

## FIRST HOST PLANT RECORD FOR *ANASTREPHA ELEGANS* (DIPTERA: TEPHRITIDAE)

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The hosts for many of the 53 Brazilian *Anastrepha* species are unknown because surveys often are conducted with traps (Zucchi 2007). *Anastrepha elegans* (Blanchard) is a large species whose host has not been determined. The thorax is 3.5 mm long, the mesonotum is without stripes, and it has a yellow metanotum. The average wing length is 10.00 mm and stripes on the wings are separated from one another. The ovipositor is 3.5 mm long, and has a distinct constriction before its saw. Its saw has acute teeth (Zucchi 1978). This species is found in Argentina (Corrientes), Paraguay, and Brazil (in the states of Mato Grosso do Sul, Paraná, Rio Grande do Sul, Santa Catarina, and São Paulo) (Garcia 2003; Garcia et al. 2002, 2003; Garcia & Corseuil 2004; Norrbom 2004; Zucchi 2007).

We collected mature fruit from both the soil and trees in Chapecó town, Santa Catarina state (27°06'S and 53°16'W). Each fruit was weighed and then put into a plastic container, which was covered with a net containing about 7 centimeters of sterilized sand.

The containers were kept in the Entomology Laboratory of the Agricultural and Environmental Science Center of the Regional University of Chapecó (25 ± 3°C, 70 ± 10% RH and 12 h photoperiod). After 5 d the pupae in the sterilized sand were transferred to Petri dishes containing paper filter dampened with distilled water. Flies and parasitoids were counted after 7 d. *Anastrepha elegans* was identified with the help of both Steyskal's (1997) and Zucchi's key (2000).

In total, 17,876 fruits were counted (1351.56 kg). These fruits came from 58 species belonging to 30 families. Nine specimens of *Anastrepha elegans* emerged from 87 fruits (0.24kg) of *Chrysophyllum gonocarpum* (Mart & Eichl) Engler (Ebenales: Sapotaceae) in a ratio of 0.10 pupae/fruit to 37.81 pupae/kg. Specimen vouchers of the flies and host plant have been deposited at the Museum of Zoology and Botany of the Regional Community University of Chapecó.

*Chrysophyllum gonocarpum* is popularly known in Brazil as *aguai-da-serra*, *perobranca*, *guatambu-de-sapo*, *cajeta*, *caxeta-amarela*, *coerema*, *aguazeiro* or *mata-olho*. It contains a milky sap, and is about 10 to 20 m high with a 50 to 80 cm diameter trunk. The leaves vary from 8 cm to 16 cm long and are 2.5 cm wide and stems

are 1.5 cm long. The tree is semideciduous plant originally found in ancient native wet forests. It may be found in the very deep of valleys and in the coast of rivers or in soils where humidity levels are high. This plant develops poorly whenever scattered in open fields.

The plant flourishes and its fruit ripens from Sep until Nov. *Chrysophyllum gonocarpum* can be found in Argentina, Bolivia, Brazil (from the state of Maranhão to the state of Rio Grande do Sul) (Sobral et al. 2006), Paraguay, and Uruguay.

Several species of Sapotaceae are hosts of fruit flies of genus *Anastrepha*. That suggests that they may have been ancient hosts of the genus *Anastrepha*, and may have created links to other taxonomic groups (Norrbom 1985).

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### SUMMARY

*Chrysophyllum gonocarpum* (Mart & Eichl) Engler (Ebenales: Sapotaceae) has been reported as a host for *Anastrepha elegans* for the first time. Specimens of *A. elegans* were found in 87 fruits (0.24 kg) of *C. gonocarpum* from Chapecó, a town in Southern Brazil, in a ratio of 0.10 pupae/fruit and 37.81 pupae/kg fruit.

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