GENERAL NOTE

Journal of the Lepidopterists' Society 46(4), 1992, 302-304

AGLAIS URTICAE (NYMPHALIDAE): A NASCENT POPULATION IN NORTH AMERICA

Additional key words: introduction, Eurasian, Urtica dioica, New York.

Aglais urticae (Linnaeus), the small tortoiseshell, is one of Europe's most widespread and well-known butterflies (Thompson 1980). It was reportedly collected in the last century in the vicinity of Albany, New York (Emmons 1884), but there is reason to doubt this record (McCabe 1990). A second report was of a male that emerged from a crate of books shipped from England to Halifax, Nova Scotia (Scott & Wright 1972). Most recently, an individual of this species was collected in downtown Albany, New York on 19 October 1987 (McCabe 1990).

On 31 August 1988, two rangers of the Jamaica Bay Wildlife Refuge (a unit of Gateway National Recreation Area) in Queens, New York, noticed an unusual butterfly nectaring at bouncing bets (*Saponaria officinalis*) near the park headquarters. The butterfly, an *A. urticae*, was netted, photographed by Don Riepe, and released. It remained in the area and was seen again on 2 September 1988.



FIG. 1. Aglais urticae at the Jamaica Bay Wildlife Refuge, Queens, New York, 25 August 1991. Photograph by Don Riepe.

On 15 October 1990 an individual of A. urticae was observed at Riverside Park in Manhattan, New York (Nick Wagerik, pers. comm.). The extensive flower gardens in this park attract many late season southern immigrants. Although the butterfly was not photographed, it was studied carefully at close range with binoculars, thus confirming its identity.

On 25 August 1991 another individual was observed at the Jamaica Bay Wildlife Refuge. This individual was seen by a number of people including Steve Walter, John Zuzworsky,

and Don Riepe who again was able to secure a photograph (see Fig. 1).

These sightings could represent independent introductions of this butterfly into the United States but this seems unlikely. A large number of individuals of this species is likely to be present in the Hudson River Valley in order to produce four sightings in five years by the relatively few observers covering this large area. A simpler explanation is that A. urticae has colonized the Hudson River Valley and surrounding area. The larval foodplant of A. urticae in Eurasia is stinging nettle (Urtica dioica var. dioica; Urticaceae) (Dal 1982, Henriksen & Kreutzer 1982, Thompson 1980, Brooks & Knight 1982) which is now established throughout the northeastern United States (Gleason & Cronquist 1991).

Aglais urticae is known to overwinter as an adult, sometimes indoors (Dal 1982). A related species of nymphalid has been reported to sometimes overwinter communally (Proctor 1976). Thus it is plausible that a gravid female, or a male and a female together, were introduced accidentally into the United States. North America may prove to be

fertile territory for this butterfly.

Two other well-known Eurasian species of butterflies have become established in North America, Pieris rapae (Linnaeus) (Pieridae), the cabbage white, was first found at Quebec in 1860 and at New York in 1868 (Scudder 1889). From these beachheads it rapidly spread across North America (Scudder 1889) and is now perhaps our most ubiquitous butterfly. Thymelicus lineola (Ochsenheimer) (Hesperiidae), the European skipper, was first recorded in North American from London, Ontario, Canada in 1910. It now occurs abundantly over much of the northeastern United States and adjacent Canada as well as in British Columbia (Burns 1966). For both of these species, the exact manner of introduction is unknown.

ACKNOWLEDGEMENTS

I thank Don Riepe and Nick Wagerik for communicating their sightings to me, and Don Riepe for providing his photographs. Robert K. Robbins of the Smithsonian Institution read a first draft of this note and made numerous suggestions for its improvement.

LITERATURE CITED

BROOKS, M. & C. KNIGHT. 1982. A complete guide to British butterflies. Jonathan Cape,

London, 159 pp.

BURNS, J. M. 1966. Expanding distribution and evolutionary potential of Thumelicus lineola (Lepidoptera: Hesperiidae), an introduced skipper, with special reference to its appearance in British Columbia. Canad. Entomol. 98:859-866.

DAL, B. 1982. The butterflies of northern Europe. Croom Helm, London. 128 pp. EMMONS, E. 1884. Agriculture of New York. Vol. V. Insects of New York. Albany. 272

pp., 47 pls.

GLEASON, H. A. & A. CRONQUIST. 1991. Manual of vascular plants of northeastern United States and adjacent Canada. 2nd ed. New York Botanical Garden, Bronx.

HENRIKSEN, H. J. & I. KREUTZER. 1982. The butterflies of Scandinavia in nature. Skandinavisk Bogforlag, Odense. 215 pp.

McCabe, T. 1990. New records of Lepidoptera of New York and New Hampshire. J. Res. Lepid. 28:75-83.

PROCTOR, N. S. 1976. Mass hibernation site for Nymphalis vau-album. J. Lep. Soc. 30:

Scott, F. W. & B. Wright. 1972. Accidental occurrence of Aglais urticae in Nova Scotia. J. Lepid. Soc. 26:116.

SCUDDER, S. H. 1889. The butterflies of the eastern United States and Canada with special reference to New England. Cambridge, Massachusetts, Samuel Scudder.

SHAPIRO, A. & A. R. SHAPIRO. 1973. The ecological associations of the butterflies of Staten Island. J. Res. Lepid. 12:65–128.

THOMPSON, G. 1980. The butterflies of Scotland. Croom Helm, London. 267 pp., 33 pls.

JEFFREY GLASSBERG, 39 Highland Avenue, Chappaqua, New York 10514.

 $Received\ for\ publication\ 25\ March\ 1992;\ revised\ and\ accepted\ 5\ September\ 1992.$