

**A Second Supplementary Note upon  
the Life Histories of the Polysphinctas  
(Hym. Ichneum.)\*).**

By  
**E. Nielsen.**

During a visit in July 1928 in Riesengebirge (Germany) the present author found an egg cocoon of the spider *Segestria senoculata* in a stone hedge near the little town

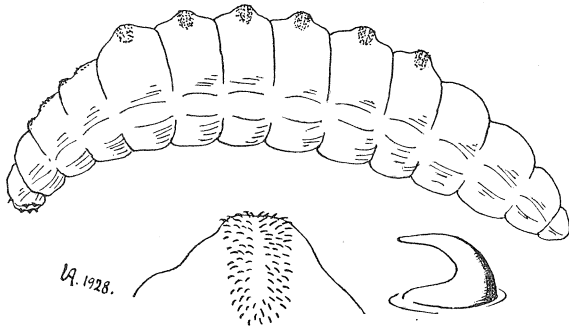


Fig. 1. Larva of *Clistopyga incitator* F. seen from the left side. Below a dorsal wart and a single hooklet, greater magnified.

Agnetendorf. In the egg cocoon were present 2 ichneumon fly larvae in the last stage, showing a row of unpair warts armed with clawlike hooklets, like those of the Polysphinctas. These larvae were, however, easily recognized as a form unknown to me, the number of warts only being 6 (fig. 1).

\*) E. Nielsen: Contributions of the Life History of the Pimpline Spider Parasites (Polysphincta, Zaglyptus, Tromatobia). Entom. Meddel. XIV 1923 p. 137-205.

E. Nielsen: A Supplementary Note upon the Life Histories of the Polysphinctas. Ibid. XVI 1928 p. 152-155.

Only 1 of the 2 larvae succeeded in pupating, the pupa also proved new to me, as the specific mark, the armature of the 9th abdominal segment (fig. 2), looked quite different from those hitherto known.

The rearing resulted in a female *Clistopyga incitator* F., kindly determined by Dr. A. Roman, Stockholm.

The dorsal warts of the larva show clearly enough that the larva is specialized for living in spiders' webs, and my find in the *Segestria*-cocoon proves that this is really the case. But curiously enough the literature only mentions rearing from quite different hosts, viz Ratzeburg from beech wood with Anobiids and *Ptilinus pectinicornis* — Brischke (the light coloured var. *hæmorrhoidalis*) from galls on fir made by *Tortrix (Retinia) resinana*, and Fitch from galls on oak made by *Cynips Kollari*.

My previous rearings seem to show that the larvae of all *Polysphinctas* and related genera are each depending on rather few hosts, and the species formerly observed by me, infesting spiders or spiders' egg cocoons, do not infest other animal groups at all. For parasitizing on a certain host a specializing of the parasite larva is needed. A maternal wasp can not therefore in one instance choose an insect larva, in another instance a cluster of spiders' eggs as food for the brood. Therefore we must be sceptic as to the correctness of the records of *Clistopyga incitator* as infesting beetle larvae, Tortricid larvae, and gall wasp larvae.

The rearings by Ratzeburg were made from numbers of pieces of wood, and most probably so large holes or crevices may have been present in the wood that a spider

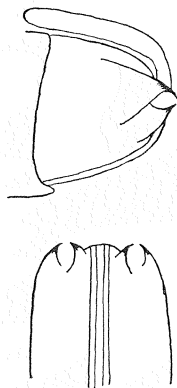


Fig. 2. Pupa of *Clistopyga incitator* F. Specific mark on 9th abdominal segment, from the left side and from below.

of convenient size may have been able to deposit its eggs there.

Brischke mentions that he was obliged to collect a large numbers of resin galls in order to be sure to get specimens of the ichneumon fly. Some galls may have been damaged by birds, which have sought for larvae, or from other causes (damaged resin galls are in reality often met with in the Danish fir plantations), and some spider may have occupied the cavity and oviposited there.

If Fitch really reared *Clistopyga* from *Cynips* galls we must believe that also in this case some gall specimens had been damaged and thus provided with holes in which the spider may have oviposited. The Ichneumon fly is certainly not able to insert its ovipositor now in a spider's egg cocoon, now in a gall, which latter is furnished with a thick protective cell layer. Further if the *Clistopyga* imago had really developed inside the gall, it would have had to gnaw its way out through the gall tissue, and its mouth parts are rather feeble, so that it would most probably have been too hard a task.

Finally it must be mentioned that in California a species of *Clistopyga* is recorded as reared from a spider's nest. This agrees with my rearing from Riesengebirge, and must surely be one more proof that the genus *Clistopyga* infests spiders' eggs, and these alone.

I beg Dr. A. Roman receive my very best thanks for his kindness in determining the species in question.

Copenhagen, November 28th, 1928.

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