

A journal of world insect systematics

INSECTA MUNDI

1077

New country records and annotated checklist of non-Dacini Tephritidae (Diptera) in Bangladesh

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Date of issue: October 25, 2024

Center for Systematic Entomology, Inc., Gainesville, FL

Hossain MA, Norrbom AL, Leblanc L, Hossain MF, Sehel K. 2024. New country records and annotated checklist of non-Dacini Tephritidae (Diptera) in Bangladesh. *Insecta Mundi* 1077: 1–13.

Published on October 25, 2024 by
Center for Systematic Entomology, Inc.
P.O. Box 141874
Gainesville, FL 32614-1874 USA
<http://centerforsystematicentomology.org/>

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Electronic copies (online ISSN 1942-1354) in PDF format

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New country records and annotated checklist of non-Dacini Tephritidae (Diptera) in Bangladesh

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Abstract. Tephritidae (Diptera) were sampled in Bangladesh between 2019 and 2023 by hand-collecting on bamboo shoots and using traps separately baited with 2-component BioLure (ammonium acetate and putrescine) or torula yeast. We report here results of our surveys that yielded 1,907 specimens of 20 species belonging to subfamilies or tribes other than Dacini. New species occurrence records for Bangladesh include *Acroceratitis bimacula* Hardy, *A. parastrata* David and Hancock, *Galbifascia soalia* (Séguy), and *Xanthorachis annandalei* Bezzi (Dacinae, Gastrozonini), *Felderimyia fuscipennis* Hendel, *Ptilona conformis* Zia, and *Tritaeniopteron tetraspilotum* Hardy (Phytalminae, Acanthonevrini), *Adrama apicalis* Shiraki, *Euphranta flavothoracica* (David, Hancock and Sachin), and an undescribed species of *Euphranta* (Trypetinae, Adramini), *Callistomyia pavonina* Bezzi (Trypetinae, Callistomyiini), and *Philophylla fossata* (Fabricius) (Trypetinae, Trypetini). Additional records of *Acroceratitis ceratitina* (Bezzi), *Gastrozona fasciventris* (Macquart), and *G. soror* (Schiner) (Dacinae, Gastrozonini), *Diarrhegma modestum* (Fabricius), *Rioxoptilona dunlopi* (Wulp), and *R. vaga* (Wiedemann) (Phytalminae, Acanthonevrini), and *Dimeringophrys pallidipennis* Hardy and *Euphranta cassiae* (Munro) (Trypetinae, Adramini), previously known in Bangladesh, also are reported. We provide an annotated checklist of the 31 species of Tephritidae other than Dacini now known to occur in Bangladesh.

Key words. Fruit flies, distribution, hosts, taxonomy, Dacinae, Trypetinae, Tephritinae, Phytalminae.

ZooBank registration. urn:lsid:zoobank.org:pub:9A0126FA-E729-4437-BCCB-593CAE8482F2

Introduction

Tephritidae (true fruit flies), with more than 5,000 described species in seven subfamilies, is one of the largest families of Diptera (Pape et al. 2011; Namin and Korneyev 2018). The group is very diverse in the Oriental Region (David et al. 2019). Though commonly perceived to be frugivorous, Tephritidae exhibit a breadth of feeding habits, such as leaf or stem mining, inducing galls, feeding in flowers or flower heads, saprophagy, and parasitism. The

larvae of Oriental Gastrozonini and some Acanthonevrini live in bamboo stems, feeding either as saprophages or phytophages (Dohm et al. 2014). The subfamilies Dacinae and Trypetinae also include numerous invasive pests of quarantine concern across the world (Heather and Hallman 2008; Vargas et al. 2015; David et al. 2019).

Bangladesh is a 147,570 km² agrarian country with an agroforestry-based economy similar to that of India, and over 70% of its people depend on agriculture for their livelihood. About 357 species of tephritid fruit flies have been reported to occur in the Indian subcontinent, of which 314 in 93 genera are known from India (Nair et al. 2018; David et al. 2019; Norrbom unpublished). Research on tephritid fruit flies in Bangladesh has traditionally mainly focused on studying the ecology of and developing field control and post-harvest treatments for cucurbit-infesting pest species of Dacini, and information on the general tephritid fauna has been limited and scattered in the literature (Bezzi 1913; Alam 1967; Kabir et al. 1991; Akhtaruzzaman et al. 1999). Ongoing, extensive field surveys of dacine flies in Bangladesh were initiated in 2013, initially focused on rural farmland and village environments throughout the country (Leblanc et al. 2013, 2014), and expanded to protected forest areas in 2016 (Leblanc et al. 2019). As a result, the number of species of Dacini recorded in Bangladesh has increased from seven to 15 (Leblanc et al. 2013), 20 (Leblanc et al. 2014), 29 (Leblanc et al. 2019) and 34 (Leblanc et al. 2021). Khan et al. (2024) recorded an additional two species.

Data on fruit flies other than Dacini in Bangladesh, on the other hand, have remained limited, with 18 species currently known from the country. Bezzi (1913) reported *Campiglossa sororcula* (Wiedemann) (as *Oxyina sororcula*), *Gastrozona fasciventris* (Macquart), *Platensina acrostacta* (Wiedemann) (as *Tephrostola acrostacta*), *Ptilona confinis* (Walker) (as *Ptilona nigriventris*), *Rioxoptilona dunlopi* (Wulp) (as *Rioxa dunlopi*), and *Taenios-tola vittigera* Bezzi. *Acrotaenios-tola spiralis* Munro was recorded by Munro (1935), *Carpomya vesuviana* Costa and *Euphranta cassiae* (Munro) by Alam (1967), *Platensina zodiacalis* (Bezzi) by Hancock (2012), *Diarrhegma modestum* (Fabricius) by Hossain and Khan (2014), and *Tephra-ciura basimacula* (Bezzi) by Leblanc et al. (2019). Khan et al. (2017) collected six species of bamboo-shoot flies: *Felderimyia gombakensis* Hancock and Drew, *Rioxoptilona dunlopi* (Wulp), *R. vaga* (Wiedemann), *Acroceratitis ceratitina* (Bezzi), *A. distincta* (Zia), and *Gastrozona soror* (Schiner). And Khan et al. (2024) reported *Dimeringophrys pallidipennis* Hardy and *Euphranta crux* (Fabricius).

To generate a more complete inventory of the non-Dacini flies in the rural farmland and village environments of Bangladesh, extensive surveys were initiated in 2019, by hand collecting on bamboo shoots and the deployment of traps baited with food lures. We report in this paper the results of our surveys, including 12 new country records, and provide an annotated checklist of all the non-Dacini species currently known to occur in the country.

Materials and Methods

A preliminary survey of the bamboo-shoot flies of Bangladesh was conducted between July 2019 and September 2020 in six districts (Fig. 1): Dhaka District, National Botanical Garden (N 23.819 E 90.342) (Sep 2020, 69 flies collected); Dinajpur District, Ramsagar National Park (N 25.550 E 88.622) (Sep 2020, 13 flies); Gazipur District, Kaliakair Upazila, Shahebabad Village (N 24.078 E 90.244) (Sep 2020, 19 flies); Gazipur District, Latifpur Village (N 23.978 E 90.287) (Sep 2020, 50 flies); Natore District, Gurudaspur Upazila (N 24.384 E 89.216) (Aug 2019, Sep 2020, 215 flies); Rangamati Hill District, Kaptai Upazila, Chitmoram Village (N 22.496, E 92.195) (Jul 2019, 13 flies); Tangail District, Shakhipur Upazila (N 24.388 E 90.154) (Sep 2020, 76 flies). On each collection day, young bamboo shoots were cut with scissors to expose fresh sap, and adults attracted to the sap were hand-collected. Additional specimens were collected from bamboo clumps/stands with plastic falcon tubes. All collected flies were immediately transferred to 95% ethanol in vials and stored in a -20°C freezer to preserve DNA for future extraction.

We also deployed MultiLure traps (Better World Manufacturing, Fresno, CA) baited with food lures (liquid yeast hydrolysate or BioLure) in seven districts (Fig. 1) between October 2020 and October 2023: Chapainawabganj District, Chapainawabganj Sadar Upazila, Regional Horticulture Research Station (N 24.601 E 88.285) (Sep–Oct 2023, 7 samples and 10 flies collected); Dhaka District, Savar Upazila, Atomic Energy Research Establishment compound (AERE) (N 23.952 E 90.278) (Feb 2021 to Mar 2023, 205 samples, 734 flies); Gazipur District,

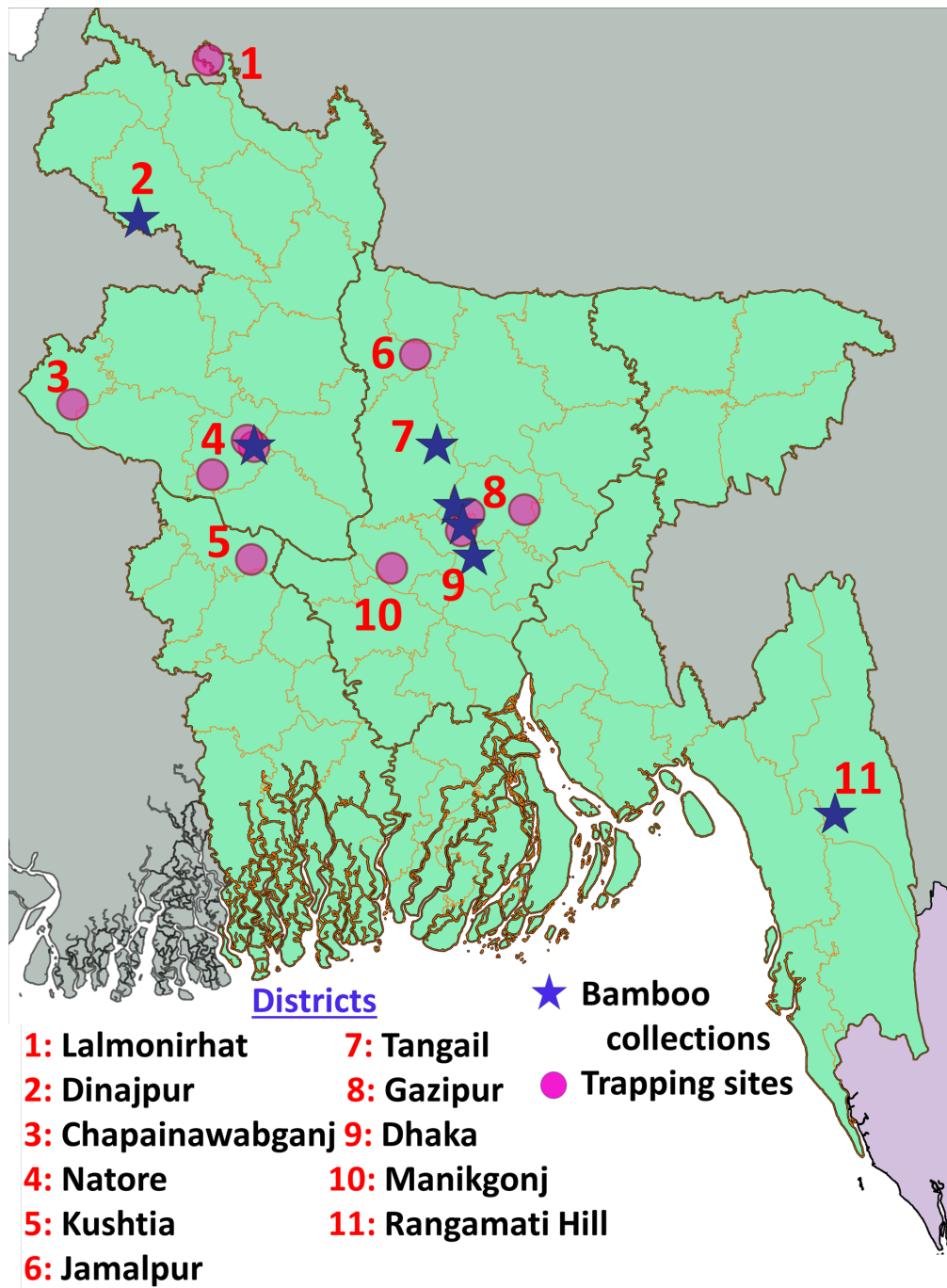


Figure 1. Trapping and bamboo sampling locations in the various Bangladesh surveys (2019–2024).

Kaliakair Upazila, Borabo Village (Sep–Oct 2022, N 24.040 E 90.319) (11 samples, 57 flies); Gazipur District, Kapasia Upazila, Fulbaria Village (Mar–Apr 2021, N 24.061 E 90.602) (2 samples, 4 flies); Jamalpur District, Jamalpur Sadar Upazila (N 24.856 E 90.043) (Apr–Jul 2022, 3 samples, 3 flies); Kushtia District, Kumarkhali Upazila, Sheikhpara Village (Apr–Sep 2022, N 23.806 E 89.202) (18 samples, 153 flies); Lalmonirhat District, Patgram Upazila, Rahmanpur Village (N 26.366 E 88.981) (Apr–May 2022, 1 sample, 1 fly); Natore District, Gurudaspur Upazila (N 24.384 E 89.216) (Oct–Nov 2020, Aug–Oct 2021, Sep–Oct 2023, 61 samples, 377 flies); Natore District, Lalpur Upazila, Bashbaria Village (N 24.241 E 89.003) (Apr–May 2022, 2 samples, 4 flies); Natore

District, Singra Upazila, Chak Kalikapur Village (N 24.418 E 89.180) (Sep–Oct 2023, 12 samples, 108 flies). One specimen of *Tritaenopteron tetraspilotum* Hardy from Manikgonj District (Fig. 1), collected in July 2024, is also included in the results as the latest new country record, but the complete sampling data from that area is not included in this paper.

The plastic MultiLure trap is similar in principle to the traditional open bottom glass McPhail trap (Steyskal 1977) but consists of a transparent cover that interlocks with an opaque yellow base that functions as a collecting vessel for trapped insects. Liquid yeast hydrolysate solution (abbreviated as YP in the results section) was prepared by dissolving four pellets (each with 2.25 g of torula yeast and 2.75 g of borax; ERA International, Freeport, NY) in 200 ml of water. Traps with 150 ml of yeast solution were hung on trees, and trapped flies were collected within 3–4 days, transferred to 95% ethanol, and stored in a -20°C freezer. BioLure (Suterra LLC, Bend, OR) (abbreviated as BL in the results section) is a synthetic food lure that consists of two or three chemical components (in this case, we used ammonium acetate and putrescine) integrated in a slow-release cone inserted into a receptacle inside the top of the trap. Approximately 200 ml of 25% (diluted in water) propylene glycol (Sigma-Aldrich, Darmstadt, Germany) was placed in the trap base to preserve captured flies, which were collected every week and preserved in 95% ethanol in a freezer. The yeast hydrolysate solution was replaced every month whereas the BioLure cone was replaced every six to eight weeks.

Preserved flies were sent to author ALN for taxonomic identification, photography and DNA extraction. Double-mounted (Leblanc 2022) and ethanol-preserved specimens are deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA, the Bangladesh Atomic Energy Commission, Dhaka, and the University of Idaho, Moscow.

Results

We collected 1,907 specimens (1,098 females, 809 males) of Tephritidae other than Dacini. Of these, 455 specimens were hand-collected on bamboo, 1,046 were trapped among 198 BL samples, and 406 were trapped among 126 YP samples. These specimens belong to 20 species. Eight species were collected on bamboo and 19 in food lure traps. The five most common species, comprising 87% of total captures, are *Rioxoptilona dunlopi* (5.3% collected on bamboo, 22.1% collected at food lure traps), *Dimeringophrys pallidipennis* (17.9%, all in food lure traps), *Acroceratitis ceratitina* (8.7% bamboo, 7.7% food lures), *Diarrhegma modestum* (16.2%, all in food lure traps), and *Gastrozona soror* (2.9% bamboo, 6.2% food lures). Twelve of the 20 collected species are new country occurrence records. We list the species here, along with other species recorded previously as present in Bangladesh but not collected in our surveys, for a total of 31 species.

Acroceratitis bimacula Hardy, 1973 (Dacinae: Gastrozonini)

Material collected. 35 females and 13 males collected on bamboo in Natore (Gurudaspur) (15 F), Rangamati Hill (Kaptai) (1 F), and Tangail (Shakhipur) (10 F), and trapped in Dhaka (Savar) (1 F, BL), Gazipur (Kaliakair) (2 F, 5 M, BL), Kushtia (Kumarkhali) (1 M, BL; 1 F, 1 M, YP), and Natore (Gurudaspur) (4 F, 6 M, BL; 1 F, YP).

Distribution. Previously reported from India (Andaman and Nicobar Is.), China (Guangxi, Yunnan), Thailand, Malaysia (Malaya), Laos, and Vietnam (Hardy 1973; Wang 1998; Hancock and Drew 1999). Newly recorded from Bangladesh.

Larval hosts. No host plants have been reported for *A. bimacula*, but larvae of other species of *Acroceratitis* breed in bamboo shoots (Dohm et al. 2014). Hardy (1973) recorded one female labeled “bud of bamboo”, but it is unclear if it was reared.

Acroceratitis ceratitina (Bezzi, 1913) (Dacinae: Gastrozonini)

Material collected. 246 females and 65 males collected on bamboo in Dhaka (National Botanical Garden) (17 F, 3 M), Dinajpur (Ramsagar National Park) (3 F), Gazipur (Kaliakair) (1 F), Gazipur (Latifpur) (15 F, 3 M), Natore (Gurudaspur) (90 F, 17 M), Rangamati Hill (Kaptai) (7 F, 4 M), Tangail (Shakhipur) (5 F), or trapped in Chapainawabganj (Chapainawabganj Sadar) (1 F, 1 M, BL), Dhaka (Savar) (1 F, BL), Gazipur (Kaliakair) (10 F, 3 M, BL,

YP), Kushtia (Kumarkhali) (48 F, 16 M, BL, YP), Natore (Gurudaspur) (37 F, 17 M, BL, YP), and Natore (Singra) (11 F, 1 M, BL, YP).

Distribution. Previously reported from Bangladesh (Dhaka) (Khan et al. 2017), and also known from Pakistan, Bhutan, India (Bihar, Jharkhand, Meghalaya, Uttar Pradesh, Uttarakhand, West Bengal), China (Yunnan), Myanmar, and Thailand (Bezzi 1913; Hardy 1973; Kapoor et al. 1980; Wang 1998; Hancock and Drew 1999; Norrbom et al. 1999; Korneyev et al. 2023).

Larval hosts. Bred from shoots of *Bambusa tulda* Roxb., *Dendrocalamus asper* (Schult. and Schult.f.) Backer, *D. membranaceus* Munro, and *D. strictus* (Roxb.) Nees (all Poaceae) (Kapoor 1993; Allwood et al. 1999; Hancock and Drew 1999).

***Acroceratitis distincta* (Zia, 1964) (Dacinae: Gastrozonini)**

Distribution. Previously reported from Bangladesh (Dhaka) (Khan et al. 2017), and also known from China (Yunnan), India (Arunachal Pradesh, Karnataka), Laos, Thailand, and Vietnam (Zia 1964; Hardy 1973; Hancock and Drew 1999; Hancock and McGuire 2002).

Larval hosts. Bred from shoots of *Bambusa pallida* Munro, *B. polymorpha* Munro, *B. tulda* Roxb., *B. vulgaris* Schrad. ex J. C. Wendl., *Dendrocalamus asper* (Schult. and Schult.f.) Backer ex K. Heyne, *D. strictus* (Roxb.) Nees (all Poaceae) (Allwood et al. 1999; Hancock and Drew 1999; Dohm et al. 2014).

***Acroceratitis parastriata* David and Hancock, 2014 (Dacinae: Gastrozonini)**

Material collected. 18 females and 2 males collected on bamboo in Natore (Gurudaspur) (4 F) and trapped in Chapainawabganj (Chapainawabganj Sadar) (1 F, 2 M, BL), Gazipur (Kaliakair) (1 F, BL), Kushtia (Kumarkhali) (8 F, BL, YP), and Natore (Gurudaspur) (4 F, BL).

Distribution. Previously reported only from India (Karnataka) (David et al. 2014). Newly recorded from Bangladesh.

Larval hosts. No host plants have been reported for *A. parastriata*, but other species in the genus breed in bamboo shoots (Dohm et al. 2014).

***Acrotaeniostola spiralis* Munro, 1935 (Dacinae: Gastrozonini)**

Distribution. Previously reported from Bangladesh (holotype from Rangamati, Chittagong Hill Tracts) (Munro 1935), but not collected in our surveys. Also known from China (Yunnan, Hainan), India (Meghalaya), Laos, Thailand, Malaysia (Sabah), and Indonesia (Sumatra) (Hardy 1973, 1988; Wang 1998; Hancock and Drew 1999; Kovac et al. 2017).

Larval hosts. The larvae of *A. spiralis* feed in stems of the foliated apical parts of twigs of the bamboo *Gigantochloa albociliata* (Munro) Kurz (Kovac et al. 2017).

***Adrama apicalis* Shiraki, 1933 (Trypetinae: Adramini)**

Material collected. 6 females trapped in Dhaka (Savar) (BL, YP).

Distribution. Previously reported from India (Himachal Pradesh, Sikkim), Myanmar, China (Yunnan, Hainan), Thailand, Laos, and Taiwan (Hardy 1973; Chan and Korneyev 2011; Wang 1998; Norrbom et al. 1999). Newly recorded from Bangladesh.

Larval hosts. Fruits of *Albizia procera* (Roxb.) Benth. (Fabaceae) (Hancock and Drew 1994; Allwood et al. 1999) and seeds of *Camellia sinensis* (L.) Kuntze (Theaceae) (White and Elson-Harris 1992).

***Callistomyia pavonina* Bezzi, 1913 (Trypetinae: Callistomyiini)**

Material collected. 8 females and 2 males trapped in Dhaka (Savar) (7 F, 2 M, BL, YP), and Gazipur (Kaliakair) (1 F, BL).

Distribution. Previously reported from Pakistan, India (Assam, Odisha, Sikkim, Uttar Pradesh, Uttarakhand,

West Bengal), Sri Lanka, southern China (Guangdong, Hainan, Hong Kong, Yunnan), Taiwan, Laos, Vietnam, Malaysia (Malaya), and Indonesia (Sumatra, Java) (Bezzi 1913; Hardy 1973, 1988; Kapoor et al. 1980; Hancock and Drew 1994; Wang 1998; David and Ramani 2011). Newly recorded from Bangladesh.

Larval hosts. Fruits of *Glycosmis pentaphylla* (Retz.) DC., *G. puberula* Lindl. ex Oliv., and *Clausena excavata* Burm. f. (all Rutaceae) (Hancock and Drew 1994). There are questionable records from *Baccaurea motleyana* (Müll. Arg.) Müll. Arg. in A. DC. (Euphorbiaceae), *Lansium domesticum* Corrêa (Meliaceae), and *Citrus maxima* (Burm.) Merr. (Rutaceae) (Hardy 1973, 1988).

***Campiglossa sororcula* (Wiedemann, 1830) (Tephritinae: Tephritini)**

Distribution. Previously reported from Bangladesh (Rajshahi) by Bezzi (1913; as *Oxyra sororcula* Wiedemann), but not collected in our surveys. A very widespread species occurring from southern Europe, across southern Asia to Japan, south to South Africa, Australia and the Pacific Islands (Wang 1998; Norrbom et al. 1999; David and Ramani 2011).

Larval hosts. A range of Asteraceae has been reported as actual or possible host plants, although the majority of confirmed hosts are Coreopsidae, including five species of *Bidens*, which are sometimes weeds, two species of *Coreopsis*, and single species of *Cosmos* and *Dahlia* (Zaka-ur-Rab 1984; Kapoor 1993; Hardy and Drew 1996). The larvae feed in the flower heads, at least sometimes within the seeds.

***Carpomyia vesuviana* Costa, 1854 (Trypetinae: Carpomyini)**

Distribution. Previously reported from Bangladesh by Alam (1967) and Vadivelu (2014), but not collected in our surveys. Presumably native to South Asia (it is also known from Iran, Pakistan and India), this species has been widely introduced into southern Europe, the Middle East, Central Asia, China (Xinjiang), Southeast Asia, Mauritius and the Seychelles (Norrbom et al. 1999; Vadivelu 2014).

Larval hosts. Fruits of *Paliurus* and *Ziziphus* (Rhamnaceae), including cultivated species (Vadivelu 2014).

***Diarrhagma modestum* (Fabricius, 1805) (Phyalmiinae: Acanthonevrini)**

Material collected. 122 females and 186 males trapped in Chapainawabganj (Chapainawabganj Sadar) (3 F, BL), Dhaka (Savar) (116 F, 183 M, BL, YP), Gazipur (Kaliakair) (1 F, 1 M, YP), Natore (Gurudaspur) (1 F, 1 M, BL, YP), and Natore (Lalpur) (1 F, YP).

Distribution. Previously reported from Bangladesh (Dhaka and Rajshahi Districts) (Hossain and Khan 2014; Leblanc et al. 2019). Also known from India (Karnataka, Tamil Nadu, West Bengal) (Hancock and Drew 1994; Norrbom et al. 1999; David and Ramani 2011).

Larval hosts. Larvae are saprophytic, breeding in decaying wood and exudates from damaged tree trunks (Hardy 1988; David et al. 2022b).

***Dimeringophrys pallidipennis* Hardy, 1973 (Trypetinae: Adramini)**

Material collected. 219 females and 123 males trapped in Chapainawabganj (Chapainawabganj Sadar) (1 M, BL), Dhaka (Savar) (206 F, 121 M, BL, YP), Jamalpur (Jamalpur Sadar) (2 F, YP), Kushtia (Kumarkhali) (3 F, 1 M, YP), Lalmonirhat (Patgram) (1 F, YP), Natore (Gurudaspur) (4 F, BL, YP), Natore (Lalpur) (2 F, YP), and Natore (Singra) (1 F, YP).

Distribution. Previously reported from Bangladesh (Khan et al. 2024). Also known from India (Assam), China (Yunnan, Macao), Thailand, Laos and the Philippines (Luzon) (Hardy 1973; Hancock and Drew 1994; Wang 1998; Norrbom et al. 1999; David et al. 2013).

Larval hosts. Fruits of *Artocarpus heterophyllus* Lam. (Moraceae) (Hancock and Drew 1994; Allwood et al. 1999).

***Euphranta cassiae* (Munro, 1938) (Trypetinae: Adramini)**

Material collected. 3 females trapped Dhaka (Savar) (BL).

Distribution. Previously reported from Bangladesh (Alam 1967). Also known from India (Bihar, Karnataka, Maharashtra, Uttar Pradesh, Uttarakhand) (Munro 1938; Norrbom et al. 1999; David and Ramani 2011).

Larval hosts. Pods of *Cassia fistula* L. (Fabaceae) (Munro 1938; Hancock and Drew 1994).

***Euphranta crux* (Fabricius, 1794) (Trypetinae: Adramini)**

Distribution. Previously reported from Bangladesh (Khan et al. 2024), but not collected during our surveys. Also known from India (Bihar, Karnataka, Maharashtra, West Bengal) and Sri Lanka (Kapoor et al. 1980; Norrbom et al. 1999; David et al. 2013, 2021).

Larval hosts. The host plants of this species are unknown.

***Euphranta flavothoracica* David, Hancock and Sachin, 2021 (Trypetinae: Adramini)**

Material collected. 2 females and 1 male trapped in Natore (Gurudasapur) (1 F, 1 M, BL), and Natore (Singra) (1 F, BL).

Distribution. Previously reported only from India (Tamil Nadu) (David et al. 2021). Newly recorded from Bangladesh.

Larval hosts. The host plants of this species are unknown.

***Euphranta* sp. (Trypetinae: Adramini)**

Material collected. 1 female trapped in Dhaka (Gazipur, Borabo) (1 F, BL).

Distribution. Undescribed species newly recorded from Bangladesh.

Larval hosts. Unknown.

***Felderimyia fuscipennis* Hendel, 1914 (Phyalmiinae: Acanthonevrini)**

Material collected. 17 females and 25 males collected on bamboo in Gazipur (Kaliakair) (1 F, 1 M), Gazipur (Latifpur) (10 F, 11 M), Natore (Gurudasapur) (5 F, 13 M), and trapped in Natore (Gurudasapur) (1 F, YP).

Distribution. Previously reported from India (Karnataka), Myanmar, China (Guangxi), Thailand, Laos, and Malaysia (Malaya) (Hardy 1973; Norrbom et al. 1999; Wang and Chen 2002; David and Ramani 2011). Newly recorded from Bangladesh.

Larval hosts. Shoots of *Gigantochloa scortechinii* Gamble and *Schizostachyum pergracile* (Munro) R.B. Majumdar (Poaceae) (Dohm et al. 2014). Adults have been collected on *Dendrocalamus membranaceus* Munro and *D. strictus* (Roxb.) Nees, which may also be hosts (Permkam 2005).

***Felderimyia gombakensis* Hancock and Drew, 1995 (Phyalmiinae: Acanthonevrini)**

Distribution. Previously reported from Bangladesh (Dhaka) (Khan et al. 2017), but not collected during our surveys. Also known from China (Yunnan), Thailand, and Malaysia (Malaya) (Dohm et al. 2008; Hancock and Drew 1995).

Larval hosts. Shoots of *Gigantochloa latifolia* Ridl., *G. scortechinii* Gamble, and *Schizostachyum pergracile* (Munro) R. B. Majumdar (Poaceae) (Hancock and Drew 1995; Dohm et al. 2008).

***Galbifascia soalia* (Séguy, 1948) (Dacinae: Gastrozonini)**

Material collected. 2 females and 4 males trapped in Kushtia (Kumarkhali) (1 M, YP), and Natore (Gurudasapur) (2 F, 3 M, BL).

Distribution. Previously reported from India (Kerala), Sri Lanka, China (Yunnan), Thailand, Laos, Vietnam, and the Philippines (Luzon) (Hardy 1973; Norrbom et al. 1999; Wang 1998; David and Ramani 2011). Newly recorded from Bangladesh.

Larval hosts. No confirmed host plants have been reported, but this is likely another bamboo-feeding species. The holotype of *Galbifascia sexpunctata* Hardy (= *G. soalia*, see Korneyev 2006) was “collected in [a] bamboo thicket” (Hardy 1973), which Kapoor (1993) suggested was *Bambusa bambos* (L.) Voss.

***Gastrozona fasciventris* (Macquart, 1843) (Dacinae: Gastrozonini)**

Material collected. One female trapped in Dhaka (Savar) (YP).

Distribution. Previously reported from Bangladesh (Sylhet District) (Bezzi 1913). Also known from Bhutan, India (Arunachal Pradesh, Bihar, Karnataka, Kerala, Maharashtra, Tamil Nadu, Uttarakhand), China (Gansu, Guangxi), Taiwan, Thailand, Laos, Malaysia (Malaya), Indonesia (Sumatra) (Hardy 1973; Kapoor et al. 1980; Hancock and Drew 1999; Norrbom et al. 1999; Wang and Chen 2002; David and Ramani 2011; Korneyev et al. 2023).

Larval hosts. Shoots of a broad range of bamboos (20 species of *Bambusa*, *Dendrocalamus*, *Gigantochloa*, *Phyllostachys*, *Schizostachyum*, and *Thyrsostachys*) (Poaceae) (Kapoor 1993; Allwood et al. 1999; Permkam 2005; Dohm et al. 2014).

***Gastrozona soror* (Schiner, 1868) (Dacinae: Gastrozonini)**

Material collected. 135 females and 40 males collected on bamboo in Dhaka (National Botanical Garden) (12 F), Gazipur (Latifpur) (6 F), Natore (Gurudaspur) (30 F), Tangail (Shakhipur) (8 F), and trapped in Chapainawabganj (Chapainawabganj Sadar) (1 F, BL), Dhaka (Savar) (6 F, 11 M, BL, YP), Gazipur (Kaliakair) (2 F, 2 M, BL), Kushtia (Kumarkhali) (35 F, 8 M, BL, YP), Natore (Gurudaspur) (27 F, 17 M, BL, YP), and Natore (Singra) (8 F, 2 M, BL, YP).

Distribution. Previously reported from Bangladesh (Dhaka and Feni Districts) (Khan et al. 2017; Leblanc et al. 2019). Also known from India (Assam, Karnataka, Tripura), China (Yunnan), Thailand, Cambodia, and Indonesia (Java) (Hardy 1973, 1988; Norrbom et al. 1999; Wang and Chen 2002; David and Ramani 2011; Korneyev and Phauk 2019).

Larval hosts. Shoots of *Bambusa blumeana* Schult. and Schult. f. and *Dendrocalamus asper* (Schult. and Schult.f.) Backer (Poaceae) (Allwood et al. 1999; Permkam 1995). Adults also reported as attracted to cut *B. vulgaris* Schrad. ex J. C. Wendl. (Permkam 1995).

***Philophylla fossata* (Fabricius, 1805) (Trypetinae: Trypetini)**

Material collected. 6 females trapped in Dhaka (Savar) (BL, YP).

Distribution. A widespread species previously reported from Pakistan, India (Arunachal Pradesh, Assam, Karnataka, Kerala, Tamil Nadu), Myanmar, Thailand, Laos, Vietnam, Malaysia, Singapore, Korea, Japan, China (Guangxi, Hainan, Qinghai, Sichuan, Yunnan, Zhejiang), Taiwan, Philippines, Indonesia, Papua New Guinea, Australia (Queensland), and Solomon Islands (Hardy 1973; Wang 1998; Norrbom et al. 1999; David and Ramani 2011). Newly recorded from Bangladesh.

Larval hosts. Reported host plants include *Callicarpa arborea* Roxb., *C. longifolia* Lam., six species of *Clerodendrum*, and *Premna tomentosa* Willd. (all Lamiaceae) (Hancock et al. 1998; Allwood et al. 1999).

***Platensina acrostacta* (Wiedemann, 1824) (Tephritinae: Tephrellini)**

Distribution. Previously reported from Bangladesh (Khulna) by Bezzi (1913, as *Tephrostola acrostacta*), but not collected in our surveys. Also known from Pakistan, India (Bihar, Jharkhand, Karnataka, Kerala, Meghalaya, Odisha, Rajasthan, Sikkim, Tamil Nadu, West Bengal), Sri Lanka, China (Yunnan), Thailand, and Cambodia (Bezzi 1913; Hardy 1973; Wang 1998; Norrbom et al. 1999; David and Ramani 2011).

Larval hosts. Hardy (1973) reported the larvae of this species causing galls on an undetermined species of *Ludwigia* (as *Jussiaea*) (Onagraceae). This is the only reported host.

***Platensina zodiacalis* (Bezzi, 1913) (Tephritinae: Tephrellini)**

Distribution. Previously reported from Bangladesh by Hancock (2012), although the original source of that record was not indicated and could possibly be erroneous (D.L. Hancock, pers. comm.). It was not collected in our surveys, but is likely to occur in Bangladesh as it has also been reported from Sri Lanka, Nepal, India (Assam, Bihar, Karnataka, West Bengal) and Thailand as well as being widespread from China to northern Australia (Bezzi 1913; Hardy 1973; Kapoor et al. 1980; Norrbom et al. 1999; Hancock and McGuire 2002; Hancock 2012; David et al. 2022a).

Larval hosts. The host plants of this species are unknown.

***Ptilona confinis* (Walker, 1856) (Phytalmiinae: Acanthonevrini)**

Distribution. Previously reported from Bangladesh (Sylhet) by Bezzi (1913, as *Ptilona nigriventris* Bezzi). Also known from eastern India (Assam), Myanmar, southern China (Fujian, Yunnan), Taiwan, Philippines, Laos, Vietnam, Thailand, Malaysia (Malaya, Sarawak), Brunei, and Indonesia (Java, Kalimantan, Sulawesi, Maluku) (Hardy 1973; Wang 1998; Norrbom et al. 1999; Hancock 2011).

Larval hosts. Internode cavities of *Gigantochloa scortechinii* Gamble and *Schizostachyum cf. grande* (Poaceae) (Dohm et al. 2014). Adults were collected from fresh, broken, shoots of *Bambusa vulgaris* Schrad. ex J. C. Wendl., *Dendrocalamus asper* (Schult. and Schult. f.) Backer ex K. Heyne, *D. membranaceus* Munro, and *D. strictus* (Roxb.) Nees, which may also be host plants (Permkam 2005).

***Ptilona conformis* Zia, 1965 (Phytalmiinae: Acanthonevrini)**

Material collected. 2 females and 1 male collected on bamboo in Natore (Gurudaspur) (1 F, 1 M), and Tangail (Shakhipur) (1 F).

Distribution. Previously reported from Brunei, Cambodia, China (Yunnan), India (Meghalaya), Laos, Malaysia (Malaya), Thailand (Zia 1965; Hardy 1973; Hancock and Drew 1994; Chua 2002; Hancock and McGuire 2002; Singh et al. 2015; Korneyev and Phauk 2019). Newly recorded from Bangladesh.

Larval hosts. Dohm et al. (2014) reported *Ptilona cf. conformis* developing in internode cavities of *Gigantochloa scortechinii* Gamble and *Schizostachyum cf. grande* (Poaceae).

***Rioxoptilona dunlopi* (Wulp, 1880) (Phytalmiinae: Acanthonevrini)**

Material collected. 221 females and 322 males collected on bamboo in Dhaka (National Botanical Garden) (9 F, 12 M), Dinajpur (Ramsagar National Park) (1 F, 9 M), Gazipur (Kaliakair) (4 F, 12 M), Gazipur (Latifpur) (3 F, 2 M), Natore (Gurudaspur) (5 F, 26 M), Tangail (Shakhipur) (6 F, 31 M), and trapped in Dhaka (Savar) (23 F, 31 M, BL, YP), Gazipur (Kaliakair) (11 F, 17 M, BL, YP), Kushtia (Kumarkhali) (19 F, 4 M, BL), Natore (Gurudaspur) (108 F, 128 M, BL, YP), and Natore (Singra) (32 F, 50 M, BL, YP).

Distribution. Previously reported from Bangladesh (Sylhet, Dhaka) (Bezzi 1913 (as *Rioxa dunlopi*); Khan et al. 2017). Also known from Bhutan, India (Arunachal Pradesh, West Bengal), Myanmar, China (Yunnan), Taiwan, Thailand, Malaysia (Malaya), and Indonesia (East to Java) (Bezzi 1913; Hardy 1973; Wang 1998; Norrbom et al. 1999; Hancock 2011; Korneyev et al. 2023).

Larval hosts. Decaying shoots of *Bambusa tuldooides* Munro, *B. vulgaris* Schrad. ex J. C. Wendl., *Dendrocalamus nudus* Pilg., and *Schizostachyum pergracile* (Munro) R. B. Majumdar (all Poaceae) (Permkam 1995; Allwood et al. 1999; Dohm et al. 2014).

***Rioxoptilona vaga* (Wiedemann, 1830) (Phytalmiinae: Acanthonevrini)**

Material collected. 44 females and 18 males collected on bamboo in Dhaka (National Botanical Garden) (12 F, 4 M), Natore (Gurudaspur) (8 F), Rangamati Hill (Kaptai) (1 F), Tangail (Shakhipur) (15 F), and trapped in Dhaka (Savar) (3 F, 6 M, BL), Kushtia (Kumarkhali) (1 F, 6 M, BL), Natore (Gurudaspur) (3 F, 1 M, BL, YP), and Natore (Singra) (1 F, 1 M, BL).

Distribution. Previously reported from Bangladesh (Dhaka) (Khan et al. 2017). Also known from Bhutan, India (Assam, Sikkim), Myanmar, China (Yunnan), Vietnam, Thailand, Malaysia (Malaya), and Indonesia (Bezzi 1913; Zia 1963; Hardy 1973; Wang 1998; Norrbom et al. 1999; Korneyev et al. 2023).

Larval hosts. Shoots of *Bambusa blumeana* Schult. and Schult. f., *B. polymorpha* Munro, *Dendrocalamus pendulus* Ridl., and *Gigantochloa scortechinii* Gamble (all Poaceae) (Allwood et al. 1999; Permkam 2005; Dohm et al. 2014).

***Taeniostola vittigera* Bezzi, 1913 (Dacinae: Gastrozonini)**

Distribution. Previously reported from Bangladesh (Sylhet) (Bezzi 1913), but not collected in our surveys. Also known from India (Assam, Karnataka, Mizoram), China (Yunnan), Taiwan, Myanmar, Laos, Cambodia, Thailand, Malaysia (Malaya, Sabah, Sarawak), and Indonesia (Kalimantan) (Bezzi 1913; Hardy 1973, 1988; Wang 1998; Hancock and Drew 1999; Norrbom et al. 1999; David and Ramani 2011; Korneyev and Phauk 2019).

Larval hosts. Shoots of *Bambusa multiplex* (Lour.) Raeusch. ex Schult. and Schult. f., *B. nutans* Wall ex Munro, *B. vulgaris* Schrad. ex J. C. Wendl., *Dendrocalamus asper* (Schult. and Schult. f.) Backer ex K. Heyne, *D. hamiltonii* Nees and Arn. ex Munro, *Gigantochloa scortechinii* Gamble, and *Phyllostachys nigra* (Lodd. ex Lindl.) Munro (Poaceae) (Shiraki 1933; Allwood et al. 1999; Hancock and Drew 1999; Permkam 2005; Dohm et al. 2008, 2014).

***Tephraiciura basimacula* (Bezzi, 1924) (Tephritinae: Tephrellini)**

Distribution. Previously reported from Bangladesh (Dhaka) (Leblanc et al. 2019). Also known from India (Lakshadweep Islands, Tamil Nadu) and Sri Lanka (Bezzi 1924; Hering 1951; Norrbom et al. 1999; David and Ramani 2011).

Larval hosts. The host plants of this species are unknown.

***Tritaeniopteron tetraspilotum* Hardy, 1973 (Phytalmiinae: Acanthonevrini)**

Material collected. 2 females trapped in Manikgonj (Harirampur) (1 F, BL), Gazipur (Kapasia) (1 F, YP).

Distribution. Previously reported only from Thailand (Hardy 1973; Hancock and Drew 1994; Permkam 1995). Newly recorded from Bangladesh.

Larval hosts. The host plants of this species are unknown. Permkam (1995) reported that adults were attracted to cut shoots of a bamboo, *Thyrsostachys oliveri* Gamble.

***Xanthorrhachis annandalei* Bezzi, 1913 (Dacinae: Gastrozonini)**

Material collected. 8 females and 7 males trapped in Dhaka (Savar) (1 M, BL), Gazipur (Kapasia) (1 F, 2 M, BL), Jamalpur (Jamalpur Sadar) (1 F, BL), and Natore (Gurudasapur) (6 F, 4 M, BL, YP).

Distribution. Previously reported from India (Arunachal Pradesh, Kerala), China (Yunnan), Myanmar, Thailand, Laos, Vietnam, and Indonesia (Java) (Bezzi 1913; Hering 1951; Hardy 1973; Wang 1998; Hancock and Drew 1999; David and Ramani 2011). Newly recorded from Bangladesh.

Larval hosts. Shoots of *Dendrocalamus strictus* (Roxb.) Nees and *Gigantochloa albociliata* (Munro) Kurz (Poaceae) (Allwood et al. 1999; Hancock and Drew 1999; Dohm et al. 2014).

Acknowledgments

We thank David Hancock and K. J. David for helpful reviews of this manuscript and Gary J. Steck and journal editor Davide Dal Pos for proofreading the manuscript. Mention of trade names or commercial products in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the USDA. The USDA is an equal opportunity provider and employer.

Literature Cited

- Akhtaruzzaman M, Alam MZ, Ali-Sardar MM. 1999.** Identification and distribution of fruit flies infesting cucurbits in Bangladesh. *Bangladesh Journal of Entomology* 9: 93–101.
- Alam MZ. 1967.** A report on the survey of insect and mite fauna of East Pakistan. East Pakistan Agricultural Research Institute; Dhaka, Bangladesh. 151 p.
- Allwood AJ, Chinajariyawong A, Drew RAI, Hamacek EL, Hancock DL, Hengsawad C, Jipanin JC, Jirasurat M, Kong Krong C, Kritsaeneepaiboon S, Leong CTS, Vijaysegaran S. 1999.** Host plant records for fruit flies (Diptera: Tephritidae) in South East Asia. *Raffles Bulletin of Zoology. Supplement* 7: 1–92.
- Bezzi M. 1913.** Indian trypaneids (fruit-flies) in the collection of the Indian Museum, Calcutta. *Memoirs of the Indian Museum* 3: 53–175.
- Bezzi M. 1924.** Further notes on the Ethiopian fruit-flies, with keys to all the known genera and species (concl.). *Bulletin of Entomological Research* 15: 121–155. <https://doi.org/10.1017/S0007485300031503>
- Chan T, Korneyev VA. 2011.** The first record of *Adrama apicalis* Shiraki from Hainan, with notes on its behavior. *Ukrainska Entomofaunistika* 2: 30.
- Chua, TH. 2002.** New records of Trypetinae from Brunei Darussalam (Diptera: Tephritidae). *Malayan Nature Journal* 56: 43–48.
- Costa A. 1854.** Frammenti di entomologia napoletana. *Annali Scientifici (Napoli)* 1: 69–91.
- David KJ, Hancock DL, Freidberg A, Goodger KMF. 2013.** New species and records of *Euphranta* Loew and other Adramini (Diptera: Tephritidae: Trypetinae) from south and southeast Asia. *Zootaxa* 3635: 439–458. <https://doi.org/10.11646/zootaxa.3635.4.6>
- David KJ, Hancock DL, Ramani S. 2014.** Two new species of *Acroceratitis* Hendel (Diptera: Tephritidae) and an updated key for the species from India. *Zootaxa* 3895: 411–418. <https://doi.org/10.11646/zootaxa.3895.1.10>
- David KJ, Hancock DL, Sachin K, Gracy RG, Salini S. 2022a.** Two new species of *Platensina* Enderlein (Diptera, Tephritidae, Tephritinae, Dithrycini) from India. *ZooKeys* 1092: 123–146. <https://doi.org/10.3897/zookeys.1092.80645>
- David KJ, Hancock DL, Sachin K, Mahendiran G. 2021.** A new species, new postabdominal descriptions and a new synonymy in *Euphranta* Loew (Diptera: Tephritidae: Trypetinae: Adramini). *Zootaxa* 5057: 87–98. <https://doi.org/10.11646/zootaxa.5057.1.5>
- David KJ, Ramani S. 2011.** An illustrated key to fruit flies (Diptera: Tephritidae) from Peninsular India and the Andaman and Nicobar Islands. *Zootaxa* 3021: 1–31. <https://doi.org/10.11646/zootaxa.3021.1.1>
- David KJ, Ramani S, Singh SK. 2019.** Taxonomy and diversity of Indian fruit flies (Diptera: Tephritidae). Chapter 17. In: Ramani S, Mohanraj P, Yeshwanth HM (eds.). *Indian insects. Diversity and science*. CRC Press; Boca Raton, Florida, USA. 472 p.
- David KJ, Sachin K, Hancock DL, Salini S. 2022b.** Mating trophallaxis in *Diarrhagma modestum* (Fabricius) (Diptera: Tephritidae: Phytalmiinae). *Indian Entomologist* 3 (1): 27–28.
- Dohm P, Kovac D, Freidberg A, Bin Hashim R. 2008.** Biology of the Oriental bamboo-inhabiting fly *Felderimyia gom-bakensis* and observations on mating trophallaxis in *Felderimyia* (Insecta, Diptera, Tephritidae, Phytalmiinae, Acanthonevrini). *Senckenbergiana Biologica* 88: 311–318.
- Dohm P, Kovac D, Freidberg A, Rull J, Aluja M. 2014.** Basic biology and host use patterns of tephritid flies (Phytalmiinae: Acanthonevrini, Dacinae: Gastrozonini) breeding in bamboo (Poaceae: Bambusoidea). *Annals of the Entomological Society of America* 107: 184–203. <https://doi.org/10.1603/AN13083>
- Fabricius JC. 1794.** *Entomologia systematica emendata et aucta. Secundum classes, ordines, genera, species, adiectis synonymis, locis, observationibus, descriptionibus*. Tome 4. C.G. Proft, Copenhagen, Denmark. 472 p.
- Fabricius JC. 1805.** *Systema antliatorum secundum ordines, genera, species, adiectis synonymis, locis, observationibus, descriptionibus*. Reichard; Brunswick, Germany. 373 p.
- Hancock DL. 2011.** An annotated key to the species of *Acanthonevra* Macquart and allied genera (Diptera: Tephritidae: Acanthonevrini). *Australian Entomologist* 38: 109–128.
- Hancock DL. 2012.** Systematic and distributional notes on some Australasian and African species of *Platensina* Enderlein and *Dicheniotes* Munro (Diptera: Tephritidae: Tephritinae), with description of a new species of *Dicheniotes* from Kenya. *Australian Entomologist* 39: 305–320.
- Hancock DL, Drew RAI. 1994.** New species and records of Asian Trypetinae (Diptera: Tephritidae). *Raffles Bulletin of Zoology* 42: 555–591.
- Hancock DL, Drew RAI. 1995.** A new species of *Pardalaspinus* Hering (Diptera: Tephritidae) from Peninsular Malaysia. *Malaysian Journal of Science* 16A: 61–62.
- Hancock DL, Drew RAI. 1999.** Bamboo-shoot fruit flies of Asia (Diptera: Tephritidae: Ceratitidinae). *Journal of Natural History* 33: 633–775. <https://doi.org/10.1080/002229399300164>

- Hancock DL, McGuire DJ. 2002.** New species and records of non-dacine fruit flies (Insecta: Diptera: Tephritidae) from south and southeast Asia. *Steenstrupia* (2001) 27: 1–17.
- Hancock DL, Osborne R, McGuire DJ. 1998.** New hostplant and locality records for Ceratitidinae and Trypetinae in Northern Queensland (Diptera: Tephritidae). *General and Applied Entomology* 28: 21–27.
- Hardy DE. 1973.** The fruit flies (Tephritidae - Diptera) of Thailand and bordering countries. *Pacific Insects Monograph* 31: 1–353.
- Hardy DE. 1988.** Fruit flies of the subtribe Gastrozonina of Indonesia, New Guinea and the Bismarck and Solomon Islands (Diptera, Tephritidae, Trypetinae, Acanthonevrini). *Zoologica Scripta* 17: 77–121. <https://doi.org/10.1111/j.1463-6409.1988.tb00088.x>
- Hardy DE, Drew RAI. 1996.** Review of the Australian Tephritini (Diptera: Tephritidae). *Invertebrate Taxonomy* 10: 213–405. <https://doi.org/10.1071/IT9960213>
- Heather, NH, Hallman GJ. 2008.** Pest management and phytosanitary trade barriers. CAB International; Oxfordshire, United Kingdom. 257 p.
- Hendel FG. 1914.** Die Gattungen der Bohrfliegen. (Analytische Übersicht aller bisher bekannten Gattungen der Tephritidae.). *Wiener Entomologische Zeitung* 33: 73–98.
- Hering EM. 1951.** Neue Fruchtfliegen der Alten Welt. *Siruna Seva* 7: 1–16.
- Hossain MA, Khan SA. 2014.** First record of the fruit fly, *Diarrhegma modestum* (Fabricius) (Diptera: Tephritidae) from Bangladesh. *Bangladesh Journal of Zoology* (2013) 41: 265–267. <https://doi.org/10.3329/bjz.v41i2.23330>
- Kabir SMH, Rahman R, Molla MAS. 1991.** Host plants of dacine fruit flies (Diptera: Tephritidae) of Bangladesh. *Bangladesh Journal of Entomology* 1: 69–75.
- Kapoor VC. 1993.** Indian fruit flies (Insecta: Diptera: Tephritidae). International Science Publisher; New York, USA. 228 p.
- Kapoor VC, Agarwal ML, Grewal JS. 1980.** Identified collection of fruit flies in National Pusa Collection (Delhi). *Bulletin of Entomology* (1976) 17: 1–15.
- Khan M, Bari MA, Hossain M, Kovac D, Freidberg A, Royer J, Hancock DL. 2017.** A preliminary survey of bamboo-shoot fruit flies (Diptera: Tephritidae: Acanthonevrini, Gastrozonini), with four new records from Bangladesh. *Academic Journal of Entomology* 10: 1–4.
- Khan M, Hancock D, Bari MA, Lin J, Ji Q. 2024.** Detection of tephritid fruit flies using food attractants baited trap in Bangladesh. *Academic Journal of Entomology* 17: 1–6.
- Korneyev, SV, Hauser M, Borkent C, Maples BK, Roubtsova TV, Zangpo T, Dorji S, Chopel S, Dorji N, Tsomo, Dendup U, Dawa K, Dorji L, Mani Dhimal C, Kinley R, Dorji U, Dema Y, Korneyev VA, Gaimari SD. 2023.** The fruit flies (Diptera, Tephritidae) in Bhutan: new faunistic records and compendium of fauna. *Zoodiversity* 57: 93–124. <https://doi.org/10.15407/zoo2023.02.093>
- Korneyev VA. 2006.** Identity and taxonomic position of “*Parepiccerella*” *soalia* (Diptera, Tephritidae) previously attributed to Pyrgotidae. *Vestnik Zoologii* 40: 256.
- Korneyev VA, Phauk S. 2019.** Preliminary data on the fruit flies (Diptera: Tephritidae) of Cambodia. *Cambodian Journal of Natural History* 2019: 85–97.
- Kovac D, Schneider A, Freidberg A, Wiwatwitaya D. 2017.** Life history and description of the larva of *Acrotaeniostola spiralis* (Diptera: Tephritidae: Dacinae: Gastrozonini), an Oriental fruit fly inhabiting bamboo twigs. *Raffles Bulletin of Zoology* 65: 154–167.
- Leblanc L. 2022.** The dacine fruit flies (Diptera: Tephritidae: Dacini) of Oceania. *Insecta Mundi* 948: 1–167.
- Leblanc L, Hossain MA, Doorenweerd C, Khan SA, Momen M, San Jose M, Rubinoff D. 2019.** Six years of fruit fly surveys in Bangladesh: a new species, 33 new country records and recent discovery of the highly invasive *Bactrocera carambolae* (Diptera, Tephritidae). *Zookeys* 876: 87–109. <https://doi.org/10.3897/zookeys.876.38096>
- Leblanc L, Hossain MA, Khan SA, San Jose M, Rubinoff D. 2013.** A preliminary survey of the fruit flies (Diptera: Tephritidae: Dacinae) of Bangladesh. *Proceedings of the Hawaiian Entomological Society* 45: 51–58.
- Leblanc L, Hossain MA, Khan SA, San Jose M, Rubinoff D. 2014.** Additions to the fruit fly fauna (Diptera: Tephritidae: Dacinae) of Bangladesh, with a key to the species. *Proceedings of the Hawaiian Entomological Society* 46: 31–40.
- Leblanc L, Hossain MA, Momen M, Seheli K. 2021.** New country records, annotated checklist and key to the Dacine fruit flies (Diptera: Tephritidae: Dacinae: Dacini) of Bangladesh. *Insecta Mundi* 880: 1–56.
- Macquart JPM. 1843.** Diptères exotiques nouveaux ou peu connus. p. 162–460. In: *Mémoires de la Société Royale des Sciences, de l'Agriculture et des Arts de Lille. Année 1842.* 523 p.
- Munro HK. 1935.** Records of Indian Trypetidae (Diptera) with descriptions of some apparently new species. *Records of the Indian Museum* 37: 15–27.
- Munro HK. 1938.** Studies on Indian Trypetidae (Diptera). *Records of the Indian Museum* 40: 21–37.
- Nair N, Bhattacharjee T, Thangjam B, Giri U, Debnath MR. 2018.** Species diversity of dacine fruit flies (Diptera: Tephritidae: Dacinae: Dacini) in Tripura, N.E. India. *Journal of Entomology and Zoology Studies* 6: 297–302.

- Namin SM, Korneyev VA. 2018.** An annotated checklist of fruit flies (Diptera: Tephritidae) of Iran. *Zootaxa* 4369: 377–405. <https://doi.org/10.11646/zootaxa.4369.3.5>
- Norrbom, AL, Carroll LE, Thompson FC, White IM, Freidberg A. 1999.** Systematic database of names. p. 65–251. In: Thompson FC (ed.). *Fruit fly expert identification system and systematic information database. Myia* (1998) 9: 1–524.
- Pape T, Blagoderov V, Mostovski MB. 2011.** Order Diptera Linnaeus (1758). p. 222–229. In: Zhang ZQ (ed). *Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness. Zootaxa* 3148. 1–237.
- Permkam S. 1995.** Bamboo shoot fruit flies in southern Thailand. *Songklanakarin Journal of Science and Technology* 17: 229–238.
- Permkam S. 2005.** Bamboo-shoot fruit flies (Diptera: Tephritidae) of southern Thailand. *Songklanakarin Journal of Science and Technology* 27: 223–237.
- Schiner IR. 1868.** Zoologischer Theil, 2. Band. 1. Abtheilung. B. Diptera. In: “Reise der Österreichischen fregatte novara urn die erde”. B.K. Gerold’s Sohn; Vienna, Austria. 388 p.
- Séguy E. 1948.** Diptères nouveaux ou peu connus d’extrême-Orient. *Notes d’Entomologie Chinoise* 12: 153–172.
- Shiraki T. 1933.** A systematic study of Trypetidae in the Japanese Empire. *Memoirs of the Faculty of Science and Agriculture, Taihoku Imperial University* 8 (Entomol. 2): 1–509.
- Singh SK, David KJ, Kumar D, Ramamurthy VV. 2015.** A new species of *Magnimyolia* Shiraki (Diptera: Tephritidae: Trypetinae) and new records of Acanthonevrini from India. *Zootaxa* 3949: 129–134. <https://doi.org/10.11646/zootaxa.3949.1.7>
- Steyskal G. 1977.** History and Use of the McPhail Trap. *Florida Entomologist* 60: 11–16.
- Vadivelu K. 2014.** Biology and management of ber fruit fly, *Carpomyia vesuviana* Costa (Diptera: Tephritidae): A review. *African Journal of Agricultural Research* 9: 1310–1317.
- Vargas RI, Piñero JC, Leblanc L. 2015.** An overview of pest species of *Bactrocera* fruit flies (Diptera: Tephritidae) and the integration of biopesticides with other biological approaches for their management with a focus on the Pacific region. *Insects* 6: 297–318. <https://doi.org/10.3390/insects6020297>
- Walker F. 1856.** Catalogue of the dipterous insects collected at Sarawak, Borneo, by Mr. A.R. Wallace, with descriptions of new species. *Journal of Proceedings of the Linnean Society. Zoology. London* 1: 105–136.
- Wang X-J. 1998.** The fruit flies (Diptera: Tephritidae) of the East Asian region. *Acta Zootaxonomica Sinica* (1996) 21 (supplement): 1–419.
- Wang X-J, Chen X-L. 2002.** A revision of the genus *Gastrozona* Bezzi from China (Diptera: Tephritidae). *Acta Entomologica Sinica* 45: 507–515.
- White IM, Elson-Harris MM. 1992.** Fruit flies of economic significance: their identification and bionomics. CAB International; Wallingford, United Kingdom. 601 p.
- Wiedemann CRW. 1824.** Munus rectoris in Academia Christiana Albertina aditurus analecta entomologica ex Museo Regio Havniensi: maxime congesta profert iconibusque illustrat. Kiliae. 60 p.
- Wiedemann CRW. 1830.** Aussereuropäische zweiflügelige Insekten. Vol. 2. Schulz; Hamm, Germany. 684 p.
- Wulp FM van der. 1880.** Eenige Diptera van Nederlandsch Indie. *Tijdschrift voor Entomologie* (1879–1880) 23: 155–194.
- Zaka-ur-Rab M. 1984.** Host plants of the fruit flies (Diptera: Tephritidae) of the Indian sub-continent, exclusive of the sub-family Dacinae. *Journal of the Bombay Natural History Society* 81: 99–104.
- Zia Y. 1963.** Notes on Chinese trypetid flies II. *Acta Entomologica Sinica* 12: 631–648.
- Zia Y. 1964.** Notes on Chinese trypetid flies III. *Acta Zootaxonomica Sinica* 1: 42–54.
- Zia Y. 1965.** Notes on Chinese trypetid flies IV. *Acta Zootaxonomica Sinica* 2: 211–217.

Received July 23, 2024; accepted August 28, 2024.

Review editor Davide Dal Pos.

