

# Generic composition of the New World Archipini (Lepidoptera, Tortricidae) with description of two new genera and two new species

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*Generic composition of the New World Archipini (Lepidoptera, Tortricidae) with description of two new genera and two new species.*— The geographic distribution of the genera of Archipini from the New World is discussed and compared with that of other regions. The 11 genera found in the Nearctic subregion are all known from the Palearctic subregion. In the Neotropical region there are six genera only, three being endemic. Two genera, viz., *Tacertaenia* with *T. polonorum* and *Sychnovalva* with *S. syrrhapta* are described as new.

Key words: Lepidoptera, Tortricidae, Archipini, New World.

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## Introduction

The generic composition of the tortricid tribes of the New World has not been discussed previously. Moreover, data on the Neotropical faunas are still very incomplete.

The tribe Archipini has a world-wide distribution and the majority of genera and species occur in the Oriental region and the Palearctic subregion. In the Palearctic

subregion which is the best studied area, 25 genera occur of which 12 are shared with the Oriental region.

The aim of this work is to present a preliminary summary of the generic composition of the tribe Archipini in the New World. Although a comparison with that of other tribes is at present impossible, it is clear that the Archipini are poorly represented in the Neotropical region.

## Material and methods

The present data are based on the material deposited in the largest entomological institutions, which are mainly American, and in some private collections.

## Distribution of the genera of Archipini in the New World

The Archipini are represented by only 15 genera in the New World. Only nine genera are recorded from the Nearctic subregion.

*Cudonigera* Obraztsov & Powell, 1977 is endemic in this area. This monotypical genus is very close to *Choristoneura* Hübner, 1825 differing only in one character of the female genitalia.

Two genera, viz., *Batodes* Guenée, 1845 and probably *Cacoecimorpha* Obraztsov, 1954 were artificially introduced into North America.

Four genera (*Archips* Hübner, 1825, *Pandemis* Hübner, 1825, *Adoxophyes* Meyrick, 1881 and *Clepsis* Guenée, 1845) are widely distributed in the Palaearctic subregion and the Oriental region. The distribution of *Adoxophyes* is even wider as there are several species in the Australian region and in North America there are two species distributed in its northern parts.

The genera *Syndemis* Hübner, 1825 and *Aphelia* Hübner, 1825 are Holarctic in distribution; the former is represented in the Palaearctic subregion by a single species, and the latter by numerous species and all subgenera. The Nearctic species of *Aphelia* Hübner belong to two subgenera; one species is included in *Zolothereses* Lederer, 1859 four in *Aphelia* s. str. They are widely distributed throughout North America from Alaska and Quebec to Texas.

*Archips* Hübner is known from all of Asia and in North America is represented by 21 species distributed mainly in the northern and central parts of the subregion but reaching southwards as far as California, Texas and Florida.

*Choristoneura* has a similar distribution but does not penetrate into the Oriental region. Seventeen species occur in North America and are known mainly from the northern and central parts of the subre-

gion, not expanding far south (except for one widely distributed species recorded in the south from California and Florida, and central Mexico).

The genus *Pandemis* is abundant in species in temperate and tropical Asia as well as in the Afrotropical region where it occurs in Madagascar and South Africa. The Nearctic species reaches as far south as California.

Two genera, *Argyrotaenia*, Stephens, 1852 and *Clepsis*, occur over a wide area of the New World, the former from northern Canada to Argentina and the latter to Peru. *Argyrotaenia* is represented in the Holarctic region by a single very widely distributed Palaearctic species and by over 35 Nearctic species. A similar number of species occurs in the Neotropical region. There are only slight differences between the species and only a few South American species are better differentiated, particularly concerning the genitalia. The number of species of *Clepsis* increases slightly from Canada to Mexico, and in South America the genus is represented by five species in Peru, Venezuela and Guatemala and five other species in Colombia. On basis of unexamined material the author assumes that this genus is more abundant in species, specially in the mountains of Peru and Colombia. Three of the species closely related with *C. smicrotes* (Walsingham, 1914) occur in Canada and 14 in Mexico. All Central American and South American species belong to this group. Several species described or placed in *Smicrotes* Clemens, 1860 have been incorrectly included in *Ptycholoma* Stephens, 1829 which is exclusively a Palaearctic genus. Of the remaining species of *Clepsis* one is of Holarctic distribution, and six are Nearctic, all occurring in the northern and central areas of North America and more southwards in the mountains (e.g. in California).

Another Nearctic genus, *Durangarchips* Powell, 1991 is monotypical and known only from Durango (Mexico).

In the Neotropical region, apart from the last two genera, occurs *Idolatteria* Walsingham, 1913 with eight species distributed between Guatemala and Bolivia and two genera described below, all most prob-

ably endemic in this region. They are described from Southern Brazil, but their range may be much larger.

As it has not been possible to examine any specimens of *Nesochoris* Clarke, 1965 the systematic position of this genus cannot yet be discussed.

The tribe Archipini, seems to be represented in the New World by a rather small number of the genera and species. Some endemic small genera may yet be discovered in very little studied territories, specially in the mountains of the western part of the Neotropical region. Many new species may be added to *Argyrotaenia* and *Clepsis*. More comprehensive collecting may add many taxa as it did, for instance, in Mexico.

### Descriptions of new taxa

*Tacertaenia* n. gen.

Type-species: *Tacertaenia polonorum* n. sp.

Externally similar to the representatives of *Argyrotaenia* Stephens. Venation and sexual dimorphism as in the mentioned genus.

Male genitalia (figs 1-3)

Tegumen very broad, with small, narrow ends of pedunculi; uncus very large, bifid postmedially, with rounded apical parts; socius small, membranous, hairy; gnathos arms broad, with terminal parts plate-shaped, apically rounded, connected with one another by means of broad membrane, without medial plate; vinculum small, as in *Argyrotaenia*; valva elongate, with dorso-terminal part expanding slightly dorsally, more strongly sclerotized than the remaining costal area, sacculus as long as valva, angulate at its end, extending dorsally along its caudal edge, provided with minute free termination, fold distinct, pulvinus ill-defined; transtilla band-shaped, broadening slightly basally; juxta ovate; aedeagus slender, curved, with short coecum penis, cornuti missing.

Female genitalia (fig. 4)

Eighth tergite and papilla analis large, slen-

der, apophyses moderate; sterigma rather broad in median part, with slender lateral arms well sclerotized along anterior edges, ostium bursae very small; colliculum small, membranous; ductus bursae rather short with ductus seminalis extending post-medially; signum absent.

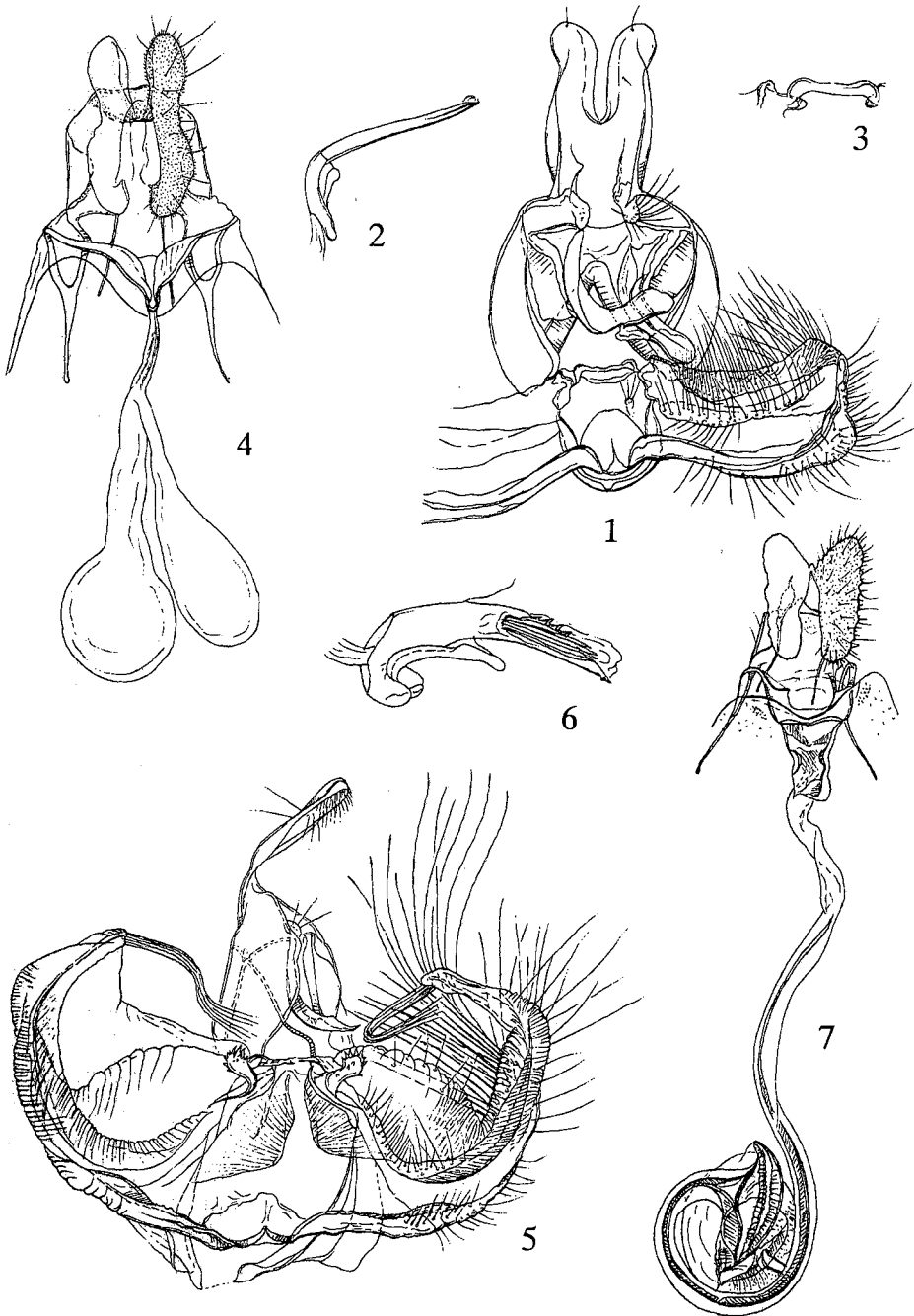
Remarks

Supposedly closest to *Argyrotaenia* as the shape of forewings, coloration and sexual dimorphism show. The genitalia are similar only in the shape of transtilla, aedeagus and bursa copulatrix which, however, is variable in *Argyrotaenia* (the sclerite of the basal part of ductus bursae is often missing). The supposed autapomorphies are the broad, rounded apically distal parts of the uncus, the arms of gnathos connected by means of a membrane, the atrophy of median, terminal part of the gnathos, the enlarged, somewhat stronger sclerotized dorsal termination of the valva. The absence of the cornuti and the signum are convergent reductions often observed in this subfamily. The new genus is also close to the new genus described below although it differs in the absence of median plate of the gnathos and its lateral processes, and the absence of the signum.

*Tacertaenia polonorum* n. sp.

Male

Alar expanse 13-15 mm; labial palpus as long as diameter of eye, ferruginous to rust yellowish, head, thorax and forewing pattern concolorous; the latter consisting of dorso-basal suffusion, median fascia interrupted subcostally and subtriangular, large subapical blotch; ground-colour much paler and creamer, sprinkled rust; fringes in tornal half concolorous with ground-colour, otherwise with pattern. Hindwing dirty cream, tinged grey in anal area, with yellow in remaining periphery; fringes concolorous with adjacent parts of wing. Variation: pattern occasionally brown-grey, more or less distinct, ground-colour at dorsum pale. Female (17-19 mm) almost unicolorous rust, or with weak darker pattern before apex and tornus; hindwing orange-ferruginous, paler basally, brown-grey in anal area.



Figs. 1-7. Male and female genitalia. 1-4. *Tacertaenia polonorum* n. sp.: 1-3. ♂ paratype.; 4. ♀ paratype. 5-7. *Sychnovalva syrrhapta* n. sp.: 5,6. ♂ holotype; 7. ♀ paratype.

Genitalia del macho y de la hembra. 1-4. *Tacertaenia polonorum* sp. n.: 1-3. ♂ paratipo; 4. ♀ paratipo. 5-7. *Sychnovalva syrrhapta* sp. n.: 5,6. ♂ holotipo; 7. ♀ paratipo.

**Genitalia**

As described for the genus.

**Material studied**

Holotype, 'Brazylia, Santa Catarina, Rio Vermelho, 968 m, 21.II.1973, A. & J. Razowski'; coll. V.O. Becker, Planaltina, Brazil. Paratypes: 37 males and 17 females from type-locality, dated 19-22 II 1973 and 6 III 1973, Rio Negro, Paraná, 900 m., 9 II 1973 and 14 km NW Sao Bento do Sul, 850 m, 1 and 23 II 1973.

**Note**

This species is described in honour of the Polish speaking inhabitants of the villages in Paraná and Santa Catarina, descendants of the Polish immigrants, who helped me so much in collecting the moths.

***Sychnovalva* n. gen.**

Type-species *Sychnovalva syrrhapta* n. sp.

Forewing rather broad; costal fold very slender reaching beyond mid-costa; apex very short; termen straight beyond apex.

**Male genitalia (figs 5,6)**

Tegumen small; uncus long, provided with ventral brush; socius very small, membranous; gnathos arms slender, terminal plate small; valva large with membranous disc, fold large; a pencil of long hair at dorso-apical part of valva; sacculus without free termination; base of transtilla with curved, dentate apical lobe from middle of which a submembranous process extends; aedeagus slender with coecum penis curved proximally and caulis long; several cornuti in vesica.

**Female genitalia (fig. 7)**

Papilla analis small; apophyses very slender; sterigma arms small, broad basally; colliculum large, rather membranous with submedian sclerite and anterior lobe; cestum reaching 2/3 of length of ductus bursae, broadening in corpus bursae; this latter minutely spined; signum absent.

**Remarks**

This genus resembles some Oriental repre-

sentatives of Archipini (e.g. *Isodemis* Diakonoff, 1952, *Homona* Walker, 1853) in having large, membranous folds of the valva. However, it differs from them in the transtilla which suggests its affinity to the group of genera allied with *Clepsis*. The supposed autapomorphies of this genus are the curved base of the transtilla with its proximal process and the pencil hair of the dorsal end of the valva.

**Genitalia**

As described for the genus.

**Distribution**

Brazil: Santa Catarina, Paraná.

***Sychnovalva syrrhapta* n. sp.**

Alar expanse 15 mm; labial palpus longer than diameter of eye; head and tegula greyish white; costal part of termen not oblique. Ground-colour yellowish ochreous, strigulated and sprinkled brownish; remainders of median fascia and subapical blotch brownish; terminal area of wing veins suffused brownish; fringes brownish cream. Hindwing cream, suffused brownish yellow on periphery, fringes similar.

**Genitalia**

As described above.

**Material studied**

Holotype, male: 'Brazylia, Santa Catarina, Rio Vermelho, 968 m, 26 II 1973, A. & J. Razowski'; coll. V. O. Becker, Planaltina, Brasil. Paratype, female similarly labelled but dated 20 II 1973.

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**Resumen**

*Composición genérica de los Archipini del Nuevo Mundo (Lepidoptera, Tortricidae) con descripción de cuatro nuevos géneros y dos nuevas especies*

Se discute y compara la distribución geográfica de los géneros Archipini del Nuevo Mundo con los de otras regiones. Los 11 géneros encontrados en la subregión Neártica son conocidos de la

subregión Paleártica. En la región Neotropical sólo hay seis géneros, tres de ellos endémicos. Se describen dos nuevos géneros, viz. *Tacertaenia* con *T. polonorum* y *Sychonivalva* con *S. syrrhapta*.

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