BITING LICE OF THE GENUS SAEMUNDSSONIA
(MALLOPHAGA: PHILOPTERIDAE) OCCurring ON TERNS

By Ronald A. Ward

Recently Clay (1949) contributed to the elucidation of the systematics of the species of the genus *Saemundssonia* occurring on terns. The present study undertakes to further amplify our knowledge of this group by a restudy of Kellogg's specimens and the examination of additional unstudied material. In it the known species are redescribed where necessary, *Saemundssonia brevicornis* (Giebel) is removed from synonymy and is considered as a distinct species, and two new species are described—*S. parvigenitalis* from *Sterna forsteri* Nuttall, and *S. petersi* from *Sterna f. fusca* Linné.

I am indebted to the following people and institutions for the loan of specimens (the abbreviations following the names are used throughout the paper to indicate where the material is deposited): Dr. G. F. Ferris, Stanford Natural History Museum (SNHM); Dr. Henry Dietrich, Department of Entomology, Cornell University (CU); Dr. E. A. Chapin, U. S. National Museum (USNM); Harold S. Peters, U. S. Fish and Wildlife Service, Atlanta, Ga. (HSP); Dr. E. H. Bryan, Jr., Bernice P. Bishop Museum (BPBM); Dr. C. H. Curran, American Museum of Natural History (AMNH); Rupert Wenzel, Chicago Natural History Museum (CNHM); and Richard B. Fischer, Department of Ornithology, Cornell University. For advice on certain nomenclatorial problems, I wish to thank Dr. A. E. Emerson of the University of Chicago and Mr. R. L. Araújo of the Instituto Biológico, São Paulo, Brazil.

On the basis of the male genitalia, three main groups of species of *Saemundssonia* may be considered. One group, consisting of *S. meridiana*, *S. petersi*, and *S. snyderi*, has genitalia resembling those found on the gulls; another group, *S. lobaticeps* and *S. hopkinsi*, has
the basal plate with a distal sclerotized crossbar and median fusion of the endomeral projections as in S. cephalus (Denny). The remaining species, exemplified by S. sterna, form a group that seems to have very little in common with the remaining members of the genus, and seem to be the only group that has shown extensive speciation among the terms.

The differences between many of the species are minute, and often can only be expressed in qualitative terms. An example of this is shown by the separation of the males of S. latiscutata and S. brevicornis. All measurements and chaetotaxy counts, except for the width of the clypeal signature and the number of setae on the sixth abdominal tergite, do not show valid statistical differences when subjected to the "t" test. No attempt has been made to erect subspecies for species such as S. peteri, where a good series of specimens was available from three host subspecies, as no valid statistical differences could be obtained for any character or combinations of them.

Measurements of the type specimens are listed in table 5. Certain of the measurements prove to be diagnostic for the separation of species. These are summarized in tables 6 and 7.

In the key to species in Clay’s paper, the symbols for “greater than” and “less than” were reversed and the name <italic>vittata</italic> was used in the female key instead of <italic>lockleyi</italic>. Corrections have been made in the keys below, and several additional species have been included.

**Key to species of Saemundssonia**

**MALES**

1. Basal plate with distal sclerotized crossbar .................................. 2
   Basal plate without distal crossbar .................................. 3

2. Cephalic index less than 1.04; length of paramere less than 0.24 mm. ...

   lobipectes (Giebel)

   Cephalic index greater than 1.05; length of paramere greater than 0.28 mm. ...

   hopkinsi Clay

3. Endomere with terminal, strongly sclerotized, toothlike process.

   melanocephalus (Burmeister)

   Endomere with terminal, lightly sclerotized, evenly rounded process; or
   lacking one .................................. 4

4. Paramere less than 0.15 mm. in length ..................................

   parvigenitalis new species

   Paramere greater than 0.20 mm. in length .................................. 5

5. Linear arrangement of mesosomal setae (occasionally clustered on one side) ...

   clustered arrangement of setae on both halves of the mesomere ... 10

6. Inner face of paramere head with basal concavity (virtually forms a right angle with shaft) ...

   Inner face of paramere head with slight basal convexity ... 9

7. Paramere greater than 0.33 mm. in length ..................................

   meridianana Timmermann

   Paramere less than 0.31 mm. in length ..................................

8. Paramere 0.28 to 0.30 mm. in length ..................................

   snyderi (Kellogg and Paine)

   Paramere 0.22 to 0.26 mm. in length ..................................

9. Clypeal signature 0.16 to 0.18 mm. in width; 4 to 9 setae on margin of abdo-

   nimal sternite VI ..................................

   laticaudata (Rudow)

   Clypeal signature 0.14 to 0.16 mm. in width; 2 to 5 setae on margin of abdo-

   nimal sternite VI ..................................

   brevicornis (Giebel)

10. Details of endomere and paramere head as in illustrations by Clay (1949),

    figs. 16, 22, 23 ..................................

    Details of endomere and paramere head as in illustrations by Clay (1949),

    figs. 17, 24, 25 ..................................

    lockleyi Clay

**FEMALES**

1. Hyaline anterior margin of head medially emarginate .............................. 2

   Hyaline anterior margin of head not emarginate .......................... 3

2. Width at temples usually less than 0.72 mm.; setae lateral to last abdominal

   sternite, 5 to 7 in number ..................................

   lobistipecs (Giebel)

   Width at temples usually greater than 0.73 mm.; setae lateral to last abdo-

   nimal sternite 3 (occasionally 4) in number ..................................

   hopkinsi Clay

3. Thoracic sternal plate with 2 setae on both the anterior and posterior margins ...

4. Thoracic sternal plate with setae only on posterior margin .......................... 5

4. Cephalic index less than 1.03; length of abdominal sternite VII (at midline)

   greater than 0.05 mm ..................................

   snyderi (Kellogg and Paine)

   Cephalic index greater than 1.03; length of abdominal sternite VII (at midline)

   0.06 to 0.08 mm ..................................

   meridianana Timmermann

5. Sternite VII with posterolateral angles free or partially fused to subgenital

   plate ..................................

   sternae (Linne6), lockleyi Clay, brevicornis (Giebel), and peteri, new species

6. Sternite VII with posterolateral angles fused to subgenital plate ............. 6

6. Width at temples greater than 0.63 mm ..................................

   laticaudata (Rudow)

7. Width at temples less than 0.62 mm ..................................

7. Width at temples 0.52 to 0.59 mm.; width of clypeal signature 0.12 to

   0.14 mm ..................................

   melanocephalus (Burmeister)

8. Width at temples 0.58 to 0.61 mm.; width of clypeal signature 0.14 to

   0.18 mm ..................................

8. parvigenitalis, new species

**Saemundssonia sternae** (Linne6)


Stern h. hirundo Linne6.

**Nymus forsteri** Offers, 1816, p. 89. Hosts: “Hab. in laris et sternis.”

**Decophorus melanocephalus** Petrus, 1929, p. 225; 1936, p. 17 (part) [see Bur-

meister]. Host: S. h. hirundo Linne6.

**Phleboterus melanocephalus** Kellogg and Chapman, 1902, p. 20 [see Burmeister].

Host: S. forsteri (error) = S. h. hirundo Linne6.

This species has been adequately characterized by Clay. Material studied from two forms of the Sterminae not available to her seem also to fall within the range of this species. Specimens from Sterna

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8. Paramere 0.28 to 0.30 mm. in length ........... snyderi (Kellogg and Paine)

8. Paramere 0.22 to 0.26 mm. in length ........... peteri, new species

9. Clypeal signature 0.16 to 0.18 mm. in width; 4 to 9 setae on margin of abdo-

   nimal sternite VI ........... laticaudata (Rudow)

9. Clypeal signature 0.14 to 0.16 mm. in width; 2 to 5 setae on margin of abdo-

   nimal sternite VI ........... brevicornis (Giebel)

10. Details of endomere and paramere head as in illustrations by Clay (1949),

    figs. 16, 22, 23 ........... sternae (Linne6)

10. Details of endomere and paramere head as in illustrations by Clay (1949),

    figs. 17, 24, 25 ........... lockleyi Clay
d. dougallii Montagu and Gelochelidon nitotica aranea (Wilson) show a distribution of setae within that of material from the type host, with the exception of tergite VI of the male which has between 4 to 8 setae in contrast to the 8 to 10 listed by Clay. However, an examination of a few of the neoparatypes shows that some of the specimens have as low as 6 setae on this segment, and American specimens from the type host have as few as 5 setae on tergite VI. As far as measurements are concerned, the material studied is similar to sternae, with the exception of head width measurements on males from Gelochelidon, which have a slightly wider range at the high end. Unfortunately, insufficient material is available to determine if these differences are real or not. On host material identified as Sternea forsteri Nuttall specimens have been found that fit sternae perfectly and also fit a new species, 

paragenitalis. In a brief study of some ornithological literature, it has been noticed that Sternea forsteri has often been confused with S. hirundo. This may explain the apparent occurrence of two species of Saemundssonia on a single host species.

Material examined: 3♂♂ and 1♀ (neoparatypes) ex Sternea h. hirundo Linné, Great Britain, Kent (AMNH); 3♂♂ and 2♀♀ ex above host, Virginia, Cobb's Island, H. S. Peters, coll. (HSP); 1♂ and 2♀♀ ex above host, Ohio, Buckeye Lake, M. B. Trautman, coll. (HSP); 4♂♂ and 1♀ ex roseate tern (S. d. dougallii Montagu), British West Indies, Caicos Islands, Fort George Cay, H. S. Peters, coll. (USNM, Bishop No. 15155); 1♂ and 1♀ ex gull-billed tern (Gelochelidon nitotica aranea (Wilson)), British West Indies, Bahamas Islands, Fortune Island, H. S. Peters, coll. (USNM, Bishop No. 15100); 1♂ and 1♀ ex above host, British West Indies, Caicos Islands, Fort George Cay, H. S. Peters, coll. (USNM, Bishop No. 15154); 2♂♂ and 3♀♀ ex above host, British West Indies, Grand Caicos Island, H. S. Peters, coll. (USNM, Bishop No. 15164); 1♂ ex Sternea forsteri Nuttall (error) = S. h. hirundo Linné, Louisiana, Grand Bayou (CU); 1♂ and 1♀, host as above, Minnesota, Leech Lake (SNHM, Kellog No. 689a); 1♂ and 1♀, host as above, Georgia, Savannah, I. R. Tompkins, coll. (CU).

Saemundssonia lockeyi Clay

Saemundssonia lockeyi Clay, 1949, p. 11, figs. 17, 24, 25. Type♀ host: Sternea vittata georgianae Reichenow; also recorded from S. v. bethunei Buller and S. paradisaea Pontoppidan.

As previously, no emendations are necessary to the original description.


LACE OF GENUS SAEMUNDSSONIA—WARD

(USNM); 2♂♂ and 3♀♀ ex above host, Labrador, Turnerick, J. L. Austin, Jr., coll. (HSP); 2♂♂ and 2♀♀ ex S. vittata bethunei Buller, Campbell Island (det. T. Clay) (AMNH).

Saemundssonia melanoecephalus (Burmeister)

(Decophorus melanoecephalus Nitzsch, 1818, p. 290, nomen nudum.)


Phileptra melanoecephalus Peters, 1936, p. 17 (part) (see Burmeister). Host: S. antillarum antillarum (Less.) = S. albilorsus antillarum (Less.).


A series of Saemundssonia from the least tern has been compared with a pair of neoparatypes. No differences may be ascertained, except for a slightly smaller head width in two of the females.

Material examined: 1♂ and 1♀ (neoparatypes) ex Sternea a. albilorsus Pallas (AMNH); 2♀♀, South Carolina, Charleston, E. B. Chamberlain, coll. (USNM, Bishop No. 19900); 3♂♂ and 7♀♀, above locality, H. S. Peters, coll. (HSP, Bishop No. 20971); 1♂ and 1♀, British West Indies, Bahamas Islands, Acklin Island, H. S. Peters, coll. (USNM, Bishop No. 15060); 1♂ and 3♀♀, British West Indies, Grand Caicos Island, H. S. Peters, coll. (USNM, Bishop No. 16168).

The above lots, except for the type material, are all from least terns (Sternea albilorsus antillarum (Less.).

Saemundssonia paragenitalis, new species

Phileptra melanoecephalus Peters, 1936, p. 17 (part) (see Burmeister). Host: Sternea forsteri Nuttall.

Male: Head width is similar to that of melanoecephalus. Chaetotaxy as in sternae, with exception of tergite V, which has 8 to 10 setae. Parameres differ in shape from those hitherto reported from the Sterninae (fig. 14) and are markedly smaller in length (0.10 to 0.13 mm.). Endomeres as in figure 14, with a basal, median fusion. Mesosomal setae apparently absent (fig. 15).

Female: May be distinguished from melanoecephalus by the slightly greater width of the head (0.59 to 0.62 mm.) and eyleap signature (0.14 to 0.18 mm.). Thoracic sternal plate with two setae on posterior margin. Abdominal chaetotaxy as in sternae. Sternite VII has the posterolateral angles fused to the subgenital plate. There are three to four setae present on each side of the last sternal plate.
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Type material: USNM 62279, 1♂ (holotype), 1♀ (allotype), and 1♂ (paratype with damaged parameres) ex Forster’s tern (Sterna forsteri Nuttall), Louisiana, Northshores, F. M. Carroll, coll. (USNM, Bishop No. 30439).

Paratypes as follows, all from the type host: 2♂♂, 1♀, and 1♀, Virginia, Wachapreague, M. B. Trautman, coll. (HSP); 1♂ and 1♀, South Carolina, Georgetown, H. S. Peters, coll. (HSP); 1♂ and 2♀♀, Florida, Pinellas County, W. G. Fargo, coll. (USNM, Bishop No. 15604); 5♀, Florida, Pass-a-Grille, W. G. Fargo, coll. (USNM, Bishop No. 15605); 1♀, Louisiana, Grand Bayou (CU); 1♂ (damaged) and 1♀, New York, Long Island, Orient (CU).

**Saemundssonia laticaudata (Rudow)**

_Docosphaerus laticaudata_ Rudow, 1869, p. 12. Host: _Sterna carinate_ = _Thalasseus s. sandvicensis_ (Latham).

_Deocospharus melanocephalus_ Kellogg, 1896, p. 99, pl. 4, fig. 6 (part) [nee Burmeister]. Host: _Sterna maxima_ = _Thalasseus m. maximus_ (Boddaert).

_Philopterus melanocephalus_ Peters, 1836, p. 17 (part) [nee Burmeister]. Host: _Thalasseus m. maximus_ (Boddaert).

_Saemundssonia laticaudata_ (Rudow), Clay, 1949, p. 14, figs. 7, 18, 26, 27. Hosts: _T. s. sandvicensis_ (Latham), _T. bengalensis_ var. (Mathew and Iredale), _T. bergi velox_ (Cretschmar), _T. b. bergii_ (Lichtenstein), _T. m. maximus_ (Boddaert), and _T. eurygnatha_ (Sanborn).

Thirty specimens have been studied from _Thalasseus m. maximus_ (Boddaert), and cannot be separated by any criteria from the material described by Clay. However, material from _T. sandvicensis acufluvis_ (Cabot) proves to be distinct from that on _T. s. sandvicensis_ (Latham), and is redescribed as the species next discussed, _S. brevicornis_ (Giebel).

Material examined: 1♂ and 1♀ ex _Thalasseus bergi velox_ (Cretschmar), Red Sea (T. Clay, det.) (AMNH); 1♀ ex _T. bergi cristatus_ (Stephens), Solomon Islands, Guadalcanal, W. J. Beecher, coll. (CNHM).

The following lots are all from the royal tern (T. m. maximus (Boddaert)): 4♂♂ and 4♀♀, Georgina, Issof of Hope, I. R. Tompkins, coll. (USNM, Bishop No. 19164); 1♂ and 2♀♀, South Carolina, Cape Island, G. R. Lanz, Jr., coll. (USNM and HSP, Bishop Nos. 20413 and 20419); 1♂ and 1♀, Louisiana, New Orleans, F. M. Carroll, coll. (USNM, Bishop No. 20678); 1♀, Florida, Pass-a-Grille, W. G. Fargo, coll. (USNM, Bishop No. 8247); 3♀♀, Florida, 5 miles west of Clearwater, R. B. Fischer, coll.; 1♂♂ and 1♀♀, California, Pacific Grove (SNHM, Kellogg Nos. 53a and 2066); 5♂♂ and 2♀♀, California, Bay of Monterey (SNHM, Kellogg No. 50, and CU, Kellogg No. 65).

**Saeumundsonia brevicornis** (Giebel)

_Deocospharus brevicornis_ Giebel, 1874, p. 112. Host: _Sterna arctica_ = _Thalasseus sandvicensis acufluvis_ (Cabot).

_Male_: This may be separated from _laticaudata_ by the lesser width of the eyebral signature (0.14 to 0.16 mm.) and also by the lesser number of setae (2 to 5) on the sixth abdominal tergite. Slight differences exist in chaetotaxy between this species and _laticaudata_ (ex _T. m. maximus_) as shown in table 1.

_Female_: Similar to _laticaudata_, except for the feature (in all specimens examined) of the separation of sternite VII from the subgenital plate. Three setae on each side of the last sternite. Abdominal chaetotaxy as in _sterne_ (Clay, 1949, p. 10, table 1).

Neotypes are erected for this species, as Giebel’s type in Germany was destroyed during World War II.

**Table 1.—Dorsal chaetotaxy of Saeumundsonia brevicornis and S. laticaudata**

<table>
<thead>
<tr>
<th>Pterothorax</th>
<th>S. brevicornis</th>
<th>S. laticaudata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen II</td>
<td>2–4</td>
<td>4–6</td>
</tr>
<tr>
<td>I</td>
<td>6–9</td>
<td>7–9</td>
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<tr>
<td>II</td>
<td>8–12</td>
<td>10–12</td>
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<tr>
<td>III</td>
<td>5–10</td>
<td>8–11</td>
</tr>
<tr>
<td>IV</td>
<td>2–5</td>
<td>6–9</td>
</tr>
<tr>
<td>V</td>
<td>4</td>
<td>4–7</td>
</tr>
</tbody>
</table>

_Type material_: Neotype ♂ (the specimen with genitalia contained within the abdomen) and nealtotype ♀ (to the left of the neotype as viewed through the microscope) ex Cabot tern (Thalasseus sandvicensis acufluvis (Cabot)), British West Indies, Ragged Islands (Bishop No. 15031). Neopara- and neotypodes as follows: The remaining single ♂ and ♀ on the above slide; 3♂♂ and 3♀♀, British West Indies, Turks Islands, Sand Cay (Bishop No. 15257); 2♂♂ and 3♀♀, British West Indies, Little Inagua Island (Bishop No. 15247); 1♂ and 2♀♀, British West Indies, Bahamas Islands, Ragged Island, South Channel Cay (Bishop No. 15042); 1♂, Cuba, Run Cayo (Bishop No. 15460). All the above specimens were collected by H. S. Peters and are deposited in the U. S. National Museum.

**Saeumundsonia meridiana Timmermann**

_Philopterus melanocephalus_ Peters, 1836, p. 17 (part) [nee Burmeister]. Host: _Sterna antarctica_ melanoptera Swainson.


_Male_: This species may be readily recognized by its head width and elongate parameres; both of which are greater than those of any other species found on terns. Mesosomal structures as in figure 1.
One striking feature of this species is that both sexes have a pair of both anterior and posterior setae on the thoracic sternal plate. Dorsal chaetotaxy as in S. petersi.

**FEMALE:** As in the male, this species is characterized by its greater size. Dorsal chaetotaxy as in table 3. Sternite VII is free from the subgenital plate. There are 3 to 4 setae on each side of the last sternal plate.

**Material Examined:** All specimens ex bridled term (Sterna anaesthesia melanopiera Swainson). 1 σ and 20, British West Indies, Bahama Islands, North Elbow Cay, Cay Sal Bank, H. S. Peters, coll. (USNM, Bishop No. 15014); 2 σ and 19, British West Indies, Turks Island, Long Cay, H. S. Peters, coll. (HSP, Bishop No. 15205); 2 σ, South Carolina, Orangeburg, E. B. Chamberlain, coll. (USNM, Bishop No. 19713); 1 σ and 1, New York, Long Island, L. Wilcox, coll. (USNM); 2 σ, Alabama, Fairhope, Mrs. W. H. Edwards, coll. (USNM, Bishop No. 19680).

**Saemundssonia petersi, new species**

*Decephorus melanopsichus* Kellogg and Kuwan, 1902, p. 462 (part) [see Burmeister]. Hosts: *Senna fuligina* (= *S. fuscata crisalis* (Lawrence) and *Neomimus maculonanlid Ridgway* (straggler).

*Decephorus melanopsichus* Kellogg, 1906, p. 316 (part) [see Burmeister]. Hosts: *Senna fuligina* (= *S. fuscata crisalis* (Lawrence)) and *Anous stolidus galapagensis* Sharpe (straggler).

*Philopterus snyderi* Ferris, 1932, p. 71, fig. 20 [see Kellogg and Paine]. Host: *Senna fuscata oahuensis* Bloxham.

**Saemundssonia snyderi** Thompson, 1948, p. 199 (part) [see Kellogg and Paine]. Host: *Senna fuscata oahuensis* Bloxham.

This species has had a confusing nomenclatorial history for 50 years. The types of *Saemundssonia peristicta* (Kellogg and Kuwan) have been examined, and compared with material from *Senna fuscata* Linné. It is clearly evident that *peristicta* is not the species of *Saemundssonia* found on *Senna fuscata* as *Clay* (1949, p. 15) assumes. The status of *Saemundssonia peristicta* (Kellogg and Kuwan) is discussed by the author in another paper (Ward, 1953).

Specimens have been studied from two subspecies of *S. fuscata* other than the nominate host. No valid statistical differences have been found in comparing measurements or chaetotaxy counts for the separation of subspecies.

**Male:** Closely allied to *meridiana* and *snyderi*. Head not as wide as in *meridiana*. Dorsal chaetotaxy as in table 2. Genitalia as in figure 1, a, d, f. Parameres 0.22 to 0.26 mm. in length; with a basad concavity on the inner face, forming almost a right angle with the shaft as in *meridiana* and *snyderi*. Endomere with a terminal, lightly sclerotized, ovum shaped process. Messosomal setae linearly arranged on at least one side.

**FEMALE:** Sternite VII free or partially fused to subgenital plate. May not be reliably separated from *sternae*, *lockleyi*, or *brevicornis*.

**Table 2—Dorsal chaetotaxy of Saemundssonia petersi, new species.** (Specimens from *Senna fuscata crisalis*, S. f. *ohauensis*, and S. f. *fuscata* are included.)

<table>
<thead>
<tr>
<th>Pterothorax</th>
<th>Abdomen</th>
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<tbody>
<tr>
<td>Male</td>
<td>Female</td>
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<tr>
<td>III</td>
<td>III</td>
<td>IV</td>
<td>V</td>
<td>VI</td>
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<td>7-10</td>
<td>7-10</td>
<td>10-12</td>
<td>10-13</td>
<td>6-12</td>
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<td>13-17</td>
<td>14-17</td>
<td></td>
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</table>

**Type Material:** All specimens in the type series are from the sooty term (*Senna f. fuscata* Linné). 1 σ (holotype, USNM 62880) and 19 (allotype), Bahama Islands, North Elbow Cay, Cay Sal Bank, H. S. Peters, coll. (USNM, Bishop No. 15099). Paratypes as follows: 2 σ and 299, above locality and coll. (USNM, Bishop Nos. 15099-10); 12 σ and 1199, British West Indies, Caicos Islands, Six Hills Cay, H. S. Peters, coll. (USNM, Bishop Nos. 15212-11, 15221); 19, Virgin Islands, St. Thomas (CNHM).

**Other Material Examined:** 19 ex *Senna fuscata oahuensis* Bloxham, Hawaii, Moku Manu, off Oahu, L. Hartman, coll. (USNM); 1 σ and 17 ex above host, Laysan Island, Tangier Exp., coll. (BPBM). 1 σ and 17 ex *Senna fuscata crisalis* (Lawrence), Clipperton Island (SNHM, Kellogg No. 10690); 1 σ ex *Neomimus maculonanlid* (error) (= *S. fuscata crisalis*), Galapagos Islands, Gardner Island (SNHM, Kellogg No. 991); 1 σ ex *S. fuligina* (= *S. fuscata crisalis*), Lat. 1° N., Long. 93° W., R. Beck, coll. (SNHM, Kellogg No. 1463c); 1 σ ex *Solipinches guadalupensis* (error) (= *Senna fuscata crisalis*), Guadalup Island (SNHM, Kellogg No. 1083b); 2 σ and 399 ex *Anous stolidus galapagensis* (error) (= *Senna fuscata crisalis*), Galapagos Islands, off Culepper Island, R. Beck, coll. (SNHM, Kellogg No. 1438a); 1 σ and 299 ex *Anous stolidus* (error) (= *Senna fuscata crisalis*), R. Beck, coll. (SNHM, Kellogg No. 1484).

This species is named in honor of H. S. Peters, who has carefully collected and mounted many of the specimens studied in this paper.

**Saemundssonia snyderi** (Kellogg and Paine)

*Decephorus snyderi* Kellogg and Paine, 1910, p. 124, figs. 1, 2. Host: *Senna fuscata* Peale.

*Saemundssonia snyderi* (Kellogg and Paine), Thompson, 1948, p. 199 (part). Host: *Senna fuscata* Peale.

**Male:** Head width is similar to that of *petersi*. Dorsal chaetotaxy also as in *petersi*. As in *meridiana*, the thoracic sternal plate has both anterior and posterior setae in both sexes. In some cases, however, only one anterior and two posterior setae are present. Gen-
italia as in figure 1, c, g. The parameres are intermediate in length between those of *petersi* and *meridiana* (0.28 to 0.30 mm.). The mesosomal setae are linearly arranged on at least one side.

**Female**: Dorsal chaetotaxy as in table 3. Sternite VII is free from the subgenital plate and is slightly longer at the midline than in *meridiana*.

<table>
<thead>
<tr>
<th>Table 3.—Dorsal chaetotaxy of <em>Saemundssonia meridiana</em> and <em>S. snyderi</em>.</th>
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</thead>
<tbody>
<tr>
<td><strong>Prothorax</strong></td>
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<tr>
<td>Female</td>
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<tr>
<td>Male</td>
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<td><strong>Abdomen II</strong></td>
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<td>Female</td>
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<td>Male</td>
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<td><strong>IV</strong></td>
</tr>
<tr>
<td><strong>V</strong></td>
</tr>
<tr>
<td><strong>VI</strong></td>
</tr>
</tbody>
</table>

In the original description, no specimens were designated as types. A male specimen (the only intact individual containing the genitalia within the abdomen) is designated as lectotype. The remaining 2♂♂ (one with genitalia dissected out, and the other with extruded genitalia) and 3♀♀ are designated as paratypes.

**Material examined**: 3♂♂ and 3♀♀ ex *Sternula lunata* Peale, Laysan Island, J. D. Snyder, coll. (labeled "Type") (SNHM, Kellogg No. 1324); 1♀ ex host and locality, *Tanaorhynchus* Exped., coll. (BPBM).

*Saemundssonia lobaticeps* (Giebel)

*Docophorus lobaticeps* Giebel, 1874, p. 109. Hosts: *Sternula hirundo* and *S. fassipera* = *Chlidonias n. nigra* (Linné).

*Docophorus pastiliferus* Picaglia, 1885, p. 84. Host: *Hydrochelidon surinamensis* = *Chlidonias nigra surinamensis* (Gmelin).

*Philopterus melanocephalus* Peters, 1823, p. 225; 1936, p. 17 (part) [nee Burmeister]. Host: *Sternula hirundo Linné* (stragglers) = *Chlidonias nigra surinamensis* (Gmelin).

*Saemundssonia lobaticeps* (Giebel), Clay, 1949, p. 15, figs. 9, 12, 14, 20, 30, 31. Hosts: *Chlidonias nigra* (Linné) (type host); also, *C. h. hybrida* (Palлас), *C. h. indica* (Stephens), and *C. lateralis* (Temminck).

Specimens have been seen from the type host of *pastiliferus*. Minute differences exist, such as in the head width and chaetotaxy (see table 4). However, these differences are of no significance.

At the present time, it seems best to consider *pastiliferus* as a synonym of *lobaticeps*.

**Material examined**: 2♂♂ and 1♀ ex black tern (*Chlidonias nigra surinamensis* (Gmelin)), Minnesota, St. Anthony Park (USNM); 4♂♂ and 1♀ ex above host, Nebraska, Hackberry Lake, G. E. Hudson, coll. (CU); 1♂ and 1♀ ex *Sternula albifrons antillarum* (Lesson) (stragglers from *Chlidonias nigra surinamensis*), Cuba, Isle of Pines.
<table>
<thead>
<tr>
<th>Species</th>
<th>Host</th>
<th>Signature width</th>
<th>Head width</th>
<th>Cephalic index</th>
<th>Paramere length</th>
<th>No. Specimens</th>
</tr>
</thead>
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<td>0.15 0.14-0.16</td>
<td>0.54 0.52-0.56</td>
<td>0.93 0.90-0.96</td>
<td>0.24 0.22-0.26</td>
<td>11</td>
</tr>
<tr>
<td>S. d. dougallı</td>
<td>Gelochoilid nolotica aranae</td>
<td>0.16 0.16</td>
<td>0.58 0.57-0.59</td>
<td>0.97 0.96-0.97</td>
<td>0.24 0.23-0.25</td>
<td>3</td>
</tr>
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<td>S. paradisaea</td>
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<td>0.54 0.51-0.56</td>
<td>0.91 0.89-0.93</td>
<td>0.24 0.23-0.25</td>
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<td>S. a. albifrons</td>
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<td>0.14</td>
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</tr>
<tr>
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<td>0.92 0.89-0.96</td>
<td>0.17 0.16-0.18</td>
<td>6</td>
</tr>
<tr>
<td>parvigenitalis</td>
<td>S. forsteri</td>
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<td>0.51 0.49-0.53</td>
<td>0.92 0.85-0.94</td>
<td>0.11 0.10-0.13</td>
<td>*8</td>
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<tr>
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<td>0.62</td>
<td>0.94</td>
<td>0.27</td>
<td>1</td>
</tr>
<tr>
<td>T. m. maximus</td>
<td></td>
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<td>0.62 0.61-0.65</td>
<td>0.95 0.93-0.98</td>
<td>0.27 0.26-0.29</td>
<td>11</td>
</tr>
<tr>
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<td>0.93 0.91-0.95</td>
<td>0.26 0.24-0.30</td>
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<tr>
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<td>0.94 0.91-0.96</td>
<td>0.25 0.23-0.26</td>
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<td>0.90 0.90</td>
<td>0.24 0.24-0.25</td>
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</tbody>
</table>

| snyderi | S. lunata     | 0.15 0.15-0.16  | 0.61 0.57-0.62 | 0.96 0.94-0.98 | 0.29 0.28-0.30 | 3             |
| lobiicaps | Childonias leucoperta | 0.14 0.13 0.12-0.14 | 0.60 0.54-0.58 | 1.00 0.99-1.03 | 0.24 0.20-0.22 | 10            |
| C. nigra surinamensis |                      | 0.13 0.12-0.14  | 0.56 0.54-0.58 | 0.99 0.95-1.03 | 0.20 0.18-0.22 | 10            |
| hopkinsi | S. aurantia   | 0.17            | 0.65       | 1.12            | 0.30            | 1             |

*Parameters measured on only 7 specimens.
<table>
<thead>
<tr>
<th>Species</th>
<th>Host</th>
<th>Signature width Mean</th>
<th>Range</th>
<th>Head width Mean</th>
<th>Range</th>
<th>Cephalic index Mean</th>
<th>Range</th>
<th>Sternum VII length at midline Mean</th>
<th>Range</th>
<th>No. Specimens</th>
</tr>
</thead>
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<tr>
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<td>0.16</td>
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<td>0.99</td>
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<td>0.06-0.08</td>
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<td>2</td>
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Figure 1.—a, Saemundssonia parvigenitalis, paramere (holotype); b, S. petri, paramere (holotype); c, S. rydari, paramere (lectotype); d, S. petri, endomere (holotype); e, S. meridiana, mesosome; f, S. petri, mesosome (holotype); g, S. rydari, mesosome (lectotype); h, S. parvigenitalis, mesosome (holotype); i, S. parvigenitalis, mesosome (holotype). The vertical line to the right of figure e represents 0.10 mm. Figure b is drawn to the same scale. The scale of the remaining figures is represented by the line to the right of figure a and is also equivalent to 0.10 mm.
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