

A NEW SPECIES OF *SPARTINIPHAGA* (NOCTUIDAE)  
FROM THE NEW JERSEY PINE BARRENS

DALE F. SCHWEITZER

Peabody Museum, Yale University, P.O. Box 6666,  
170 Whitney Ave., New Haven, Connecticut 06511

**ABSTRACT.** *Spartiniphaga carterae* Schweitzer is described as a new species from the New Jersey Pine Barrens. The type series consists of 5 ♂♂, 4 ♀♀ and 1 other specimen is known, all from Burlington County, New Jersey. The species is quite distinctive in maculation and male genitalia, but appears to be related to *Spartiniphaga inops* (Grote).

The following species is genitally close to *Spartiniphaga inops* (Grote). So far as known the ten specimens cited below are the only ones extant in collections. Nothing is known of its life history.

***Spartiniphaga carterae* Schweitzer, new species**

**Forewing, Male:** Light ochreous, rather uniform. Lines often virtually invisible except for series of dark dots on the veins representing the postmedian, and a single such dot representing the antemedian. Two paratypes have dark postmedian and subterminal lines like *S. inops*. Reniform with faint dark outer and pale inner rings, broader costad, with black spot in anterior end. Orbicular a faint dark circle. **Female:** All markings tending to be lost, the allotype nearly immaculate, but entire pattern seen on males is traceable on the paratype. Ventrally powdered with fuscous, no pattern.

Forewing length: 13.8-15.2 mm ♂♂; 11.7-13.1 mm ♀♀.



FIG. 1. *Spartiniphaga carterae*, holotype ♂.

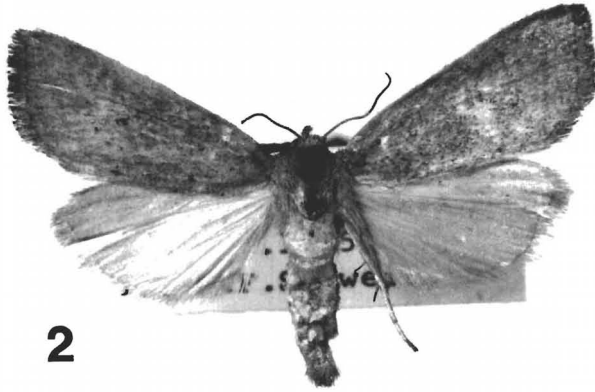


FIG. 2. *Spartiniophaga carterae*, allotype ♀.

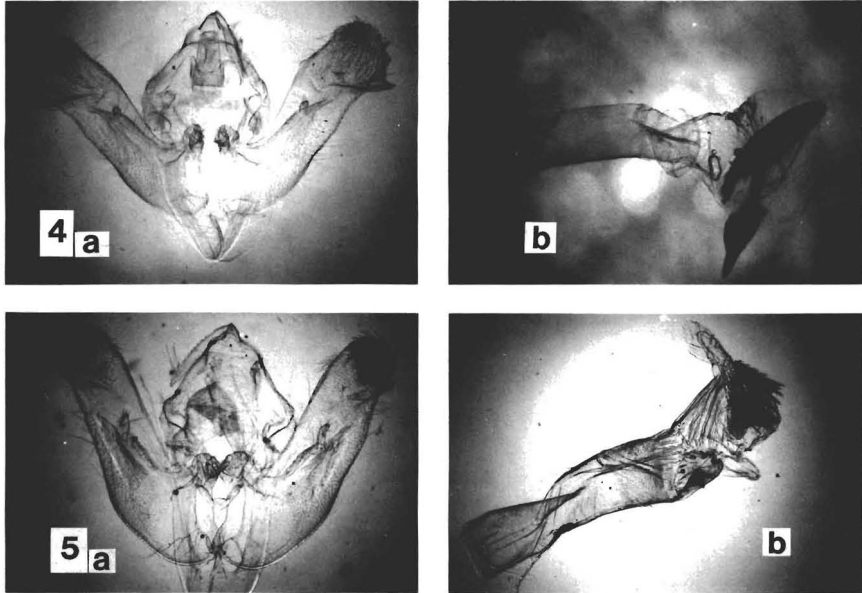
**Hindwing.** Very pale with slight ochreous tinge in the males, nearly pure white in the females. Unmarked above, except for brown postmedian line on one ♂. Ventrally with prominent discal spot and fuscous along margins.

**Body.** Head and thorax concolorous with forewing, abdomen paler. Thoracic tufts weak, abdominal basal tuft vestigial.

**Male genitalia.** Illustrated in Figs. 4a and 4b. Differences from *S. inops* (Figs. 5a, 5b) are listed in Table 1. The easiest characters for practical use are the size and shape of



FIG. 3. *Spartiniophaga inops*, ♂, Mystic, New London Co., Conn., 1 Sept. 1925, leg. H. P. Wilhelm (YPM).



FIGS. 4a, b & 5a, b. **4a**, male genitalia of *Spartiniphaga carterae*, holotype (aedeagus removed)—**b**, aedeagus, vesica everted; **5a**, male genitalia of *S. inops* from same moth as in Fig. 3—**b**, aedeagus, vesica everted, specimen from Martha's Vineyard, Mass., 10 Sept. 1945, leg. F. M. Jones (YPM).

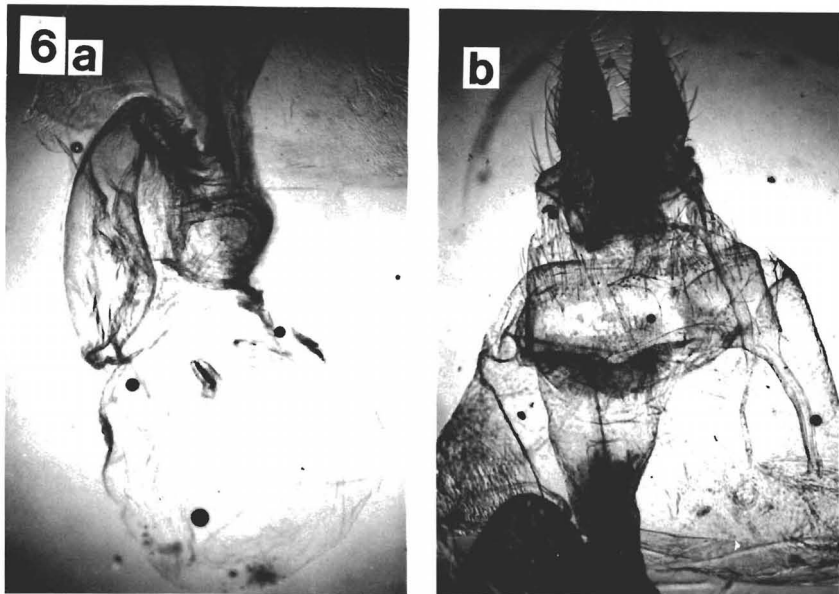
the basal tooth on the cucullus, which is spine-like on *S. carterae*, and the size and shape of the single large thorn-like spine in the vesica.

The presence of cucullar teeth on both species, the similarity in valve shape and in the vesica suggest that *S. carterae* and *S. inops* are fairly close relatives.

TABLE 1. Comparison of the male genitalia of *Spartiniphaga carterae* and *S. inops*. Two *inops* and three *carterae* were examined in temporary glycerin mounts.

Character	<i>S. carterae</i>	<i>S. inops</i>
Cucullar teeth	Basal one long, simple and pointed; 3 or more well separated smaller teeth	Four very small, largely fused, basal pair somewhat set off, larger
Ampulla	Short, slightly notched	Longer, simple
Saccular lobes	Somewhat pointed	Blunt
Juxta	Deeply cleft	Very shallowly cleft <sup>1</sup>
Aedeagus		
"Thorn"	Long, with well defined point	Much shorter, evenly tapered to a point
Cornuti	Longer, apparently more numerous	Shorter, apparently fewer

<sup>1</sup> The juxta cannot be clearly seen in the figure of *S. inops*.



FIGS. 6a, b. **a**, bursa copulatrix of *Spartiniphaga carterae*, paratype; **b**, ovipositor and associated structures.

**Female genitalia.** Illustrated in Figs. 6a and 6b, but not compared with other species.

**Diagnosis, superficial.** *Spartiniphaga carterae* can usually be distinguished from *S. inops* by the greatly reduced forewing pattern. *S. inops* (Fig. 3) apparently always has well defined antemedian, median, postmedian, and subterminal lines. Also the dots representing the postmedian line on the veins are larger on three male *S. carterae* than on most *S. inops* seen.

**Types.** HOLOTYPE: ♂, N.J.: Burlington Co., Batsto, 22 September 1973 at UV. leg. Dale F. Schweitzer. Illustrated in Fig. 1. Allotype: ♀, same data except 21 September 1975 at MV trap. Paratypes: ♂ same data as allotype; ♀ same locality, but 19 September 1970, UV trap, leg. Dale F. Schweitzer and Annie Carter; Whitesbog, N. J., E. P. Darlington, 17 Sep. 1936 (♂, 2♀♀), 20 Sep. 1940 (♂), 27 Sep. 1938 (♂).

The holotype and allotype are in the type collection of the Peabody Museum of Natural History, Yale University (YPM). Batsto paratypes are in my collection. The others are at the Carnegie Museum, Pittsburgh, PA and the Montshire Museum, Hanover, N.H. (1938 ♂). I have seen one other specimen of this species, collected by John W. Cadbury III and in his collection, from Whitesbog, N.J., 12 October 1940.

**Dedication.** This species is named for Annie Carter, the naturalist at Batsto Village (Wharton State Forest) who tended the trap in which the first Batsto specimen was taken and whose hospitality and assistance has contributed immensely to my research on Pine Barrens Lepidoptera since 1968.

**Distribution.** *Spartiniphaga carterae* is known only from Burlington County, New Jersey and is probably restricted to the New Jersey Pine Barrens.

The Batsto series was collected at the Batsto Nature Center near the east bank of the Batsto River, a few hundred meters upstream from

the dam at Batsto. The larva probably bores in one of the sedges growing in or along the Batsto or Mullica Rivers. No other species of *Spartiniphaga* has been collected in New Jersey.

#### ACKNOWLEDGMENTS

I thank Douglas C. Ferguson for examining and commenting upon one male paratype. The authorities at the following institutions permitted me to examine the collections under their care: American Museum of Natural History, New York; Carnegie Museum; Montshire Museum; Florida Department of Plant Industry; United States National Museum. The personal collections of H. D. Baggett, John W. Cadbury III, C. P. Kimball and Joseph Muller were also examined. I thank Joseph Gall for the use of his Zeiss Photomicroscope with which I took the genitalia photographs.