

**Transportation by Air of *Nomophila noctuella*
Schiff. (Lep., Pyralididae) to Greenland
from North America in 1954.**

By

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In "The Lepidoptera of Greenland", Wolff (1964) reports that *Nomophila noctuella* Schiff., a migrating pyralidid moth, has twice been found in Southwestern Greenland (T. Andersen leg.): July 8, 1954, 3 specimens and August 3 of the same year, 1 specimen. As the appearance of migrant Lepidoptera, especially in northern latitudes (for example Finland, cf. Mikkola 1967), bears a close relationship to aircurrents, I decided to investigate whether it would be possible to say where these specimens had originated.

July 4, 00 hr G.M.T.: A ridge of an anticyclone extended from the Atlantic Ocean to the southern United States, and in Northern Florida and Alabama the temperatures varied between +29 and +32°C. 5th at 00 hr: A disturbance had developed in the Appalachian region, south of which warm air began to flow north-eastwards. (At that time there was a deep cyclone north of Newfoundland; in Greenland a strong southern airflow prevailed, but it was quite cool). 6th at 00 hr: The warm front was south of Newfoundland and the southwestern airflow strengthened. 7th at 00 hr: The disturbance was over Newfoundland and east of it a strong airflow continued. From mid-Atlantic a ridge of an anticyclone extended towards Greenland and west of it warm air flowed northwards. At 06 hr this flow reached the southern tip of Greenland. South of Greenland there was then (i.e. at night) still +9—10°C. At 850 mb (about 1 500 m) the flow veered in these days from the region of the Great Lakes to Greenland. (This description is made according to the weather maps in »Täglicher Wetterbericht des Deutschen Wetterdienstes«.)

It may be concluded quite confidently that specimens of *N. noctuella* originated between July 4 and 6 in the southeastern parts of North America, probably in the region of Northern Florida, Alabama and Georgia, and that they reached Greenland at night between July 6 and 7. The specimen found on August 3 may possibly have come from Europe, but in all probability it had remained in Greenland since the former migration (the expectation of life of a moth may be very long in such a cool climate).

Summary

On basis of the weather situation it is concluded, that the specimens of *Nomophila noctuella* found on July 8 and August 3, 1954 in Greenland were transported from the southeastern parts of North America by a warm aircurrent.

References

- Mikkola, K., 1967: Immigrations of Lepidoptera, recorded in Finland in the years 1946—1966, in relation to aircurrents. — Ann. Ent. Fenn. 33, p. 65—99.
- Wolff, N. L., 1964: The Lepidoptera of Greenland. — Meddelelser om Grønland 159, No 11, p. 1—74.
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