

of the fifth in *marquesanus* and only about one-half the length of the fifth in *procellariae*, readily separates these two groups. Both *procellariae* and *marquesanus* species groups are typically parasitic on birds of the genus *Pterodroma*.

Key to the Species Groups and Species of Subgenus *Halipeurus*

This key is primarily based on males, except where females are specifically mentioned. The females by themselves are very difficult to determine, the best technique being to compare them critically with previously determined females of the same size range. When familiar with the lice, one may quickly place females by virtue of certain qualitative aspects that cannot be successfully applied in a key.

1. With obvious asymmetry of part or all of sclerites of terminal segments ..... *angusticeps* species group  
Without asymmetrical developments of sclerites of terminal segments ..... 2
2. Signature with lateral expansions and/or without narrow posterior extension ..... *taxosetus* species group  
Signature with greatly reduced or no lateral expansions, and with narrow posterior extension ..... 3
3. Female terminal segments typical, not apparently fused into a single, evenly sclerotized unit, medial indentation obvious ..... *procellariae* species group  
Female terminal segments apparently fused into a single, more-or-less evenly sclerotized unit, medial indentation greatly reduced or absent; posterior border of segment 11 broad and squared; males without obviously shortened abdominal segment ..... *marquesanus* species group

*angusticeps* species group

1. Sternite 9 and 10 only asymmetrical ..... *angusticeps* subsp. 2  
Segment 11 markedly asymmetrical ..... 3
2. Sternite 9 and 10 with irregular posterior margin, sharply angled caudad to right; total length greater than 3.6 mm. .... *a. angusticeps*  
Sternite 9 and 10 as above, but less irregular and less sharply angled; total length less than 3.6 mm. .... *a. fosteri*
3. Buttresses of 11th segment only involved in knob-like postanal extension on the right side ..... *mirabilis*  
Buttresses of segment 9 and 10 and 11 fused on right side, and form hook-like postanal extension ..... *abnormis*

*taxosetus* species group

1. Posterior border of sternite 9 and 10 triangular, heavily sclerotized, with completely atypical setal pattern ..... 9  
Sternite 9 and 10 without excessive modification ..... 2
2. Parameres short, broadened, and widely set apart ..... 10  
Parameres slender, not widely set apart ..... 3
3. With a row of three closely set setae on each latero-posterior border ..... 7  
Without such a row ..... 4
4. Parameres slender, equal or only slightly sub-equal in length. .... 5
5. Parameres subspatulate, relatively broad, and differing greatly in length; group II setae somewhat irregular in pattern. .... *placodus*  
Parameres very slender, not varying in width ..... 6  
Parameres slender, but variable in width, from specimen to specimen and point to point along each paramere ..... *diversus*
6. Sternite 9 and 10 with rounded, heavily sclerotized corners, presenting superficial 'pincers-like' appearance. .... *forficulatus*  
Sternite not so modified, group II setae distinctly caudad on sternite. .... *bulveriae*
7. More than 3.0 mm in length, parasites of *Puffinus*. .... *taxosetus*  
Less than 3.0 mm in length, parasites of *Pelecanoides* ..... *falsus* subsp. 8
8. Signature more-or-less *diversus*-type, but irregular. .... *f. falsus*  
Signature distinctive, with large, regularly expanded lateral expansions, narrowing smoothly to small but distinctive medial indentation. .... *f. pacificus*

*fallacis subclavus*  
*intercalatus*  
*spadua*

9. Parameres slender, lightly sclerotized; 11th segment heavily sclerotized but not greatly reduced ..... *thompsoni*  
Parameres not so slender, heavily sclerotized; aedeagal sac with curious sclerotizations; a large species with 11th segment greatly reduced ..... *micariprocetus*
10. Sternite 9 and 10 with longitudinally drawn out setal pattern; signature very long, rectangular in shape. .... *attenuatus*  
Sternite 9 and 10 with fairly typical setal pattern ..... 11
11. Basal segment of antenna almost bulbous; with slightly irregular setal pattern; aedeagal sac almost as long as parameres; over 3.5 mm in length ..... *mundae*  
Basal segment of antenna sub-bulbous; with group II setae 5 and 6 distinctly laterad; aedeagal sac with rod-like, obliquely cut sclerotization, less than 3.5 mm in length. ... *turtur*

*procellariae* species group

1. Parameres relatively broad, of medium length, with spatulate tips, subequal and only slightly asymmetrical; with variously modified rod-like sclerotizations within aedeagal sac. 2  
Parameres equal in length, symmetrically curved medially; without sclerotization within aedeagal sac. .... *procellariae*
2. Sternite 9 and 10 rectangular, with typical setal pattern ..... *kermadecense*  
Sternite 9 and 10 with broadly rounded posterior margin. .... *accentor*

*marquesanus* species group

1. Parameres long and slender ..... 2  
Parameres short and relatively broad. .... *intermedius*
2. Sternite 9 and 10 with narrow, rectangular extension overlapping 11th segment. *marquesanus*  
Sternite 9 and 10 without such extension, group II setae crowded posteriorly. *postmarquesanus*

*Halipeurus (Halipeurus) angusticeps* (Piaget)

*Lipeurus angusticeps* Piaget, 1880, Les Pediculines, pp. 306-308, pt. 25, fig. 4. *Type-host*: *Procellaria cinerea*.

*Description*: A medium-sized species, ± 3.5 mm. Characterized by the irregular, obliquely cut posterior border of sternite 9 and 10 in the male. Signature with deep, triangular medial indentation in female. See descriptions of subspecies for detailed information.

*Halipeurus (Halipeurus) angusticeps angusticeps* (Piaget)  
(Figs. 3-7, A)

*Lipeurus angusticeps* Piaget, 1880, Les Pediculines, pp. 306-308, pl. 25, fig. 4. *Type-host*: *Procellaria cinerea*.

*Esthiopterum angusticeps* (Piaget). Harrison, 1916, Parasit., 9, No. 1, p. 130.

*Halipeurus angusticeps* (Piaget). Thompson, 1936, Ann. Mag. Nat. Hist., ser. 10, 18, p. 41. Designated as genotype.

*Description*: Head ratio 2.2. Signature with rounded medial indentation, pointed in female. Basal segment of antenna sub-bulbous. Dorsal carina extends to mandibles, only lightly sclerotized in male. Abdomen ratio 5.8, narrow. Sixth segment as long as fifth. Segments 4, 5 and 6 with well developed paratergal processes, 7, 8 and 9 and 10 without processes. Posterior border of sternite 9 and 10 asymmetrical, cut obliquely downward to right and distinctly irregular. Terminal segments relatively attenuate. Eleventh segment bilobed, relatively unsclerotized, deeply indented. Parameres slender, lightly sclerotized, right paramere shorter and arced medially. Basal apodeme indistinct. Female typical.

*Type-host*: Unknown. Listed as *Procellaria cinerea* by Piaget, presumably meaning *Adamastor cinereus* (Gmelin).

*Measurements*: A single male and female, in millimeters:

	Male	Female
Total length:	3.84	4.63
Length of head:	0.85	
Width of head:	0.39	
Length of abdomen:	2.38	
Width of abdomen:	0.41	

*Material examined*: one male, one female, from *Procellaria cinerea* from the Piaget Collection, slide no. 445, BMNH no. 1928-325, kindly loaned by Miss Clay. Male on above slide designated as lectotype. Two male and three female paratypes from same material, all specimens in the British Museum (Natural History).

*gravis*  
*consimilis*

*Halipeurus* sp?. Thompson, Ann. Mag. Nat. Hist., ser. 11, 2, p. 485.

*Description:* Head ratio 2.1, narrow. Signature squarish, posterior extension narrowed. Premarginal carina barely separated from post-marginal carina. Basal segment of antenna essentially cylindrical, but very wide, 2d and 3d segments enlarged relatively. Pterothoracic patch divided. Abdomen ratio 6.2. Buttress with posterior medial processes well developed, more or less pointed. Segment 6 only slightly smaller than 5. Sternite 9 and 10 with faint 'T' shaped sclerotization, slightly overlapping 11. Setal pattern typical but variable. Eleventh segment short and triangular, with narrow buttresslike sclerotization. Genitalia broad with long distinct basal apodeme. Parameres moderately long, broad, sub-equal, with tips pointed and turned mediad slightly. Aedeagal sac about three-fourths length of parameres. Female with terminal segments as in *H. marquesanus* and *postmarquesanus*.

*Measurements:* 6 males, 5 females from hosts listed:

	Males	Females
Total length	4.82 (4.62 to 4.92)	4.94 (4.85 to 5.00)
Length of head	0.81 (0.78 to 0.85)	
Width of head	0.38 (0.38 to 0.41)	
Length of abdomen	3.16 (3.08 to 3.23)	
Width of abdomen	0.51 (0.49 to 0.52)	

*Type-host:* *Pterodroma phaeopygia phaeopygia* (Salvin).

*Material examined:* From the type host, holotype male, allotype female, from AMNH skins collected by R. H. Beck from the Galapagos (RLE); 4 paratype males from MCZ skin no. 65683, Galapagos (RLE); male paratype, Galapagos (GBT).

*Pterodroma externa cervicales* (Salvin): 2 males paratypes, collected by R. H. Beck near Sunday, Kermadec Islands (AMNH); 3 male, 3 female paratypes, Kermadec Islands (GBT); 3 male, 5 female paratypes, from MCZ skin no. 39893, Kermadec Islands (RLE).

*Puffinus subalaris* Ridgway: 1 male, 1 female, syntypes of Kellogg and Kuwana's *Lipeurus diversus* var. *major*, (these are, without doubt, stragglers).

*Discussion:* These species may be separated from the other closely related species, *H. marquesanus* and *postmarquesanus* by the genitalia and chaetotaxy of the male terminal segments.

*Halipeurus (Halipeurus) marquesanus* (Ferris)  
(Figs. 3-7, T)

*Esthiopterum marquesanus* Ferris, 1932, Bull. Bishop Mus. Honolulu, 98, pp. 62-63, figs. 14, 15. *Type-host:* *Pterodroma rostrata*. *Halipeurus marquesanus* (Ferris). Thompson, 1938, Ann. Mag. Nat. Hist., ser. 11, 2, p. 489.

*Description:* Head ratio 2.1, narrow. Signature relatively short, with prolonged medial portion posteriorly. Pre- and postmarginal carinae more-or-less fused. Dorsal carinae extend to level of mandibles in male, but are much shorter in female. Pterothoracic patch atypical in male, usually in two parts, one part with a single long seta, the other with two setae. Abdomen ratio 7.3, exceptionally narrow, straight-sided. Sixth segment slightly smaller than 5th. Buttresses relatively narrow with only moderately developed medial processes. Sternite 9 and 10 with rectangular extension posteriorly, overlapping segment 11. Setal pattern of group II crowded, slightly distorted, with setae 1 and 2 close set, and 5 and 6 moved anteriorly. Parameres long and slender, with slightly broadened tips. Aedeagal sac about two-thirds as long as parameres. Sternite 9 of female expanded and extended as an obvious loose flap over next segment. Buttresses 9 and 10 and 11 smoothly fused, as same tergites almost are.

*Measurements:* 5 males and 8 females from the type-host, averages and ranges in millimeters:

	Males	Females
Total length	4.00 (3.85 to 4.16)	4.46 (4.15 to 4.62)
Length of head	0.74 (0.71 to 0.75)	
Width of head	0.34 (N.V.)	
Length of abdomen	2.62 (2.62 to 2.69)	
Width of abdomen	0.36 (0.34 to 0.37)	

*Type-host:* *Pterodroma rostrata rostrata* (Peale).

*Material examined:* 1 male, 2 female paratypes kindly loaned by Mr. Gordon B. Thompson:

26 males, 29 females, from MCZ skin no. 166885, from the Society Islands, (RLE), all from type-host.

*Halipeurus (Halipeurus) postmarquesanus* sp. nov.  
(Figs. 3-7, U)

*Description:* Very close to *H. marquesanus*. Head ratio 2.0. Pre- and postmarginal carinae not fused. Pterothoracic patch variable, usually divided into two groups. Abdomen ratio 6.8, very similar to *H. marquesanus* except for the elongated segment 9 and 10. Group II setae crowded posteriorly. Parameres and basal apodeme forming very long, narrowly 'S' shaped unit. Female with terminal segments like those of *H. marquesanus*.

*Measurements:* 5 males and 6 females from the type-host, averages and ranges in millimeters:

	Males	Females
Total length	3.72 (3.62 to 3.85)	4.30 (4.15 to 4.38)
Length of head	0.68 (0.65 to 0.70)	
Width of head	0.34 (0.32 to 0.35)	
Length of abdomen	2.43 (2.32 to 2.46)	
Width of abdomen	0.36 (0.34 to 0.37)	

*Type-host:* *Pterodroma heraldica* (Salvin).

*Material examined:* Holotype male, allotype female, 3 male, 4 female paratypes, from AMNH skin collected in the South Pacific, (RLE); 1 male and 2 female paratypes, Chesterfield Group, (GBT).

*Pterodroma parvirostris* (Peale): 1 male, 1 female, no data, (GBT).

*Discussion:* Readily separated from both *H. marquesanus* and *intermedius* by the distinctly shaped male genitalia.

List of the Species and Subspecies of *Halipeurus* (*Halipeurus*) and Their Hosts  
(\* Type-Host)

- H. angusticeps angusticeps* (Piaget)  
Host unknown.
- H. a. fosteri* subsp. nov.  
\* *Puffinus leucomelas* (Temminck)
- H. abnormis* (Piaget)  
\* *Puffinus gravis* (O'Reilly)  
*Puffinus kuhlii kuhlii* (Scopoli)  
*Puffinus kuhlii borealis* Cory  
*Puffinus kuhlii edwardsi* Oustalet  
*Puffinus kuhlii flavirostris* (Gould)
- H. mirabilis* Thompson  
*Puffinus pacificus pacificus* (Gmelin)  
\* *Puffinus pacificus chlorohynchus* Lesson  
*Puffinus pacificus cumeatus* Salvin
- H. placodus* sp. nov. 141.  
*Puffinus assimilis assimilis* Gould  
\* *Puffinus assimilis tunneyi* Mathews  
*Puffinus assimilis kermadecensis* Murphy  
*Puffinus l'herminieri nugax* Mathews  
*Puffinus auricularis* Townsend
- H. diversus* (Kellogg) P. 142.  
\* *Puffinus griseus* (Gmelin)  
*Puffinus tenuirostris* (Temminck)  
*Puffinus puffinus puffinus* (Brunnich)  
*Puffinus puffinus yelkouen* (Acerbi)  
*Puffinus puffinus mauretanicus* Lowe
- H. forficulatis* sp. nov. 144  
\* *Puffinus l'herminieri polynesiae* Murphy  
*Puffinus l'herminieri dichrous* Finsch and Hartlaub  
*Puffinus heinrothi* Reichenow

- H. bulweriae* sp. nov.  
\* *Bulweria bulweria* (Jardine and Selby)
- H. taxosetus* sp. nov. 145  
\* *Puffinus nativitatis* Streets  
*Puffinus gavia* Forster  
*Puffinus opisthomelas* Coues  
*Puffinus l'herminieri l'herminieri* Lesson  
*Puffinus l'herminieri bannermani* Mathews & Iredale  
*Puffinus l'herminieri bailloni* (Bonaparte)  
*Puffinus assimilis baroli* (Bonaparte)
- H. falsus falsus* Eichler  
\* *Pelecanoides garnotti* (Lesson)
- H. f. pacificus* subsp. nov.  
\* *Pelecanoides urinatrix* (Gmelin)  
*Pelecanoides magellani* (Mathews)  
*Pelecanoides exsul* Salvin
- H. thompsoni* sp. nov.  
\* *Puffinus bulleri* Salvin
- H. micariproctus* sp. nov.  
\* *Puffinus carneipes* Gould  
*Puffinus creatopus* Coues  
*Puffinus gravis* (O'Reilly)
- H. attenuatus* sp. nov. : 148  
\* *Puffinus l'herminieri subalaris* Ridgway
- H. mundae* sp. nov.  
\* *Puffinus assimilis munda* (Salvin)  
*Puffinus assimilis elegans* Giglioli and Salvadori
- H. turtur* sp. nov. : 149  
\* *Pachyptila turtur turtur* (Kuhl) (Tentative)
- H. procellariae* (Fabricius)  
*Pterodroma incerta* (Schlegel)  
*Pterodroma lessoni lessoni* (Garnot)  
*Pterodroma lessoni australis* (Mathews)  
*Pterodroma caribbaca* Carte  
\* *Pterodroma macroptera macroptera* (Smith)  
*Pterodroma macroptera gouldi* (Hutton)  
*Pterodroma macroptera albanii* Mathews  
*Pterodroma mollis mollis* (Gould)  
*Pterodroma inexpectata* (Forster)
- H. kermadecense* (Johnston and Harrison)  
\* *Pterodroma phillipii* (Gray)  
*Pterodroma arminjoniana* (Giglioli and Salvadori)  
*Pterodroma externa externa* (Salvin) ? stragglers
- H. accentor* sp. nov.  
\* *Pterodroma leucoptera masafuerae* Lonnberg  
*Pterodroma leucoptera hypoleuca* (Salvin)  
*Pterodroma cookii nigripennis* (Rothschild)  
*Pterodroma cookii difilipianna* (Giglioli and Salvadori)
- H. intermedius* nom. nov. : 151  
\* *Pterodroma phaeopygia phaeopygia* (Salvin) p. 151  
*Pterodroma externa cervicalis* (Salvin)
- H. marquesanus* (Ferris)  
\* *Pterodroma rostrata rostrata* Peale
- H. postmarquesanus* sp. nov.  
\* *Pterodroma heraldica* (Salvin)  
*Pterodroma parvirostris* (Peale)

Subgenus *Synnautes* Thompson

*Synnautes* Thompson, 1936, Ann. Mag. Nat. Hist., ser. 10, 18, p. 43. Genotype: *Lipeurus pelagicus* Denny.

*Naubates* Bedford, partim. T. Clay, 1940, Brit. Graham Land Exped., 1911-14, ser. C, 2, pt. 1, p. 31.

*Description:* Similar to subgenus *Halipeurus*, differing as follows: Buttresses of abdomen

*H. consimilis* Tim.*Pterodroma inexpectata**H. fallacis* T.*Bulweria fallax**H. gravis* T.*Puffinus gravis**H. intercalus**P. Chermiieri**H. spadice**P. opisthomelas**H. subclavus**P. Chermiieri**consimilis* Tim.

? stragglers

= *leucopygia*

very narrow, with medial processes limited to small, knob-like enlargements at posterior ends of buttresses. Ventral carina usually heavily sclerotized; dorsal carina typically extending only to mid-point between signature and mandibles (exception *nesofregettae* sp. nov.). Pre- and post-marginal carinae more or less fused; premarginal carina obliquely truncate anteriorly, interrupting outline of head (fig. 6). Female abdomen sharply bifid, always with very stout, short seta terminating each buttress of segment 11. Cuticle obviously scaly, more so than in subgenus *Halipeurus*.

*Type of subgenus:* *Halipeurus (Synnautes) pelagicus* (Denny) 1842.

*Discussion:* The species of subgenus *Synnautes* are limited to birds of the family *Hydrobatidae*. They seem best adapted for living on the back and proximal portions of the wings, as are species of subgenus *Halipeurus*.

The new species herein described is the second, and several more remain to be described. The subgenus has species that reflect many of the variations of subgenus *Halipeurus*, indicating that considerable parallel evolution has taken place between the two subgenera.

*Halipeurus (Synnautes) pelagicus* (Denny)  
(Figs. 3-7, V)

*Lipeurus pelagicus* Denny, 1842, Mono. Anoplurorum Brit., pp. 173-174, pl. 14, fig. 2. *Type-host:* *Thalassodroma pelagica* (cf. Thompson, 1937, on the Denny collection).

*Lipeurus subangusticeps* Piaget, 1880, Les Pediculines, pp. 308-309, pl. 25, fig. 5. *Type-host:* *Thalassodroma leachi* (from Rotterdam Zoo).

*Lipeurus languidus* Kellogg and Kuwana, 1902, Proc. Wash. Acad. Sci., 4, pp. 475-476, pl. 29, fig. 8. *Type-hosts:* *Oceanodroma tethys* and *Oceanites gracilis*.

*Lipeurus exiguus* Kellogg and Kuwana, as above, p. 479, pl. 30, fig. 2. Immatures. *Type-host:* *Oceanites gracilis*.

*Esthiopterum pelagicum* (Denny). Harrison, 1916, Parasit., 9, No. 1, p. 139.

*Synnautes pelagicus* (Denny). Thompson, 1936, Ann. Mag. Nat. Hist., ser. 10, 18, p. 43. Genotype of genus *Synnautes* Thompson.

*Description:* As for subgenus, further details as follows: Slender, very dark lice, widely distributed on *Hydrobatidae*. Head ratio 2.2, very slender, with nearly parallel sides. Signature triangular anteriorly, with very broad hyaline border, straight-sided, with tapered posterior extension and small, narrow medial indentation. Thorax with narrow buttresses. Abdomen ratio 5.0, very slender. Tergites evenly sclerotized, with band narrowed slightly only on segments 6, 7, and 8. Buttresses very small, best developed on ends of buttresses of segments 6, 7, and 8. Buttresses 9 and 10 smoothly tapered. Sternite 9 and 10 distinctly sclerotized, with setal pattern similar to that of *H. (Halipeurus) taxosetus*, with slight modification. Parameres long, slender, flattened, and somewhat irregularly curved from specimen to specimen. Female typical of subgenus, with signature very much like that of male.

*Measurements:* 5 males, 3 females, from *Pelagodroma m. marina*, averages and ranges in millimeters as follows:

	Males	Females
Total length	3.52 (3.32 to 3.63)	4.03
Length of head	0.78 (0.75 to 0.82)	0.80
Width of head	0.37 (0.34 to 0.39)	0.45
Length of abdomen	2.14 (2.02 to 2.24)	2.67
Width of abdomen	0.42 (0.37 to 0.44)	0.54

*Type-host:* *Hydrobates pelagicus* (Linné).

*Material examined:* From the type-host, 2 males, 1 female, from MCZ skin no. 235247, Basket Islands, Ireland (RLE). Other material as follows:

*Bulweria bulweria* (Jardine and Selby): 2 females, from MCZ skin no. 98117, collected near Madeira Island, (RLE). Stragglers?

*Oceanites oceanicus oceanicus* (Kuhl): 2 females, mar del Plata, Argentina, (AMNH).

*Oceanites gracilis gracilis* (Elliot): 1 male, 4 females, from AMNH skin no. 206965, collected near Pacas Mayo, Peru, (RLE).

*Oceanites gracilis galapagoensis* Lowe: 1 female, from Galapagos Islands, (AMNH).

*Pelagodroma marina marina* (Latham): 4 males, 3 females, from AMNH skin no. 254335, from Herald Islands, New Zealand, (RLE); 5 males, 6 females, from skin in Preparations Department of AMNH, collected at Tristan da Cunha.

*Pelagodroma marina maoriana* Mathews: 2 females from AMNH skin, no further data, (RLE); 7 males, 6 females, from 37° S-179° W, (AMNH).

*Fregatta grallaria grallaria* (Vieillot): 2 males, 4 females, from AMNH skin no. 446402, collected near Masa Tierra Island, Chile, (RLE); 8 males, 8 females, from Masa Tierra Island, Chile, (AMNH).

*Fregatta grallaria titan* Murphy: 1 male, from Rapa Island, (AMNH).

*Fregatta tropica melanogaster* (Gould): 1 male, 2 females, from AMNH skin no. 212047, 49° S-179° W, (RLE).

*Oceanodroma tethys tethys* (Bonaparte): 3 males, from AMNH skin no. 196377, 2° S-91° W, (RLE). 3 males, 5 females, from MCZ skin no. 111806, Galapagos Islands, (RLE).

*Oceanodroma castro castro* (Harcourt): 3 males, 2 females, from MCZ skin no. 300905, from Porto Santo, Madeira, (RLE).

*Oceanodroma castro bangsi* Nichols: 1 female, Galapagos, (AMNH).

*Oceanodroma leucorhoa keadingi* Anthony: 1 male, Guadalupe Island, (AMNH).

*Oceanodroma macrodactyla* Bryant: 1 male from AMNH skin, no data, (RLE).

*Oceanodroma markhami tristrami* Salvin: 1 female, from Hawaiian Islands, (AMNH).

*Oceanodroma hornbyi* (Gray): 1 male, from 80 miles west of Ancon, Peru, (AMNH).

*Oceanodroma furcata* (Gmelin): 1 female, from MCZ skin no. 321672, collected near Sitka, Alaska, (RLE).

*Halocyptena microsoma* Coues: 1 damaged male, from MCZ skin no. 101692, from San Benito Island, (RLE); 1 female from AMNH skin, same locality, (RLE).

*Discussion:* *Synnautes* species are closely related to the *procellariae* species group of *Halipeurus*, as evidenced by their general structure, sclerotization of terminal segments, shape of head, type of signature and male genitalia.

*Synnautes pelagicus* is notable in that it may be found on so many different host species. The other two species of *Synnautes* in my collection, *nesofregettae* and one undescribed, are each restricted to one host species.

*Halipeurus (Synnautes) nesofregettae* sp. nov.  
(Figs. 3-7, W)

*Description:* Typical *Synnautes* with some features of typical *Halipeurus*. Head ratio 2.2, narrow, with straight-sided lateral margin. No hiatus between pre- and postmarginal carinae. Dorsal carinae extend to level of mandibles and then unite medially. Ventral carina very distinct. Signature squarish, with posterior extension like that of species of *Halipeurus* from *Pterodroma*. Antenna with long cylindrical basal and 2d segment. Pterothoracic patch typical. Abdomen ratio 5.0. Buttresses very narrow, with only slight medial processes, restricted to ends of buttresses. Sixth segment three-fourths as long as 5th. Sternite 9 and 10 overlapping most of 11th segment, with irregular, atypical setal pattern. Parameres moderate in length and breadth, distinctly sub-equal.

*Measurements:* 5 males, 3 females from type-host, averages and ranges in millimeters:

	Males	Females
Total length	3.85 (3.77 to 3.93)	4.16 (4.08 to 4.24)
Length of head	0.83 (0.80 to 0.85)	
Width of head	0.37 (0.36 to 0.38)	
Length of abdomen	2.37 (2.31 to 2.46)	
Width of abdomen	0.47 (0.43 to 0.48)	

*Type-host:* *Nesofregetta albigularis* (Finsch).

*Material examined:* From the type-host: Holotype male, allotype female, 4 male and 2 female paratypes, from AMNH skin no. 205901, collected at Phoenix, Phoenix Group, (RLE); 1 female, paratype, from New Hebrides, (GBT).

*Discussion:* This species closely unites the taxon *Synnautes* and *Halipeurus*, (cf. Clay 1940, pp. 309-310). It resembles *Halipeurus* in that the dorsal carina definitely extends to the level of the mandibles, and in that the pre- and postmarginal carinae are not united. The female, however, has the typical *Synnautes* terminal segments, with the broadened seta apically on each 11th buttress.

*H. raphanus* Tim  
*Oceanodroma macrodactyla*

## SUMMARY

The genus *Halipeurus*, typically parasitizing the shearwaters and petrels, is revised. Twelve new species and two new subspecies are described. All previously described species are redescribed and refigured and, where necessary, lectotypes designated. Host-parasite relationships are discussed.

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