ETHMIA BIPUNCTELLA IN MARYLAND, PENNSYLVANIA AND WEST VIRGINIA: THE EXPANDING RANGE OF AN INTRODUCED EUROPEAN MOTH (GELECHIOIDEA)[1]

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Ethmia bipunctella (Fabricius) has been introduced from Europe into North America and during the past decade has become widely established in the northeastern United States and southeastern Canada (Powell, 1973: 103). The earliest records are July 1964, on the St. Lawrence River in northern New York, and August 1964, in New Jersey at the mouth of the Hudson River. Subsequent published records are available from the Ottawa and Montreal areas in 1965, Connecticut in 1967, and central New York in 1970 (Powell, 1973). More recently accumulated collections include localities in Maryland, Pennsylvania and West Virginia, indicating that the adventive distribution is steadily expanding.

In 1971 (after the above literature report was in press) specimens of *E. bipunctella* were sent to the U.S. National Museum of Natural History for identification from Maryland and Pennsylvania localities. K. C. Kim informed us (in litt.) that the earliest record for the latter state in the Pennsylvania State University collection is Chambersburg, Franklin Co., in July 1970 (R. R. Kline, coll.), while the U.S.N.M. has specimens from the same locality collected in May 1971 and from Friendship, Anne Arundel Co., Maryland in August 1970. Kim also reported that this alien moth was taken in several counties of Pennsylvania for the first time during 1973 (Penn. Cooperative Insect Report for 21 September 1973). The data are as follows: *Franklin Co.*—Letterkenny Army Depot, IV-19 (3 moths), IV-27 (18), V-4 (33), V-16 (5), V-11 (6), V-20 (5), VI-11 (7), VI-18 (3), VI-29 (1), VII-9 (9), VII-16 (3), VII-27 (6), VII-30 (11); *Dauphin Co.*—Harrisburg-York Internatl. Airport, VII-25 (5); *Erie Co.*—Erie Marine Terminal, VIII-9 (2); *Centre Co.*—State College, IX-16 (1), and Ferguson Township, IV-22 (1) (D. L. Beirlein, U.S.N.M.).

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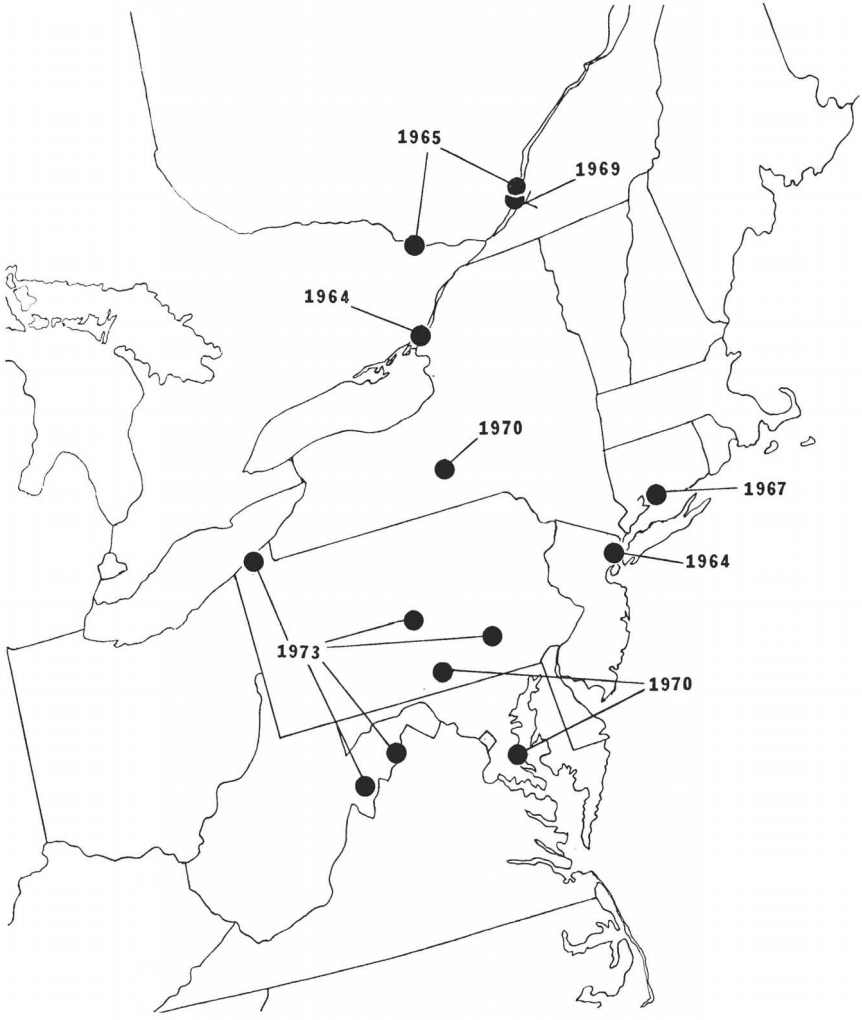

Fig. 1. Spatial distribution of *Ethmia bipunctella* in eastern North America. Earliest known year of occurrence at each locality is given.

Single males were taken by Heppner at two sites in northeastern West Virginia on 1 and 2 September 1973. The first was captured at Hawk Campground near Capon Springs, Hampshire County and the second about 21 km. north of Franklin, Pendleton County. Both appeared to be freshly emerged specimens.

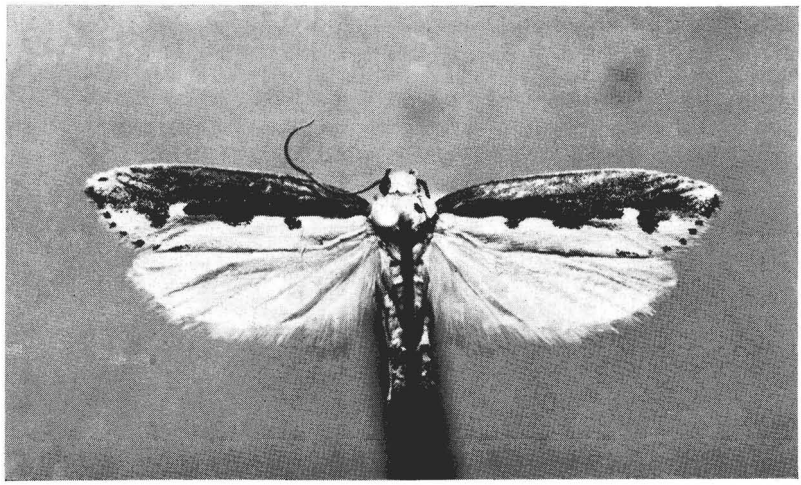

Fig. 2. *Ethmia bipunctella*, male, dorsal view (collected at Ottawa, Ontario, Canada, 2 August 1965 by H. F. Howden).

Fig. 1 summarizes North American records by earliest year of capture, indicating the general outward movement from Atlantic Coast and St. Lawrence River points of possible introduction. The 1973 records from Pennsylvania and West Virginia show a continuing range extension westward and south along the Appalachian Mountains. Inasmuch as well-documented distribution changes are potentially useful in analyzing evolutionary phenomena, we encourage lepidopterists to be on the watch for colonies of this moth. The adult (Fig. 2) cannot be confused with any native species of the eastern Nearctic. The forewings are contrastingly black and white and the abdomen is bright ochreous. When at rest the moths are about 12–15 mm in length; spread specimens range 21–28 mm in expanse. Nearly all collections have been made at blacklights.

Ethmia bipunctella is bivoltine in Europe, flying from June to July and in September. In southern parts of its distribution in the Old World and in American colonist populations, the generation pattern is not clear. Capture records from Pennsylvania in particular suggest a well-defined spring flight from late April to late May and a sporadic emergence through the summer months that might involve a partial third generation.

Foodplant records in Europe include *Echium vulgare* (Boraginaceae), an introduced weed that is widespread in North America, as well as members of three other Holarctic genera of Boraginaceae. Probably any

native plants of this family that grow in appropriate habitats could be used by adventive populations of the moth.

ACKNOWLEDGMENTS

We thank R. W. Hodges, ARS, U.S. National Museum of Natural History, and K. C. Kim, Department of Entomology, Pennsylvania State University, for providing records from the collections of their respective institutions.

LITERATURE CITED

POWELL, J. A. 1973. A systematic monograph of New World ethmiid moths (Lepidoptera: Gelechioidea). Smithson. Contr. Zool. 120. 302 p.

TWO NEW THECLA FROM THE CONTINENTAL UNITED STATES (LYCAENIDAE)

This brief note reports the findings of two hairstreaks which represent notable additions to the Nearctic region. The first of the two is previously unlisted (Dos Passos 1964, Lepid. Soc. Mem. No. 1; Dos Passos 1970, J. Lepid. Soc., 24(1):26–38) and was called to my attention last fall by a colleague who received one specimen from Mr. Wayne Klopp from the Miami, Florida area. Photographs were subsequently taken and submitted to Dr. F. Martin Brown, Colorado Springs, Colorado for determination. The butterfly was identified as *Electrostrymon angelica angelica* Hewitson, the nominate subspecies found in Cuba. In addition to the 4 original specimens of this species taken by Mr. Klopp in August 1973, he located a large population just south of Miami in January 1974. Mr. Richard Anderson, formerly of Key West, Florida also found the species in some numbers in that area in the latter part of 1973.

The second species of interest here is *Chlorostrymon simaethus* (Drury) collected by Mr. Klopp and his wife Carol on Key Largo, Florida during February 1974. Previous distributional data for this species include only continental land areas from South America northward to southern portions of Texas, Arizona, and California (Clench 1961, *in* Ehrlich & Ehrlich, How to Know the Butterflies, Brown, Dubuque, Iowa, p. 189). It is therefore unreported from any Antillean area, the origin of many species taken sporadically in southern Florida. Whether this is an oversight in the distribution or whether it has been overlooked in that region and actually represents an undescribed subspecies is under investigation. The author has no neotropical *C. simaethus* for comparison. The Florida insect is significantly distinguishable from *C. simaethus sarita* (Skinner) from the U.S. It is expected that other new and interesting species will turn up in the southern Florida area from year to year and that collectors should keep an eye out for them, particularly the smaller, less conspicuous species. (Thanks to Dr. F. M. Brown for the determination for *E. angelica* and Mr. Wayne W. Klopp for examples of both species discussed.)

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ED. NOTE: This note, and the article by R. A. Anderson in this issue, both include a report of the occurrence of *Electrostrymon angelica angelica* in Florida. For the record, the manuscript of Anderson was received on 8 March 1974, and that of Fisher on 30 April 1974.