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LIST OF THE

NORTH AMERICAN CRUSTACEA

Belonging to the Suborder Caridea.

BY J. S. KINGSLEY.

THE following list is intended to embrace all the described species of shrimps which have been found in the waters of North America, from the Arctic regions to the Isthmus of Panama, with their principal synonyms and geographical range.

SUB-ORDER CARIDEA.

FAMILY CRANGONIDÆ.

SUBFAMILY Crangoninæ.

GENUS CRANGON *Fabricius*.

1. *Crangon vulgaris Fabricius*, Suppl. Ent. Syst., 1798, p. 410. Edwards, Hist. Nat. des Crustaces, 1837, ii, p. 341. Gould, Inverte-

brata of Mass., 1841, p. 331. Gibbes, Proc. Amer. Assoc. Adv. Sci., 1851, iii, p. 195. Smith, Rep. U. S. Fish Comm., 1871-2, p. 551, pl. III, f. 10. Kingsley, Proc. Phil. Acad., 1878, p. 89. *Crangon septemspinosus* Say, Jour. Phila. Acad., 1818, i, p. 246. Dekay, N. Y. Fauna, Crustacea, 1844, p. 25, pl. viii, f. 24.

North Carolina to Labrador and Europe.

2. *Crangon alaskensis* Lockington, Proc. Cal. Acad., 1876.

Alaska.

Having only extras of Mr. Lockington's papers (the volume containing them not being yet issued), I am not able to quote the pages on which his descriptions occur.

3. *Crangon nigricauda* Stimpson, Proc. Cal. Acad., 1855, i, p. 89; Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 496, pl. XXII, f. 6; Proc. Phila. Acad., 1860, p. 25. Streets and Kingsley, Bulletin Essex Inst., 1877, ix, p. 108. *Crangon vulgaris* Owen, Beechey's Voyage, 1839, p. 87. Dana, U. S. Expl. Ex. Crust., 1852, p. 536. *Crangon nigromaculata* Lockington, Proc. Cal. Acad., 1876, p. —. *Steiracrangon nigricauda* Kinahan, Proc. Roy. Irish Acad., 1868, p. 68.

California to Washington Territory.

(I am inclined to consider the three species above as the same, but need larger series to decide.)

4. *Crangon franciscorum* Stimpson, Proc. Cal. Acad., 1855, i, p. 89; Jour. B. S. N. H., 1857, vi, p. 495, pl. XXII, f. 5; Proc. Phila. Acad., 1860, p. 25.

California to Washington Territory.

5. *Crangon munitus* Dana, U. S. Expl. Ex. Crust., 1852, p. 536, pl. XXXIII, f. 5. Stimpson, Jour. B. S. N. H., 1857, vi, p. 497. *Cheraphilus munitus* Kinahan, Proc. Roy. Irish Acad., 1868, p. 68.

Washington Territory.

6. *Crangon boreas* Fabricius, Suppl. Ent. Syst., 1798, p. 410. Edwards, Hist. Nat. des Crust., 1837, ii, p. 342. Kroyer, Naturhistorisk Tidsskrift, 1842-3, iv, p. 218, pl. IV, f. 1-14. Dekay, N. Y. Fauna, Crustacea, 1844, p. 26. Stimpson, Invert. Gd. Menan, 1853, p. 58; Proc. Phila. Acad., 1860, p. 25. *Cancer boreas* Phipps, Voyage, North Pole, 1774, p. 190, pl. XII, f. i. *Astacus boreas* Olivier, Encyc. Methodique, v, p. 346. *Cancer homaroides* O. Fabricius, Fauna Grön-

landica, 1780, p. 241. *Cheraphilus boreas* Kinahan, Proc. Roy. Irish Acad., 1868, viii, p. 68.

Massachusetts Bay, Labrador, Arctic Seas, Behrings Straits.

The Genus *Cheraphilus*, as limited by Kinahan, is not co-extensive with the *Pontophilus* of Leach and Sars, and has not a single character common to all the species to separate it from *Crangon* as restricted by him. Neither does the fact that Dr. Leach abandoned his genus *Pontophilus* and the subsequent use of that name by Risso and Brandt for certain *Pandalis* affect the case in the least, as regards the proposed name, which has been adopted by Miers (Ann. and Mag. Nat. Hist., 1877, IV, xix, p. 133). I accept the genus *Pontophilus* as limited by Sars (Forhandl. Vidensk. Selsk. i Christiania, 1861, p. 183).

GENUS SABINEA Owen.

7. *Sabinea septemcarinata* Owen, Appendix Ross 2nd Voyage, 1835, p. 82. Kroyer, N. H. Tidsskr., 1842-3, iv, p. 244, pl. IV, f. 34-40. Stimpson, Proc. Phila. Acad., 1860, p. 26. Smith, Trans. Conn. Acad., 1874, iii, p. 28. *Crangon septemcarinatus* Sabine, Appendix No. X to Parry's 1st Voyage, 1826, p. 58, pl. II, f. 11-13; Edw. Hist. Nat. Crust., 1837, ii, p. 343.

Massachusetts Bay, Arctic Seas, Siberia.

GENUS NECTOCRANGON Brandt. (*Argis* Kroyer).

8. *Nectocrangon lar* Brandt, in Middendorff's Siberische Reise, 1852, p. 115. Stimpson, Proc. Phila. Acad., 1860, p. 25; Annals N. Y. Lyc., 1871, x, p. 125. *Crangon lar* Owen, Beechey's Voyage, 1839, p. 88, pl. XXVIII, f. 1. *Argis lar* Kroyer, Nat. Hist. Tidsskr., 1842-3, iv, p. 255, pl. V, f. 45-62.

Arctic Seas, Newfoundland, Behrings Straits.

GENUS PARACRANGON Dana.

9. *Paracrangon echinatus* Dana, U. S. Expl. Ex. Crust., 1852, p. 538, pl. XXXIII, f. 6. Stimpson, Jour. B. S. N. H., 1857, vi, p. 497.

Puget Sound.

SUBFAMILY *Lysmatinæ*.GENUS *HIPPOLYSMATA* *Stimpson*.

10. *Hippolysmata californica* *Stimpson*, Proc. Chicago Acad., I, 48 (teste *Stm.*); Ann. N. Y. Lyc., 1871, x, p. 123.

California.

11. *Hippolysmata wurdemanni* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 124. *Hippolyte wurdemanni* *Gibbes*, Proc. Am. Assoc. Adv. Science, 1851, iii, p. 197.

Florida.

12. *Hippolysmata intermedia* *Kingsley*, Proc. Phila. Acad., 1878, p. 90.

Florida.

13. *Hippolysmata cubensis* *Kingsley*, Proc. Phila. Acad., 1878, p. 89. *Hippolyte cubensis* *E. von Martens*, Wiegmann's Archiv für Naturgeschichte, 1872, p. 136, pl. V, f. 14.

Cuba.

GENUS *TOZEUMA* *Stimpson*.

14. *Tozeuma carolinensis* *Kingsley*, Proc. Phila. Acad., 1878, p. 90.

North Carolina.

GENUS *RHYNCHOCYCLUS* *Stimpson*.

15. *Rhynchocyclus parvulus* *Stimpson*, Annals N. Y. Lyc., 1871, p. 124.

Texas.

GENUS *LATREUTES* *Stimpson*.

16. *Latreutes ensiferus* *Stimpson*, Proc. Phila. Acad., 1860, p. 27. *Hippolyte ensiferus* *Edwards*, Hist. Nat. des Crustaces, 1837, ii, p. 374.

On Gulf weed, Atlantic.

FAMILY *ATYIDÆ*.SUBFAMILY *Atyinæ*.GENUS *ATYA* *Leach*.

17. *Atya scabra* *Leach*, Trans. Linn. Soc., XI, p. 345 (teste

Edw.). Edwards, Hist. Nat. des Crust., 1837, ii, p. 348, pl. XXIV, f. 15-19. Newport. Ann. and Mag. Nat. Hist., 1847, xix, p. 159. Stimpson, Jour. B. S. N. H., 1857, vi, p. 498. *Atya mexicana* Wiegmann, Archiv für Naturgeschichte, 1836, i, p. 145.

Fresh water, western Mexico.

18. *Atya punctata* Kingsley, Proc. Phila. Acad., 1878, p. 91.
Hayti.

19. *Atya occidentalis* Newport, Ann. and Mag. Nat. Hist., 1847, xix, p. 159. Kingsley, Proc. Phila. Acad., 1878, p. 92.

West Indies.

20. *Atya rivalis* Smith, 3rd Report Peab. Acad. Sci., 1871, p. 94.
West coast Nicaragua.

21. *Atya tenella* Smith, 3rd Rep. P. A. S., 1871, p. 94.
West coast Nicaragua.

GENUS EVATYA *Smith.*

22. *Evatya crassa* Smith, 3rd Rep. P. A. S., 1871, p. 95.
West coast Nicaragua.

GENUS ATYOIDA *Randall.*

23. *Atyoida mexicana* Stimpson, Am. Jour. Sci. and Arts, 1859, xxvii, p. 446. *Caradina mexicana* Saussure, Crust. Antilles et Mex., 1858, p. 45, pl. IV, f. 26.

Mexico.

FAMILY PALÆMONIDÆ.

SUBFAMILY Alpheinæ.

GENUS ALPHEUS *Fabricius, Kingsley.*

24. *Alpheus minus* Say, Jour. Acad. Nat. Sci., 1818, i, 245. Edwards, Hist. Nat. des Crust., 1837, ii, 356. Kingsley, Bulletin U. S. Geological and Geographical Survey of the Territories, 1878, Vol. iv, No. 1, p. 190. *Alpheus formosus* Gibbes, l. c., 196.

North Carolina, Bermudas, West Indies, Florida, Bay of Panama.

25. *Alpheus panamensis* Kingsley, l. c., p. 192.
West coast Central America and Panama.
26. *Alpheus sulcatus* Kingsley, l. c., p. 193.
Panama, Peru.
27. *Alpheus floridanus* Kingsley, l. c., p. 193.
Florida.
28. *Alpheus heterochelis* Say, l. c., 1818, i, p. 243. Edwards, op. cit., 1837, ii, p. 356. Kingsley, l. c., p. 194. *Alpheus armillatus* Edw., op. cit., p. 354. *Alpheus lutarius* Saussure, Crust. Antilles et Mex., 1858, p. 45, pl. III, f. 24. *Halopsyche lutaria* Sauss. Revue Zoologique, 1857, 100.
No. Carolina, Florida, W. Indies, Aspinwall, Brazil, Panama.
29. *Alpheus normanni* Kingsley, Proc. Phila. Acad., 1878, p. 93. *Alpheus affinis* Kingsley (non Guise) Bulletin U. S. Geol. Survey, 1878, p. 195.
Panama.
30. *Alpheus transversodactylus* Kingsley, l. c., p. 196.
California, Bermudas.
31. *Alpheus parvimanus* Kingsley, l. c., 195.
Panama.
32. *Alpheus cylindricus* Kingsley, l. c., 196.
Panama.
33. *Alpheus clamator* Lockington, Proc. Cal. Acad., 1876. Kingsley, l. c., 197.
California.
34. *Alpheus longidactylus* Kingsley, l. c., 198. *Betæus longidactylus* Lockington, l. c., 1876.
California.
35. *Alpheus harfordi* Kingsley, l. c., 198. *Betæus equimanus*

Lockington (non Dana), Proc. Cal. Acad., 1876. *Alpheus equalis* Kingsley, l. c., p. 199 (*teste* Lockington in letter).

California.

36. *Alpheus equidactylus* Lockington, l. c., 1876.

California.

37. *Alpheus bellimanus* Lockington, l. c., 1876.

California.

38. *Alpheus bispinosus* Streets, Proc. Phila. Acad., 1872, p. 242 (= ?*A. heterochelis*).

Isthmus of Panama.

GENUS CARIDION *Göes* (*Doryphorus* Norman, non Cuv.).

39. *Caridion gordonii* *Göes*, Crustacea decapoda podophth. marina Sueciæ (Acad. Sci. Suec., 1863), p. 10. Smith, Trans. Conn. Acad., 1874, iii, p. 28. ?*Hippolyte gordonii* Sp. Bate, Nat. Hist. Rev.; v, p. 52. *Doryphorus gordonii* Norman, Ann. and Mag. Nat. Hist., III, viii, p. 276.

Northern Atlantic.

GENUS HIPPOLYTE *Leach* (restrict.).

40. *Hippolyte pusiola* *Kroyer*, Monograph Fremstilling Hippolyte, etc., 1842, p. 319, pl. II, f. 69-73. Stimpson, Ann. N. Y. Lyceum, 1871, x, 127. Smith, Rep. U. S. Fish Comm., 1871-2, p. 550.

Europe, Greenland, south to Vineyard Sound.

41. *Hippolyte fabricii* *Kroyer*, Nat. Hist. Tidsskrift, iii, p. 571; Monograph, 1842, p. 277, pl. I, f. 12-20. Stimpson, Ann. N. Y. Lyc., 1871, x, p. 126.

Massachusetts Bay northward to Europe.

42. *Hippolyte suckleyi* *Stimpson*, Proc. Phila. Acad., 1864, p. 154.

Puget Sound.

43. *Hippolyte gaimardii* *Edw.*, Hist. Nat. des Crust., 1837, ii, p. 378. *Kroyer*, N. H. Tidsskr., 1840-41, iii, p. 572; Monograph, 1842, p. 282, pl. I, f. 21-29. *Göes*, Crust. Podophth. Suec., 1863, p. 8.

Stimpson, Ann. N. Y. Lyc., 1871, x, p. 126. *Hippolyte gibba* Kr., N. H. Tidsskr., 1840-41, iii, p. 572; Monograph, 1842, p. 288, pl. I, f. 30-37. Stimpson, Proc. Phil. Acad., 1860, p. 35; 1863, p. 139. *Hippolyte belcheri* Bell, in Belcher, last of the Arctic Voyages, 1855, ii, p. 402, pl. 34, f. 1.

Arctic Seas south to Massachusetts Bay.

44. *Hippolyte incerta* Buchholz, Zweite deutsche Nordpolarfahrt, 1874, p. 272.

Greenland.

45. *Hippolyte prionota* Stimpson, Proc. Phila. Acad., 1864, p. 153.

Puget Sound.

46. *Hippolyte spina* White, List Crustacea in British Museum, p. 76. Stimpson, Proc. Phila. Acad., 1860, p. 34; Ann. N. Y. Lyc., 1871, x, p. 126. *Cancer spinus* Sowerby, Brit. Miscellany, 1806, p. 47, pl. XXIII. *Alpheus spinus* Leach, Edinburgh Encyclopedia, 1813-14, vii, p. 431. *Hippolyte sowerbei* Leach, Malacos. Podophth. Britt., 1815-17, pl. XXXIX. Edw., Crustacea, 1837, ii, p. 380. Kroyer, Monograph, 1842, p. 298, pl. II, f. 45-54. Dekay, N. Y. Fauna, Crustacea, 1842, p. 27.

Massachusetts Bay to Arctic Seas and Europe.

47. *Hippolyte macilenta* Kroyer, Nat. Hist. Tidsskrift, 1840-41, iii, p. 574; Monograph, 1842, p. 305, pl. II, f. 55-56.

Greenland.

48. *Hippolyte vibrans* Stimpson, Annals N. Y. Lyc., 1871, x, p. 125.

Massachusetts Bay.

49. *Hippolyte phippisii* Kroyer, N. H. Tidsskr., 1840-41, iii, p. 575; Monograph, 1842, p. 314, pl. III, f. 64-68. Stimpson, Proc. Phila. Acad., 1863, p. 139.

Arctic.

50. *Hippolyte turgida* Kroyer, N. H. Tidsskr., 1840-41, iii, p. 575; Monograph, p. 308, pl. II, f. 57-58, pl. III, f. 59-63. Stimpson, Proc. Phila. Acad., 1860, p. 34; 1863, p. 139.

Arctic.

51. *Hippolyte stylus* Stimpson, Proc. Phila. Acad., 1864, p. 54.
Puget Sound.

52. *Hippolyte polaris* Owen, Appendix, Ross 2nd Voy., 1835, p. 85. Edw., Hist. Nat. Crust., 1837, ii, p. 376. Kroyer, Monograph, 1842, p. 324, pl. III, f. 78-81; pl. IV, f. 82. Stimpson, Proc. Phila. Acad., 1860, p. 33; 1863, p. 139. *Cancer squilla* var. β . Fabr., Fauna Grönlandica, 1780, p. 239. *Alpheus polaris* Sabine, Parry's Voyage, 1821, p. 238, pl. II, f. 5-8.

Arctic.

53. *Hippolyte borealis* Owen, App. Ross 2nd Voy., 1835, p. 84, pl. B, f. 3. Edw., Hist. Nat. des Crust., 1837, ii, p. 372. Kroyer, Monograph, 1842, p. 330, pl. III, f. 74-77. Stimpson, Proc. Phila. Acad., 1860, p. 33; 1863, p. 139.

Greenland, Behrings Straits.

(Göes and Buchholz are inclined to believe this the same as the preceding.)

54. *Hippolyte taylori* Stimpson, Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 500.

California.

55. *Hippolyte brevirostris* Dana, U. S. Expl. Ex. Crust., 1851, p. 556, pl. XXXVI, f. 5. Stimpson, Proc. Cal. Acad., i, 1856, p. 89; Jour. Bost. Soc., 1857, vi, p. 500; Proc. Phila. Acad., 1860, p. 33.

Pacific coast, U. S.

56. *Hippolyte grönlandica* Miers, Ann. and Mag. Nat. Hist., 1877, IV, xx, p. 62. *Astacus grönlandicus* J. C. Fabricius, Entomo Systemat., 1775, p. 416 (*teste* Miers). *Cancer aculeatus* O. Fabricius, Fauna grönlandica, 1780, p. 289. *Alpheus aculeatus* Sabine, Parry's 1st Voy., 1821, p. 237, pl. II, f. 9-10. *Hippolyte aculeata* Owen, App. Ross 2nd Voy., 1835, p. 83. Edw., H. N. Crust., 1837, ii, p. 380. Kroyer, Monograph, 1842, p. 334, pl. IV, f. 83-98; pl. V, f. 99-104. Gould, Invertebrata of Mass., 1841, p. 332. Dekay, op. cit., 1843, p. 27, pl. IX, f. 31. Stimpson, Invertebrata of Grand Menan, 1853, p. 58; Proc. Phila. Acad., 1860, p. 33; 1863, p. 139. *Hippolyte armata* Owen, Beechey's Voy., 1839, p. 88, pl. XXXVII, f. 2 (♀). *Hippolyte cornuta* Owen, Beechey's Voyage, 1839, p. 89, pl. XXXVIII, f. 2 (♂).

Northern Seas.

57. *Hippolyte cristata* Stimpson, Proc. Phila. Acad., 1860, p. 33.

California.

58. *Hippolyte microceros* Kroyer, Nat. Hist. Tidsskrift, 1840-41, p. 578; Monograph, 1842, p. 341, pl. V, f. 105-9.

Greenland.

59. *Hippolyte palpator* Owen, Beechey's Voy., 1839, p. 89, pl. XXVIII, f. 3. Stimpson, Proc. Cal. Acad., 1856, i, p. 89; Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 499.

California.

60. *Hippolyte picta* Stimpson, Ann. N. Y. Lyc., 1871, x, p. 125.

California.

61. *Hippolyte sitchensis* Brandt, in Middendorff's Siberische Reise, 1851, p. 116. Stimpson, Jour. Bost. Soc., 1857, vi, p. 499.

Pacific coast.

62. *Hippolyte layi* Owen, Beechey's Voyage, 1839, p. 90, pl. XXVII, f. 3. Stimpson, Jour. Bost. Soc., 1857, vi, p. 499.

California.

63. *Hippolyte panschii* Buchholz, Zweite Deutsche Nordpolarfahrt, 1871, p. 277, pl. I, f. 1.

Greenland.

64. *Hippolyte lamellicornis* Dana, U. S. Expl. Ex. Crust., 1851, p. 567, pl. XXXVI, f. 6. Stimpson, Jour. Bost. Soc., 1857, vi, p. 498.

Puget Sound.

65. *Hippolyte affinis* Owen, Beechey's Voyage, 1839, p. 90, pl. XXVII, f. 4. Stimpson, Jour. Bost. Soc., 1857, vi, p. 498.

California.

66. *Hippolyte gracilis* Stimpson, Proc. Phila. Acad., 1864, p. 155.

Puget Sound.

67. *Hippolyte esquimaltiana* Spence Bate, Proc. Zool. Soc., London, 1864, p. 666.

Vancouver Island.

68. ?*Hippolyte hemphilli* Lockington, l. c., 1876.

California.

GENUS VIRBIUS *Stimpson*.

69. *Virbius acuminatus* *Stimpson*, Proc. Phila. Acad., 1860, p. 35. *Hippolyte acuminata* Dana, U. S. Expl. Ex. Crust., 1851, p. 562, pl. XXXVI, f. 1.

Gulf weed, Atlantic.

70. *Virbius pleuracanthus* *Stimpson*, Annals N. Y. Lyc. Nat. Hist., 1871, x, p. 127.

New Jersey, Virginia.

71. *Virbius zostericola* *Smith*, Rep. U. S. Fish Comm., 1871-2, p. 550, pl. III, f. 11.

Vineyard Sound.

SUBFAMILY Pandalinæ.

GENUS PANDALUS *Leach*.

72. *Pandalus annulicornis* *Leach*, British Malacostraca, f. 40, Edw., Hist. Nat. des Crust., 1837, ii, p. 384. *Dekay*, op. cit., 1842, p. 28, pl. VII, f. 18. *Smith*, U. S. Fish Commission, 1872-3, p. 550, pl. II, f. 6.

Europe, Greenland, south to Vineyard Sound.

73. *Pandalus borealis* *Kroyer*, Nat. Hist. Tidssk., 1841-2, ii, p. 254. *Brandt*, Siberische Reise, 1851, p. 122. *Stimpson*, Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 501; Annals N. Y. Lyceum, 1871, x, p. 128.

Greenland, Alaska, Massachusetts Bay.

74. *Pandalus franciscorum* *Kingsley*, Proc. Phila. Acad., 1878, p. 94.

San Francisco.

75. *Pandalus pubescentulus* *Dana*, U. S. Expl. Ex. Crust., 1851, p. 568, pl. XXXVI, f. 8. *Stimpson*, Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 501.

Washington Territory.

76. *Pandalus gurneyi* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 128.

Monterey, Cal.

77. *Pandalus platyceros* Brandt, op. cit., 1851, p. 123. Stimpson, Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 502.

Alaska.

78. *Pandalus hypsinotus* Brandt, op. cit., 1851, p. 125. Stimpson, Jour. Bost. Soc. Nat. Hist., 1857, vi, p. 502.

Alaska.

79. *Pandalus danæ* Stimpson, Proc. Bost. Soc., 1857, vi, p. 89; Jour. Bost. Soc., 1857, vi, p. 502, pl. XXI, f. 6 and 7.

Puget Sound.

80. ?*Pandalus lævigatus* Stimpson, Invertebrata of Grand Menan, 1853, p. 58.

Grand Menan.

(Prof. S. I. Smith thinks this a large specimen of *P. annulicornis* Leach, with color notes derived from some species of Hippolyte. Dr. Stimpson ignored it in his later papers.)

SUBFAMILY Thorinæ.

I propose this division for the reception of the genus *Thor*. It is characterized by having the carpus of the second pair of thoracic feet annulate and smaller than the first, and by the absence of a mandibular palpus.

GENUS THOR Kingsley.¹

81. *Thor floridanus* Kingsley, Proc. Phila. Acad. Nat. Sci., 1878, p. 95.

Florida.

SUBFAMILY Pontoninæ.

I would propose this subfamily to embrace the genera *Pontonia* Latr., *Coralliocaris* Stimpson (= *Oedipus* Dana), *Harpilius* Dana, *Euryrhynchus* Miers, *Anchistia*

¹ Proceedings Philadelphia Academy of Natural Sciences, 1878, p. 94.

Dana, *Palæmonetes* Heller, *Urocaris* Stimpson, and *Typ-ton* Costa; genera which have the second pair of thoracic feet larger than the first, the carpus never annulate and the mandible without a palpus.

GENUS PONTONIA *Latreille.*

82. *Pontonia domestica* *Gibbes*, Proc. Am. Assoc. Adv. Sci., 1851, iii, p. 196. *Kingsley*, Proc. Acad. Nat. Sci., Philadelphia, 1878, p. 95.

South Carolina, Florida.

83. *Pontonia margarita* *Smith*, American Naturalist, 1869, iii, p. 245.

Panama.

GENUS ANCHISTIA *Dana.*

84. *Anchistia americana* *Kingsley*, Proc. Acad. Nat. Sciences, Philadelphia, 1878, p. 96.

Florida.

GENUS UROCARIS *Stimpson.*

85. *Urocaris longicaudata* *Stimpson*, Proc. Acad. Nat. Sci., Philadelphia, 1860, p. 39.

Carolina.

GENUS PALÆMONETES *Heller.*

86. *Palæmonetes vulgaris* *Stimpson*, Annals N. Y. Lyceum, 1871, x, p. 129. *Smith*, U. S. Fish Comm., 1871-2, p. 550, pl. II, f. 9. *Palæmon vulgaris* *Say*, Jour. Acad. Nat. Sci., Philadelphia, 1818, i, p. 248.

Massachusetts Bay to Florida.

87. *Palæmonetes carolinus* *Stimpson*, Annals. N. Y. Lyceum, 1871, x, p. 129.

New Jersey to South Carolina.

88. *Palæmonetes paludosa* *Kingsley*, Proc. Acad. Nat. Sci., Philadelphia, 1878, p. 97. *Hippolyte paludosa* *Gibbes*, Proc. A. A. A. S., 1851, iii, p. 197. *Palæmonetes exilipes* *Stimpson*, Ann. N. Y. Lyc., 1871, x, p. 130. *Smith*, Rep. U. S. Fish Comm., 1872-3, p. 641, pl. I, f. 1.

Fresh water, Florida, South Carolina, Lake Erie, Lake Michigan.

SUBFAMILY *Palæmoninæ*.

(Including the genera *Leander* Desmarest, *Palæmon* (pars Fabr.) Stimpson, *Hymenocera* Latreille, and *Cryphiops* Dana; which have the second pair of thoracic feet larger than the first, the carpus never annulate, and the mandible with a palpus.)

GENUS *LEANDER* *Desmarest*.

89. *Leander tenuicornis* *Smith* (in letter), *Palæmon tenuicornis* Say, Jour. Acad. Nat. Sci., Philadelphia, 1818, i, p. 249. *Palæmon natator* Edwards, Hist. Nat. des Crust., 1837, ii, p. 393. Goodsir, Ann. and Mag. Nat. Hist., 1845, II, xv, p. 74, pl. VII, f. 3. Dana, U. S. Expl. Ex. Crust., 1852, i, p. 588, pl. XXXVIII, f. 11. *Palæmon tenuirostris* Edw., op. cit., p. 395. *Leander erraticus* Desmarest, Annales Entomolog. Soc. de France, 1849, vii, p. 87. *Leander natator* Stimpson, Proc. Acad. Nat. Sci. Phila., 1860, p. 40.

Gulf weed, Atlantic.

90. *Leander pandaliformis* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 130.

West Indies.

91. *Leander gracilis* *Smith*, 2nd and 3rd Report Peab. Acad. Sci., 1871, p. 97.

West coast Nicaragua.

GENUS *PALÆMON* *Fabricius*, *Stimpson*.

In the Proceedings of the Zoological Society of London, 1868, p. 363, Mr. C. Spence Bate proposed a new genus (*Macrobrachium*) for certain *Palæmons*, in which the second pair of thoracic feet are enormously developed, but here, as in most cases where comparative measurements are made the basis of division, the various forms intergrade so that the separation cannot be made. Mr.

Bate also says that his forms are from fresh water, but species in which the same development may be observed (*P. spinimanus*, *grandimanus*, *jamaicensis*, *forceps*, etc., etc.) are far from being uncommon in salt water.

92. *Palæmon forceps* *Edw.*, Hist. Nat. des Crust., 1837, ii, p. 397. Saussure, Crust. Mex. et Ant., 1858, p. 51. Smith, Trans. Conn. Acad., 1869, p. 24. *Palæmon dasydactylus* Streets, Proc. Phila. Acad., 1871, p. 225, pl. II, f. 3.

Gulf of Mexico, West Indies, Brazil.

93. *Palæmon consobrinus* *Saussure*, l. c., p. 53.

Gulf of Mexico.

94. *Palæmon mexicanus* *Saussure*, l. c., p. 52, pl. IV, f. 27.

Coast of Mexico.

95. *Palæmon sexdentatus* *Streets*, Proc. Phila. Acad., 1871, p. 226, pl. II, f. 4.

Isthmus of Tehuantepec.

I am inclined to believe this to be (as suggested by Dr. Streets) a variety of the preceding species.

96. *Palæmon tenellus* *Smith*, Second and Third Reports of the Peabody Academy of Science, 1871, p. 98.

West coast of Nicaragua.

97. *Palæmon ohionis* *Smith*, Rep. U. S. Fish Comm., 1872-3, p. 640. Forbes, Bulletin No. 1 Illinois Museum of Natural History, 1876, p. 5.

Ohio and Mississippi Rivers.

98. *Palæmon spinimanus* *Edw.*, Hist. Nat. des Crust., 1837, ii, p. 399.

West Indies, Brazil.

99. *Palæmon faustinus* *Saussure*, l. c., 1858, p. 53, pl. IV, f. 30, Hayti.

I am unable, without specimens, to separate this from

P. spinimanus. Edwards' description agrees well with that of Saussure and also with his figure.

100. *Palæmon jamaicensis* Olivier, Encyclopedie Methodique, t. viii (*teste* Edw.). Edw., Hist. Nat. des Crust., 1837, ii, p. 398. Saussure, l. c., p. 49. Smith, Trans. Conn. Acad., 1869, ii, p. 23; 2nd and 3rd Report Peab. Acad. Sci., 1871, p. 97.

West Indies, Gulf of Mexico, Brazil, west coast of Nicaragua. (There is a specimen in the Museum of the Peabody Academy at Salem, Mass., brought by the late Prof. Orton from the junction of the Napo and Marañon rivers.)

101. *Palæmon aztecus* Saussure, l. c., 1858, p. 50, pl. IV, f. 29. Vera Cruz, Mexico.
(Is this distinct from the last?)

102. *Palæmon brachydactylus* Wiegmann, Archiv für Naturgeschichte, 1836, II, i, p. 148. *Macrobrachium americanum* Spence Bate, Proc. Zool. Soc., London, 1868, p. 363, pl. XXX.

Fresh water of Mexico and Central America.

103. *Palæmon fluvialis* Streets, l. c., 1871, p. 227, pl. II, f. 5. Isthmus of Tehuantepec.

104. *Palæmon montezumæ* Saussure, l. c., p. 51, pl. IV, f. 28. Vera Cruz, Mexico.

105. *Palæmon heterocheirus* Weigmann, l. c., 1836, p. 149. Fresh water of western Mexico.

SUBFAMILY Oplophorinæ.

GENUS OPLOPHORUS *M. Edwards*.

(including *Xiphocaris* von Martens.)

106. *Oplophorus elongata* Kingsley. *Hippolyte elongata* Guérin, in Ramen de Sagra's Historia física, política, y natural de la isla de Caba, 1856, p. xx, pl. II, f. 16 (*teste* Martens). *Oplophorus americanus* Saussure, l. c., 1858, p. 56, pl. IV, f. 31, pl. V, f. 32. *Xiphocaris elon-*

gata von Martens, Wiegmann's Archiv für Naturgeschichte, 1872, p. 140.

West Indies.

FAMILY PASIPHÆIDÆ.

GENUS PASIPHÆA *Savigny*.

107. *Pasiphæa tarda* *Kroyer*, Naturhistorisk Tidsskr., 1844-45, II, i, p. 453.

Arctic.

108. *Pasiphæa glacialis* *Buchholz*, Zweite Deutsche Nordpolarfahrt, 1874, p. 279, pl. I, f. 2.

70° north latitude.

FAMILY PENEIDÆ.

GENUS SICYONIA *M. Edw.*

109. *Sicyonia brevirostris* *Stimpson*, Ann. N. Y. Lyc., 1871, x, p. 132. *Sicyonia cristata* *Saussure* (non *De Haan*), l. c., 1858, p. 55, pl. III, f. 25.

Florida, Cuba.

110. *Sicyonia dorsalis* *Kingsley*, Proc. Acad. Nat. Sci., Phila., 1878, p. 97.

Florida.

111. *Sicyonia lævigata* *Stimpson*, Ann. N. Y. Lyc., 1871, x, p. 131.
South Carolina.

GENUS PENEUS *Latreille*.

112. *Peneus setiferus* *Edw.*, Hist. Nat. des Crust., 1837, ii, p. 414. *Stimpson*, Ann. N. Y. Lyc., 1871, x, 133. *Cancer setiferus* *Linne* (*teste Edw.*). *Peneus fluvialis* *Say*, l. c., 1818, i, p. 236.

Virginia to Texas and Brazil.

113. *Peneus braziliensis* *Latreille*, Nouv. Dict. d'Hist. Nat., t. xxv., p. 154 (*teste Edw.*). *Edw.*, Hist. Nat. des Crust., 1837, ii, p. 414. *Gibbes*, Proc. A. A. S., 1851, iii, p. 198. *Stimpson*, Ann. N. Y. Lyc., 1871, x, p. 132.

New York to Brazil.

114. *Peneus brevirostris* *Kingsley*, Proc. Acad. Nat. Sci., Phila., 1878, p. 98.

West coast of Nicaragua.

115. *Peneus pubescens* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 133.

St. Thomas.

116. *Peneus stylirostris* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 134.

Panama.

117. *Peneus constrictus* *Stimpson*, Annals N. Y. Lyc., 1871, x, p. 135.

Carolinas.

118. *Peneus occidentalis* *Streets*, Proc. Phila. Acad., 1871, p. 243.

Isthmus of Panama.

FAMILY SERGESTIDÆ.

GENUS SERGESTES *Edwards*.

119. *Sergestes arctica* *Kroyer*, Monographisk Fremstilling af Kræbsdyrslægten *Sergestes*, 1856, p. 240, pl. III, f. 7, pl. v, f. 16.

Greenland.

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