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SHORT COMMUNICATION

First record of the poinsettia thrips *Echinothrips americanus* Morgan (Thysanoptera: Thripidae) in Greece

I.Ch. Lytra[1]*, D.M. Markoyiannaki[1] and P.G. Milonas[1]

Summary The presence of the poinsettia thrips, *Echinothrips americanus* Morgan (Thysanoptera: Thripidae), is reported for the first time in Greece. In spring 2023, specimens of *E. americanus* were collected from infested *Rhoicissus rhombifolia* plants in Attiki.

Additional keywords: *Echinothrips americanus*, Greece, *Rhoicissus rhombifolia*

Thrips are one of the most harmful crop pests worldwide, not only by reducing yield via direct feeding damage to foliage and fruits but also because there are vectors of important plant viruses. Because of the aesthetic damage that thrips cause, especially to ornamental crops, the tolerable population threshold is usually at a very low level. Thrips' feeding causes silver-grey patches and black dots of their excreta on leaves as well as streaking of petal tissues that are unacceptable to consumers (Lewis, 1997; Ullman *et al*., 1997).

In March 2023, heavily infested leaves of *Rhoicissus rhombifolia* (Vitaceaea) by thrips were sent to the Laboratory of Agricultural Entomology of Benaki Phytopathological Institute (BPI) from a private garden in Vouliagmeni, Attiki (37°49'52.03"N, 23°46'36.99"E) (Fig. 1). Adult thrips were collected and stored in 70% alcohol. Samples submerged in 10% KOH at room temperature overnight to clear and were mounted in Hoyer medium. Voucher specimens have been deposited in the collection of BPI. For specimen identification, the zur Strassen's dichotomous taxonomic key was used. The species has body brown to dark brown, antennal segment III and basal halves of segments IV-V white (Fig. 2). The forewings are grey-brown, basally paler, with vein setae blunt to weakly capitate (Fig. 3 and 4). The inner surface of reticulations on head and pronotum minutely wrinkled (Fig. 5). Tergites laterally with numerous microtrichiae (Fig. 6). In male, sternites III-VIII densely covered on entire surface by numerous small rounded areae porosae (Fig. 7) (zur Strassen, 2003). Photographs were taken with an EVOS XL Core imaging system. All collected thrips, 9 females and 5 males in total, were identified as *Echinothrips americanus* Morgan (Thripidae). This is the first record of this species in Greece.

All *Echinothrips* species are native to the Americas. *Echinothrips americanus* was originally described in Florida and it is known to be native throughout eastern North America (Mound and Marullo, 1996; Vierbergen, 1998). It is the only *Echinothrips* species that has become widespread established outside its native range, primarily as a green-

Figure 1. Feeding damage of *Echinothrips americanus* on *Rhoicissus rhombifolia* (Vitaceae).

[1] Scientific Directorate of Entomology and Agricultural Zoology, Benaki Phytopathological Institute, 8 Stefanou Delta str., GR-145 61 Kifissia, Athens, Greece.
* Corresponding author: i.lytra@bpi.gr

Figure 2. The poinsettia thrips *Echinothrips americanus* Morgan (Thysanoptera: Thripidae).

Figure 3. *Echinothrips americanus* Morgan (Thysanoptera: Thripidae). Forewing basally paler.

Figure 4. *Echinothrips americanus* Morgan (Thysanoptera: Thripidae). Forewing vein setae blunt to weakly capitate.

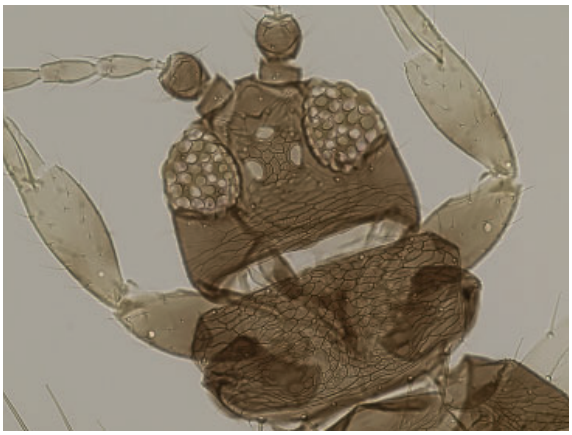

Figure 5. *Echinothrips americanus* Morgan (Thysanoptera: Thripidae). Minute wrinkled of inner surface reticulations on head and pronotum.

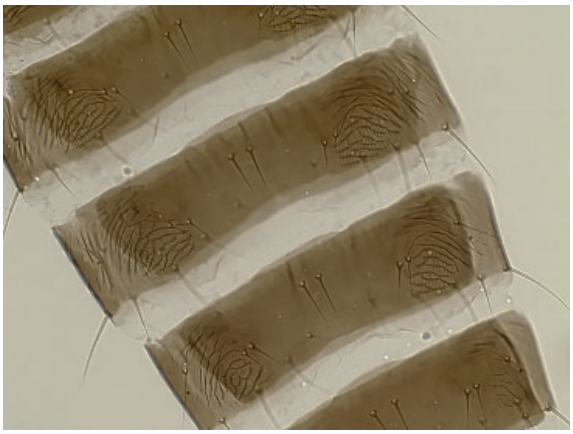

Figure 6. *Echinothrips americanus* Morgan (Thysanoptera: Thripidae). Tergites with numerus microtrichiae laterally.

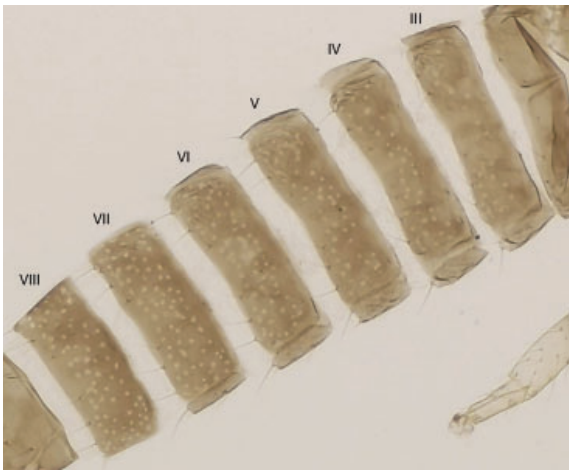

Figure 7. *Echinothrips americanus* Morgan (Thysanoptera: Thripidae). Sternites III-VIII of male with numerous area porosae.

house pest over Canada, Asia, and Northern Australia (Hoddle *et al*., 2012; Krueger *et al*., 2015; EPPO, 2024). The first interception of the species in Europe was in United Kingdom in 1989 (Collins, 1998) whereas the first report of crop infestation was in 1993 in the Netherlands, where the species was found on plants belonging to the genera *Syngonium* and *Homalomena* (Cevat and Roosjen, 1994; Vierbergen, 1998). It has spread rapidly across Europe since 1995 and among other countries it has been found in France (Reynaud, 1998), Italy (Marullo and Pollini, 1999), Bulgaria (Karadjova and Krumov, 2003), Serbia (Andjus *et al*., 2009) and Malta (Degabriele *et al*., 2023). It is currently reported in at least 22 countries (Vierbergen *et al.,* 2006; EPPO, 2024).

Its rapid spread suggests that *E. americanus* is a successful opportunist, easily overlooked during import inspections due to the subtle nature of the damage (Vierbergen *et al*., 2006; Mirab-Balou *et al*., 2010). EPPO first included *E. americanus* on its alert list in 1995. Over the next few years, there was little evidence of significant damage from this species in the countries where it had been detected. In 2000, it was concluded that the species did not meet the criteria for classification as a quarantine pest and that sufficient alerts had already been issued (EPPO, 2000).

The host range of *E. americanus* is remarkably broad, making it the most economically significant species within its genus. It has been recorded on 41 plant genera from 27 different families (Vierbergen *et al*., 2006; Mound, 2021; Mound *et al*., 2022). According to Collins (1998), it is mainly associated with species of the family Araceae which are commonly grown as ornamental plants. It can also develop high population densities on many other plants, including *Capsicum* and various weeds (Vierbergen, 1998).

The poinsettia thrips causes significant damage to various vegetable and ornamental crops through extensive foliage feeding (Vierbergen *et al*., 2006; Varga *et al*., 2010). In ornamental plants, it leads to silver leaf damage, chlorotic lesions, and leaf deformations causing aesthetic deterioration (Oetting *et al*., 1993). Due to the generally low cosmetic damage thresholds, the market value of affected plants may be severely impacted (Kaas, 2001). Considering the polyphagous status of the pest, plant protection measures against thrips in greenhouse and ornamental plant production in Greece should include the potential presence of *E. americanus*. Heteroptera bugs of the genus *Orius* (Mouratides *et al*., 2022) and the phytoseid mite *Amblyseius swirskii* (Athias-Henriot) (Ghasemzadeh *et al*., 2017) are the most significant generalist predators which could contribute to the biological control of the poinsettia thrips.

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ΣΥΝΤΟΜΗ ΑΝΑΚΟΙΝΩΣΗ

Πρώτη καταγραφή του θρίπα *Echinothrips americanus* Morgan (Thysanoptera: Thripidae) στην Ελλάδα

Ι.Χ. Λύτρα, Δ.Μ. Μαρκογιαννάκη και Π.Γ. Μυλωνάς

Περίληψη Ο θρίπας *Echinothrips americanus* Morgan (Thysanoptera: Thripidae) βρέθηκε για πρώτη φορά στην Ελλάδα τον Μάρτιο του 2023. Το έντομο βρέθηκε στο καλλωπιστικό φυτό του είδους *Rhoicissus rhombifolia* (E.Mey. ex Harv.) Planch (Vitaceae: Vitales) στην Αττική.