

Genitalia of the Species of the Genera *Zanclognatha*, *Herminia* and *Pechipogon* Occurring in Denmark and Fennoscandia (Lep. Noctuidae Hypeninae)

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Abstract

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The male and female genitalia of the eight species of the genera *Zanclognatha*, *Herminia* and *Pechipogon* which occur in Denmark and Fennoscandia are described and figured.

The first Swedish specimen of *Zanclognatha tarsicrinalis* Kn., apart from the specimen mentioned as probably Swedish by Aurivillius in "Nordens fjärilar" (p. 189), was taken by G. Eriksson at Hörsne, Gotland, 27.6.1947 (Nordström 1947: 166). In 1973 Lars Imby and Hans Hellberg caught the second and third Swedish specimens at Sandhammaren, Scania. Imby took a male on 5.7. about 23.30 h. at light (Hg-lamp) just west of the lighthouse of Sandhammaren in oak forest with mixed meadow and heath vegetation. Hellberg captured his specimen, also a male, on 6.7. about 23.00 h. at a lamp put up some 250 m. north of the above place. The vegetation is here dominated by shrubs of *Rubus fruticosus*, which species is mentioned as a food plant of *tarsicrinalis*. On both occasions the weather conditions were very favourable with a temperature just below 20°C and very high air humidity.

On account of the above-mentioned captures of *Zanclognatha tarsicrinalis* I began to study the species of the genera *Zanclognatha*, *Herminia* and *Pechipogon* that occur in Denmark and Fennoscandia more closely. Specimens of these species are often in a bad condition when captured, and may then be difficult to identify with certainty with the aid of the characteristics given in the handbooks. Looking in the literature for descriptions and figures of their genitalia, I was not able to find any. For the use of those who want to check the determinations of these moths by means of the genitalia, I give below a survey of the valvae, aedeagi and bursae copulatrices of the species in question. The only aim being to facilitate the identification, I do not enter into discussions of morphological details, and no attempts are made to homologize for instance the different structures of the valvae. All protruding parts of the valvae are called processes.



Fig. 1. A. *Z. tarsicrinalis* Kn., right valva, B. *Z. tarsiplumalis* Hb., right valva, C. *Z. tarsipennalis* Tr., right valva, D. *Z. nemoralis* F., left valva.

Zanclognatha tarsicrinalis Kn.

♂.

Valva (fig. 1 A) without processes, evenly narrowing towards apex, only in proximal part with hairs.

Aedeagus (fig. 3 A): Vesica, besides numerous very small spines, containing a few

larger sclerotized structures, among them a very large, two-toothed one and a smaller, three-toothed one.

♀.

Bursa (fig. 5 A) with numerous, mostly strong spines concentrated to its posterior part.

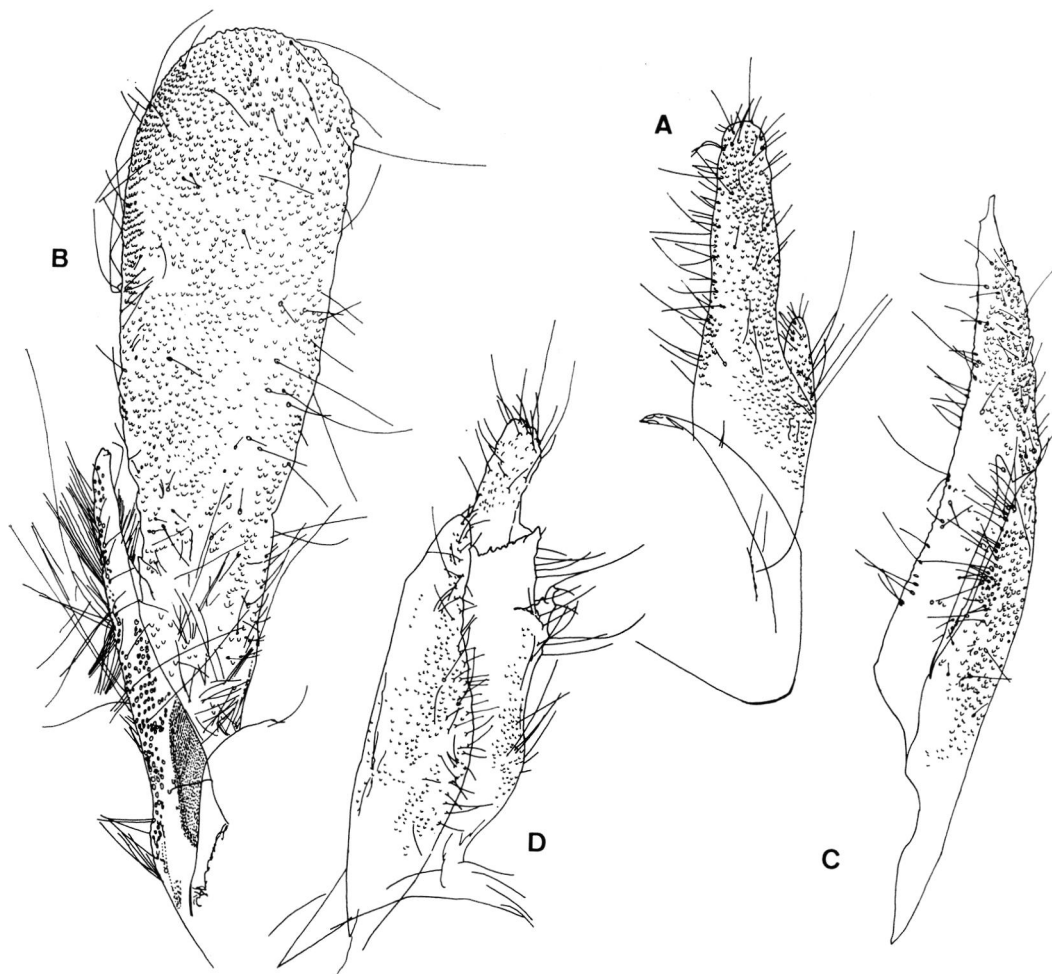


Fig. 2. A. *H. tentacularia* L., right valva, B. *H. glaucinalis* Schiff., left valva, C. *H. cribrumalis* Hb., right valva, D. *P. barbalis* Cl., left valva.

Zanclognatha tarsiplumalis Hb.

♂.

Valva (fig. 1 B) with two large processes drawn out into a narrow point; apical part of valva narrow, equally broad, at tip rounded and rather densely hairy.

Aedeagus (fig. 3 B): Vesica with a group of very large, spiniform cornuti.

♀.

Bursa (fig. 5 B) large, constricted in the middle, all over covered with spines, which

are strong in its anterior part, in its posterior part much smaller.

Zanclognatha tarsipennalis Tr.

♂.

Valva (fig. 1 C) at apex divided into two unequal lobes, the larger dentate on its inner border; a small process just distad of the middle of the valva.

Aedeagus (fig. 3 C): Vesica, besides small sclerotized structures of varying form, with

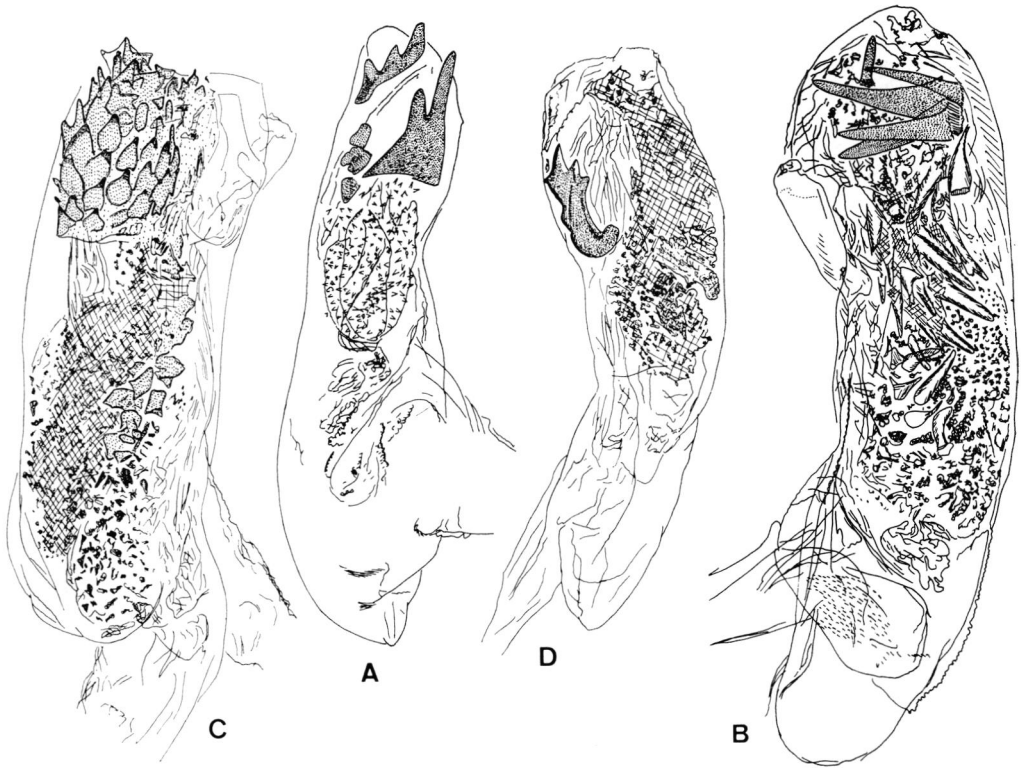


Fig. 3. Aedeagus of: A. *Z. tarsicrinalis* Kn., B. *Z. tarsiplumalis* Hb., C. *Z. tarsipennalis* Tr., D. *Z. nemoralis* F.

an accumulation of short, strong, simple or two-pointed spines.

♀.

Bursa (fig. 5 C) with numerous spines of varying size, the strongest arranged in two longitudinal bands in its anterior part.

Zanclognatha nemoralis F.

♂.

Valva (fig. 1 D) broad, at apex rounded and provided with a small tooth-like projection.

Aedeagus (fig. 3 D): Vesica with a big, curved sclerotized structure armed with a few short teeth.

♀.

Bursa (fig. 5 D) rounded, with very small spines concentrated to two separate areas.

Herminia tentacularia L.

♂.

Valva (fig. 2 A) tapering distad, apically rounded, proximad of middle with a rather broadly pointed process.

Aedeagus (fig. 4 A): Vesica without sclerotized structures.

♀.

Bursa (fig. 5 E) T-shaped, with numerous, fairly strong spines in anterior part.

Herminia cribrumalis Hb.

♂.

Valva (fig. 2 C) slightly curved, gradually narrowing toward the pointed apex, in the middle with a small process of much the same form as the whole valva.

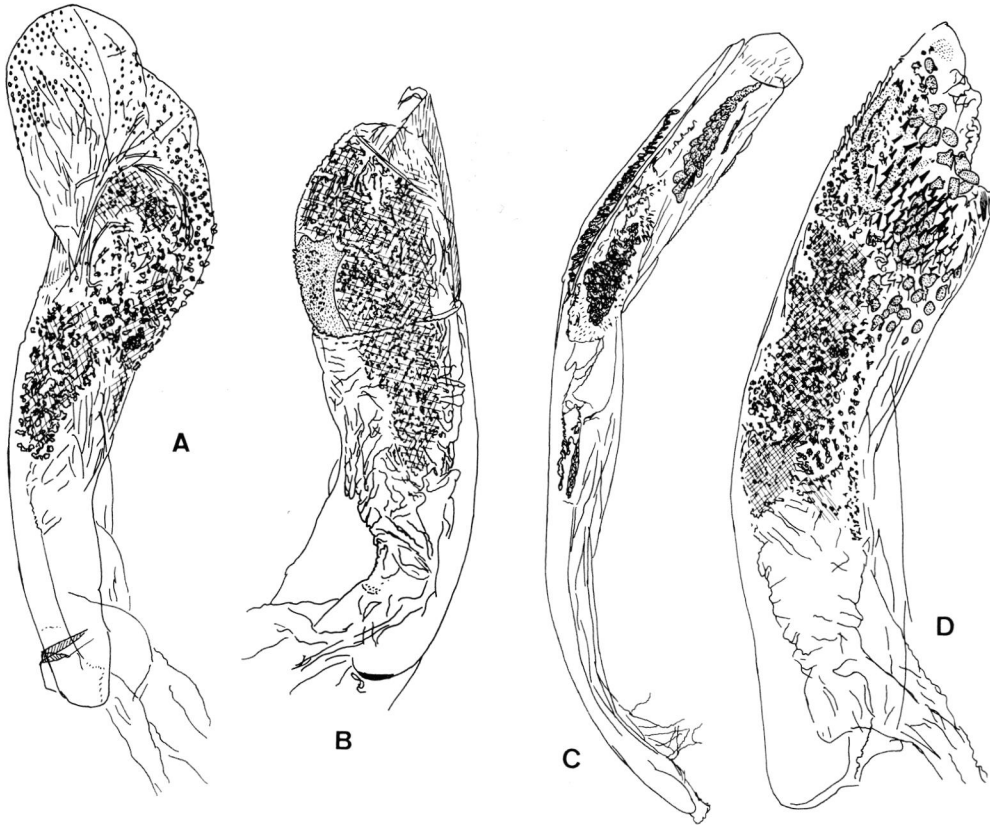


Fig. 4. Aedeagus of: A. *H. tentacularia* L., B. *H. glaucinalis* Schiff., C. *H. cribrumalis* Hb., D. *P. barbalis* Cl.

Aedeagus (fig. 4 C) remarkably slender; vesica with a long, narrow sclerotized structure armed with short, blunt-pointed teeth.

♀.

Bursa (fig. 5 F) with numerous very small spines spread throughout its anterior part.

Herminia glaucinalis Schiff.
(*derivalis* Hb.)

♂.

Valva (fig. 2 B) enlarged distad, club-shaped, rounded apically, at base with a long, narrow process.

Aedeagus (fig. 4 B): Vesica with a fairly large sclerotized structure, all over covered

with very small spines; furthermore with isolated, a little stronger spines.

♀.

Bursa (fig. 6 A) almost all over densely covered with spines of varying size, the strong ones concentrated to its posterior part; the spines of its anterior part extremely small.

Pechipogon barbalis Cl.

♂.

Valva (fig. 2 D) in 2/3 of its length almost equally broad, with two short, pointed processes and a longer rounded one; apical part of valva narrow, equally broad, rounded at tip.

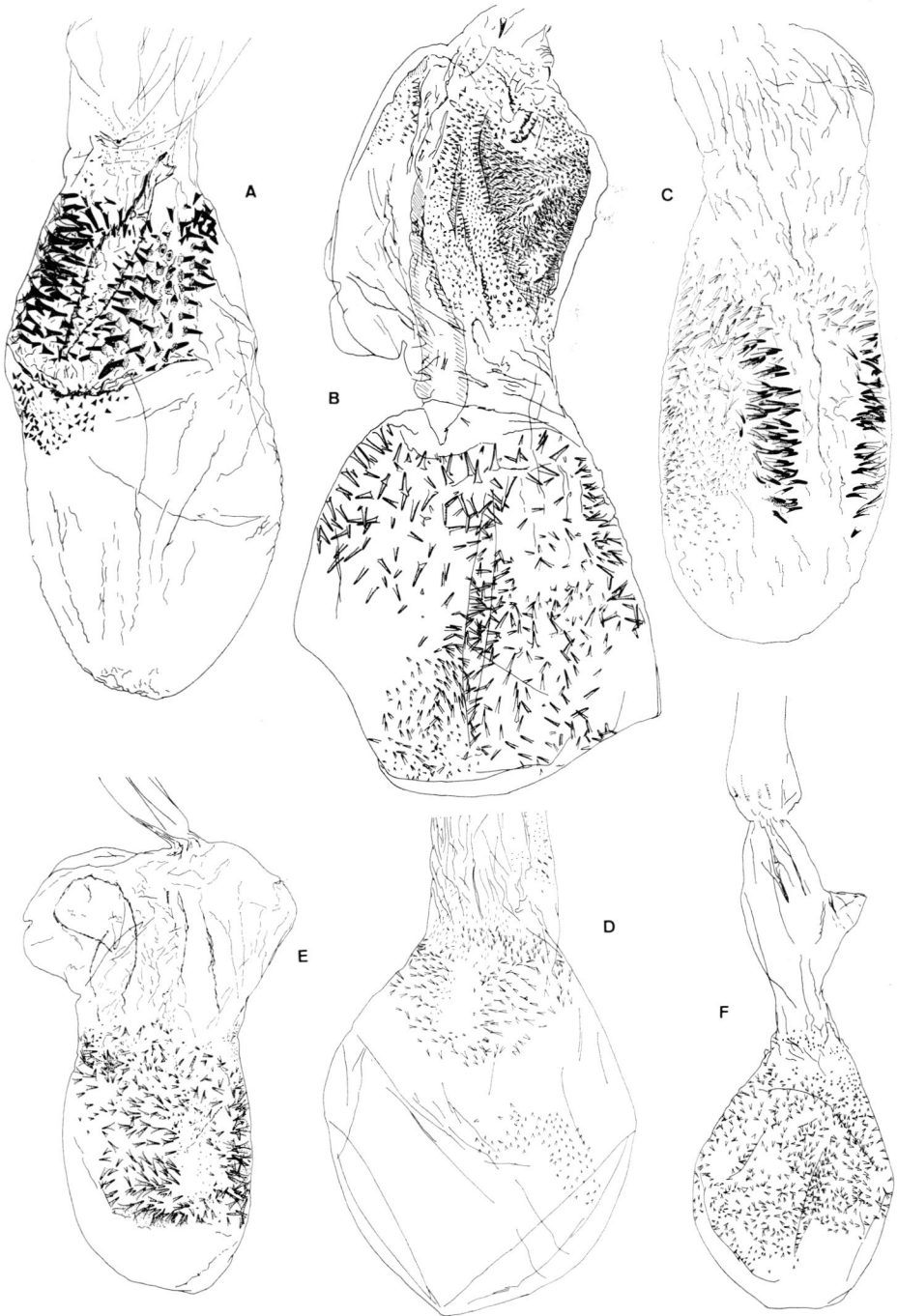


Fig. 5. Bursa copulatrix of: A. *Z. tarsicrinalis* Kn., B. *Z. tarsiplumalis* Hb., C. *Z. tarsipennalis* Tr., D. *Z. nemoralis* F., E. *H. tentacularia* L., F. *H. cribrumalis* Hb.



Fig. 6. Bursa copulatrix of:
 A. *H. glaucinalis* Schiff., B.
P. barbalis Cl.

Aedeagus (fig. 4 D): Vesica with short, rather strong spines and other sclerotized structures of unequal size and shape.

♀.

Bursa (fig. 6 B) large, with a girdle of fairly strong spines around the middle and numerous extremely small spines spread over its posterior part.

References

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