

Case Bearing Lepidoptera IV

by

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At Tjibodas, East Java, at an altitude of 1400 m the author collected in 1949 a number of case bearing lepidopterous larvae of different species. Unfortunately he did not succeed in rearing adults from the larvae of three different kinds. Afterwards he only once had the opportunity to revisit the locality, but in spite of all pains he did not succeed in collecting any additional material of these insects, possibly in consequence of the unfavourable season. He left Java soon afterwards. Having no hope whatever of obtaining the adult moths of the species concerned in the near future he resolved to publish descriptions and figures of these three larval cases here, in spite of the fact that their possessors must remain unknown. The reason for this decision is that at least one of these larval cases is so remarkable that it seems worth while to bring it to the attention of other students of Lepidoptera.

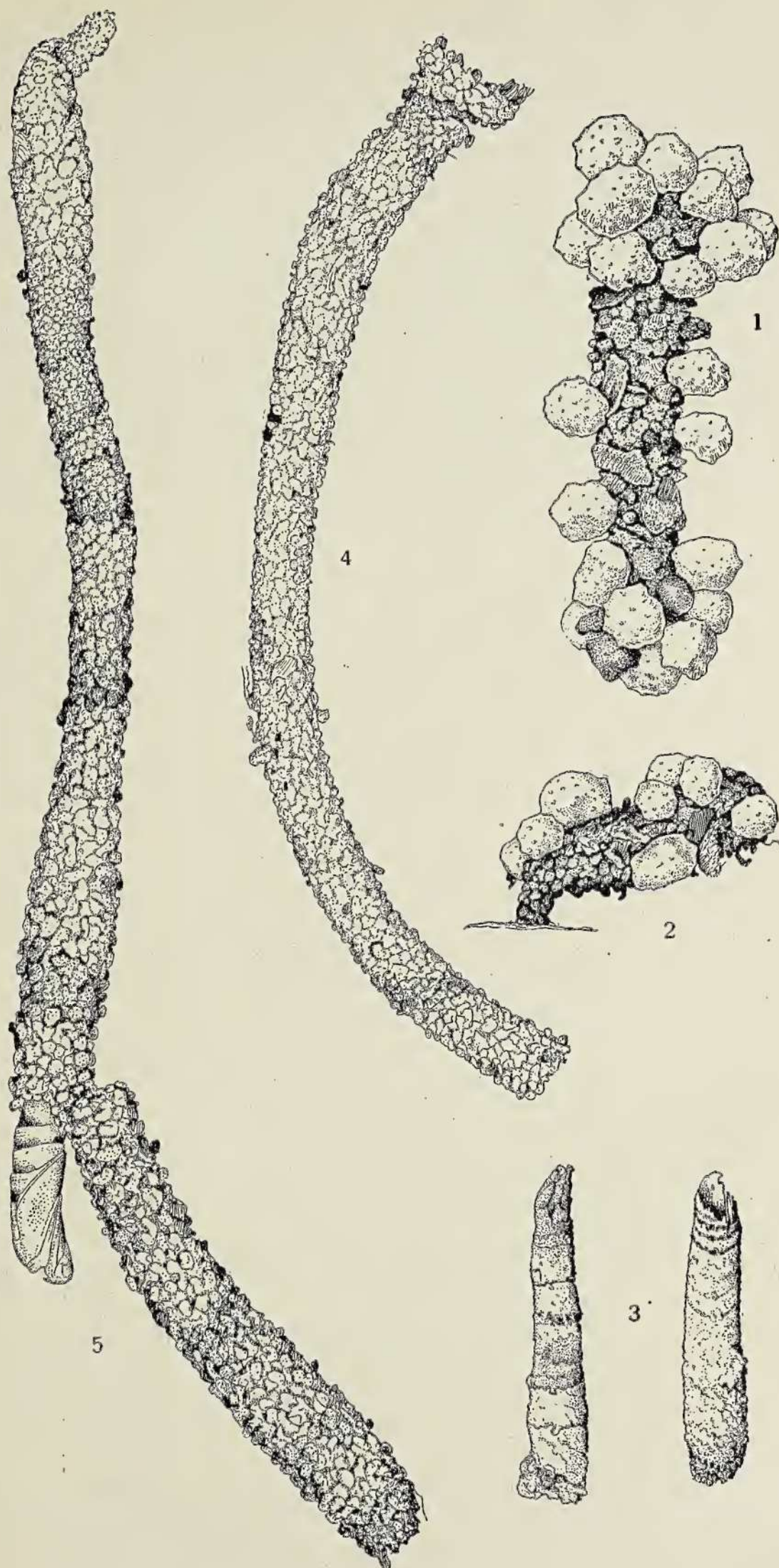
Previous articles of this series appeared in *Treubia* 19: 75-81, fig. 1, pl. 1-2, 1947, and pp. 177-182, figs. 1-2, pl. 3-4, 1948, and in *Idea*, 8: 83-91, figs. 1-15, 1951. In the last paper a short note was given already on the present material.

Larval case No. 1, "The Christmas Tree".

This remarkable case (fig. 1) is about 20 mm long, and 3.5 mm in diameter. It is made of thin and soft silk, loosely covered with particles of wood and bark, and with excrement pellets, in the interspaces the silken tissue of the tube remaining visible. Besides, a number of large, roundish globules are attached to the case. They have a finely mammillate surface, and are of a brilliant silvery colour. These globules may be fruit corpuscles of Hepaticae. They are placed close together at the extremities of the case, but are less numerous in its middle, and are absent on its ventral side. These silvery little balls, contrasting with the dark case, make a most remarkable effect; consequently we called this case "the Christmas Tree".

The still more remarkable feature of this portable case is the fact that it fits around the larva as tightly as a glove around a hand. The entire case *repeats every movement of the larva*, it creeps as a living thing, bows right and left with the larva, the silvery globules glittering with every movement of the insect.

We found five of these cases. The larva sometimes was seen to partially protude outside the case, and from these glimpses we could conclude that it is slender and black. We did not open the cases, in order not to disturb the insects. Nevertheless, only a single larva showed intention to pupate after some time: the globules at the opening of the case were removed, and this part became somewhat narrowed, so as to form a kind of stalk to the case which was fastened to the underground, directed parallel to it (fig. 2). Unfortunately also this larva died before pupation.



Larval case No. 2.

A moderately long tube (fig. 3) erect upon the underground, and reminding one of the cases of some young larvae of Psychidae. The case is slightly conical, with truncate top, 7.5-8.5 mm long 1.3-1.5 mm wide at the base and 0.8-1.0 mm at the top. It is made of tough silk and is covered with fine light grey, greenish and whitish particles, mixed with dark material, arranged in numerous transverse rings. The greenish fragments may originate from lichens. The inside of the case is smooth and white. No larval skins were found.

Only one pupal skin was collected inside one of the cases, all of which were deserted by the insects, apparently a considerable time ago. The pupal skin was about 3.8 mm long, 1.8 mm broad, pale yellow-brown, finely and sparsely haired. Tergites are armed with one row of small acute tubercles along their anterior edge. The cremaster is bent ventrad, with two small tubercles below its top. The moth emerges in the usual way: through a cleft behind the head and between the first pair of legs and the sheaths of the antennae.

Larval case No. 3.

The case (figs. 4, 5) is a pendent, very long tube of variable length: 200-450 mm; it is wide: at base 1.5-1.8 mm, at apex 2.1-2.0 mm. It is made of moderately tight silk, and is densely and evenly clothed with small, mostly light brown particles of regular shape: oval and flattened; perhaps these are particles of inner bark, removed and modelled by the larva. Sometimes they are of darker colour, and arranged in broad rings, indicating the way in which the case is extended by the growing larva. The case is narrower towards the base.

On the inside the tube is clothed with white, felt-like silk, and presumably shortly before pupation fitted with loose, very tough fine silken threads, arranged transversally and diagonally. The cremaster of the larva is very tightly attached to a converging bundle of such threads, so that the larva can protude from the lower end of the tube but remains firmly attached inside it, and cannot fall out.

The pupa is about 5 mm long and 1.2 mm broad, brown and smooth. The anal segments, to begin with the sixth, are narrower, of apparently thicker chitine, with malleate surface, and show two ventrolateral, two dorsolateral and one dorsal smooth ridges, converging at the cremaster which is located somewhat ventrally. Each abdominal tergite is armed with rows of fine bristles: a row along the anterior and a narrower one along the posterior edge.

The pupation takes place towards the lower extremity of the tube where the pupa is loosely suspended on silken threads as described above. Before pupation it moves downward, so straining the threads. The top of the loosely spun tube is pushed open, and the pupa protrudes outside. In one case, however, the pupal head protruded through the wall above the middle of the tube (fig. 5). A very small protuberance on the vertex of the pupa may serve as a boring instrument.

The cases did not contain any larval skins.

Very probably this case is of a species of the genus *Ceratonetha* Diak. (Tinaeidae). It differs from that of *C. chrysocrypta* Diak. by much greater length, light brownish or grey-brown colour, and smoother

covering by regular woody particles, with none or hardly any fragments of lichens.

Numerous tubes of this kind were found on different kinds of trees, but most of them were already deserted at the time of collecting.

Voedselplant van *Procus latruncula* Schiff. Ik heb de grootste bewondering voor de lepidopterologen van vroegere generaties, zoals HÜBNER, SNELLEN en zoveel anderen, die het klaar wisten te spelen uit grashalmen *Miana*- en *Procus*-rupsen te voorschijn te toveren. Ik heb tot nog toe maar één man ontmoet, die dat ook kan, en dat is mijn oude vriend R. BOLDT, een van de laatsten van die generatie van rupsenzoekers, die welhaast uitgestorven schijnt. Natuurlijk is het vinden van die dunne rupsen een kwestie van leren zien, maar vooral van geduld. En het geheim van die oude heren zat 'm in het feit, dat zij blijkbaar in ruimere mate deze eigenschap bezaten dan wij, die slechts een ML-lamp hoeven op te draaien om bij wijze van spreken net zoveel Procussen in een paar seizoenen in handen te krijgen als we maar willen.

SNELLEN schrijft (1867, *De Vlinders van Nederland* 1 : 379), dat de rups van *Procus strigilis* L. „in de halmen van onderscheidene grassoorten, vooral van *Dactylis glomerata*” leeft. Nu is zijn *strigilis* in 4 soorten uiteen gevallen en het is niet aan te nemen, dat al die soorten in dezelfde grassen huizen, omdat hun biotopen niet overeenkomen. Eigenlijk zijn we dus weer even ver als in de tijd van LINNAEUS met onze biologische kennis van *Procus* en elke waarneming, die ons verder kan helpen, is weer even welkom geworden.

Begin Juni had ik in een bloempot een pol gras staan om een *Coenonympha*-♀ gelegenheid te geven daar haar eieren op te deponeren. 11 Juni was de vlinder dood, maar gelukkig had ik weinig tijd, zodat ik het gaas voorlopig maar om de bloempot liet zitten. En zie, twee dagen later snorde 's avonds een kleine uil over de graspol rond en probeerde uit het gazen omhulsel te ontsnappen. Het was een *latruncula*, pas uit de pop, die dus met het gras mee gekomen was. De pol stond geïsoleerd en behoorde tot veldbeemdgras (*Poa pratensis* L.). Geen spoor van kamgras of een andere grassoort in de buurt, zodat ik er zeker van ben, dat de rups ook in deze *Poa* tot ontwikkeling is gekomen. Waarmee we in elk geval één voedselplant van *Procus latruncula* kennen. — Lpk.

***Araschnia levana* L.** 11 Mei en 13 Mei zag ik in mijn tuin een *levana*, op 16 Mei zelfs twee. Deze voorjaarsvorm nam ik nooit eerder in Soest waar.

R. TOLMAN, Parklaan 41, Soest-Z.

11 Mei vloog een *levana* te Wiessel, de eerste, die ik op deze vliegplaats zag.

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Zowel op 10 als op 11 Mei ving ik een ex. in mijn tuin. Enkele dagen later zag ik er weer een. De heer v. d. BUND ving een ex. in Wageningen.

P. H. VAN DE POL, Hullenberglaan 7, Bennekom.
