

IDENTITY OF "AUTOGRAPHA" OTTOLENGUII DYAR AND
OCCURRENCE OF AUTOGRAPHA BURAEITICA
(STAUDINGER) IN NORTH AMERICA
(NOCTUIDAE: PLUSIINAE)

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ABSTRACT. *Autographa ottolenguii* Dyar is shown to be a typical *Syngrapha* with male genitalia similar to those of *S.nyiwonis* (Matsumura) and *S. interrogationis* (Linnaeus). The type specimen is female but has wrongly associated male genitalia. A lectotype is designated for the species. *Autographa buraetica* (Staudinger) is added to the North American noctuid fauna.

Autographa ottolenguii Dyar has been considered an anomaly because it combines *Autographa*-like male genitalia with other characters associated with *Syngrapha*.

The species was originally described as *Autographa arctica* by Ottolengui (1902) at a time when *Syngrapha* was applied only to the small, diurnal species of *Syngrapha* with yellow hind wings. Ottolengui did, however, correctly associate the species with *Autographa* [now *Syngrapha*] *interrogationis* (Linnaeus), stating that the two species differ in details of wing markings and male genitalia. Dyar (1903) renamed the species *Autographa ottolenguii* because *A. arctica* Ottolengui is a secondary homonym of the congeneric *Plusia arctica* Möschler, now considered a synonym of *Syngrapha u-aureum* (Guenée). McDunnough (1944) left the species in *Autographa* but stated that it was one of two species that he had not examined. Eichlin and Cunningham (1978) transferred the species to *Syngrapha* because of the *Syngrapha*-like female genitalia and tibial spining. They treated it as the most primitive member of *Syngrapha* because of the *Autographa*-like male genitalia. The species was returned to *Autographa* by Franclemont and Todd (1983), presumably because of the male genital characters.

I became interested in the problem while working on the Noctuidae of the Beringian area. Specimens in the Canadian National Collection (CNC) identified as *A. ottolenguii* lacked the characters typical of *Syngrapha* discussed by Eichlin and Cunningham (1978). On examination of the type specimen in the United States National Museum of Natural History, Washington, D.C. (USNM), it was immediately obvious that the CNC specimens were not conspecific. The overall appearance of the type was similar to that of the circumpolar *Syngrapha interrogationis* (Linnaeus) and to that of *S.nyiwonis* (Matsumura 1925)



FIGS. 1-4. *Syngrapha* and *Autographa* adults. 1, *Syngrapha ottolenguii* (Dyar), ♀ lectotype of *Autographa arctica* Ottolengui, Attu Island, Alaska; 2, *S. ottolenguii* (Dyar), ♂, Alaska; 3, *Autographa buraetica* (Stgr.), ♀, U.S.S.R., East Siberia, Mondy, Buryatskaya, A.S.S.R.; 4, *A. buraetica* (Stgr.), ♀, Palmer, Alaska.

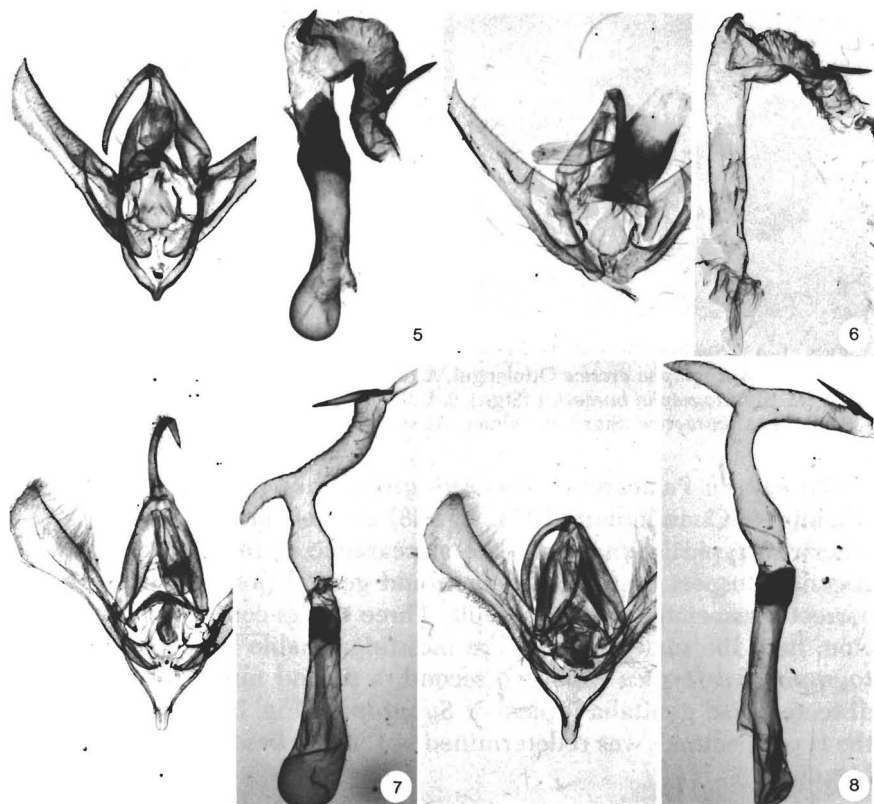
of the eastern Palaearctic. The *Autographa*-like genitalia of the type (Eichlin & Cunningham 1978: fig. 68) seemed inconsistent with the otherwise typical *Syngrapha*-like appearance of the specimen, and I began to suspect that the abdomen and genital preparation were not correctly associated with the adult. Three things confirmed this suspicion: first, the male genitalia are indistinguishable from those of *Autographa californica* (Speyer); second, a second male (Fig. 2), when dissected, had genitalia typical of *Syngrapha* (Fig. 5); third, the sex of the type specimen was redetermined as female, based on the brushlike frenulum.

IDENTITY OF *SYNGRAPHA OTTOLENGUII*

The male genitalia of *Syngrapha ottolenguii* (Fig. 5) confirm the placement of the species in *Syngrapha*. Within the North American fauna, they are most like those of *S. interrogationis*, but can be distinguished by the characters in Table 1. *Syngrapha ottolenguii* is most

TABLE 1. Comparison of male genitalia of *Syngrapha* spp.

Character	<i>S. ottolenguii</i> (2 specimens)	<i>S. nyitwonis</i> (3 specimens)	<i>S. interrogationis</i> (30 specimens)
Basal cornutus (apical in vesica when everted)	straight, 1.2 mm long	straight, 1.2 mm long	absent
Apical cornutus (basal in vesica when everted)	curved, 0.6 mm long	curved, 0.6 mm long	straight, 0.4 mm long
Apex of valve	pointed	pointed	blunt
Ampulla	straight, ½ valve width	straight, ½ valve width	recurved, ¾ valve width
Apical third of valve	slightly expanded	narrowed	slightly expanded



FIGS. 5-8. Male *Syngrapha* and *Autographa* genitalia with aedeagus removed and shown at right with vesica everted. 5, *Syngrapha ottolenguii* (Dyar), Alaska; 6, *S. nyiwonis* (Mats.), U.S.S.R., Magadenskaya Oblast', Kava River; 7, *Autographa buraetica* (Stgr.), Yukon, Dawson; 8, *A. pulchrina* (Haw.), England.

similar to *S. nyiwonis* (Fig. 6). The male genitalia of the two species differ only in the shape of the valve apex and in the length of the ampulla. The male genitalia of the three species are compared in Table 1.

Adults of *S. ottolenguii* can be distinguished from those of *S. interrogationis* and *S. nyiwonis* by the brownish gray rather than silver-gray forewing ground color, and by the relatively straight transverse posterior line on the forewing (Figs. 1, 2).

Ottolengui described *Autographa arctica* from eight specimens in the USNM. It is not clear from the original description that one specimen was selected as holotype. Actually, one is labeled type, the others are labeled co-type. To avoid confusion, I here designate the specimen labeled type as lectotype. It is a female in good condition except that



FIGS. 9-10. Female *Autographa* genitalia. 9, *A. buraetica* (Stgr.), N.W.T., Norman Wells; 10, *A. pulchrina* (Haw.), England.

antennae and abdomen are missing. The abdomen and male genital preparation associated with the specimen are not from the lectotype. The specimen is labeled "Type No. 6258 U.S.N.M.; ♂ genit. on slide 20 Aug. 1936 JFGC 541; Genit. slide USNM 40283; *Plusia arctica* (1902) Type Ottol."

The type series was nominally collected on Alter Islands, Alaska, 8 Sept. 1880, by L. M. Turner (Ottolengui 1902). All specimens from mainland Alaska and Yukon attributed to this species have been re-identified as *Autographa buraetica* (Stgr.), discussed below. As a result, *Syngrapha ottolenguii* is known only from the type locality. After

unsuccessfully trying to locate Alter Islands, I contacted Robert Poole, who was able to provide critical information from the United States National Archives. Correspondence received by USNM in 1881 from L. M. Turner states that material collected in 1880 is from Attu, in the Aleutian Islands. Also, Turner's handwriting in this correspondence and on the specimen label makes Attu look like Alter because the first "t" is not crossed and the form of "u" resembles "er."

Syngrapha ottenlenguii is known only from Attu, and may be restricted to the outer Aleutian Islands. The species likely originated in the eastern Palearctic 800 km to the west where its sister species *S. nyiwonis* occurs, rather than in mainland Alaska 2400 km to the east.

I believe this is the only noctuid known from the outer Aleutian Islands.

AUTOGRAPHA BURAEITICA (STAUDINGER 1892)

Having established the identity of *Syngrapha ottolenguii*, I return to the original problem of the identity of the CNC specimens. These are *Autographa buraetica* (Staudinger), a species of the eastern Palearctic not previously reported from North America. It can be added to a growing list of palearctic species now known to occur in the Nearctic in Alaska and Yukon (Figs. 3, 4). *Autographa buraetica* is similar to *A. pulchrina* (Haworth) of the western Palearctic but differs in having the thoracic tufting and forewing ground color gray-brown rather than bright reddish brown, in the length of the basal portion of the vesica (Figs. 7, 8) and in the corresponding length of the female ductus bursae (Figs. 9, 10). Thirteen North American specimens of *A. buraetica* in the CNC are from Palmer and Fairbanks, Alaska; Dry Creek, Dawson and Teslin, Yukon; Atlin in northern British Columbia; and Norman Wells in the western Northwest Territories. Collecting dates range from 27 June to 22 August. There are also two specimens from Alaska in USNM; these are from Palmer and Matamusaka.

In the North American Check List (Franclemont & Todd 1983), *Syngrapha ottolenguii* should be listed after *S. interrogationis* and *Autographa buraetica* after *A. pseudogamma* (Grote).

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