A Gynandromorphic Moth.

By J. G. Worm-Hansen.

When he served his time in the Danish Brigade in Germany during the summer of 1947, N. Haarløv, M. Sc., was permitted to collect insects for the Zoological Museum of Copenhagen. By studying the collected material I found the figured bisexual specimen of the moth *Stygiostola umbratica* Goeze (*Rusina tenebrosa* Hb.).



Normal female

Right side: male Left side: female

Normal male

It is well known that the male is somewhat bigger than the female and this characteristic is distinctly seen on the gynandromorphic specimen, the right wing of which is bigger than the left one, but of course the male-pectinate antennae of the right side is the most conspicuous character.

The moth was collected on the 21st June 1947 at Jever in Oldenburg.

Light-trap catching by ultraviolet rays. By F. Madsen, Copenhagen, Denmark.

In "The Entomologist" vol. LXXX, 1947 Dr. Adamczewski of Warsaw published an account on some experiments on catching Lepidoptera by ultraviolet rays, which were carried out in Poland during the war. As due to the blackout normal visible light could not be used, Dr. Adamczewski tried his hand at the practicability of using ultraviolet rays as a medium of attraction.

The experiments were carried out by help of a lamp designed for medical use, radiating ultraviolet rays, but practically no visible rays.

The results were exceedingly noticeable in that species which normally are not attracted by visible light were attracted by the

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ultraviolet radiation, and in that this radiation kept its attractive power even in cold moonlight nights.

On account of Mr. Carolsfeld-Krausé the author in the late summer of 1947 carried out the same experiments on the attractive power of the ultraviolet radiation. The lamp used for the experiments was a Phillips supercompressed mercury tube type



Fig. 1. The automatic light-trap.

H.P.W. with black bull, a lamp which radiated practically only ultraviolet rays. Its data are as follows:

220 Volt A.C. in connection with a special choke-coil; the consumption 83 Watt; the energy radiated:

Visible li	ght —	wavelength	4047	Å	 1,1	p.	Ct.
Ultraviole	et rays	, 30	350/63	99	 90,9	99	37
**	**	**	3341	"	 5,2	**	**
77	77	" 31	126/32	**	 2,8	**	»

Due to the unpleasent influence to the eyes by the ultraviolet radiation and the difficulty of catching the attracted insects by the faint visible light, the lamp was arranged as an automatic light-trap (Fig. 1).



Fig 2. Graph showing the number of insects caught by ultravioletrays in the vicinity of Copenhagen; together with some meteorological dates. Ordinate: number of individuals. Abscissa: date. Clouds: 0 cloud-less, 1 light-cloudy, 2 half-cloudy, 3 cloudy, 4 overcast.

The lamp was inserted on a stand under which was placed a large killing-bottle, furneshed with a funnel.

To get the trap working the disired number of hours it was

furnished with a watch, which automatically turned out the light at a fixed time.

Potassium cyanide could not be used due to the fast dilution



Fig. 3. Continuation of fig. 2.

of its vapours, when the bottle was kept open all the night; Chloroform on the other hand worked well, used in the following way: A metal-grate furnished with 20 mm. high legs was placed on the bottom of the bottle; on the grate was placed a dry sheet of wadding. When the bottle was placed in the trap $5-10 \text{ cm}^3$ Chloroform were poured into it, which was sufficient for keeping the trap working all the night. The insects were narcotized as soon as they got into the bottle by which means one avoided that the specimens were battered off.

The trap worked throughout 35 nights, from sunset, in the months of July, August and September.

As the experiments were carried out in a villa-garden, the number of species caught in the trap were rather small, but sufficient to show, that the trap was effective for Noctuidae, many Microlepidoptera and numerous minor insects of different orders, but only slightly effective for Geometridae.

The reach of the rays was considerable, but not fully investigated yet.

The 20th of August the ultraviolet lamp was exchanged for a 200 Watt opal lamp, with the result, that the number of specimens caught this night showed a considerable falling off.

Two nights, 19th and 21. August the trap worked for 10 hours due to a fault in the watch, but an examination of the trap at midnight showed, that most of the specimens were caught in the trap before this time.

On the 19th of September from 11 o'clock p. m. to 2 o'clock a. m. only 12 minor insects, none of them Lepidoptera were caught.

The trap is well fit for experiments on activity and for all investigations by which one desire to avoid the various disturbing factor which manuel collecting produces.

Corrigenda to my paper about ants, 1944. By Charles Bisgaard.

In Ent. Medd. XXIV 1944 I wrote that I had got the first information of observation on the tube-shaped entrance of the *Myrmica schencki* nest from Gösswald, Zeitsch. wiss. Zool. 1932.

After having received Dr. A. Stärcke's Determineertabel voor de werksterkaste der Nederlandsche mieren I want to point out that Dr. Stärcke has observed this phenomenon as early as 1926. Besides I may refer to Tijdsch. v. Ent. 70 P. XLI, 1927 and Tijdsch. v. Ent. 71 P. XLIV, 1928.

In a letter to me Dr. Stärcke mentions that "sometimes rudimentary formations of the kind are made by *Myrmica sabuleti.*" — In one case, at Skive in Jutland, I myself have seen a tube-shaped entrance with the *Myrmica lobicornis*.

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