

# Descriptive and Synonymical Notes for Some Species of Noctuidae from the Galapagos Islands (Lepidoptera)<sup>1</sup>

E.L. Todd

Systematic Entomology Laboratory, Agr. Res. Serv.,  
U.S. Department of Agriculture; c/o U.S. National  
Museum, Washington, D.C. 20560

The following comments pertaining to species of the genera *Spragueia* Grote, 1875, and *Catabena* Walker, 1865, have been lifted from manuscript revisions of those genera and are presented herein in order that Mr. Alan Hayes of the British Museum (Natural History) might use the appropriate names in a proposed catalog of the Macroheterocera of the Galapagos Islands.

## *Spragueia creton* Schaus

*Spragueia creton* Schaus, 1923, *Zoologica* 5(2): 38, pl. 1, fig. 9.

*Spragueia plumbeata* Schaus, 1923, *Zoologica* 5(2): 38, pl. 1 fig. 10. [New synonymy].

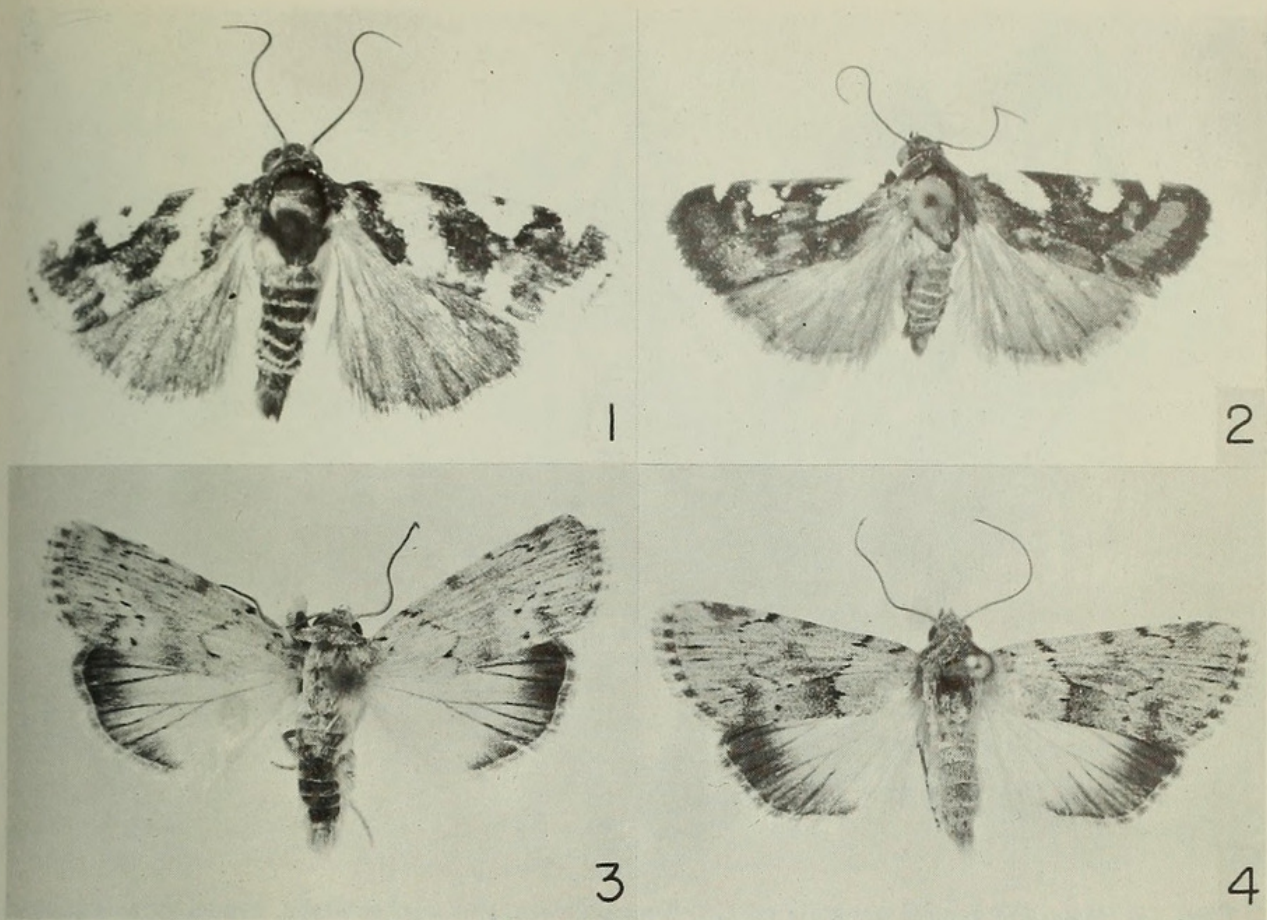
When Schaus proposed the specific names cited above he was studying material collected by William Beebe during the Williams Galapagos Expedition of the New York Zoological Society, 1923. The number of individuals collected, the localities, the dates and usually the sexes of the specimens are listed on pages 23 through 31. Schaus stated in the introductory comments that the types of the new species were deposited in the collections of the United States National Museum, but he usually did not indicate either in the list or in the descriptions that follow which specimen was the type. He did cite a type catalog number for each species. In the case of *Spragueia creton* Schaus, a male and a female from Tower Island [Isla

Genovesa] collected April 28, 1923 and a male from South Seymour [Isla Baltra] collected April 23, 1923 were available for study by Schaus. The specimen in the United States National Museum is labeled: "*Spragueia creton* Schs., type"; "Tower Island, Galapagos, April 28, 1923"; "Type No. 26512 U.S.N.M."; "Photo Noc. 151"; and "o genitalia on slide E.L.T. 4601". The specimen has been selected, labeled, and is presently designated as lectotype. *Spragueia plumbeata* was based on a unique female from Conway Bay, Indefatigable [Isla Santa Cruz]. The holotype is in the collection of the United States National Museum. The types of the two names are illustrated in figs. 1 and 2.

In the original description of *creton*, Schaus stated: "Allied to *S. dama* Guenée." *Spragueia dama* (Guenée) is very closely related to *creton*. It is one of the most variable species of the genus in coloration of the wings and is a common, wide-spread species. It occurs in the Gulf States of the United States of America, in the Greater Antilles, México, Central America and South America south to Chile and Argentina. There is considerable sexual dimorphism in the coloration of the forewings of *dama*. Some females have the forewings colored as in dark males, but most females are very decidedly darker, the forewings largely black with the orange areas generally greatly reduced. In consideration of the color variation and dimorphism in *dama* and because of the close relationship of *dama* and *creton*, it is my opinion

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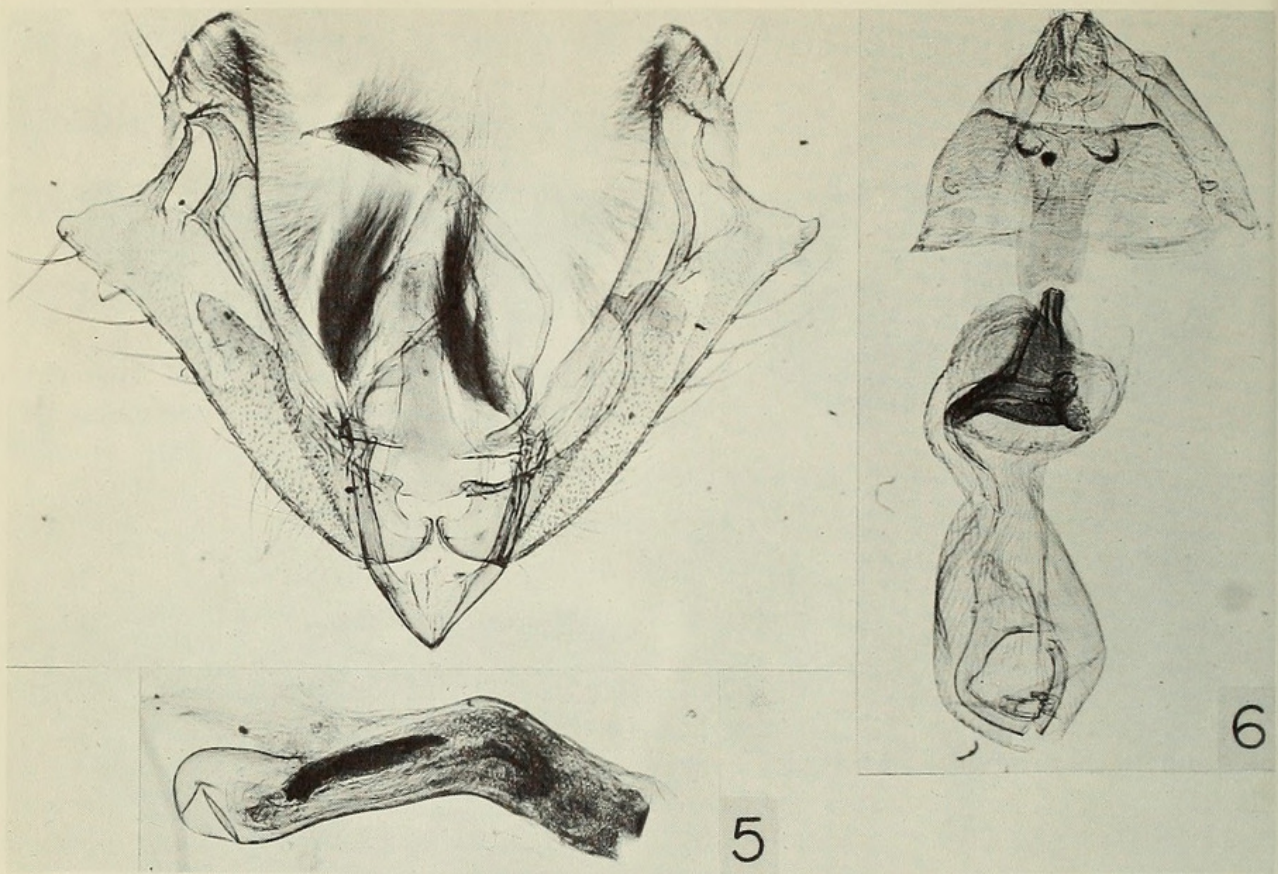
Figs. 1-4. Dorsal view of adults: 1, *Spragueia creton* Schaus, lectotype ♂, Tower Island [Isla Genovesa], Galapagos, USNM; 2, *S. plumbeata* Schaus, holotype ♀, Conway Bay, Indefatigable [Isla Santa Cruz], Galapagos, USNM; 3, *Catabena seorsa* n. sp., paratype ♂, Academy Bay, Isla Santa Cruz, Galapagos, USNM; 4, same, paratype ♀, Charles Island [Isla Santa Maria], Galapagos, BMNH.

that *plumbeata* represents an extremely dark example of *creton*. Therefore, I have placed *S. plumbeata* Schaus in the synonymy of *S. creton* Schaus.

Initially I believed that *creton* and *plumbeata* would probably fall as synonyms of *dama*, but examination of the types of the Schaus species, study of the original descriptions, and comparison with specimens of *dama* have dictated a change in opinion. Differences appear to exist, but I have been able to examine only the types of *creton* and *plumbeata*, and subsequent study of other material from the Galapagos Islands will be required in order to determine whether the differences noted are consistent. It appears that the fringe of the forewing of *creton* is black or black tipped with white. In the very large series of *dama* available for study the fringe of the forewing at the apex and on the caudal half is bright orange, even in the darkest females. In other species of *Spragueia* the

coloration of the fringe of the forewing is rather constant for a species and usually characteristic. The male genitalia of the lectotype of *creton* differs from those of specimens of *dama* examined in the nature of the apical part of the costal margin of both the left and right sacculi (see figs. 7, 8). The projection of the apical part of the costal margin of the left sacculus in *creton* is very broad and rounded while in *dama* both the distal margin and the middle of the costal margin of the sacculus of the left valve are more or less emarginate, resulting in a narrower, more digitiform process. The degree of emargination of the margins of the left sacculus and the width of the projection is somewhat variable in the genitalia of *dama*, but none of those examined approached closely that of *creton* in width of the process. The corresponding area of the sacculus of the right valve is developed into a short process in *creton* while in *dama* that process





Figs. 5-6. Male and female genitalia of *Catabena seorsa* n. sp.: 5, ♂ genitalia, caudal view, aedeagus removed and shown in lateral view, genitalic preparation no. 2147, E. L. Todd, paratype, Academy Bay, Isla Santa Cruz, Galapagos; 6, ♀ genitalia, ventral view, genitalic preparation no. 2151, E. L. Todd, paratype, Academy Bay, Isla Santa Cruz, Galapagos.

is either not developed or only slightly so. When more material of *creton* is available perhaps the consistency of the differences and their significance may be determined and the relationship of *creton* and *dama* better understood. On the basis of present knowledge it seems best to consider *creton* as distinct.

#### *Catabena seorsa*, new species

*Catabena* sp. ? Schaus, 1923, Zoologica 5(2): 25.

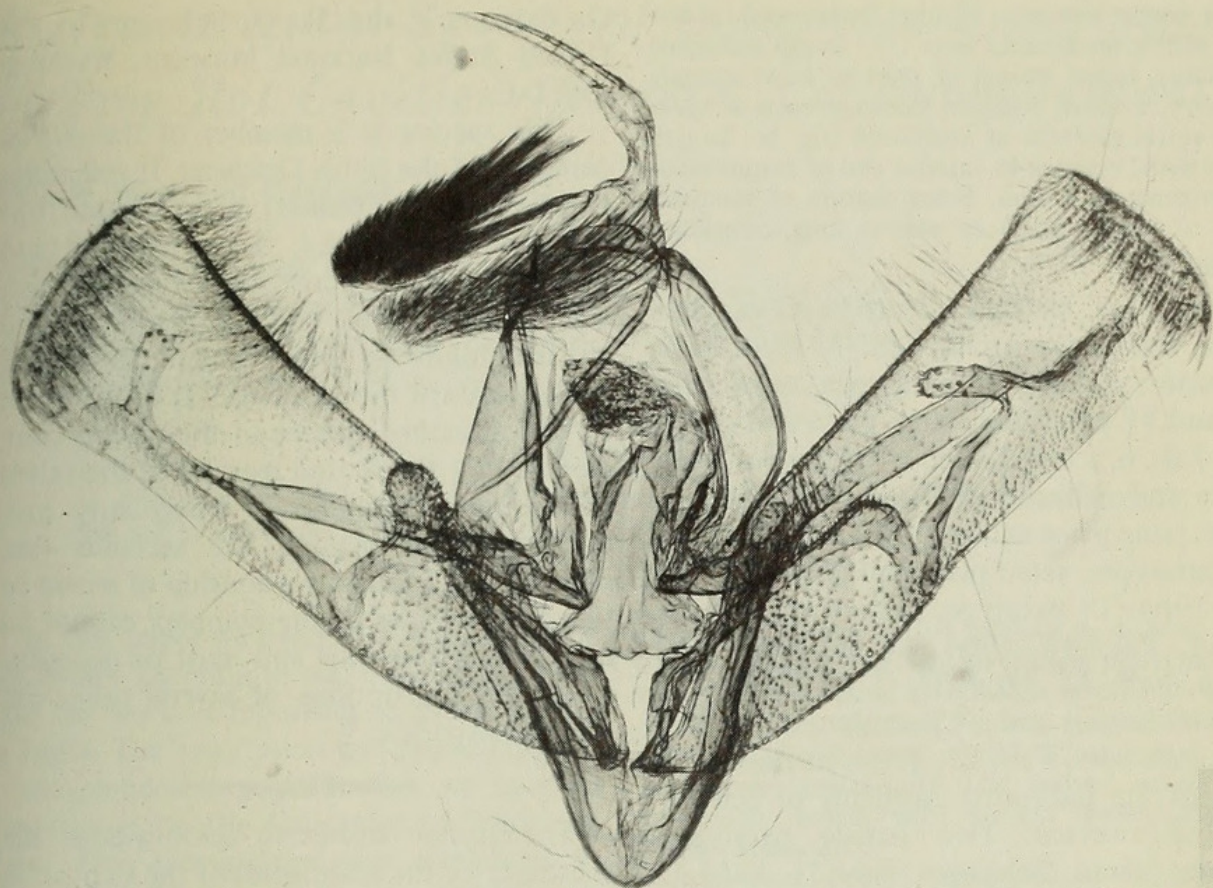
Head with proboscis well developed; labial palpi slightly upcurved, reaching about to middle of frons, third segment shortest, only about one-third length of second segment, palpi loosely-scaled especially ventral margins, nearly white, second segment with some scattered gray scales, third segment darker; frons slightly bulbous, exceeding anterior margin of eye approximately one-third length of eye, vestiture of frons white except a transverse band of dark brown scales below antennae; antennae filiform in both sexes. Vestiture of thorax, patagia, and abdomen of pale gray and white-tipped scales; thorax and abdomen lacking tufts. Pectus clothed with white scales and hair; tympanum moderate and only partially shielded by

abdominal hood; legs unmodified, hindleg nearly white with only a small area of dark brown scaling near base of each tarsal segment, midleg and hindleg progressively darker in coloration.

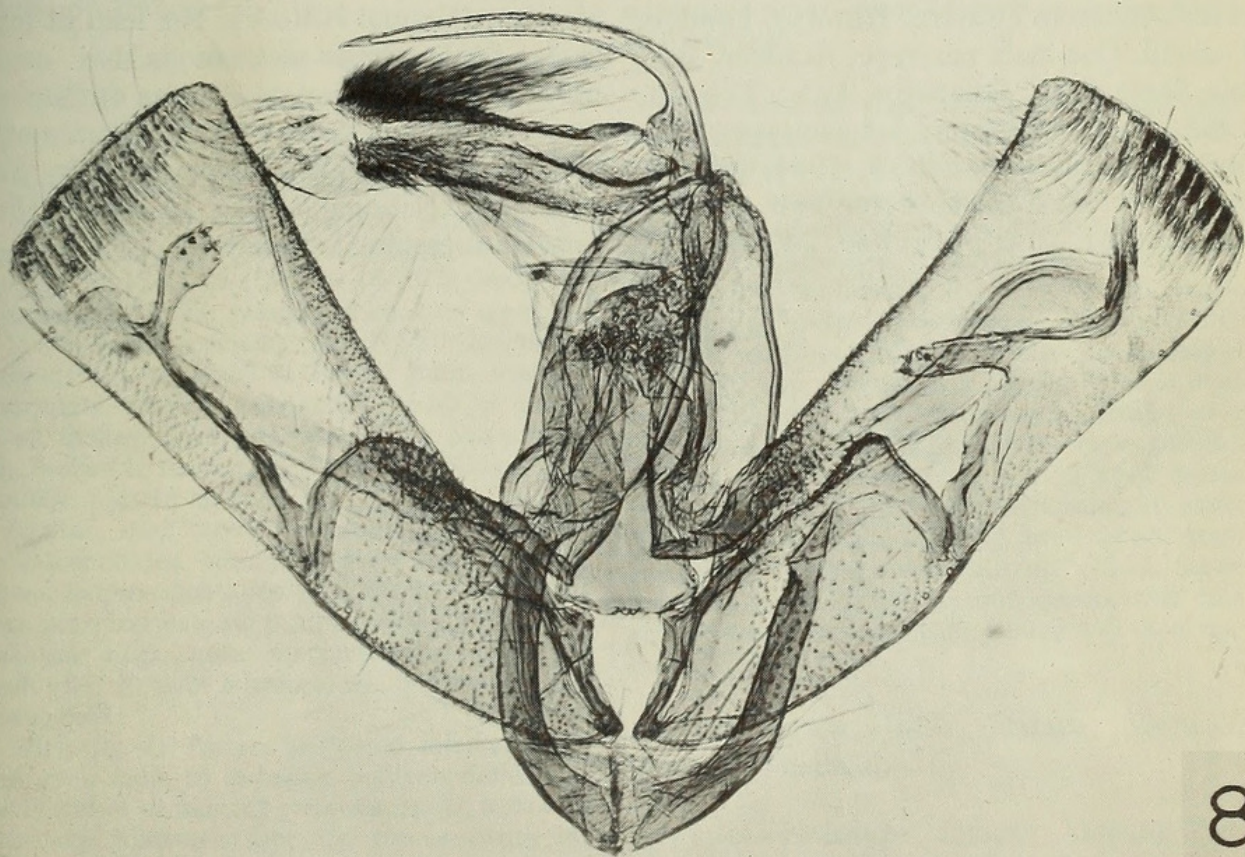
Pattern of maculation as illustrated (figs. 3, 4), reniform, orbicular, and claviform spots not developed. Ground color of forewing cream white or pale gray; antemedial line, postmedial line, and short subterminal striae in cells  $M_2$   $M_3$   $Cu_2$ , and 1st Anal dark brown or black, other maculation gray brown; fringe checkered, interrupted at the veins. Hindwing white with conspicuous fuscous marginal band and weakly checkered fringe in both sexes. Undersurface of forewings pale with darker shading in apical half, but without definite maculation of dorsal surface, discal cell clothed with sparse, long pale hairs; undersurface of hindwing like dorsal surface except marginal band not as well developed. Length of forewing, male, 9-11 mm, female, 8-12 mm.

Male genitalia as illustrated (fig. 5). Size moderate for species size, distance from base of uncus to tip of vinculum approximately 2 mm, length of aedeagus also 2 mm. Shape of valvae characteristic, ventral margin of each valve triangularly produced ventrad immediately distad of sacculus; clasper of right valve rather long and slightly sinuous, that of left valve swollen apically, with a





7



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Figs. 7-8. Male genitalia of *Spragueia* species: 7, *S. dama* (Guenée), genitalic preparation no. 4605, E.L. Todd, Cayuga, Guatemala; 8, *S. creton* Schaus, genitalic preparation no. 4601, E.L. Todd, lectotype, Tower Island [Isla Genovesa], Galapagos.



short costal lobe near middle, foot-shaped; aedeagus with a moderately large ( $1/3$  length aedeagus) cornutus; costal margin of right sacculus strongly concave, a short, rounded dorsal process at apex.

Female genitalia as illustrated (fig. 6). Length from ostial opening to anterior end of corpus bursa approximately 5 mm. Sclerotization of proximal part of corpus bursa as wide as long, irregularly triangular in outline.

Holotype, male, Academy Bay, Isla Santa Cruz, Galapagos Arch., Feb. 7, 1964, R.O. Schuster; 3♂ and 3♀ paratypes, same data; 1♂ and 4♀ paratypes, same place and collector, Feb. 6, 1964; 1♂ and 6♀ paratypes, same place and collector, Feb. 8, 1964, 1♂ paratype, same place and collector, Feb. 3, 1964; 4♀ paratypes, same place and collector, Feb. 10, 1964; 1♀ paratype, same place and collector, Feb. 18, 1964; 1♀ paratype, same place, Feb. 20, 1964, D. Q. Cavagnaro and D.O. Schuster; and 1♀ paratype, same place and collectors, Feb. 23, 1964, in the collection of the California Academy of Science, San Francisco. Two female paratypes, Charles Island, Galapagos, July 31, 1924, C. L. Collenette, St. George Expedition, in The British Museum (Natural History), London, England. One male paratype, Academy Bay, Isla Santa Cruz, Galapagos Arch., Feb. 10, 1964, R. O. Schuster; 1♂ paratype, same place and collector, Feb. 8, 1964; 1♂ paratype, same place and collector, Feb. 6, 1964; 1♀ paratype, same place, Feb. 24, 1964, D.

Q. Cavagnaro and R. O. Schuster, in the United States National Museum, Washington, D.C.

This species is a member of the *vitrina* complex of the genus *Catabena*. It resembles *Catabena terens* (Walker) in maculation, but the forewing is paler, the antemedial and postmedial lines more contrasting, the median shade broader, and the marginal band of the hindwing broader and developed farther toward the anal angle. It differs from all the described species of the *vitrina* complex in that the ventral margins of the valves of the male genitalia are triangularly produced ventrad beyond the sacculus (see figure 5). The actual relationship of *seorsa* to the other species of the complex cannot be discussed at this time and must of necessity await the descriptions of several other undescribed species.

#### Acknowledgments

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1972. "Descriptive and synonymical notes for some species of Noctuidae from the Galapagos Islands (Lepidoptera)." *Journal of the Washington Academy of Sciences* 62, 36–40.

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