DEMERSAL FISHES COLLECTED IN THE SOUTHEASTERN SHELF WATERS OF ALASKA

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After the middle of the nineteen-sixties, owing to a gradual progress in fishing vessels and gears, the trawl-fishing ground was exceedingly exploited in southeastern Alaska as well as in the Bering Sea. This region is geographically located near the U.S.A. and Canada, being influenced by the warm Alaskan stream. So the region has an abundant and unique ichthyofauna. Some forerunning scientific investigations and exploratory trawl and longline fishings have positively been worked out by both nations, especially concerning some commercially important rockfishes (Phillips, 1957; Alverson et al., 1964 and Westrheim, 1970). But little interest was attended until now on the other fishes, save by Evermann and Goldsborough (1907), Schultz (1936), Roedel (1953), Wilimovsky (1954, 1958) and Clemens and Wilby (1961), etc. Their examinations were carried out mainly in the summer season and limited to the continental shelf waters. The present author preliminarily examined on fishes and invertebrates collected in the Gulf of Alaska by the T.V. Oshoro Maru of the Faculty of Fisheries, Hokkaido University during the summer of 1968 (Sasaki 1969, unpublished). Afterwards, he had an opportunity to accompany a research party for demersal fishes in southeastern Alaska during the summer of 1969 and the winter of 1969-1970. This paper lists the kinds of fishes and notes their collecting areas for the purpose of a comparison of the ichthyofauna in those regions. Previous results, and the present ones, reveal that important fishes, such as the rockfishes (Scorpaenidae), sablefish, Pacific halibut and walleye pollock are doubtlessly abundant resources in these waters.

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Materials and methods

The fishes identified here were caught by the otter trawler, the Koyo Maru No. 2 of Hokuyo Fishery Co. Ltd., during the summer (May 15 to July 20, 1969)

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and the *Koyo Maru* No. 21 of the same company during the winter (December 27, 1969 to February 22, 1970) off southeastern Alaska. The trawler *Koyo Maru* No. 2 and No. 21 are 3456 and 549 gross tons, respectively. It seems to be rocky at the bottom of the region, judging from the shadows of the echosounder and

![Fig. 1. Map of southeastern Alaska showing the collecting areas (in blue).](image)

condition of catches. The number of samplings was 236 in the summer and 218 in the winter, being 454 in total. The trawling was operated between 180 m and 680 m in depth. These samples were preserved in 10% formalin sea water and brought back to land for identification.

In addition, English names, Japanese names, catch frequency and collecting area were presented. The English names were obtained from a list provided by the American Fisheries Society (1960).

The plus sign (+) and asterisk sign (*) were marked for the species collected in summer and in winter, respectively.
Results

Twenty-eight families including 44 genera and 72 species are listed in the present paper. There are 64 species referable to 26 families and 42 genera in summer and 49 species referable to 21 families and 31 genera in winter.

Order Myxinida
Family Myxinidae
1. *Polistotrema stoutii* (Lockington) +* Pacific hagfish
   Rare; a single species collected in the Queen Chalotte Sound.

Order Petromyzonida
Family Petromyzonidae
2. *Entosphenus tridentatus* (Gairdner) + Pacific lamprey
   Rare; a single species collected in the north of Dixon Entrance.

Order Lamnida
Family Squalidae
3. *Squalus acanthias* Linne +* Spiny dogfish
   Common; found in all investigating areas.

Order Rajida
Family Rajidae
4. *Raja binoculata* Girard * Big skate
   Rather rare; a single species collected in the Queen Chalotte Sound.
5. *Raja rhina* Jordan and Gilbert +* Longnose skate
   Common; found in all investigating areas.
6. *Raja stellulata* Jordan and Gilbert + Starry skate
   Rather rare; found mainly in northern investigating areas.
7. *Breviraja aleutica* (Gilbert) + Aleutian skate
   Nom. Jap. Arasuka-Kasube
   Rather common; found mainly in the Gulf of Alaska
8. *Breviraja pernifera* (Bean) * Alaska skate
   Nom. Jap. Tsuno-Kasube
   Rather common; found mainly in the Gulf of Alaska.

Order Chimaerida
Family Chimaeridae
9. *Hydrolagus colliei* (Lay and Bennett) + Ratfish
   Rather common; found mainly in the Queen Chalotte Sound.

Order Clupeida
Family Salmonidae
10. *Oncorhynchus tschawytscha* (Walbaum) +* Chinook salmon
    Nom. Jap. Masunosuke
Common; found mainly in the north of Dixon Entrance.

11. *Oncorhynchus nerka* (Walbaum) +* Sockeye salmon
   Common; found mainly in the north of Dixon Entrance.

Family Osmeridae

12. *Thaleichthys pacificus* (Richardson) + Eulachon
    Rather common; found mainly in northern investigating areas.

Family Chauliodontidae

13. *Chauliodus macouni* Bean + Fanged viperfish
    Rare; found in abyssal waters deeper than 500 m.

Family Sternophyidae

14. *Argyropelecus sladeni* Regan + Silvery hatchetfish
    Rare; found in abyssal waters deeper than 500 m.

Order Myctophida

Family Myctophidae

15. *Lampanyctus leucopsarus* (Eigenmann and Eigenmann) +
    Smallfin lanternfish
    Common; found mainly in abyssal waters.


Order Anguillida

Family Nemichthyidae

17. *Nemichthys avocetta* Jordan and Gilbert + Threadfish
    Rare; a single species collected in abyssal waters in the Queen Charlotte Sound.

Order Percida

Family Zaproridae

18. *Zaprora silenus* Jordan +* Prowfish
    Common; found mainly in the middle investigating areas.

Family Zoacidae

19. *Lycodes diapterus* Gilbert + Black eelpout
    Common; found mainly in northern investigating areas.

20. *Lycodes brevipes* Bean +* Shortfin eelpout
    Nom. Jap. Ashiboso-Genge
    Common; found mainly in northern investigating areas.

21. *Lycodes palearis* Gilbert + Wattle eelpout
    Common; found mainly in northern investigating areas.

Family Bathymasteridae

22. *Bathymaster signatus* Cope +* Searcher
    Nom. Jap. Soko-Medama-Uo
Common; found in all investigating areas.

23. *Ronquilus jordani* (GILBERT) + Northern ronquil
   Rather rare; a single species collected near the Dixon Entrance.

Family Anarrhichadidae

24. *Anarrhichthys ocellatus* AYRES +* Wolf-eel
   Nom. Jap. Ribon-Okami
   Rare; two species collected off northern Graham Island.

Family Stichaeidae

25. *ChirolophisPolyactecephalus* (PALLAS) +* Decorated prickleback
   Rather rare; found near the Dixon Entrance.

Order Cottida

Family Scorpaenidae

26. *Sebastes brevispinis* (BEAN) +* Silvergray rockfish
   Common; found in all investigating areas.

27. *Sebastes paucispinis* (AYRES) +* Bocaccio
   Common; found mainly in southern investigating areas.

   Common; found mainly in southern investigating areas.

29. *Sebastes melanops* (GILBERT) + Black rockfish
   Rather rare; found mainly in southern investigating areas.

30. *Sebastes mystinus* (JORDAN and GILBERT) + Blue rockfish
   Rather rare; found near the Dixon Entrance.

31. *Sebastes ciliatus* (TILESIUS) +* Dusky rockfish
   Common; found mainly in southern investigating areas.

32. *Sebastes rubrivinctus* (JORDAN and GILBERT) +* Flag rockfish
   Common; found mainly in southern investigating areas.

33. *Sebastes pinniger* (JORDAN and GILBERT) +* Canary rockfish
   Common; found in southern investigating areas.

34. *Sebastes ruberrimus* CRAMER + Turkysed rockfish
   Rather rare; found mainly near the Dixon Entrance.

35. *Sebastes aleutianus* JORDAN and GILBERT +* Blackthoat rockfish
   Common; found mainly in deep waters.

36. *Sebastes melanostomus* EIGENMANN and EIGENMANN +* Blackgill rockfish
   Common; found mainly in deep waters.

37. *Sebastes crameri* JORDAN +* Blackmouth rockfish
   Common; found in all investigating areas.

38. *Sebastes diploproa* (GILBERT) +* Splitnose rockfish
   Common; found in southern investigating areas.

39. *Sebastes proniger* (JORDAN and GILBERT) +* Redstripe rockfish
   Common; found in all investigating areas.
40. *Sebastes helvomaculatus* (AYRES) (+) Rosethorn rockfish
Common; found in all investigating areas.

41. *Sebastes alutus* (GILBERT) (+) Pacific ocean perch
Very common; found in all investigating areas.

42. *Sebastes polygninis* TARANETZ and MOISEEV (+) Northern rockfish
Rare; a single species collected in the Gulf of Alaska.

43. *Sebastes reedi* WESTREIM and TSUYUKI (+) Yellowmouth rockfish
Common; found in all investigating areas.

44. *Sebastes zacentrus* (GILBERT) (+) Sharpchin rockfish
Common; found in all investigating areas.

45. *Sebastes elongatus* (AYRES) (+) Greenstriped rockfish
Rare; a single species collected off the Forrester Island.

46. *Sebastolobus alascanus* BEAN (+) Shortspine channel rockfish
Common; found in all investigating areas.

47. *Sebastolobus altlivetis* GILBERT (+) Longspine channel rockfish
Common; found in shallow waters in all investigating areas.

**Family** Anoplopomidae

48. *Anoplopoma fimbria* (PALLAS) (+) Sablefish
Nom. Jap. Gin-Dara
Common; found in deep waters in all investigating areas.

**Family** Hexagrammidae

49. *Ophiodon elongatus* GILBERT (+) Ling cod
Common; found mainly in middle and southern investigating areas.

50. *Hexagrammos* sp. (+)

**Family** Cottidae

51. *Malacocottus zonurus* BEAN (+) Blackfin sculpin
Common; found in all investigating areas.

52. *Icelinus tenuis* GILBERT (+) Spotfin sculpin
Rather common; found mainly in the Queen Chalotte Sound.

53. *Icelinus borealis* GILBERT (+) Northern sculpin
Rather common; found in all investigating areas.

54. *Ulca bolini* MYERS (+) Bigmouth sculpin
Rather common; found in northern investigating areas.

**Family** Agonidae

55. *Asterotheca infraspinata* (GILBERT) (+) Spinycheek starsnout

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Rather common; found in all investigating areas.

56. *Asterotheca pentacantha* (Gilbert) + Bigeye starsnout
Rather common; found in all investigating areas.

Family Cyclopteridae

57. *Aptocyclus ventricosus* (Pallas) + Smooth lumpsucker
Nom. Jap. Hotei-Uo
Rather common; found in all investigating areas.

Family Liparidae

58. *Careproctus melanurus* Gilbert +* Blacktail snailfish
Rather common; found mainly in southern investigating areas.

Order Pleuronectida

Family Pleuronectidae

59. *Asteresthes stomias* (Jordan and Gilbert) +* Arrowtooth flounder
Very common; found in all investigating areas.

60. *Hippoglossus stenolepis* Schmidt +* Pacific halibut
Nom. Jap. Ohyo
Common; found in all investigating areas.

61. *Hippoglossoides elassodon* (Jordan and Gilbert) +* Flathead sole
Nom. Jap. Uma-Garei
Common; found mainly in northern investigating areas.

62. *Parophrys vetulus* Gilbert +* English sole
Rather common; found in all investigating areas.

63. *Glyptocephalus zachirus* Lockington +* Rex sole
Common; found in all investigating areas.

64. *Microstomus pacificus* (Lockington) +* Dover sole
Common; found in all investigating areas.

65. *Embelliscithys bathybiius* (Gilbert) + Deepsea sole
Rather rare; found mainly in deep waters in southern investigating areas.

66. *Eopsetta jordani* (Lockington) * Petral sole
Rather common; found in all investigating areas.

Order Gadida

Family Merlucciidae

Nom. Jap. Heiku
Common; found mainly in southern investigating areas.

Family Gadidae

68. *Gadus macrocephalus* TILeSIUS +* Pacific cod
Nom. Jap. Ma-Dara
Common; found in all investigating areas.

69. **Theragra chalcogramma** (Pallas) +* Walleye pollock  
Nom. Jap. Suketou-Dara  
Common; found in all investigating areas.

70. **Antimora rostrata** Günter + Longfin cod  
Nom. Jap. Kanada-Dara  
Rather common; found in deep waters in middle investigating areas.

Family  Coryphaenoididae

71. **Coryphaenoides** sp. +*  

Order  Icosteida

Family  Icosteidae

72. **Icosteus aenigmaticus** Lockington + Ragfish  
Nom. Jap. Irezumi-Konnyaku-Aji  
Rare; a single species collected off Forrester Island.

**Summary**

The investigation on demersal fishes off the coast of southeastern Alaska was carried out during the summer of 1969 and the winter of 1969–1970 using a distant water stern trawler. The fishes identified in this study include 72 species referable to 28 families and 44 genera (64 species referable to 26 families and 42 genera in summer and 49 species referable to 21 families and 31 genera in winter). They are systematically listed with their collecting areas and season.

**References**


1972] T. SASAKI: Demersal Fishes from southeastern Alaska


