

SHORT COMMUNICATION

Strepsicrates smithiana Walsingham (Lepidoptera, Tortricidae): first record from Chile and a newly documented host plant

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ABSTRACT. *Strepsicrates smithiana* Walsingham (Lepidoptera, Tortricidae): first record from Chile and a newly documented host plant. *Strepsicrates smithiana* Walsingham, 1892 (Lepidoptera, Tortricidae) is recorded for the first time from Chile. Male and female adults were reared from leaf-tying larvae collected on *Myrica pavonis* (Myricaceae), which is a new host plant record for *S. smithiana*.

KEYWORDS. *Myrica pavonis*; Neotropical; Olethreutinae; taxonomy.

RESUMO. *Strepsicrates smithiana* Walsingham (Lepidoptera, Tortricidae): primeiro registro para o Chile e novo registro de planta hospedeira. *Strepsicrates smithiana* Walsingham, 1892 (Lepidoptera, Tortricidae) é registrada pela primeira vez para o Chile. Esta é também a primeira menção de *Strepsicrates* Meyrick, 1888 para o Chile. Macho e fêmea adultos foram criados de larvas coletadas em *Myrica pavonis* (Myricaceae), que é um novo registro de planta hospedeira para *S. smithiana*.

PALAVRAS-CHAVE. *Myrica pavonis*; Neotropical; Olethreutinae; taxonomia.

The Tortricidae fauna of Chile was recently reviewed by Razowski & Pelz (2010), who recorded 86 species from the country, most of which are endemic. Subsequently, one genus and two species were added from the coastal valleys of northern Chile (Vargas 2011). As with many other microlepidoptera, Tortricidae are poorly studied in the desert areas of northern Chile, mostly due to the minimal amount of sampling effort; only a few native species have been recorded from this area. However, the coastal desert of southern Peru and adjacent northern Chile supports a very interesting fauna, characterized by many endemic insects, including some microlepidoptera (e.g., Clarke 1987; Vargas 2010, 2011). Some widespread species also range throughout this area (e.g., Vargas 2007; Vargas & Parra 2006). *Strepsicrates* Meyrick, 1888, which is nearly cosmopolitan, is comprised of 15 described species. Although two species have been recorded from the Neotropics (Baixeras *et al.* 2010), the genus was previously unknown from Chile.

Leaf-tying lepidopteran larvae (Fig. 1) were collected in March, June and August 2010 on the native tree *Myrica pavonis* (C. DC.) (Myricaceae) in the Lluta Valley (18°24'S, 70°07'W), Arica Province, northern Chile. The larvae were brought to the laboratory and placed in plastic vials. Leaves of *M. pavonis* were regularly added until the larvae pupated. Pupae were concealed among leaves or among paper fragments tied by silk. Male and female adults obtained from pupae were pinned, labelled, and identified as *Strepsicrates smithiana* Walsingham, 1892, based on comparison with figures of the male and female genitalia in Razowski *et al.* (2008). In order to verify the possible presence of *S. smithiana*

in other localities of the Arica Province, *M. pavonis* trees were surveyed in the Azapa Valley (18°34'S, 70° 00'W) and Codpa Valley (18°49'S, 69°44'W) in January and October 2011, respectively. The same collecting and rearing procedures were followed, resulting in additional specimens of *S. smithiana*.

Strepsicrates smithiana was described from St. Vincent Island, West Indians. It has been reported from the Galapagos Islands, Ecuador (Razowski *et al.* 2008), and on the mainland from Central America north to Texas, Florida, and Massachusetts. It has been recorded from Bermuda (Ferguson *et al.* 1991), and it was introduced into Hawaii for control of *Morella faya* (Myricaceae) (Zimmerman 1978). Recently it was recorded from the Bolivar Province, Ecuador (Razowski & Wojtusiak 2009). Thus, the new localities added here from the northern desert of Chile greatly expand the known geographic distribution for *S. smithiana* in South America.

Previous host plant records for larvae of *S. smithiana* are concentrated in Myricaceae and Myrtaceae (Ferguson *et al.* 1991; Brown *et al.* 2008). The only host recorded in northern Chile is *M. pavonis*, consistent with previously recorded host plants. *Myrica pavonis* is the only species of Myricaceae in the Chilean flora (Muñoz-Pizarro 1966). Its geographic distribution is restricted to central Peru and northern Chile (Rodríguez *et al.* 1983). The ravine of Imagua (20°06'S, 69°15'W), Iquique Province, approximately 70 km south Codpa Valley, has been identified as the southern limit of this tree in northern Chile (Luebert 2004). It is possible that the geographic distribution of *S. smithiana* is linked to that of the host plant, which also reaches the ravines of the Iquique Province.



Fig. 1. Typical damage pattern produced by leaf-tying larvae of *Strepsicrates smithiana* on shoot of *Myrica pavonis*.

Voucher specimens will be deposited in the “Museo Nacional de Historia Natural de Santiago” (MNNC), Santiago, Chile, and in the “Colección Entomológica de la Universidad de Tarapacá” (IDEA), Arica, Chile.

Examined material. CHILE, Arica. Three males, three females: Lluta, Arica, Chile, May 2010, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, April 2010 (MNNC); five males, four females same data; one male: Lluta, Arica, Chile, June 2010, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, May 2010; one male: Lluta, Arica, Chile, September 2010, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, August 2010; two females: Azapa, Arica,

Chile, October 2011, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, October 2011; one male, two females: Azapa, Arica, Chile, November 2011, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, October 2010; two females: Codpa, Arica, Chile, February 2011, H.A. Vargas coll.//reared from larva on *Myrica pavonis*, January 2011 (IDEA).

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