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**First record for the European fauna of *Phytoliriomyza jacarandae*
Steyskal & Spencer, 1978 (Diptera Agromyzidae)
leafminer of *Jacaranda mimosifolia* D. Don. (Bignoniaceae) (*)**

Abstract - In surveys on insect pests of ornamental plants in Sicily and Liguria the Authors recorded the Diptera Agromyzidae *Phytoliriomyza jacarandae* Steyskal & Spencer, 1978 .

This species, of South American origin, is now present in Argentina, United States of America, Australia, New Zealand and South Africa, where it lives as leafminer of *Jacaranda mimosifolia* D. Don. (Bignoniaceae). Leafmines with larvae and pupae of this species, that are here recorded for the first time in Italian and European fauna, have been observed on *J. mimosifolia*.

Riassunto - *Prima segnalazione per la fauna europea di Phytoliriomyza jacarandae Steyskal & Spencer, 1978 (Diptera Agromyzidae) fillominatore di Jacaranda mimosifolia D. Don. (Bignoniaceae).*

Nell'ambito di indagini effettuate in Sicilia, finalizzate allo studio dell'entomofauna dannosa alle piante ornamentali, è stato ritrovato il Dittero Agromizide *Phytoliriomyza jacarandae* Steyskal & Spencer, 1978. Indagini successive hanno permesso di raccogliere l'insetto anche in Liguria. Larve e pupe di questa specie, che qui viene segnalata per la prima volta per la fauna italiana ed europea, sono state rinvenute all'interno di gallerie su foglie di *Jacaranda mimosifolia* D. Don. (Bignoniaceae) nelle principali città siciliane.

Key words: *Phytoliriomyza jacarandae*, ornamental plants, first record, Italy, Europe.

INTRODUCTION

The continuous increase of trade in exotic plants often involves the introduction of insects establishing in the new areas if they find living climatic and environmental conditions. The study of insect pests of ornamental plants, particularly those living in parks and botanical gardens, in various Sicilian towns, lead to the discovery of some trees of *Jacaranda mimosifolia* D. Don. with yellow canopy due to the presence of leafmines caused by larvae of a fly. Afterwards the

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insect was found too in Liguria. Samples were taken and isolated in laboratory and then identified as *Phytoliriomyza jacarandae* Steyskal & Spencer, 1978 (Diptera Agromyzidae). This species is new for Italian and European fauna.

Phytoliriomyza jacarandae Steyskal & Spencer, 1978

MORPHOLOGICAL FEATURES. Adult (Fig. 1a): Head entirely yellow with frons broad and 4 orbital bristles of identical colour with the upper reclinate, orbital setulae sparse and reclinate, 3rd antennal segment small, round with distinct fringe of pubescence; mesonotum pale with 3 rusty-reddish



Fig. 1 - *Phytoliriomyza jacarandae*: adult (a); mines on jacaranda leaves (b).

bands, 3+1 differentiated dorsocentrals, 4th small, little more than half length of 3rd, 3 further minute bristles beyond 4th, prescutellar area and scutellum yellow, humerus and pleura yellow, apart from a rusty-reddish triangle at base of sternopleuron; legs largely yellow; wing length 1.4-1.6 mm, discal cell small. Male genitalia with aedeagus having distiphallus curving dorsally, inner margin of epandrium with a row of 4 or 5 short, stout spines (Fig. 2b); female genitalia with ovipositor sheath, quadrate black basidorsal marking, otherwise yellow, and with long dorsal apodeme forming closed tube into which ovipositor is withdrawn with cerci directed anteriorly, spermathecae lenticular (Fig. 2a). Puparium pale brown, posterior spiracles each with 3 bulbs (Spencer & Steyskal, 1986; Steyskal & Spencer, 1978).

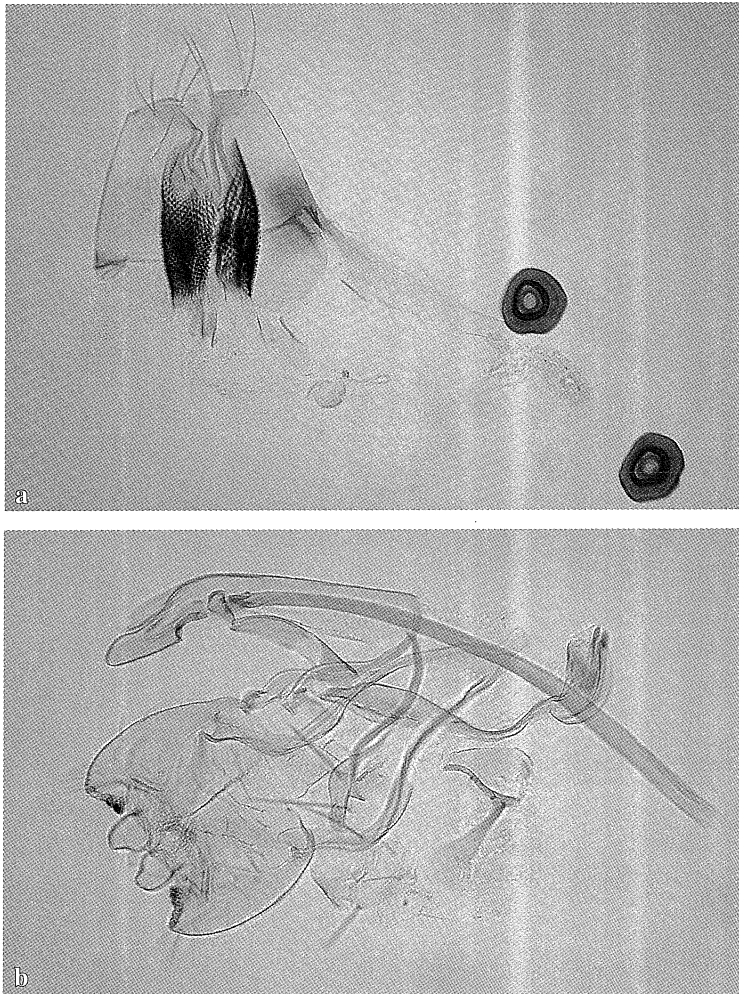


Fig. 2 - *Phytoliriomyza jacarandae*: genitalia of female (a) and male (b).

MATERIAL EXAMINED. Sicily: Catania, 19.X-12.XI.2006, 7 ♂♂, 9 ♀♀, from larvae on *Jacaranda mimosifolia*; Messina: 13.XI.2006, leafmines on *J. mimosifolia*; Palermo: Botanical Garden, 6-14.VI.2006, 4 ♂♂, 3 ♀♀, from larvae on *J. mimosifolia*. Liguria: Alassio, 24.IV.2007, leafmines on *J. mimosifolia* (material deposited at Dipartimento di Scienze e Tecnologie Fitosanitarie, University of Catania and at Istituto di Entomologia Agraria, University of Milano).

DISTRIBUTION. *P. jacarandae* is a South American species. It is distributed in Argentina (Córdoba), United States of America (Southern California), Australia, New Zealand and South Africa (Spencer, 1990; Naser, 1997).

HOST PLANT AND DAMAGES. *P. jacarandae* is a leafminer of *Jacaranda mimosifolia* (Bignonaceae); the young larva produces a short linear brown mine in the single leaflet, developing into an irregular blotch (Fig. 1b). The affected leaves drop and the larva pupate in the soil. The canopy quickly yellows and defoliates (Naser, 1997).

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