

# A Supplementary Note upon the Life Histories of the Polysphinctas (Hym. Ichneum).

By

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During a visit to heather-decked parts of the wood at Ulfshale on the isle of Møen at May 22nd 1926

I caught 1 specimen of the spider *Epeira diademata* and 1 other belonging to *Epeira quadrata* each of which infested with a Polysphinctid larva on the dorsal side of abdomen. In spite of careful searching I did not succeed in finding more infested specimens of the said Epeirids, but as the two larvæ were rather big and the hosts were vigorous I was in good hope to succeed in rearing the captured specimens and thus identify the species.

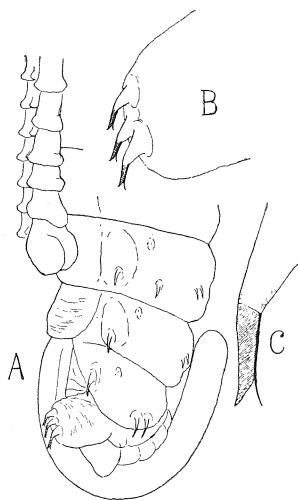


Fig. 1. Pupa of *Polysphincta pallipes* Hgn. var. *nigricornis* Hgn. A Apex of abdomen. B abdominal flap. C spine-like protuberance of the flap.

The parasite upon *E. quadrata* moulted June 2d and then got 8 pairs of warts along the dorsum — as usually in the Polysphinctid larvæ on 3.—10. segment. The spider was perhaps too big a host for the larva, for it did not succeed in killing it; the spider

remained vivacious though turbulent on account of the bites of the larva. At last the larva by an incident became ensnared in so tight a noose of its own spin-threads, that it died.

The parasite upon *E. diademata* moulted June 3d, and the next day it had killed and sucked out the host and became rather swoln, due to the amount of food eaten. It possessed 8 pairs of dorsal warts just as the *quadrata*-parasite; on account of the swelling of the body they appeared more distinct here, but the larva was otherwise so much alike the *quadrata*-parasite that all goes to show that it belongs to the same species as this latter. — It was not possible to discover the ventral taps through which the larva fastens to the saddle of exuviae upon the dorsum of the spider. These taps are however frequently extremely difficult to discover, but the presence of the saddle of exuviae proves here — as elsewhere in the related forms — the presence of the taps.

On June 8th the larva had spun a fusiform cocoon (thus circular in section), of a white colour, though it at first showed — just as in some other *Polysphincta*-species — a brownish tinge. The cocoon showed a hole in the hind end, through which the excrements were ejected.

In my former paper upon the biology of Polysphinctids <sup>1)</sup> I noted that the ovipositor of the female pupa is supported laterally by a pair of flaps or flat protuberances, and similar flaps are also found in the male pupa. The flap is provided with spines or hairs, the number and shape and arrangement varying specifically. In the species in question the flap is endowed with 3 spinelike protuberances, which are pale and softskinned basally, but brownish and well chitinized in the apical half which

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<sup>1)</sup> Contributions to the Life History of the Pimpline Spider Parasites (*Polysphincta*, *Zaglyptus*, *Tromatobia*). Ent. Medd. XIV 1923 p. 137 - 205.

is bent in an obtuse angle to the conical basal part. This latter is surely to be interpreted as a high tubercle of the flap bearing on its apex the brown spine. This interpretation is supported by the fact that also a dark bristle originates apically on the pale basal part, distad lying close to the spine, and only diverging from it in the very apex. Thus the spine looks as if it is bifurcate.

The 7.—9. abdominal segment of the pupa show some spinelike bristles, which also are brownish at apex, but basally pale, while the bristles of the preceding segments are white and slender; all the bristles are directed backwards. The ovipositor covers the 9. and 8. segments. Length of pupa 5, 5 mm.

Imago was reared June 16th 1926. It ejected a solid brownish excremental mass, as well as some few soft and whitish ones — in contradistinction to the black and solid excrements of the larva.

The imago was sent to Dr. A. Roman (Stockholm) for determination, and he has kindly determined it to be *Polysphincta pallipes* Hgn. var. *nigricornis* Hgn.

This may appear curious, as cocoon as well as pupal characters are quite different from those of principal form of *pallipes* Hgn. described in my former paper. Some material of this latter species was then sent for revision to Dr. Roman (Stockholm), who kindly stated that the species in question is *Acrodactyla degener* Hal., to which name I therefore beg to correct the name *Polysphincta pallipes* Hgn. in the said paper. As to the biology of *Acr. degener* see besides the mentioning in my paper p. 163—170 also l. c. pag. 140 and Morley: Ichneumonologia Britannica III p. 133.

The real *Polysphincta pallipes* Hgn. attacks *Theridium lunatum*. In July 1922 was taken an infested specimen of *Ther. lunatum* in Asserbo Plantage. On July 13th the parasite formed a fusiform pale brown cocoon with circular cross section and imago was reared on 17. July

1922. It was formerly determined (by Dr. Roman) as *pallipes*, but the specimen was laid away as probably some error might have been committed as the specimen did not agree with the large material (with quadrangular cross sectioned cocoon etc.) which then was considered to be correctly named. Now the determination of this single specimen thus proves to be the correct one.

Copenhagen, November 19th.

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