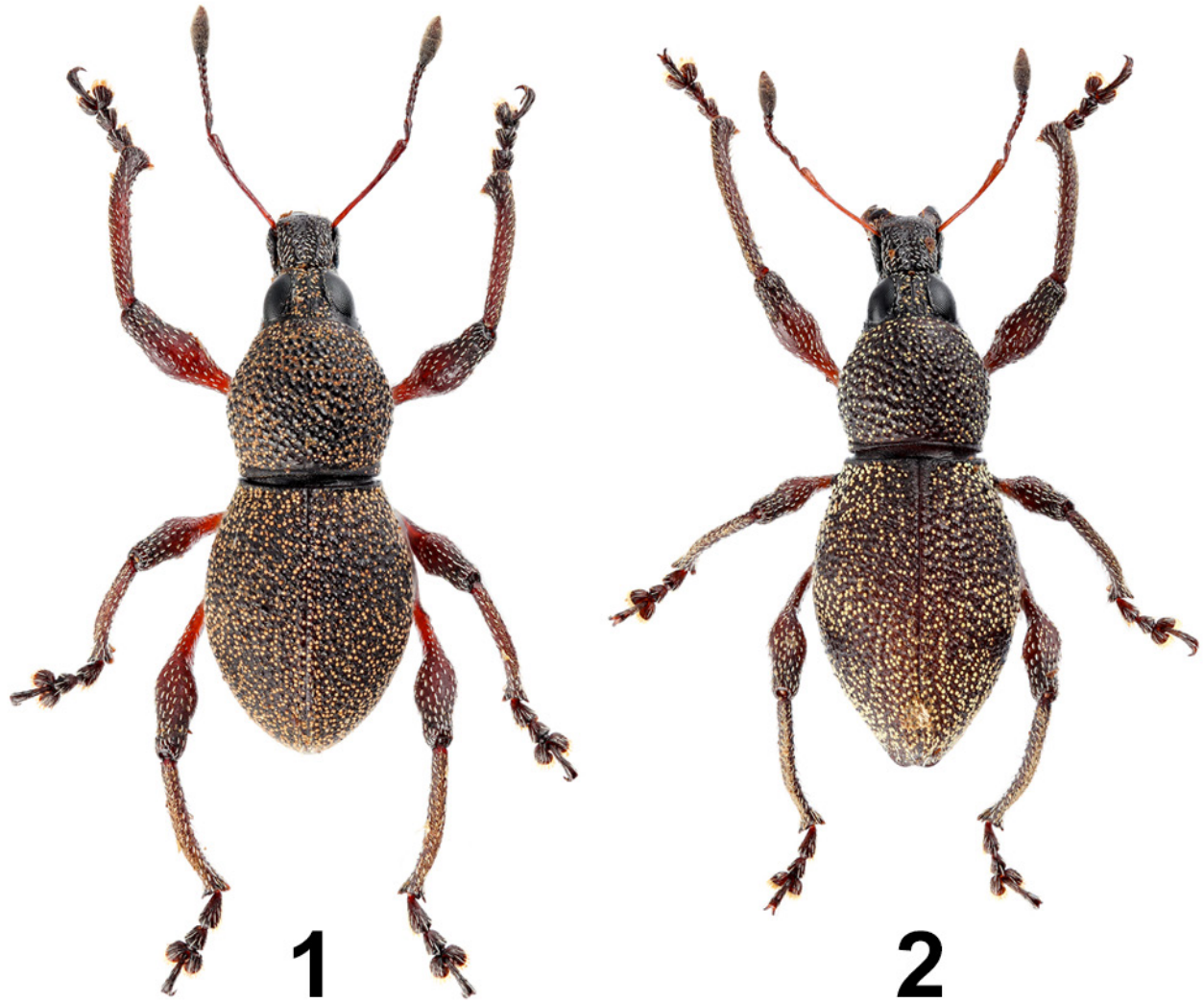
Apocyrtus adspersus Waterhouse 1843: 254 (type locality: “Philippine Islands”).

Metapocyrtus (Trachycyrtus) adspersus:

Yoshitake & Tsuji 2019: 178 (Okinawajima Island; introduced); Yoshitake et al. 2023: 4 (Okinawajima Is., Yagajishima Is., Senagajima Is.; ecology); Yoshitake & Fujita 2024: 51 (Ikemajima Is.).

See Yoshitake et al. (2023) for details.

Specimens examined. [Japan: Okinawa Pref.] 4♂ 4♀, Ishigaki-shi, Arakawa, 16. V. 2023, H. Kojima leg., on *Hibiscus* sp. & *Acalypha wilkesiana* cv. *Heterophylla*. 2♂13♀ (Figs. 1, 2), Ishigaki-shi, Shiraho, 7. IX. 2023, R. Seki & T. Onuma leg.; 1♂6♀, 11. IX. 2023, R. Seki leg., on *Pittosporum*



Figs. 1, 2. *Metapocyrtus (Trachycyrtus) adpersus* adults from Ishigakijima Island. 1, Male; 2, female.
 図1, 2. 石垣島産ビスヤアカアシカタゾウムシ成虫 . 1, ♂; 2, ♀.

tobira, *Scaevola taccada* & *Morus australis*.

Distribution. Japan: the Ryukyu Islands (introduced: Okinawajima Is., Yagajishima Is., Senagajima Is., Ikemajima Is.; Ishigakijima Is. – new record); the Philippines: Visayas, Mindanao (Davao City; introduced?); Peninsular Malaysia (introduced); Singapore (introduced).

Remarks. On Ishigakijima Island, *Metapocyrtus (Trachycyrtus) adpersus* adults were found on shrubbery at an airport in Shiraho and a resort in Arakawa, respectively (Figs. 3–10). At the airport, the adults were observed feeding and reposing on leaves of *Pittosporum tobira* (Pittosporaceae; Tobera in Japanese) (Figs. 3–5), as well as reposing on leaves of *Scaevola taccada* (Goodeniaceae; Kusatobera in Japanese) (Fig. 6) and copulating on leaves of *S. taccada* and *Morus australis* (Moraceae; Yamaguwa / Shimaguwa in Japanese), whereas, in

the resort, the adults were collected from *Hibiscus* sp. (Malvaceae; Haibisukasu in Japanese) and *Acalypha wilkesiana* cv. *Heterophylla* (Euphorbiaceae; Hosobakifukurinakarifa in Japanese) (Figs. 7–10). Yoshitake et al. (2023) mentioned that *M. (T.) adpersus* is rapidly expanding its distribution range on Okinawajima Island, probably mainly due to human activities such as plant transportation and subsequent adult dispersal by walking from each invasion point. Recently, Okinawa Prefectural Plant Protection Center (2023) issued a special report on this weevil attacking several fruit trees (coffee, shikwasa, tankan, mango, passion fruit, avocado, and loquat) on Okinawajima Island and warned of further distribution expansion into uninvaded areas and the occurrence of agricultural damage caused by this weevil within the prefecture. It is necessary to keep monitoring *M. (T.) adpersus* not only on



Figs. 3–6. *Metapocyrtus (Trachycyrtus) adspersus* adults found on shrubbery at an airport on Ishigakijima Island. 3, A female reposing on a *Pittosporum tobira* leaf; 4, same as 3; 5, a feeding scar on a *P. tobira* leaf; 6, a female reposing on a *Scaevola taccada* leaf.

図3–6. 石垣島の空港内の植栽上で発見されたビサヤアカアシカタゾウムシ成虫. 3, トベラ葉上で静止中の♀; 4, 同左; 5, トベラの葉に残された食痕; 6, クサトベラ葉上で静止中の♀.

Ishigakijima Island but within the entire Yaeyama Islands, and especially to track its invasion into orchards and subsequent dispersal from Ishigakijima to other islands in this district.

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Figs. 7–10. Occurrence status of *Metapocyrtus (Trachycyrtus) adpersus* in a resort on Ishigakijima Island. 7, One of the occurrence points; 8, same as 7; 9, one of the adult food plants, *Hibiscus* sp.; 10, same as 9, *Acalypha wilkesiana* cv. *Heterophylla*.

図 7–10. 石垣島のリゾート施設におけるビスヤアカアシカタゾウムシの発生状況. 7, 発生地点の一つ; 8, 同左; 9. 成虫の食餌植物の一つ, ハイビスカス; 10, 同左, ホソバキフクリンアカリファ.

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石垣島におけるビスヤアカアシカタゾウムシの発生 (コウチュウ目ゾウムシ科クチブトゾウムシ亜科)

吉武啓¹・関峻大²・小島弘昭³・小沼貴文²・鍵山智美⁴

¹ 〒305-0035 茨城県つくば市

² 〒194-0041 東京都町田市玉川学園 6-1-1 玉川大学大学院農学研究科

³ 〒243-0034 神奈川県厚木市船子 1737 東

京農業大学昆虫学研究室

⁴ 〒907-0332 沖縄県石垣市

要旨・石垣島未記録であったカタゾウムシ族のビスヤアカアシカタゾウムシを同島から初めて報告した。本種はフィリピン原産、広食性の外来種で、国内ではこれまでに沖縄諸島（沖縄島、屋我地島、瀬長島）および宮古諸島（池間島）における発生が確認されており、沖縄島では2018年以降の急速な分布拡大と果樹の被害が報告されている。今回、新たに石垣島内の空港とリゾート施設の敷地内の植栽上でそれぞれ発見されたことから、今後同島における分布拡大、植栽・果樹等における被害発生、そして石垣島から周辺離島への二次的分散が懸念される。

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