

**Article X.—ON SOME SPECIES OF NORTH AMERICAN
LEPIDOPTERA.**

By WILLIAM BEUTENMÜLLER.

The present paper contains a redescription of *Notolophus* (*Orgyia*) *inornatus* and its larva, which were imperfectly described by me in *Psyche*, Vol. V, 1890, p. 300. It also contains a synopsis of the genus *Trochilium* and notes on *Sanninoidea exitiosa* with description of a new female variety. I am under obligation to Mr. Samuel Henshaw for the loan of all of Harris's types of Sesiidæ, and to Dr. G. H. Hudson for a pair of *Trochilium tibiale*, and also to Mr. M. V. Slingerland, for specimens of *Sanninoidea exitiosa* var. *edwardsii*.

***Notolophus inornatus* (Beuten.).**

Orgyia inornata BEUTENMÜLLER, *Psyche*, Vol. V, 1890, p. 300; Journ. N. Y. Ent. Soc., Vol. II, 1894, p. 30; DYAR, *Psyche*, Vol. VI, 1891, p. 420.

Notolophus inornatus KIRBY, Cat. Lepid. Het., Vol. I, 1892.

Male.—Head and thorax smoky brown; abdomen somewhat paler. Thorax with a bunch of submetallic black, raised scales at the posterior end and a similar bunch on the second abdominal segment. Fore wings smoky brown with a wavy scolloped line across the basal third and one across the outer third, which bends inward before it reaches the inner margin. The space between these lines is mixed with dull ochreous and is grayish at the costal area, including the reniform mark, which is outlined with black. Beyond the outer curved line the wing is dull ochreous with a row of black spots. Terminal line black, edged with gray inwardly. Fringes smoky brown. Hind wings uniform smoky brown. Underside of all wings dirty ochreous brown with a broad smoky black transverse band across the apical third; fore wings smoky black at base. Expanse, 23-29 mm.

Female.—Wingless, dirty whitish above and below. Length 16 mm.; width 7 mm.

Full-grown Larva.—Head coral red. Body silvery gray, with a bunch of white hairs on each of the fourth to seventh segments inclusive; pencils on first segment black as is also the one on the eleventh segment. Other hairs on body white. Along the back is a broad black stripe, broken by the bunches of hairs. Warts orange. Underside dirty white. Length, 30-35 mm.

Food-plants.—Live oak, cypress, and possibly other plants.

Cocoon.—Oval, dirty whitish, and mixed with hairs of the larva. Length 15–25 mm. The egg mass covers the upper surface of the cocoon and is mixed with hairs of the female.

Habitat.—Indian River and Anastasia Island, Florida (opposite St. Augustine).

Allied to *N. leucostigma*, but differs from it by having ochreous shades on the fore wings, and by the absence of the white spot. The egg mass is similar to that of *definitus*, and it is not covered with a white frothy substance as in *leucostigma*. Most of the larvæ were silvery gray, though a few of the females were dirty yellow.

The species was described from a single worn male and was considered by Dr. Dyar to be a synonym of *leucostigma*. It is, however, a distinct species allied to, if not identical with, *O. falcata* (Schaus, Journ. N. Y. Ent. Soc., Vol. IV, 1896, p. 153) from Jalapa, Mexico. The figure (Biologia Cent.-Am., Vol. II, Het., pl. 79, fig. 7) of *falcata* very closely resembles *inornatus* and the two may prove identical after a comparison of the types. During a short trip to St. Augustine last April, I was fortunate enough to find near the light-house on Anastasia Island, a number of larvæ of *inornatus* from which I bred three males and a number of females.

Trochilium Scopoli.

Antennæ of male pectinated, simple in the female; rather short and thick. Palpi upturned, reaching the top of the head, basal joint hairy. Middle and hind tibiæ slightly hairy. Abdomen robust, cylindrical, rounded at apex. Fore wings with 11 veins; 7–8 stalked. Hind wings with veins 3–4 from angle of cell; discocellulars very oblique. Type, *T. apiforme* Linn.

Synopsis of Species.

Thorax with a yellow line on the patagia.

Abdomen banded with yellow.....*tibiale*.

Abdomen entirely yellow, except the first two segments.....*pacificum*.

Thorax with a large yellow spot on each side anteriorly.....*apiforme*.

Trochilium apiforme (Linn.).

Head lemon-yellow, face brown; antennæ black above, ferruginous beneath; palpi yellow. Legs yellow, femora washed with brown. Thorax smoky brown

with a large yellow spot on each side in front and two similar spots behind. Spots sometimes more or less united by a yellow shade along the patagia. Abdomen with broad yellow bands, sometimes the second and fourth segments entirely brown. Last two segments entirely yellow. Wings transparent with narrow light brown borders and discal mark on the fore wings. Expanse, male, 30-35 mm.; female, 40-45 mm.

Habitat.—Europe, Siberia, United States westward to Nevada.

Trochilium tibiale *Harris.*

Head yellow, face dark brown; palpi yellow with a tuft of brown hairs at the base, especially so in the male; antennæ black. Thorax dark brown-black with a very narrow yellow line on the inner edge of the patagia. On each side of the anterior part of the thorax is a curved yellow line, beginning at the base of the wing and meeting at an angle with the line on the patagia. On the posterior part of thorax are two large yellow spots, which are less distinct in the male, as are also the lines. Abdomen with a narrow yellow band at the anterior edge of the second segment and a broader one on the third, fifth, and sixth segments; the latter two bands are half as broad as the segment; last segment yellow, brown at tip. In the male the rings on the last four segments are much narrower. Underside with a band to each segment. Legs yellow, washed with brown. In the female there is an oblique yellow line at the hind part of the thorax, beneath, connecting with the line at the base of the fore wings. Wings transparent, narrowly bordered with brown and a transverse mark of the same color at the end of the cell. Expanse, male, 32 mm.; female, 38 mm.

Habitat.—Eastern Canada and New York to Vancouver Island.

Trochilium pacificum *Hy. Edw.*

Head and palpi yellow; face brown; antennæ black on top, rufous beneath. Thorax brown with a narrow yellow line on each patagium, connecting in front at an angle with a curved line which runs to the base of the wing; posterior part of thorax edged with yellow. First and second segments of abdomen black, with a very narrow yellow ring on the anterior edge of the second; remaining segments wholly lemon-yellow, above and below. Legs yellow. Wings transparent with narrow brown borders. Expanse, male, 20-25 mm.; female, 35-40 mm.

Habitat.—California, Nevada, Montana, and Washington.

Sanninoidea *Beuten.*

Sanninoidea BEUTENMÜLLER, Bull. Am. Mus. Nat. Hist., Vol. VIII, 1896, p. 126.

Palpi scarcely upturned, loosely scaled on first and second joints; third joint with appressed scales. First joint very short; second joint three times as long as the first; third joint much thinner than the second, and about one-

third as long. Antennæ filiform, simple in the female, with fascicles of cilia in the male. Middle and hind legs tufted at the joints. Anal tuft of male wedge-shaped; female with a short tuft on each side, at the base of the last segment. Fore wings with eleven veins; 7-8 stalked. Hind wings with veins 3-4 on a short stalk, 2 from cell. Type, *Egeria exitiosa* Say.

Sanninoidea exitiosa (Say).

This well-known species is subject to variation in both male and female. The type form has the fourth segment orange in the female, and the male has the margins of the wings blue-black. Say, in the original description, states that the fifth segment of the abdomen of the female is banded with orange instead of the fourth; but his figure shows the fourth segment banded. The most common form has the fourth segment orange, but some individuals which I bred show distinct traces of having the fifth segment also orange. Mr. Slingerland informs me that all the specimens of the female he gets at Ithaca, N. Y., have both the fourth and fifth segments orange. Fitch (First Rep. Nox. Ins., p. 115) also stated that all the specimens he had seen, had both these segments orange. In the Neumoegen collection is also an example from Florida, labelled by Hy. Edwards, "var. *fitchii*, type," which has the fourth and fifth segments orange, but his description (Papilio, Vol. II, 1882, p. 55) applies to the common form which has only the fourth segment of the abdomen orange, and in which the space between the two inner veins of the hind wing is nearly or quite covered with blue-black scales, forming a stripe which divides the transparent area into two parts. I herewith propose the varietal name *edwardsii* for the form of the female which has both the fourth and fifth segments banded with orange, and the space between the two inner veins wholly or partly scaled with blue-black. Prof. Otto Lugger, in his Fourth Report of Insects of Minnesota, p. 58, figures this two banded form. His specimens are from Ohio. In the male variety, *luminosa* Neum., the borders of the wings are heavily scaled with yellow.