SEVEN NEW SPECIES OF THE SUBGENUS
GLAUCOLEPIS BRAUN FROM SOUTHERN EUROPE
(LEPIDOPTERA: NEPTICULIDAE, TRIFURCULA)

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Abstract


Seven new species of the subgenus Glaucolepis Braun, 1917 of the genus Trifurcula Zeller, 1848 have been described from southern Europe, viz. Trifurcula (Glaucolepis) helladica Z. Laštůvka & A. Laštůvka sp. n. from Peloponnisos and Crete, Greece, T. (G.) corleyi Z. Laštůvka & A. Laštůvka sp. n. from Spain and Portugal, T. (G.) andalusica Z. Laštůvka & A. Laštůvka sp. n. from Andalusia, T. (G.) pederi Z. Laštůvka & A. Laštůvka sp. n. and T. (G.) salvifoliae Z. Laštůvka & A. Laštůvka sp. n. from various parts of Spain, T. (G.) montana Z. Laštůvka, A. Laštůvka & van Nieukerken sp. n. from Spain and Sar- dinia, and T. (G.) lavandulae sp. n. from Spain and southern France. The bionomics of five species is unknown, the host plant of T. (G.) salvifoliae sp. n. is Salvia lavandulifolia Vahl, those of T. (G.) lavan- dulae sp. n. are Lavandula latifolia Medicus and L. angustifolia Miller.

Glaucolepis, new spp., southern Europe

The subgenus Glaucolepis Braun, 1917 of the genus Trifurcula Zeller, 1848 forms, with only several exceptions, a homogeneous group. It is characterized especially by a broad valva with a finger-shaped apical or subapical process, aedeagus with a large cornutus and with two rows of spines distally, vinculum with more or less distinct concavity anteriorly, and by transtilla without a horizontal bar. The subgenus comprises about 20 species described in Europe (van Nieukerken & Johansson, 1990; Laštůvka, A. & Laštůvka, Z., 1997; van Nieukerken, 2007), further at least 12 known but undescribed and very probably other undiscovered taxa. The larvae are leaf or stem miners, in known cases especially of Lamiaceae, besides Globulariaceae, Apiaceae and Linaceae. This contribution presents descriptions of seven new species, as a result of investigations in southern Europe in the past years.

Trifurcula (Glaucolepis) helladica Z. Laštůvka & A Laštůvka sp. n.
(Figs 1–3)


Description. Wingspan 4.0–4.4 mm; head ochreous yellow or ochreous rusty, scape whitish; antenna light grey-brown, with 36–37 segments; thorax and forewing covered by dense dark fuscous scales, underside fuscous; hindwing, cilia, legs and abdomen light grey-brown.

Male genitalia. Genital capsule length 0.21 mm; valva broad, it narrowing from the middle into spindly distal process curved inwards; uncus broad; gnathos
central element pointed, triangular; vinculum deeply concave; aedeagus with a large curved cornutus and with two rows of small spines distally.

Female and biology unknown. The adults have been collected at light close to the growths of Globalaria alypum L. from May to July.

Diagnosis. The new species is very similar to the western mediterranean Trifurcula (Glaucolepis) alypum Klimesch, 1975. Valva in this species is triangular, its apical process longer, uncus more narrow, gnathos narrow and spindly, and aedeagus with very long cornutus (cf. figs 19, 20).

Distribution. Greece, Peloponnisos and Crete.

Etymology. Named after the country of its origin.

**Trifurcula (Glaucolepis) corleyi** Z. Laštůvka & A. Laštůvka sp. n. (Figs 4–6)


Description. Wingspan 4.2–5.8 mm; head ochreous yellow to light rusty, scape light ochreous with several brown scales; antenna brown, with 32–33 segments; thorax and forewing covered by grey-brown scales, hind margin of the forewing in the middle; forewing underside light brown; hindwing and cilia greyish ochreous; abdomen fuscous; legs ochreous grey.

Male genitalia. Genital capsule length 0.20–0.22 mm; valva triangular, with a stout apical process partly curved inwards; uncus distinct, rounded apically, tegumen triangular; gnathos very broadly triangular; vinculum slightly concave anteriorly; aedeagus with large and slightly bent cornutus, thicker basally, and with two rows of distinct small spines distally.

Female and biology unknown. The adults have been collected at light close to growths of Globalaria, Linum, Teucrium and other possible host plants from April to August.

Diagnosis. The new species is similar to Trifurcula (Glaucolepis) bleonella (Chrétien, 1904) which valva has a longer apical process, not distinctly curved inwards, uncus and tegumen are longer, gnathos is larger and more rounded distally, vinculum distinctly concave anteriorly, and the cornutus of aedeagus nearly straight, only slightly basally (cf. figs 17, 18).

Distribution. Spain.

Etymology. Named after our good friend Peder Skou who also collected one of the specimens of this new species.

**Trifurcula (Glaucolepis) andalusica** Z. Laštůvka & A. Laštůvka sp. n. (Figs 10–12)

Material. Holotype ♂, Spain, Sevilla, Coripe, 26.vi.2002,
Trifurcula (Glaucolepis) montana Z. Laštůvka, A. Laštůvka & van Nieukerken sp. n.
(Figs 13–16)


Description. Wingspan 4.6–5.0 mm; head ochreous yellow, scape whitish ochreous; antenna brown, with 35–36 segments; forewing covered by dense grey-brown spots, but with a visible ochreous grey bed, especially in distal part; forewing underside grey-brown; hindwing light grey, cilia ochreous grey; abdomen grey-brown; legs yellowish ochreous with grey scales.

Male genitalia. Genital capsule length 0.21–0.24 mm; valva broad with a long finger-shaped apical process, partly curved inwards, and with a blunt angle on its inner margin; uncus short and comparatively broad; tegumen slightly elongate and rounded; gnathos central element large, triangular, sometimes with an elongate point; vinculum only slightly concave anteriorly; aedeagus with a distinct large, and only slightly bent cornutus, and with two rows of large spines distally.

Female and biology unknown. The adults have been collected at light in June and July.

Diagnosis. The new species differs from all other similar species especially by the long finger-shaped apical process of the valva and by distinct rows of spines in distal part of the aedeagus.

Distribution. Western parts of Andalusia.

Etymology. Named after Andalusia, the native country of this species.

**Description.** Wingspan 4.2–4.8 mm; head ochreous, scape whitish; antenna brown, with 34–36 segments in male and 28 in female; thorax and forewing very light, ochreous, only with several brownish or grey-brown scales, especially in its distal part; forewing underside light brown; hindwing and cilia light whitish ochreous; abdomen brown, lighter laterally; legs light ochreous.

**Male genitalia.** Genital capsule length 0.23 mm; valva small, rounded, with a finger-shaped apical process, curved slightly inwards; uncus very broad, slightly concave distally; gnathos central element slender and pointed; vinculum large, deeply concave anteriorly; aedeagus with a distinct and stout, but short cornutus, about 1/6 of the aedeagus length, and with many fine spines in its distal part.

**Female genitalia.** Anal papillae to the end of apophyses 0.30 mm; end of abdomen elongate, anal papillae mounted; anterior apophyses large, they broaden out in their anterior ends; 8th tergite with groups of 12–13 long and several fine hairs; signa asymmetric, of the length 0.23 and 0.20 mm, with 4–5 rows of cells, about as four or five times longer as broad; ductus spermathecae with 5 convolutions of the middle size.

**Diagnosis.** *Trifurcula (Glaucopleis) salvifoliae* sp. n. differs from other similar species by a combination of genitalia characters, especially by its broad uncus, the very short and stout cornutus in aedeagus, and by many fine thorns in distal part of aedeagus.

**Host plant and biology.** *Salvia lavandulifolia* Vahl; larva yellow; mine on upperside, it starts as a very narrow gallery with an irregular, broadly broadening frass line. The adults have been collected at light in June and reared in July, but the species very probably produces more generations annually. The mines of this species have been mentioned and figured by Hering (1936) from Albarracín.

**Distribution.** Spain.

**Etymology.** Named after the generic name of its host plant.

*Trifurcula (Glaucopleis) lavandulae* Z. Laštůvka & A. Laštůvka sp. n. (Figs 26–31)


**Description.** Wingspan 5.0–5.6 mm; head ochreous to rusty, scape light ochreous, mostly with several dark scales; antenna brown, with 44–47 segments in male and 36–37 in female; thorax and forewing light ochreous with dense grey-brown scales, hind margin of the forewing lighter; forewing underside light brown, with a group of yellow androconial scales in male; hindwing light grey, cilia light greyish ochreous; abdomen light brown, ochreous laterally; legs greyish ochreous.

**Male genitalia.** Genital capsule length 0.29 mm; valva broad, with a short, pointed subapical process; sublateral processes of transtilla long; uncus elongate, rounded; tegumen bilobed; gnathos central element stout, triangular; vinculum large, elongate, narrow and deeply concave anteriorly; aedeagus with a large and curved cornutus, and with two groups of spines distally.

**Female genitalia.** Anal papillae to the end of apophyses 0.60 mm; end of abdomen distinctly elongate, anal papillae elongate and mounted; apophyses stout and long; 8th tergite with two groups of 16–18 long hairs laterally; signa indistinct, 0.34 mm long, as three or four times longer as broad, with about 6 rows of cells; ductus spermathecae with 4.5–5 small convolutions.

**Diagnosis.** *Trifurcula (Glaucopleis) lavandulae* sp. n. is very close and similar to *T. (G.) stoechadella* (V. Klimesch, 1975 and/or to *T. (G.) saturejae* (Parenti, 1963). The first of these species has only a smaller group of androconial scales on the forewing underside, its valva is broader distally, sublateral processes of transtilla shorter, gnathos more elongate, vinculum without an anterior concavity, anal papillae and apophyses in female very long, and hairs on the 8th tergite shorter. Valva of *T. (G.) saturejae* has an angled inner margin, a distinct finger-shaped distal process, its gnathos is narrower, vinculum straight anteriorly or only slightly concave, and apophyses in female genitalia are shorter (cf. figs 32–37).
Seven new species of the subgenus *Glaucolepis* Braun from southern Europe

Host plant and biology. *Lavandula latifolia* Medicus, *L. angustifolia* Miller. Larva yellow. Mine on upperside, it is a long and narrow gallery with an irregular frass line. The larva mines during winter, changing 2 or 3 leaves. The adults have been collected at light from June to August.

Distribution. Spain, southern France.

Etymology. Named after the generic name of its host plant.

1–12: Adults and male genitalia; 1, 2, 3 – *Trifurcula* (*Glaucolepis*) helladica sp. n., 4, 5, 6 – *T.* (*G.* corleyi sp. n., 7, 8, 9 – *T.* (*G.*) pederi sp. n., 10, 11, 12 – *T.* (*G.*) andalusica sp. n.
13–20: Adult and genitalia; 13–16: *Trifurcula* (*Glaucoplepis*) montana sp. n., 17, 18 – *T. (G.)* bleonella, 19, 20 – *T. (G.)* alypella
Seven new species of the subgenus *Glaucolepis* Braun from southern Europe

21–25: *Trifurcula (Glaucolepis) salvifoliae* sp. n.; 21 – adult, 22 – male genital capsule, 23 – aedeagus, 24 – female genitalia, 25 – mines on leaves of *Salvia lavandulifolia*
26–31: Trifurcula (Glaucolepis) lavandulae sp. n.; 26 – adult, 27 – forewing underside, 28 – male genital capsule, 29 – aedeagus, 30 – female genitalia, 31 – mines on leaves of Lavandula latifolia
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32–37: Male and female genitalia; 32, 33, 34 – *Trifurcula* (Glauclepis) stoechadella, 35, 36, 37 – *T. (G.) saturejae*
SOUHRN
Sedm nových druhů podrodu *Glaucolepis* Braun z jižní Evropy
(Lepidoptera: Nepticulidae, *Trifurcula*)


Glaucolepis, nové druhy, jižní Evropa

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