APHRODITIDAE, POLYNOIDAE, POLYODONTIDAE & SIGALIONIDAE

ASYM/ECSA 90

LOSHAMN'S KEY TO SCANDINAVIAN AND ARCTIC SPECIES

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369 pp

1a Elytrae and dorsum covered by a, more or less, complete felt of fine setae, incorporating mud and sand. Proboscis without jaws. Short and broad animals. Family Aphroditidae. P. 12. - 4

1b Elytrae and dorsum not covered by felt. Proboscis with a pair of jaws - 2

2a 9-18 pairs of elytrae. Long and short forms. Family Polynoidae. P. 21. - 5

2b More than 25 pairs of elytrae. Long forms - 3

3a Elytrae present on every other segment from segment 5 and backwards. Spinning glands present. Simple neurosetae. Family Polyodontidae. P. 229.

One genus. Panthalis . P. 229.

One species. P. oerstedi . P. 230.

3b Elytrae present on every other segment from segment 27 and backwards. Spinning glands absent. Simple and compound neurosetae. Family Sigalionidae. P. 233. - 53

4a Numerous neurosetae in 3 distinct rows without fine hair between accessorial tooth and point. Notosetae pointed. Eyes not stalked. Median antenna short. Genus Aphrodita . P. 13.

One species. A. aculeata . P. 13.

4b Few neurosetae with hair between accessorial tooth and point. Neurosetae not in distinct rows. Notosetae harpoon-shaped. Eyes stalked. Median antenna long. Genus Laetmonice . P. 17.

One species. L. filicornis . P. 17.

5a Median antenna absent. Eleven pairs of elytrae. Subfamily Polaruschakovinae. P. 28.

One genus. Diplaconotum . P. 28.

One species. D. paucidentatum . P. 29.

5b Median antenna present. Not 11 pairs of elytrae. - 6

6a Lateral antennae present. Elytrae 12 - 18 pairs. Subfamily Polynoinae. P. 33. - 9

6b Lateral antenna absent. Elytrae 9 pairs. Subfamily Macellicephalinae. P. 22. - 7

7a Number of segments 19-21. Dorsal tubercles on segments with cirri pointed and producing a cirriform gill-like protuberance. Genus Bathyfauvelia . P. 27.

One species. B. affinis . P. 27.

7b Eighteen segments. Dorsal tubercles on segments with cirri small or absent. Cirriform gill-like protuberances absent. Genus Macellicephala . P. 22. - 8

8a Frontal horns present. Dorsal tubercles small but distinct. M. violacea . P. 22.

8b Frontal horns absent. Dorsal tubercles absent. M. longipalpa . P. 26.

9a Twelve pairs of elytrae. Lateral antennae terminal. Genus Lepidonotus . P. 33.

One species. L. squamatus . P. 34.

9b Not 12 pairs of elytrae. Lateral antennae not terminal. - 10

10a 18 pairs of elytrae - 11

10b 15-16 pairs of elytrae - 12

11a Lateral antennae subterminal. Notosetae thin and capillary. Genus Alentia . P. 39.

One species A. gelatinosa . P. 40.

11b Lateral antennae ventral. Notosetae stout, not capillary. Genus Acanthicolepis . P. 92.

One species A. asperrima . P. 92.

12a One stout neuroseta present in each parapodium. 80-110 segments. Genus Polynoe . P. 44.

One species P. scolopendrina . P. 44.

12b Stout neuroseta absent - 13

13a Neurosetae with fine hairs longer than tip of seta. 16 pairs of elytrae. Genus Austrolaenilla . P. 84.

One species. A. mollis . P. 84.

13b Neurosetae without fine hairs longer than tip of seta. 15-16 pairs of elytrae - 14

14a Capillary neurosetae present - 15

14b Capillary neurosetae absent - 22

15a A few median neurosetae distinctly splitted, remaining ones one-toothed. Genus Melaenis . P. 55.

One species. M. loveni . P. 56.

15b All neurosetae one-toothed - 16

16a Notosetae capillary. More than 45 segments - 21

16b Notosetae not capillary. Less than 45 segments. Genus Bylgides. P. 197. - 17

17a Aciculary neurosetae present - 18

17b Aciculary neurosetae absent - 19

18a Elytrophores with a fingerlike process. Segment 2 with a rectangular nuchal lobe dorsally. B. annenkovae. P. 214.

18b Elytrophores without fingerlike processes. Rectangular nuchal lobe absent. B. elegans. P. 198.

19a Eyes large. All neurosetae pointed. B. acutisetis. P. 217.

19b Eyes comparatively small. Neurosetae pointed and/or whip-shaped - 20

20a Median neurosetae with large spines. Elytrae with cylinder-shaped papillae on upper-side. B. groenlandica. P. 205.

20b Median neurosetae without large spines. Papillae of elytrae widest near base. B. promamme. P. 209.

21a Anterior pair of eyes large. 80-110 segments. Genus Enipo. P. 47.

One species. E. kinbergi. P. 48.

21b Eyes small. 45-60 segments. Genus Nemidia. P. 52.

One species. N. torelli. P. 52.

22a Upper neurosetae "splitted", remaining one. Elytrae with papillae allover dorsally. Genus Eucranta. P. 87.

One species E. villosa. P. 88.

22b Neuroseta not splitted, with one or two teeth - 23

23a Notosetae thicker than neurosetae. Neurosetae with one or two teeth - 25

23b Notosetae thinner than neurosetae. Lower notosetae capillary. Neurosetae with one tooth. Genus Gattyana. P. 73. - 24

24a Neuroseta distally curved. Lower neurosetae with smooth tip not longer than region with saw-teeth. G. cirrhosa. P. 73.

24b Neurosetae distally straight. Lower neurosetae with smooth tip as long or longer than region with saw-teeth. G. amondseni. P. 80.

25a Neurosetae with distinct spine or pocket basally - 26

25b Neurosetae without distinct spine or pocket basally - 27

26a Notosetae with weakly developed transverse rows of saw-teeth. Dorsal cirri smooth. Genus Adyte. P. 222.

One species. A. assimilis. P. 223.

26b Notosetae with several spines or pockets. Dorsal cirri with papillae. Genus Subadyte. P. 226.

One species. S. pellucida. P. 226.

27a 16 pairs of elytrae. Elytrae with radiolaria-like macrotubercles. Genus Leucia. P. 97.

One species. L. nivea. P. 97.

27b 15 pairs of elytrae(1). Elytrae without radiolaria-like macrotubercles - 28

28a Neurosetae with one or two teeth. Nephridial papillae from segment 6 - 31

28b Neurosetae stout and with one tooth only. Nephridial papillae from segment 4. Genus Eunoe. P. 181. - 29

29a Upper notosetae curved, remaining ones straight and thinner. Neurosetae with long smooth tips, distally curved. Elytrae with numerous ramifying macrotubercles. E. senta. P. 189.

29b Notosetae stout and of one type only. Neurosetae not with long smooth tips. Elytrae without ramifying macrotubercles - 30

30a Dorsal side with an extra lobe on the inner side of each elytrophor and dorsal cirrus. E. nodosa. P. 185.

30b Dorsal side without extra lobe on the inner side of each elytrophor and dorsal cirrus. E. oerstedi. P. 181.

31a Neurosetae stout, with a vestigial secondary tooth. Ceratophores of lateral antennae stout. Usually 45-58 segments. Genus Neopolynoe. P. 192.

One species. N. paradoxa. P. 192.

31b Neurosetae with one or two teeth. Less than 48 segments - 32

32a Lateral antennae termino-ventral. Palps smooth or "wrinkled". Genus Malmgrenia. P. 59. - 33

32b Lateral antenna ventral(2). Palps with longitudinal rows of small papillae(3). Genus Harmothoe. P. 100. - 36(4)

33a Antennae and cirri smooth. Neurosetae distally curved. M. castanea. P. 60.

33b Anntennae and cirri with papillae. Neurosetae not curved - 34

34a Palps smooth. Upper neurosetae distally rounded or with a "knob". M. andreapolis . P. 63.

34b Palps "wrinkled". Upper neurosetae with a secondary tooth. M. arenicolae - 35

35a Lower notosetae thin and distally pointed. M. arenicolae arenicolae . P. 66.

35b Lower notosetae thin and distally splitted. M. arenicolae furcosetosa . P. 69.

36a 16 pairs of elytrae. H. violacea . P. 175.

36b 15 pairs of elytrae - 37

37a Anterior pair of eyes ventrally situated - 38

37b Anterior pair of eyes not ventrally situated - 39

38a 33-37 segments. Neurosetae with a distinct, deep tooth. Microtubercles of elytrae star-shaped. H. antilopes . P. 133.

38b 37-41 segments. Neurosetae with a distinct secondary tooth. Microtubercles of elytrae cone-shaped. H. imbricata . P. 101.

39a Prostomial horns distinct - 42

39b Prostomial horns lacking - 40

40a Lower and median neurosetae with one tooth. Prostomium not longer than broad. Elytrae without marginal papillae, but with scattered papillae on surface. H. glabra . P. 140.

40b Lower and median neurosetae with two teeth. Prostomium longer than broad. Elytrae with marginal papillae and without papillae on surface - 41

41a 35-36 segments. Notosetae with saw-teeth regions present almost to tip. Elytrae with few, scattered marginal papillae. H. ljungmanni . P. 150.

41b 38-40 segments. Notosetae with saw-teeth regions present all the way to the tip. Elytrae with a distinct boarder of marginal papillae. H. jeffreysii . P. 153.

42a Notosetae with distinct saw-teeth region. Some neurosetae with an "U"-shaped intersection - 43

42b Notosetae without saw-teeth region. Neurosetae with rounded intersection - 44

43a Not "U"-shaped neurosetae with one tooth. H. johnstoni . P. 128.

43b Not "U"-shaped neurosetae with two teeth. H. borealis . P. 124.

44a Neurosetae stout with weakly developed secondary tooth and transverse saw-tooth region almost all around. Elytrae with many papillae both marginally and on surface. Micro- and macrotubercles lacking. Palps smooth. H. oculinarum . P. 136.

44b Neurosetae with transverse saw-tooth regions not all around. Palps with longitudinal rows of small papillae - 45

45a Dorsal cirri with densely situated papillae. Notosetae with comparatively well developed saw-tooth regions almost out to the tip. Neurosetae with a poorly developed secondary tooth. Elytrae with subglobular "perforated" macrotubercles. H. globifera . P. 147.

45b Dorsal cirri with scattered papillae. Notosetae without pronounced saw-tooth regions - 46

46a Ceratophores of lateral antennae stout. Neurosetae with a deep and thin secondary tooth. Elytrae with cone-shape microtubercles and stout marginal papillae. Macrotubercles absent. H. viridis . P. 172.

46b Ceratophores of lateral antennae not stout. Neurosetae without deep and thin secondary tooth - 47

47a Eyes large, anterior pair largest, situated dorso-laterally at widest part of prostomium. Upper neurosetae thinner and with longer saw-tooth region than lower ones - 48

47b All eyes of equal size, anterior pair situated slightly in front of the widest part of the prostomium. Upper neurosetae not thinner than lower - 51

48a Elytrae without micro- or macrotubercles. H. alba . P. 143.

48b Elytrae with micro- and macrotubercles - 49

49a Elytrae with "mushroom"-shaped marginal papillae and cone-shaped to oval macrotubercles. H. impar . P. 110.

49b Elytrae without "mushroom"-shaped marginal papillae or cone-shaped to oval macrotubercles - 50

50a Elytrae with pointed cone-shaped micro- and macrotubercles. H. aspera . P. 120.

50b Elytrae with cone to spine-shaped microtubercles and large broad macrotubercles near margin. H. fragilis . P. 115.

51a Elytrae with macrotubercles which are distinctly delineated from the surface of the elytrae - 52

51b Elytrae with rounded to cylindrical macrotubercles which are not distinctly delineated from the surface of the elytrae. H. fraserthomsoni . P. 168.

52a Elytrae with long cylindrical macrotubercles. H. rarispina . P. 157.

52b Elytrae with subglobular macrotubercles. H. propinqua . P. 163.

53a Lateral antennae absent. Segment with tentacular cirri without setae. Genus Pholoe . P. 233.

One species. P. minuta . 234.

53b Lateral antennae present. Segment with tentacular cirri provided with numerous setae - 54

54a Median antenna absent. Elytrae with feather-shaped papillae. Genus Sigalion . P. 237.

One species. S. mathildae . P. 237.

54b Median antenna present. Margin of elytrae smooth or with few papillae - 55

55a Neuropodial falcigers absent. Genus Neoleanira . P. 253.

One species. N. tetragona . P. 254.

55b Neuropodial falcigers present - 56

56a Only neuropodial articulated falcigers present. Parapodial stylodes with papillae. Genus Fimbriosthenelais . P. 249.

One species. F. zetlandica . P. 250.

56b Articulated falcigers and pointed simple or articulated neurosetae present. Parapodial stylodes without papillae. Genus Sthenelais . P. 240. - 57

57a Dorsal cirri present on segment 3. All pointed neurosetae articulated.ESurface of elytrae without microtubercles. S. jeffreysii . P. 240.

57b Dorsal cirri absent on segment 3. Pointed neurosetae simple or compound - 58

58a Upper pointed neurosetae simple and with stout spines, median ones articulated. Elytrae without marginal papillae, but either with a "T"-shaped incision or with a "thorny" area in the margin. S. limicola . P. 243.

58b Pointed neurosetae all simple. Body with an elevation anteriorly on the dorsal side. Elytrae with marginal papillae. S. boa. P. 246.

(1) Harmothoe violacea has 16 pairs of elytrae, but lacks radiolaria-like macrotubercles.

(2) Harmothoe ljungmanni and H. jeffreysii have termino-ventral lateral antennae, but the palps are provided with papillae.

(3) H. oculinarum has smooth palps, but the lateral antennae are ventral.9

(4) 38 in original version which clearly is wrong and here corrected