

Isotrias penedana sp. n. a new species of Lepidoptera (Tortricidae: Chlidanotinae: Polyorthini) from Portugal

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Abstract

A new species of Tortricidae (Lepidoptera: Chlidanotinae: Polyorthini), *Isotrias penedana* sp. n., is described. The new species was collected in Serra da Peneda, in the Peneda-Gerês National Park located in the north-western region of Portugal. *I. penedana* differs from other species of the genus *Isotrias* by shape of the forewing and the male genitalia. In the new species forewing markings are completely atrophied or indistinct. The *socii* are short and broad, covered with long setae, and the costa of the valva is hardly concave basally. The imago and male genitalia are illustrated.

Introduction

A new tortricid *Isotrias penedana* sp. n., of the subfamily Chlidanotinae tribe Polyorthini, collected in Serra da Peneda, Portugal, is described.

Serra da Peneda, is in the Peneda-Gerês National Park located in the north-western region of Portugal, in the old province of Minho, now in the district of Viana do Castelo.

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Key words: *Isotrias penedana* sp. n., Lepidoptera Tortricidae, Chlidanotinae, Polyorthini, new species, Portugal.

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The Peneda-Gerês National Park presents remarkable biological, geological and archaeological features. The foothills of the Serra do Gerês along with the foothills of the Serra da Cabreira constitute the frontier between the Euro-Siberian and Mediterranean regions, which confers on Peneda-Gerês a floral and phytogeographic importance. Vegetation coverage of Serra da Peneda, Serra do Gerês, Serra Amarela and Serra do Soajo, as well as the Mourela and Castro Laboreiro plateaus, is dominated by four distinct biomes: oak forest, scrubland, marshy meadows and riparian vegetation. Climatically the area is strongly influenced by the Atlantic, resulting in the highest rainfall in Portugal.

Isotrias penedana sp. n.

MATERIAL EXAMINED. 1 male, holotypus, labelled as follows: Serra da Peneda, north-west Portugal, June 2012, leg. Martin Corley; 3 males, paratypus, Serra da Peneda, north-west Portugal, June 2012, leg. Martin Corley.

ADULT. Alar expanse, male 16-20 mm (Figure 1). Antenna greenish brown. Head and palpi light greenish-olive brown. Frons and vertex concolorous with palpus. Thorax and tegula light greenish-brown. Forewing ground colour whitish-creamy with yellowish-brown or amber spots. Strigulation dense, more or less fine, yellow to amber-ochreous. Fasciae almost completely atrophied or indistinct. Cilia whitish-ochreous with two dark bands. Hind wing pale greenish, distally greenish, cilia whitish with pale grey scales.

MALE GENITALIA (Figures 2-6). Tegumen reported in Figure 3; uncus rather slender with terminal rounded plate in apical portion; dorsal edge of uncus gradually curved downward. Socius short and broad, covered with long setae. Gnathos long; arm of gnathos strongly expanding terminally; spines of outer surface of gnathos arm atrophying (Figure 4). The valva is subrectangular, broad and moderately elongated provided with a long sacculus terminating in one or two ventral spines; the transformed setae on inner surface of valva are numerous. Costa of valva hardly concave basally (Figure 5). External edge of cucullus slightly arched. Juxta linked with valva; transtilla broad, tapering, medially plate provided with a pair of sublateral funnel-shaped processes directed proximally. Aedeagus long and simple, pointed, weakly sclerotized in distal part; with fairly long coecum penis (Figure 6).

FEMALE GENITALIA. Unknown.

DISTRIBUTION. Known only from three sites in Serra da Peneda and the Castro Laboreiro plateau, Minho, north-west Portugal.

HOST. Unknown.

BIOLOGY. Males were found flying in the afternoon or early evening in mid-June in small sloping marshy meadows at altitudes from 770 m at Podre to 1180 m at Portos. The vegetation in these meadows was rich and varied, including a range of graminoids, *Carex* and *Juncus* species, together with *Centaurea* sp., *Cirsium dissectum*, *Achillea millefolium*, *Conopodium majus*, *Lotus uliginosus*, etc. In every case



Figure 1. *Isotrias penedana* sp. n., adult.



Figure 2. *Isotrias penedana* sp. n., male genitalia.

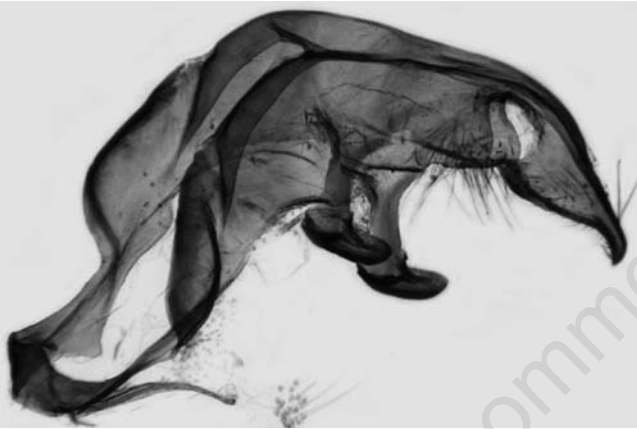


Figure 3. *Isotrias penedana* sp. n., male genitalia. Tegumen laterally.



Figure 4. *Isotrias penedana* sp. n., male genitalia. Tegumen frontally.

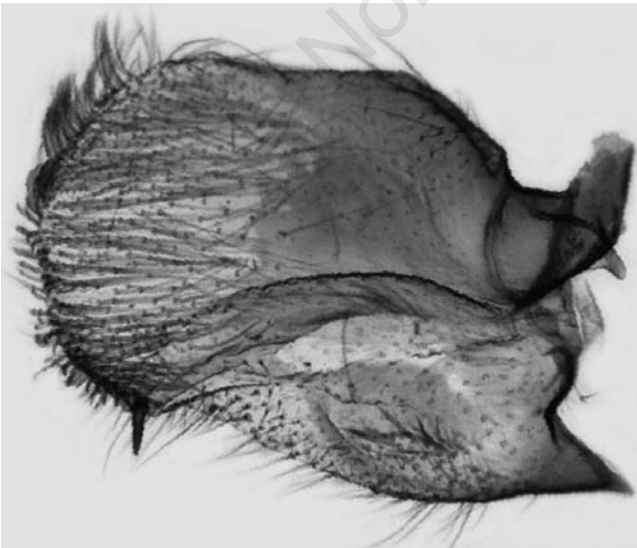


Figure 5. *Isotrias penedana* sp. n., male genitalia. Valva.



Figure 6. *Isotrias penedana* sp. n., male genitalia. Aedeagus.

there were some shrubs of *Genista florida* at the drier margins of the meadows.

REMARKS. The western Palaearctic genus *Isotrias* Meyrick, 1895, consists of 9 species, 8 known from Europe and one from North Africa (Lucas, 1954; Trematerra, 1993; Razowski, 1984, 1987, 2002; Brown, 2005).

Isotrias cuencana (Kennel, 1899), present in Spain (Albarracín, Cuenca, Guadalaviar, Las Palomas, Monteagudo de las Salinas, Torres de Albarracín); *I. huemeri* Trematerra, 1993, found in South Italy (Monti del Pollino); *I. hybridana* (Hübner, 1817) found in Europe, excluding the northern territories: Portugal, Spain, France, Belgium, Germany, Poland, Austria, Italy, Czech Republic, Slovakia, Slovenia, Croatia, ex Yugoslavia, Bosnia and Herzegovina, Macedonia, Albania, Hungary, Bulgaria, Greece and Ukraine; *I. joannisana* (Turati, 1921) distributed in Central and South Italy, reported also for France and Spain (?); *I. martelliana* Trematerra, 1990, from South Italy (Monti del Pollino, Cozzi dell'Anticristo); *I. penedana* Trematerra, 2013, from Serra da Peneda, north-west Portugal; *I. rectifasciana* (Haworth, 1811), European species distributed from British Islands and France to Denmark and Greece, East Europe and Asia Minor (?); *I. stramentana* (Guenée, 1845), present in South West Europe: Spain, France, Switzerland, Germany, Italy, Croatia; *I. buckwelli* Lucas, 1954, cited from Morocco.

According to Razowski (1984, 1987) the genus *Isotrias* requires a thorough revision, the differences between the species are slight especially in the genitalia. The external characters are in many cases of importance, however in specimens from the same locality there are dark and pale examples.

DIAGNOSIS. The new species *I. penedana* differs from other species of

the genus *Isotrias* by shape of forewing and the male genitalia. In the new species forewing markings are completely atrophied or indistinct. Socii are short and broad, covered with long setae; costa of valva is hardly concave basally.

The type specimens of *I. penedana* are deposited in the Trematerra Collection, University of Molise, Campobasso, Italy, and one paratype in the private collection of Martin Corley, Farington, England.

ETYMOLOGY. The new species is named after Serra da Peneda, the area from which the type series comes.

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