Bibliography of the Fishes of the Beaufort Sea

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AN ANNOTATED BIBLIOGRAPHY OF THE FISHES OF THE BEAUFORT SEA AND ADJACENT REGIONS

by

Wilma E. Pfeifer

Introduction and Acknowledgments

This bibliography was prepared to serve as a reference base for futher studies in the area, particularly as related to the impact of petroleum exploratory activities on the fish fauna. Included are all discovered references dealing with fishes of the Beaufort Sea and/or immediately adjacent regions. Streams of the arctic coast of North America have been included, since these are important to the anadromous fishes of the area. A number of Russian references containing information on the distribution, utilization, biology, etc, of Beaufort Sea species in Russian waters have also been included.

Preparation of the bibliography was supported by the Bureau of Land Management through interagency agreement with the National Oceanic and Atmospheric Administration, under which a multi-year program responding to needs of petroleum development of the Alaskan continental shelf is managed by the Outer Continental Shelf Environmental Assessment Program (OCSEAP) office. It represents the final report for Contract No. 03-5-022-56, Task Order No. 16, Research Unit No. 348, Dr. James E. Morrow, principal investigator.

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Bibliography

Abrahamson, G. 1968. Tuktoyaktuk-Cape Parry, an Area Economic Survey. A.E.S.R. no. 62-2. Department of Indian Affairs and Northern Development, Ottawa. 83 p.

Species:

Lake herring, Whitefish, Stenodus leucichthys, Esox lucius, Catostomidae, Salvelinus namaycush, Clupea pallasii, Salvelinus alpinus.

Places:

Toker Point, Atkinson Point, Kugaluk River, Point Stevens, Tomcod Bay, Parry Peninsula, Hornaday River, Darnely Bay, Baillie Islands.

Remarks:

Coregonids abundant summer and fall. Herring abundant at Cape Parry; also charr.

- Abs, Otto. 1959. Die Eskimoernahrung und ihre Gesundheitlichen aus Wirkungen. V. G. Thieme, Leipzig.
- Alaska Department of Fish and Game. Division of Commercial Fisheries. 1964.

 Annual Report. Arctic-Yukon-Kuskokwin Area. Juneau, pp. 70-78, 106-110, 134-135.
- Alaska Department of Fish and Game. Division of Commercial Fisheries. 1973.

 Alaska's Wildlife and Habitat.
- Alaska Department of Fish and Game. 1973. Catalog of rivers, lakes and streams that are important for the spawning or migration of anadromous fish. Revised October. 1973.
- Alaska. Office of the Governor. Division of Policy Development and Planning. 1975. Fish. Pages 174-194. *In:* Draft Environmental Assessments. Proposed Beaufort Sea nearshore leasing.

Species:

Coregonus autumnalis, C. sardinella, C. nasus, C. pidschian, Salvelinus alpinus, Myoxocephalus quadricornis, Liopsetta glacialis, Thymallus arcticus, Boreogadus saida, Ammodytes hexapterus. Osmerus mordax, Oncorhynchus keta, O. gorbuscha, Coregonus laurettae.

Remarks:

Life histories and distribution summarized. First seven species abundant, others occasional inshore.

Alaska, University, Arctic Environmental Information and Data Center, 1975, Aquatic animals, Pages 137, 144, 145, 147. In: Alaska Regional Profiles, Arctic Center, Anchorage.

Species:

Mallotus villosus. Cottids. Gadidae. Ammodytes hexapterus. Oncorhynchus gorbuscha. O. keta, Boreogadus saida, Lota lota, Gasterosteidae, Thymallus arcticus, Esox lucius, Castostomidae, Salvelinus alpinus, Angayukaksurak char, Coregonus nasus, C. pidschian, C. sardinella. C. autumnalis, Osmeridae species, Salvelinus namaycush, Pleuronectidae species.

Places:

Colville River Delta, Kavik River, Point Barrow, Point Hope, Kaktovik, Wainwright, Anaktuvuk River, Hulahula River, John River.

Remarks:

Subsistence fishing emphasizes coregonids, charrs, osmerids. Colville River Delta fishery takes 3,000 *C. nasus* and 1.000 *C. pidschian* in summer; 20.000 *C. sardinella* and 40,000 *C. autumnalis* in fall. Spawning grounds in headwaters.

Alaska. University. Arctic Environmental Information and Data Center. 1975.

Alaska Regional Profiles: Arctic Region. Anchorage. Pages 164, 167.

Remarks:

Fish taken for subsistence; Barrow -61,550 lb., Kaktovik -15,000 lb., Point Hope -40,000 lb., Wainwright -2,840 lb. Colville River delta, 1971-1973, took 2160-3815 lb. broad whitefish; 37,333-71,960 lb. Arctic cisco; 13,283-25,108 lb. least cisco.

- Alaskan Arctic Gas Piepline Company. 1974. Description of the environment. Pages 55-59. *In:* Environmental Report of Alaskan Arctic Gas Pipeline Company.
- Alexander, V., D. C. Burrell, J. Chang, T. R. Cooney, C. Coulon, J. J. Crane and J. A. Dygus. 1973. Environmental Studies of an Arctic Estuarine System. Final Report. University of Alaska, Institute of Marine Science, Fairbanks, Alaska. 539 p. (IMS Report 74-1).
- Aller, Barbara B. 1958. Publications of the U.S. Bureau of Fisheries, 1871-1940. U.S. Fish and Wildlife Special Scientific Report. Fish. 284.202 p.
- Alt, K. T. 1965. Food habits of inconnu in Alaska. Trans. Am. Fish Soc. 94:272-274.

- Alt, K. T. 1969. Taxonomy and ecology of the inconnu, *Stenodus leucichthys nelma*, in Alaska. Biol. Pap. Univ. Alaska no 12.
- Alt, K. T. 1971. A life history study of sheefish and whitefish in Alaska. Alaska Department of Fish and Game, Federal Aid in Fish Restoration. Annual Progress Report, vol. 12. Project F-9-3. Study R-11. Juneau. 31 p.

Salvelinus alpinus, Prosopium cylindraceum, Coregonus nasus, C. pidschian, C. sardinella, C. autumnalis, Stenodus leucichthys.

Places:

Sagavanirktok River.

Remarks:

First six species present in Sagavanirktok River.

Alt, K. T. 1974. A life history study of sheefish and whitefish in Alaska: July 1, 1973 through June 30, 1974. Alaska Dep. Fish Game, Federal Aid Fish Restor. Annual Progress Report, vol. 15. Project F-9-6, Study no. R-11. Juneau.

Remarks:

Includes data on coregonids of Colville River.

Alt, K. T., and D. R. Kogl. 1973. Notes on the whitefish of the Colville River, Alaska. J. Fish, Res. Bd. Canada 30(4):554-556.

Species:

Coregonus sardinella, C. autumnalis, C. nasus, C. pidschian, Prosopium cylindraceum.

Places:

Colville River Delta, Uniat, Putu, Nanuk Lake, Kachemach River, Kalubik Creek, Itkillik River, Oliktok, Miluveach River.

Remarks:

Describes seasonal variation in numbers of the several species. 40.000 to 80.000 coregonids taken annually in Colville River commercial fishery.

- Alverson, D. L., N. J. Wilimovsky and F. Wilke. 1960. Marine investigation of the Chukchi Sea U.S Atomic Energy Comm. Springfield, Va. (Rep. PNE-479).
- Alverson, D. L., N. J. Wilimovsky and F. Wilke. 1967. Annual Technical Report. Arctic-Yukon-Kuskokwim anadromous fish investigations, Alaska. Alaska Dep. of Fish and Game. National Marine Fisheries Grant-in-aid study. Alaska Project no. AFC-7. pp. 84-102.
- Alyeska Pipeline Service Company. 1974. Summary report. Biological

Documentation of the Trans-Alaska Pipeline: Appendix E3-1014. Houston, Texas. 361 p.

Species:

Oncorhynchus gorbuscha, O. keta, Salvelinus alpinus, Thymallus arcticus, Prosopium cylindraceum, Salvelinus namayeush, Coregonus nasus, C. pidschian, C. sardinella, C. autumnalis, Osmerus mordax, Cottus cognatus, Lota lota, Pungitius pungitius.

Places:

Prudhoe Bay, Colville River, Sagavanirktok River.

Remarks:

Movements of fish species, particularly Arctic char, are outlined. Salvelinus alpinus, Thymallus arcticus, and Prosopium are most numerous fish species in Sagavanirktok River while Coregonus nasus, C. pidschian, and C. sardinella are rarely caught. O. keta present in Prudhoe area: small runs of the latter occur in the Colville River.

- Anderson, R. M. 1917. Canadian Arctic Expedition, 1916. Zool. Summary Report. Geological Survey Dep. of Mines, Ottawa. (Govt. of Canada Sessional Paper 26:374-384).
- Anderson, R. M. 1917. Recent explorations on the Canadian Arctic coast. The Geo. Rev. (New York) 4(4):241-266 (Oct., 1917).
- Anderson, R. M. 1918. Eskimo food-how it tastes to a white man. Ottawa Naturalist 32(4):59-65 (Oct., 1918).

Species:

Coregonus sp., Salvelinus (malma?), S. namaycush, Esox lucius, Thymallus arcticus, Oncorhynchus sp., Osmeridae, Lota lota, Stenodus leucichthys.

Places:

Bering Sea to Bathurst Inlet, Herschel Island.

Remarks:

Arctic fish few in species, many in numbers.

Anderson, R. M. 1951. Report on the natural history collections of the Expedition. Pages 450-455. *In:* V. Stefanson, ed. My life with the Eskimo. Macmillan Company, New York.

Species:

Catostomus catostomus, Argyrosomus tullibee, Leucichthys lucidus, Clupea pallasi, Stenodus mackenzii, Salvelinus malma, Cristovomer namaycush, Thymallus signifer, Osmerus dentex, Esox lucius, Platichthys stellatus, Microgadus proximus, Oncocottus hexacornis, and Lota maculosa.

Places:

Mackenzie River, Colville River, Langton Bay, Cape Bathurst, Coronation Gulf, Herschel Island, Toker Point, Shingle Point, Anderson River, Liverpool Bay, Richards Island.

Remarks:

Catostomus, Argyrosomus, Stenodus, Esox, Oncocottus, Leucichthys common in Mackenzie Delta. Clupea abundant at Cape Bathurst in August. Microgadus common at Liverpool Bay and Coronation Gulf.

- Andriyashev, Anatoly P. 1935. Geographical distribution of the marine food fishes of the Bering Sea and problems connected therewith. Exploration of the seas of the U.S.S.R. 22:135-145.
- Andriyashev, Anatoly P. 1937. K poznaniyu ikhtiofauny Beringova i Chukotskogo morei. Issled. Dal' nevostoch morei 25:292-355. Leningrad. [A contribution to the knowledge of the fishes from the Bering and Chukchi Seas.] Explor. Mers Russes 25:292-355. Translated from the Russian language by Lisa Lanz and Norman J. Wilimovsky. Fish. Res. Bd. Canada, Spec. Scientific Report 145. 81 p.

Species:

Lumpenus medius, Gymnelis viridis, Lycodes polaris, L. knipowitsch; L. polaris arcticus, Triglops beani, Icelus bicornis, Gymnocanthus tricuspis hudsonius. Myoxocephalus verrucosus, Artediellus scaber beringianus. Ulcina olriki. Hippoglossoides robustus.

Places:

Chukchi Sea.

- Andriyashev, Anatoly P. 1939. Outline of zoogeography and origin of the fauna of fish in the Bering Sea and adjacent waters. Publication of the State University of Leningrad.
- Andriyashev, Anatoly P. 1952. Ryby Chukotskogo Morya i Beringova Proliva. Kraimii Severo-Vostok Soyuza SSSR II:311-322. Izdatel'stvo Nauk SSSR. Species:

Lists more than 30 species.

Places:

Kotzebue Sound, Chukchi Sea. Point Barrow, Mackenzie River, Herschel Island, Kobuk River.

Andriyashev, Anatoly P. 1952. Tikhookeanskiye kraby i ruby na severe. Priroda, vol. 1952(5):116.

- Andriyashev, Anatoly P. 1954. Fishes of the northern seas of the U.S.S.R. Zool. Inst. Akad. Nauk SSR 53:566. Translated from the Russian by D. E. McAllister, Curator of Fishes, Nat. Mus. of Canada, Ottawa.
- Andriyashev, Anatoly P. 1955. A contribution to the knowledge of the fishes from the Bering and Chukchi Seas [K. poznaniyu ikhtiofauny Beringova i Chukotskogo morei]. Issled. Dal'nevostoch Morei 25:292-355 (1937).
 Leningrad. Translated from the Russian language by Lisa Lanz and Norman J. Wilimovsky, Can. Fish. Res. Bd. Special Scientific Report 145 (May 1955) 81 p
- Andriyashev, Anatoly P. 1964. Fishes of the northern seas of the U.S.S.R. [Ryby severnykh morei SSSR]. Keys to the fauna of the U.S.S.R. Published by Zoological Institute of the U.S.S.R. Academy of Sciences no. 53. Izdatel'stvo Akademii Nauk SSSR, Moskva-Leningrad, 1954. Translated from the Russian by Israel Program for Scientific Translations, Jerusalem, 617 p.

A comprehensive list, with descriptions, illustrations, life histories and remarks on value, distribution etc. Index of Russian names, bibiography. Many species also present in Beaufort Sea

- Anonymous. 1959. North Pacific exploratory fishing program Chukchi Sea in Northwest Alaska, surveyed for Atomic Energy Commission. M/V John N. Cobb cruise 43. Comm. Fish. Rev. 21(11):42-44.
- Arctic Environmental Information and Data Center. 1975. Chukchi Sea, Bering Strait, Icy Cape; Physical and biological character of Alaskan coastal zone. Anchorage, University of Alaska. 64 p. 31 folded maps. (Sea Grant no. 75-10).

Species:

Lists 41 species found in the northeastern Chukchi Sea.

Remarks: In order of abundance, the ten most numerous: Boreogadus saida, Clupea harengus pallasi, Gymnocanthus tricuspis, Artedielus scaber, Mallotus villosus, Hippoglossoides robustus, Osmerus dentex, Myoxocephalus scorpius, Triglops pingeli, Eleginus gracilis.

Armstrong, Alexander. 1857. A personal narrative of the discovery of the Northwest Passage with numerous incidents of travel and adventure during nearly five years' continuous service in the Arctic while in search of the Expedition under Sir John Franklin. Hurst and Blackett, London. 616p. Places:

Prince of Wales Strait, Prince Albert Land, Banks Land, Bay of Mercy.

Includes notes on natural history.

Atkinson, C. E, H. J. Rose and T. O. Duncan 1967. Salmon of the North Pacific Ocean. Pt. IV Spawning populations of North Pacific salmon. Pages 43-223. *In:* Pacific Salmon in the United States. U.S. Bureau of Commercial Fisheries, Seattle, Wash (Bulletin, International North Pacific Fisheries Comm No 23).

Species:

Oncorhynchus keta, O. tshawytscha, O. kisutch, O. nerka, O. gorbuscha. Remarks:

O keta numerous along Arctic coast. O. gorbuscha occasional on north coast. Other spp. not recorded north of Kotzebue Sound. Maps show geographic limits, spawning areas

- Ayers, R. C. Jr., H. O. Jahns and J. L. Glaesner. 1974. Oil spills in the Arctic Ocean: extent of spreading and possibility of large scale thermal effects. Science 186(4116):843-846 (29 Nov., 1974).
- Bain, Lawrence, H. 1974. Life histories and systematics of the Arctic charr (Salvelinus alpinus 1.) in the Babbage River System, Yukon Territory. Canadian Arctic Gas Study Ltd. Biol. Rep. Ser. 18(1):156 p.

 Remarks:

Salvelinus alpinus distributed throughout Polar regions of North America, Europe, and Asia; in northern hemisphere, the anadromous species restricted to coastal Arctic and subarctic areas. Literature dealing with anadromous and non-andromous varieties is summarized. Life history aspects are presented as they relate to the Yukon Territory Beaufort Sea Drainage.

- Bain, Lawrence H. Alternate life histories of Arctic charr (Salvelinus alpinus) in the Babbage River system, Beaufort Sea Drainage, Yukon Territory, M.S. dissertation, University of Calgary, Dep. of Biol. Calgary, Alberta. (In preparation).
- Barsdate, R, V. Alexander and R. E. Benoit. 1972. Natural oil seeps at Cape Simpson: aquatic effects. Proc. Ak. Sci. Conf. 23:122 (Abstr.).
- Bean, Tarleton H. 1879. Descriptions of some genera and species of Alaskan fishes. Proc. U.S. Nat. Mus. 2:353-359.
- Bean, Tarleton H. 1882. Description of new fishes from Alaska and Siberia. Proc. U.S. Nat. Mus. 4-144-159.

Eighty new species described or mentioned, two from Alaska. *Stichaeus rothrocki* from Plover Bay, Siberia, and from Cape Lisburne. *Coregonus laurettae* from Point Barrow and Port Clarence.

Bean, Tarleton II. 1883. List of fishes known to occur in the Arctic Ocean north of Bering Strait. Pages 118-119. *In:* Cruise of the revenue steamer Corwin in Alaska and the northwest Arctic Ocean in 1881. U.S. Government Printing Office, Washington, D.C. 1883.

Species:

Lists 29 species.

Places:

Various coastal localities from Kotzebue Sound north and east to the Anderson River, N.W.T.

Remarks:

Most of the scientific names are now considered synonyms.

Bean, Tarleton H. 1888a. Distribution and some characters of the Salmonidae. Amer. Nat. 22:306-314.

Species:

Coregonus laurettae, C. nelsoni, Oncorhynchus gorbuscha, Salvelinus malma, S. arcticus (S. alpinus).

Places:

Point Barrow, Colville River, 82 degrees 34' N.

- Bean, Tarleton H. 1888b. Fishes determined from photographs. *In:* G. M. Dawson, ed. Report on an exploration in the Yukon District, N.W.T. Rep. Geological Survey. Canada, 1887-1888 (N.S.)3(app.4):231B.
- Bean, Tarleton H. 1889. Description of *Coregonus pusillus*, a new species of whitefish from Alaska. Proc. U.S. Nat. Mus. 11:526.
- Bean, Tarleton H. 1891. Report of the salmon and salmon rivers of Alaska with notes on the conditions, methods, and needs of the salmon fisheries. U.S. Government Printing Office, Washington, D.C. (51st Cong. 1st session, House of Representatives Misc. Doc't. No. 11.) 50 p. Maps, plates.
 Species:

Coregonus laurettae, Stenodus leucichthys, Thymallus arcticus, Oncorhynchus keta, O. gorbuscha, Mallotus villosus.

Places:

Hotham Inlet, Point Barrow, Mackenzie River.

Discusses distribution and abundance of listed species.

Belcher, Edward. 1855. The last of the Arctic voyages: being a narrative of the expedition in H.M.S. Assistance under the command of Captain Sir Edward Belcher, C.B., in search of Sir John Franklin during the years 1852, 1853, 1854. With notes on the natural history by Sir John Richardson, Professor Owen, Thomas Bell, J. W. Salter, and Lovell Reeve. 2v. London.

Remarks:

Appendix, vol. II, pp. 263-419, includes reports on fishes and other natural history subjects.

Bendock, Terence M. 1976. Beaufort Sea estuarine fishery study. Annual Report, July 1975-March 1976, Sport Fish Division, Alaska Department Fish Game. Pages 243-261. *In:* Fish, plankton, benthos, littoral: environmental assessment of the outer continental shelf. VII. Environmental Research Laboratories, Boulder, Colorado.

Species:

Salvelinus alpinus. Coregonus sardinella, C. autumnalis, C. nasus. C. pidschian, Thymallus arcticus, Osmerus mordax, Mallotus villosus. Boreogadus saida, Eleginus gracilis, Myoxocephalus quadricornis, Liopsetta glacialis, Liparis sp.

Places:

Point Sorenson to Brownlow Point.

Remarks:

C. sardinella the most abundant species; M. quadricornis common throughout area. B. saida scasonally abundant. Salmonids wide spread along coast. Larvae and young of B. saida, M. villosus and Liparis spp. dominated offshore trawl catches.

- Berg, Leo S. 1931. A review of the lampreys of the northern hemisphere. Erzheg. Zool. Muz. (Akad. Nauk SSSR)32:87-116.
- Berg, Leo S. 1934. Ob amfiboreal' nom prery vistom rasprostranenu morskoi fauna v svernom POLUSHARII [On the amphiboreal (discontinuous) distribution of marine fauna in the northern hemisphere]. Isvestiya Geograficheskogo obshchestva 66(1):69-78.
- Berg, L. S., and A. Popov. 1932. A review of the forms of *Myoxocephalus quadricornis* (L.). C. R. Acad. Sci. U.S.S.R. 1932-33 6:152-160.
- Bergstrand, J. 1973. Fisheries resources in Alaska. Inventory. Arctic Region.

Resource Planning Team, Joint Federal-State Land Use Planning Comm, for Alaska, Anchorage, 8 p.

- Bernier, J. E. 1910. Report on the Dominion of Canada Government Expedition to the Arctic Islands and Hudson Stratt on board the D.G.S."Arctic". Ottawa, 529 p.
- Berry, Frank B. et al. 1959. An appraisal of the health and nutritional status of the Eskimo Report of the Internat. Comm. on Nutrition for National Defense, Dep. of Defense, Washington, D.C.
- Bird, J. B., and M. B. Bird, 1961. Bathurst Inlet, Northwest Territories, Canada.Dep. of Mines and Tech. Surv., Ottawa, (Memoir 7) pp. 9, 10, 50.Species:

Coregonus sp., Salvelinus alpinus, S., namaveush, Tomcod.

Places:

Bathurst Inlet.

Remarks:

Tomcod common in winter, other spp. more important at other times. *S. alpinus* particularly numerous June-August.

- Bishop, Yvonne, Neal M. Carter *et al.* 1957. Index and list of titles, publications of the Fisheries Research Board of Canada, 1901-1954. Bull. Fish. Res. Bd Canada 110:209 p
- Boulva, J. 1972. Morphometrics of three sympatric arctic codfishes from the genera *Arctogadus* and *Gadus*. J. Fish. Res. Bd. Canada 29:243-249.

Species:

Arctogadus, Gadus.

Places:

Cambridge Bay.

Bray, J. R. 1975. Marine fish surveys in the Mackenzie Delta area. Fish. Res. Bd. Canada, MS Report 1326, 10 p.

Species:

Clupea harengus, Osmerus eperlanus, Myoxocephalus quadricornis, Coregonus autumnalis, C sardinella.

Remarks:

Groundfish biomass estimated at 10,000 lb/mi² in 1961 at Tuktoyaktuk. Declined to 3,000 lb/mi² at 2 mi offshore.

Brazhmikov, V. K. 1900-04 Rybnye Promysl' Dal'nego Vostoko [Fishery in the Far East] No. 1 (1900) and 2 (1904).

- Brazhmikov, V K. 1907 Materialy po fauna russikh Vostochnych morei [Data on the fauna of the far Eastern seas]. Zapiski Akademii Nauk 20(6).
- Brunskill, G. J., D. M. Rosenberg, N. B. Snow, G. L. Vascotto and R. Wagemann. 1973. Ecological studies of aquatic systems in the Mackenzie-Porcupine drainage in relation to proposed pipeline and highway developments. A preliminary report for the Environmental-Social Committee, Northern Pipelines, Dep. of the Environment. Fish. Res. Bd., Fresh Water Inst., Winnipeg, Manitoba 129 p. 15 Appendices.
- Brunskill, G. J., D. M. Rosenberg, N. B. Snow and R. Wagemann. 1973.
 Ecological studies of aquatic systems in the Mackenzie-Porcupine Drainages in relation to proposed pipeline and highway developments. Vol. II. Environmental Soc. Comm., Northern Pipelines, Winnipeg, Manitoba. 345 p. Tables, appendices (Task Force on Northern Oil Development Rep. 73-41).
- Bryan, J. E. 1973. The influence of pipeline development on freshwater fishery resources of northern Yukon Territory. Aspects of research conducted in 1971 and 1972. Northern Operations Branch, Fisheries Service, Dep. of the Environment, Ottawa. 56 p. (Task Force on Northern Oil Development. Rep. 73-6).
- Bryan, J. E., C. E. Walker, R. E. Kendel and M. S. Elson. 1971. The influence of pipeline development on fresh water aquatic ecology in northern Yukon Territory. Progress Report on research conducted in 1971. Environment Canada, Fisheries Service. 45 p
- Bryan, J. E., C. E. Walker, R. E. Kendel and M. S. Elson. 1973. Freshwater ecology in the northern Yukon territory. Fisheries Service, Pacific region, Dep. of the Environment, for the Environmental Social program, Northern Pipelines, Vancouver, British Columbia, 64 p. Tables, figures, maps. (Tack Force on Northern Oil Development, Rep. 73-21).

Discusses 18 species, mostly freshwater.

Places:

Blow River, Mackenzie Delta, Herschel Island.

Remarks:

Discusses distribution, commercial harvests. Tables show bio-statistics of more prevalent species.

Butorin, D. a. 1965. Areas of concentrations of Polar cod in the Arctic. Ryb. Khoz. 10(8).

- Cameron, Thomas W. M. 1938. The feeding of dogs in the Canadian Arctic. Can J. of Comp. Med. 2(7):181-185 (July, 1938).
- Canada, Department of the Environment. 1973. Impact of a northern gas pipeline. Vol. 5. Impact of pipelines on traditional activities of hunter-trappers in the Territories. Fisheries Service for the Environmental-Social Program, Northern Pipelines, Ottawa.
- Canada, Department of Indian Affairs and Northern Development. 1973a.

 Regional impact of a northern gas pipeline. Vol. 1: Summary Report.

 Economic Staff group, Northern Economic Development Branch for the
 Environmental-Social Program, Northern Pipelines, Ottawa. 187 p.
- Canada, Department of Indian Affairs and Northern Development. 1973b. Atlas of wildlife habitat inventory maps for Environmental-Social program, Northern pipelines. Part of a wildlife habitat inventory of the Mackenzie Valley and northern Yukon. Set of 7 atlases. Technical and graphic design by Bryan Chubb. Ottawa. Ring binder, paper cover.
- Canada, Department of Indian Affairs and Northern Development. 1975.

 Mackenzie Valley pipeline assessment: Environmental and socio-economic effects of the proposed Canadian Arctic gas pipeline of the Northwest Territories and Yukon. Environmental Social Program, Northern Pipelines. Ottawa, 442 p.
- Canada, Environment Protection Board, 1974. Environmental impact assessment of the portion of the Mackenzie Gas Pipeline from Alaska to Alberta, Vol. III. Environmental atlas. Prepared by Interdisciplinary Systems Ltd. and Templeton Eng. Co.

Coregonus autumnalis, C. nasus, C. pidschian, C. sardinella, Prosopium cylindraceum, Thymallus arcticus, Salvelinus alpinus, Esox lucius, Catostomus catostomus.

Places:

Mackenzie Delta, Richards Island, Tieda River, Blow River, Peel River. Remarks:

Text and maps include important fish migration, overwintering, spawning and rearing areas.

- Canada, Fisheries Research Board. 1947. Northwest Canadian Fisheries Survey in 1944-45. Fish, Res. Bd. Can, Bull. 72:94.
- Canada, Fisheries Research Board. 1959. List of articles in the "Translation Series" no. 1-166 with indexes to authors and translators (1959 . . . continuing supplements). 32 p.

Canada, Northern Economic Development Branch. 1973. Regional impact of a Northern Gas pipeline. Pages 34, 43-45, 118, 125-127. (Task Force on Northern Oil Development Report 73-32).

Species:

Clupea sp., Coregonus spp., Salvelinus alpinus, Esox lucius, Catostomus catostomus, Stenodus leucichthys, Salmonidae (trout).

Places:

Mackenzie River Delta, Mackenzie River tributaries, Tuktoyaktuk, Herschel Island, Shoalwater Bay, Aklavik.

Remarks:

Discusses distribution and value of fish catches in Mackenzie drainage.

- Canadian Government. 1888. Report of the Select Committee of the Senate appointed to inquire into the resources of the Great Mackenzie Basin. 3rd Report of the Select Comm. of the Senate . . . appointed to inquire into the resources that part of the Dominion . . . comprising the Great Mackenzie Basin . . . its fisheries, forests, and mines and to report upon its possible commercial and agricultural value. Ottawa.
- Canadian Wildlife Service 1969. Arctic ecology map series (maps and descriptive booklets) Ottawa.
- Canadian Wildlife Service. 1972. Arctic ecology map series, descriptive reports. 2nd ed. Data added. Environment Canada, Ottawa.
- Carter, Neal M. 1965 Index and list of titles, Fisheries Research Board of Canada and associated publications, 1900-64. Bull. Fish. Res. Bd. Canada 164:649 p
- Carter, Neal M. 1968. Index and list of titles, Fisheries Research Board of Canada, and associated publications, 1900-1964. Bull. Fish. Res. Bd. Canada 164:649 p.
- Carter, Neal M. 1969. Index and list of manuscript reports (Biological no. 1-900; Experimental no. 1-61; Oceanographic and Limnological no. 1-229) to their conclusion as three separate series in 1966. Fish. Res. Bd., Canada, M. S. Report Ser. (Biol.) 900:255 p.
- Carter, Neal M. 1973 Index and list of titles, Fisheries Research Board of Canada, and associated publications 1965-1972. Misc. Spec. Publ. Fish. Res Bd , Canada 18:588 p
- Caulkin, T. B. 1937 Fish, Pages 123-129. *In:* W. C. Bethune, ed. Canada's western northland: its history, resources, population, and administrations. Canada, Dep of Mines and Resources, Ottawa.

Lists 26 marine, freshwater and anadromous species.

Remarks:

S. alpinus the most abundant food fish along coast from Keewatin to MacKenzie Most important commercial species Gadus ogac, Boreogadus saida. Clupca pallasii, Osmerus dentex, Platichthys stellatus especially abundant in Cape Bathurst area. Seasonal variations are discussed.

- Chance, Norman A. 1967 The eskimo of north Alaska. Holt, Rinehart, and Winston, New York.
- Chitwood, Philip E. 1969. Japanese, Soviet, and South Korean fisheries off Alaska. Development and history through 1966. Natl. Marine Fish. Service, Washington, D.C. 34 p. (Circular 310).

Remarks:

By close of 1966, fisheries of Japan and U.S.S.R. utilized most of 550,000 sq. nautical miles of the Continental Shelf of Alaska from Dixon Entrance in south and east, west beyond Attu Island, and north to Arctic Ocean.

Cohen, Daniel M 1954. Age and growth studies on two species of whitefish from Point Barrow, Alaska. Stanford Ichthyological Bull. 4(3):168-188.

Species:

Coregonus nasus, C. sardinella.

Places:

Point Barrow

- Collinson, Richard. 1889. Journal of H.M.S. Enterprise on the expedition in search of Sir John Franklin's ships by Bering Strait, 1850-1855. S. Low, Marston, Searle and Rivington Ltd., London. 531 p.
- Cooney, R. T., and James Crane. 1972. Nearshore Marine Biology, Colville. Pages 217-230. *In:* Baseline data study of the Alaskan Arctic aquatic environment, no. R72-3. University of Alaska, Inst. of Marine Sci. Fairbanks.

Remarks:

Discusses spatial distribution and abundance of dominant epibenthic species.

- Craig, P. C. 1970. Interoffice memorandum of Trans-Alaska Pipeline System concerning spawning habitat in the area of vehicular crossings of the Sagavanirktok River, dated October 1, 1970.
- Craig. P. C. 1973. Preliminary report on winter fisheries between Prudhoe Bay and the Mackenzie River by Aquatic Environments for Northern Eng. Services, Ltd.

Craig, P. C. Fisheries investigations in the Canning River. Canadian Arctic Gas Study Ltd. Calgary, Canada Biol. Rep. Ser. (In preparation).

Remarks:

Indicates most commonly eaten fish in region were *Boreogadus saida*. Sex ratio of juvenile arctic charr in Sagavanirktok and Canning Rivers 9.2 males: 7.2 females.

Craig, P. C., and G. J. Mann. 1974. Life history and distribution of the Arctic cisco (Coregonus autumnalis) along the Beaufort Sea coastline in Alaska and the Yukon Territory. In: P. J. McCart, ed. Life histories of anadromous and fresh water fish in the western Arctic. Canadian Arctic Gas Study, Ltd., Biol. Rep. Ser. 20(4):33.

Species:

Coregonus autumnalis, C. sardinella, C. clupeaformis, C. nasus, Prosopium cylindraceum, Stenodus leucichythys, Myoxocephalus quadricornis, Liopsetta glacialis, Osmerus eperlanus, Boreogadus saida, Salvelinus alpinus, Thymallus arcticus.

Remarks:

C. autumnalis in brackish water. Both C. autumnalis and C. sardinella spawn in Colville and Mackenzie Rivers, probably overwinter in delta.

Craig, P. C., and P. J. McCart. 1974a. Fall spawning and overwintering areas of fish populations along routes proposed pipeline between Prudhoe Bay and the Mackenzie Delta, 1972-1973. *In:* P. J. McCart, ed. Fisheries research associated with proposed gas pipeline routes in Alaska, Yukon, and Northwest Territories. Canadian Arctic Gas Study, Ltd., Biol. Rep. Ser. 15(3):36.

Species:

Salvelinus alpinus, Thymallus arcticus, Prosopium cylindraceum, Catostomus catostomus.

Remarks:

Known overwintering sites identified. Sizes of charr populations indicated. Previous studies summarized.

 Craig, P. C., and P. J. McCart. 1974b. Classification of stream types in Beaufort Sea drainages between Prudhoe Bay, Alaska, and the Mackenzie Delta.
 Canadian Arctic Gas Study, Ltd., Calgary, Biol. Rep. Ser. 17:1-47.

Species:

Salvelinus alpinus, Thymallus arcticus, Prosopium cylindraceum, Cottus cognatus, Pungitius pungitius.

Places:

Fifty seven locations in 17 drainages from Kuparuk River east to Mackenzie delta.

Remarks:

Streams are described on basis of physical, chemical and biological characteristics.

Craig, P. C., and P. J. McCart. 1975. Fish utilization of nearshore coastal waters between the Colville and Mackenzie Rivers with an emphasis on anadromous species. Report presented at the 3rd Internat. Conf. on Port and Ocean Engineering under Arctic conditions, held at the University of Alaska, College, Alaska, Aug. 11-15, 1975. Appendix. In: P. C. Craig, ed. Fisheries investigations in a coastal region of the Beaufort Sea. Canadian Arctic Gas Study, Ltd., Calgary, Biol. Rep. Ser. 34(2):172-219.

Remarks:

Distribution of 28 species of marine and freshwater fishes examined, with emphasis on life histories and migrations of *S. alpinus* and *C. autumnalis*.

- Craig, P. C., and V. A. Poulin, 1974. Life history and movement of grayling (Thymallus arcticus) and juvenile Arctic charr (Salvelinus alpinus) in a small tundra stream tributary of the Kavik River, Alaska, In: P. J. McCart, ed. Life histories of anadromous and fresh water fishes in the Western Arctic, Canadian Arctic Gas Study, Ltd., Calgary, Biol. Rep. Ser. 20(2):53.
- Craig. P., and V. A. Poulin. 1975. Movements and growth of grayling (*Thymallus arcticus*) and of juvenile Arctic charr (*Salvelinus alpinus*) in a small Arctic stream, Alaska, J. Fish. Res. Bd. Canada 32:689-697.
- Currie, R. 1964. The Yukon Territory Littoral, an economic development program report Industrial Div. Dep. of Northern Affairs and Natl. Res. Ottawa. 32 p. (Area Econ Surv. Rep. 6 3/3) Restricted.

Species:

Salveinus alpinus, Stenodus leucichthys, Mallotus villosus, Blue herring, Cisco herring, Coregonus spp.

Places:

Clarence Lagoon, Shingle Point, Herschel Island, Blow River, Ptarmigan Bay

Remarks:

Blue herring most abundant August, cisco herring July, Herschel Island to Blow River. Estimated potential yields of various species are given.

- Dall, William H. 1870. Alaska and its resources. Lee and Shepherd, Boston.
- Dall, William H., and Marcus Baker. 1879. Partial list of books, pamphlets, papers in Serial Journals and other publications on Alaska and adjacent regions. Pages 225-374. *In:* U.S. Coast and Geodetic Survey. Pacific Coast Pilot. Coast and Islands of Alaska (2nd ser.) Appendix 1
- Day, D., and C. R. Forrester 1971. A preliminary bibliography on the trawl fishery and groundfish of the Pacific coast of North America. Fish. Res. Bd. Canada. Technical Rep. 246. 91 p.

- Dean, B. 1923. A bibliography of fishes. 3 vols. Amer. Mus. Nat. Hist., New York
- de Bruyn, M, and P. J. McCart. 1974. Life history of the grayling (*Thymallus arcticus*) in Beaufort Sea drainages. *In:* P. J. McCart, ed. Fisheries research associated with proposed gas pipeline routes in Alaska, Yukon and Northwest Territories. Canadian Arctic Study, Ltd., Calgary. Biol. Rept. Ser. 15(2):396.
- Dees, L. T. 1963. Index of fishery biological papers by U.S. Fish and Wildlife service authors appearing in non-government publications, 1940-1956. U₂S, Fish Wildl. Serv. Fish. Circ. 151:138.
- De Vries, A. L. 1971. Freezing resistance in fishes. Pages 157-190. *In:* Hoar and Randall, eds. Fish physiology. Vol. 6 Academic Press, New York and London.
- Doran, L. D. 1974. Fishes and aquatic systems. Pages 205-268. *In:* Canada, Environmental Protection Board, Research Report Environmental impact assessment of the portion of the Mackenzie gas pipeline from Alaska to Alberta. Winnipeg, Manitoba.
- Dryden, R. L., and J. N. Stein. 1975. Guidelines for the protection of fish resources of the Northwest Territories during highway construction and operation. Fisheries and Marine Service, Environment Canada, Winnipeg, Manitoba. 32 p. Tables, figures, maps. (Technical Rep. Ser. CEN/T-75-1). Species:

Salvelinus alpinus, Coregonus nasus, C. autumnalis, C. sardinella, C. pidschian, Stenodus leucichthys, Catostomus catostomus, C. commersoni, Thymallus arcticus, Esox lucius, Lota lota, Stizostedion vitreum, 22 additional species not abundant.

Places:

Mackenzie River, from Great Slave Lake to the delta.

Remarks:

Concern with effects of stream crossings. Distribution and ages at maturity are tabulated.

Dryden, R. L., B. G. Sutherland and J. N. Stein. 1973. An evaluation of fish resources of Mackenzie River Valley as related to pipeline development. Vol. II. Fisheries Serv. Dept. of the Environment, Ottawa. 176 p. (Task Force on Northern oil Development 73-2)

Species:

34 species noted.

Places:

Mackenzie River valley and delta.

Detailed descriptions of physical conditions. Migration routes, spawning areas, nursery and over-wintering areas noted for 50 streams. Stages of maturity of fishes indicated.

Dunbar, M. J. 1947. Marine young fish from the Canadian eastern Arctic. Fish. Res. Bd. Can., Bull. 73:1-11.

Species:

Bore ogadus saida, Triglops pingeli, Gymnocathus galeatus, Agonus decagonus, Aspidophoroides olriki, Lumpenus lampetraformis, Stichaeus punctatus, Myoxocephalus quadricornis.

Places:

Arctic Ocean. Point Barrow, Alaskan Coast, Aleutian Islands, Pribilof Islands, Hudson Bay.

Remarks:

Discusses distribution of listed species.

Dunbar, M. J. 1951. Resources of arctic and subarctic seas. Transactions, Roy. Soc. of Canada 45: (Series III), Sec. V:61-67.

Species:

Salvelinus alpinus, Mallotus villosus, Boreogadus saida, Clupeidae.

- Dunbar, M. J. 1953. Arctic and subarctic marine ecology: immediate problems.

 Arctic 6:75-90.
- Dunbar, M. J. 1968. Ecological development in polar regions, a study in evolution. Prentice-Hall, Englewood Cliffs, New Jersey.
- Dunbar, M. J. 1970. On the fishery potential of the sea waters of the Canadian north. Arctic 23(3):150-174.

Species:

Gadus ogac, Eleginus gracilis, Clupea harengus, Salvelinus alpinus, Anarrhichas denticulatus.

Places:

Point Barrow, Coronation Gulf, Liverpool Bay, Darnley Bay, Prince Patrick Island, Greenland.

Remarks:

Emphasis on distribution in eastern Arctic.

Dunbar, M. J. 1973. The arctic and sub-arctic marine environment. Pages 244-288. In: D. H. Pimlott, K. M. Vincent, and C. E. McKnight, eds. Arctic Alternatives. Mail O-Matic Printing, Ottawa.

At present little expoitation of fish in southern Beaufort Sea but potential exists.

- Dupere and Associates Inc. for the North Slope Borough. 1973. North Slope Borough reconnaissance study: an inventory of the borough and its communities.
- Durrer, J. L., and J. P. Hannon. 1961. Seasonal variations in the caloric intake of dogs living in an Arctic environment. Arctic Aeromed. Lab., Ft. Wainwright TR-61-33, Fairbanks, Alaska.

Mentions caloric value of some fishes.

Dymond, J. R. 1940. Pacific salmon in the Arctic Ocean. Proc. Pacific Sci. Cong. 6, vol. 3, 435 p.

Remarks:

Treats occurrences in Mackenzie and Arctic Red Rivers.

Dymond, J. R. 1943. The coregonine fishes of northwestern Canada. Contrib. Royal Ontario Mus., Zool. no. 124:171-232 (reprinted from Trans. Royal Canadian Inst. 24(2):171-231).

Species:

Coregonus nelsoni, C. kennicotti, C. o'donoghuei, C. atikameg, C. nasus, C. clupeaformis, C. pidschian, Prosopium quadrilaterale, P. cylindraceum, P. preblei, Leucichthys pusillus, L. sardinella, L. autumnalis, L. lauretta, L. lucidus, L. artedii, Stenodus leucichthys, S. mackenzii, Salmo (Coregonus) lucidus, Esox lucius.

Places:

Tuktoyaktuk, Mackenzie East Branch, Coppermine River, Arctic Red River, Peel River, Mackenzie River, Fort MacPherson, Great Slave Lake, Yukon River, Anderson River, Cape Bathurst, Herschel Island. Rat River, Richards Island, Kidluit.

Remarks:

Taxonomy, biology, fisheries utilization Distribution and abundance.

- Dymond, J. R. 1944. Notes on specimens, localities in the Northwest Territories of fish other than Coregonidae, in the collections of the Royal Ontario Mus. of Zool. (Unpublished)
- Dymond, J. R., and V. D. Vladykov, 1934. The distribution and relationships of the Salmonoids of North America and North Asia. Proc. of the Pacific Sci. Cong., Canada, 1933, vol. 5:3741-3750. Univ. of Toronto Press, Toronto. Species:

Salmo (Oncorhynchus), Cristivomer, Salvelinus, Hucho, Brachymystax, Stenodus, Coregonus, Thymallus, Phylogephyra.

- Efimov, A V. 1964. Otkrytiia Ameriki so storony Azii. Voprosy istorii 39(12):139-144.
- Ekblau, Walter E. 1926 The material response of the Polar Eskimo to their far Arctic environment Annals of the Assoc. of Amer. Geographers 18:(4).
- Ellis, D. V. 1962. Observations on the distribution and ecology of some Arctic fish. Arctic 15:179-190.

Salvelinus alpinus, S. namaycush, Coregonus spp., C. clupeaformis, C. artedii, C. sardinella, Prosopium cylindraccum, Thymallus arcticus, Mallotus villosus, Esox lucius, Catostomus catostomus, Lota lota, Gadus ogac, Eleginus gracilis, Coryphenoides rupestris, Pungitius pungitius, Myoxocephalus, quadricornis, M. scorpius, Liopsetta glacialis, Platichthys stellatus.

Places:

Coppermine River, Bathurst Inlet, Cambridge Bay, Coronation Gulf, Spence Bay, Baffin Island, Banks Island, Eclipse Sound.

- Ellis, William. 1782. An authentic narrative of a voyage performed by Captain Cook and Captain Clarke. 2 v, G Robinson, London.
- Esakov, V. A. et al. 1964. Russkie okeanicheskie i morskie issledoraniia v XIX-nachale XXV [Russian oceanic and marine investigations in the 19th to beginning of 20th century]. Moskva, Izd-vo. Nauka, 1964. 160 p.
- Evermann, B. W., and E. L. Goldsborough. 1907. The fishes of Alaska. Bull. U.S. Bur, Fish. 26:219-360.
- Evermann, B. W., and H. M. Smith. 1896. The whitefishes of North America. Rep. U.S. Comm. Fish. for 1894, pt 20:283-324.
- Faas, R 1968. Inshore arctic ecosystems with ice stress. Pages 987-1003. In: H. Odom and J. Copeland, eds. Coastal ecological systems of the United States: a source book for estuarine planning. University of N.C. Inst. of Marine Sci. Chapel Hill (Rep 68-128).
- Federal Field Committee for Development Planning in Alaska. 1968. Alaska natives and the land. Anchorage.
- Ferguson, J. D. 1961 The human ecology and social economic change in the community of Tuktoyaktuk, N.W.T. Northern Coordination and Research Center, Dep. of Northern Aff. and Natl. Res. Ottawa. 80 p. (NCRC 61-1).

Clupeidae, Coregonidae, Coregonus artedii, Stenodus leucichthys. Salvelinus alpinus, Osmerus sp., Eleginus gracilis. Lota lota, Pungitius pungitius.

Places:

Mackenzie River Delta, Tuktoyaktuk, Aklavik, Whitefish Station, Firth River, King Point Harbor, Back River, Herschel Island, Baillie Island.

Remarks:

Average annual harvest *Chipeidae* at Tuktoyaktuk and abundance of fishes in the area.

- Fisher, A. 1820. A journal of a voyage to the Arctic regions in H. M. Ships Hecla and Griper in the years 1819 and 1820. 2nd ed. London. 320 p.
- Fisher, H. D. 1958. Arctic investigations by the Fisheries Research Board of Canada, 1956-1957. Arctic 10(4):244-245.
- Food and Agriculture Organization of the United Nations. 1972. Atlas of the living resources of the sea.
- Foote, D. C. 1959. The economic base and seasonal activities of some northwest Alaskan villages: a preliminary study. Bioenvironmental Studies, Project Chariot, USAEC Con. No. AT(04-3)-315.
- Foote, D. C. 1960a. The Eskimo hunter at Point Hope, Alaska: September, 1959 to May, 1960. Bioenvironmental Studies, Project Chariot, USAEC Con. No. AT(04-3)-315.
- Foote, D. C. 1960b. The Eskimo hunter at Point Hope, Alaska. Part II, May to September, 1960. Bioenvironmental Studies, Project Chariot, USAEC Con. No. AT(04-3)-315.
- Foote, D. C. 1964. Changing resource utilization by Eskimos in northwestern Arctic Alaska, 1850-1952. Paper read Arctic and Sub-arctic Sec. VII Internat. Cong. Anthro. and Ethn. Moscow. 5th August, 1964.
- Foote, D. C. 1965. Exploration and resource utilization in northwestern Alaska before 1855. Ph.D. Dissertation McGill University, Dep. of Geog., Montreal. 400 p.

Species:

Coregonidae, Oncorhynchus keta, Oncorhynchus spp., Salvelinus sp., Thymallus arcticus, Arctogadus glacialis.

Places:

Noatak, Point Lay, Point Hope, Point Barrow, Kukpuk River, Colville River, Ikpikpuk River.

Remarks:

Estimates of past and present caloric intake of people and dogs. Annual harvest data on fishes.

Foote, D. C., and H. A. Williamson, 1966. A human geographical study. Pages 1041-1108. *In:* N. J. Wilimovsky and J. N. Wolfe, eds. Environment of the Cape Thompson Region, Alaska. Div. of Technical Information, U.S. Atomic Energy Comm. Springfield, Va.

Species:

Salvelinus alpinus, Oncorhynchus spp., Coregonidae, Thymallus arcticus, Boreogadus saida, Pleuronectidae.

Places:

Point Hope, Kukpuk River, Wulik River, Noatak River.

Remarks:

Fishing methods, eatch and utilization data.

Fowler, H. W. 1905. Notes on some Arctic fishes with a description of a new Oncocottus. Proc. Acad. Nat. Sci., Philadelphia 57:362-370.

Species:

Coregonus kennicotti, C. nelsoni, Argyrosomus pusillus. Thymallus signifer, Oncocottus hexacornis, O. hexacornis gilberti, Boreogadus saida, Lota maculosa.

Places:

Point Barrow, Meade River,

Franklin, John. 1828. Narrative of a second expedition to the shores of the Polar Sea in the years 1825, 1826, 1827. J. Murray, London.

Species:

Coregonus artedii, Coregonus sp., "Trout", Thymallus arcticus, Stenodus leucichthys, Mallotus villosus, Couesius plumbeus.

Places:

Point Warren, Richards Island, Herschel Island, Kay Point, Point Sabine, Point King, Simpson Island, Mackenzie River mouth, Bear Lake River, Fort Franklin, Point Toker.

Remarks:

General information on distribution and abundance of fish and Eskimo fisheries.

Franklin, John. 1829. Journey to the shores of the Polar Sea, in 1825, 26, 27. London.

Furniss, R. A. [n.d.] Unpublished fisheries investigations at Prudhoe Bay, Alaska, 1974. Alaska Dep. of Fish Game, Fairbanks.

Remarks:

Arctic charr second most abundant species in Prudhoe Bay. Preferred inshore areas. Majority of Beaufort sea charr produced in Sagavanirktok, Canning, Kongakut rivers. Spawning areas primarily in springs in foothills.

Furniss, R. A. [n.d.] Prudhoe Bay Study. Alaska Dep. of Fish Game. (Unpublished).

Remarks:

Gives length, weight, sex, location of capture for 897 fish specimens.

Furniss, R. A. [n.d.] Lake and stream catalog. North slope I. Alaska Dep. of Fish Game. (Unpublished).

Remarks:

Includes fish sampling – Beaufort Sea coast 1970, mainly Canning River drainages. Descriptions of lake habitats in Arctic National Wildlife Range.

Furniss, R. A [n.d.] Lake and stream catalog. North Slope 2. Alaska Dep. of Fish Game. (Unpublished).

Remarks:

Summary reports of Colville River, Canning River Springs, Sagavanirktok River drainage.

Furniss, R. A. 1974a Fisheries investigations at Prudhoe Bay, Alaska. Alaska Dep. of Fish Game. 16 p.

Remarks:

Studies in July-August indicate *Salvelinus alpinus* second most abundant Prudhoe species. Prefer nearshore Beaufort Sea area. Most spawning areas in inland areas Sagavanirktok. Canning and Kongakut River drainages, especially in springs of Brooks Range foothills.

Furniss, R A 1974b. Inventory and cataloging of Arctic area waters. Alaska Dep. of Fish and Game annual performance report for inventory and cataloging of Arctic area waters, Project F-9-6, Study no. G-1. Vol. 15:45. Species:

Coregonus autumnalis, C. sardinella, C. pidschian, C. nasus, Prosopium cylindraceum, Salvelinus alpinus, S. namayeush, Thymallus arcticus, Boreogadus saida. Lota lota, Ammodytes sp., Pungitius pungitius, Cottidae

Places:

Colville River, Barter Island, Sagavanirktok River, Chandler Lake, Shainin Lake, Itkillik Lake, Elusive Lake.

Data on movements, age, length, weight, sex, maturity.

Furniss, R. A. 1975 Inventory and cataloging of the Arctic area waters. Alaska Dep of Fish and Game, Federal Aid in Fish Restoration. Annual Report of Performance, July 1, 1974 through June 30, 1975. Project F-9-7. Study G-1-1 Vol. 16:47 p

Species:

Coregonus sardinella, C. autumnalis, C. nasus, C. pidschian, Salvelinus alpinus, Thymallus arcticus, Myoxocephalus quadricornis, Liopsetta glacialis.

Places:

Prudhoe Bay.

Remarks:

Data on movements, age, length, weight, sex, maturity.

- Fyodorov, E. 1939. Scientific works of our polar expedition, January, 1929. Foreign Language Publishing House, Moscow.
- Galbraith, D. F., and D. C. Fraser, 1974. Distribution and food habits of fish in eastern coastal Beaufort Sea. Beaufort Sea Project, Dep. of the Environment, Victoria, B.C. 48 p. (Interim Rep. of Beaufort Sea Project Study B 1, Eastern, Dec., 1974).

Places:

Southeast Beaufort Sea, Klugmallit Bay, Tuktoyaktuk.

Remarks:

Seasonal distribution, food habits of major species described. Current state of knowledge reviewed.

Galbraith, D. F., and J. G. Hunter. 1976. Fisheries of offshore waters and Tuktoyaktuk Peninsula. Beaufort Sea Project. Dep. of the Environment, Victoria, B.C. (Beaufort Sea Project Technical Rep. 7).

Species

Coregonus autumnalis, C. sardinella, Osmerus eperlanus, Polar cod, Myoxocephalus quadricornis.

Places:

Tuktoyaktuk Peninsula, Southern Beaufort Sea, Herschel Island.

Remarks:

Results of gill netting and trawling. In gill nets, smelt and ciscoes ca. 90% of catch, cod dominated offshore trawls. Larval smelt are important forage fish offshore.

Gavin, A. 1969. Wildlife studies, central area, North Slope, Alaska, a report to the Atlantic Richfield Co. Ten typewritten pages and appendix.

Coregonus spp., Salvelinus alpinus, Oncorhynchus sp., Thymallus arcticus.

Prudhoe Bay, Colville River, Canning River.

Remarks:

Notes paucity of information. Fishes found in rivers on seasonal basis, major runs in spring and fall.

- Gavin, A. 1971. Econogical survey of Alaska's north slope, summer 1969 and 1970. Unpubl. brochure, Atlantic Richfield Corp. 13 p.
- Gavin, A. 1973. Wildlife of the North Slope, a five year study, 1969-1973. Atlantic Richfield Co., 61 p.

Species:

Coregonus nasus, C. sardinella, C. pidschian, Prosopium cylindraceum, Thymallus arcticus, Salvelinus alpinus, Osmerus mordax. Catostomus catostomus, Myoxocephalus quadricornis.

Places:

Colville River, Kuparuk River, Sagavanirktok River, Prudhoe Bay, Ivishak River, Ribdon River, Accomplishment Creek, Canning River, Kavik River, Ugnuravik River.

Remarks:

Describes characteristics of streams, distribution of fishes, importance of streams in life history of fishes.

Gilbert, C. H. 1895. Notes on fishes from the basin of the Mackenzie River in British America. Bull. U.S. Fish. Comm. 14:23-25.

Species:

Coregonus kennicotti, C. lucidus, Stenodus mackenzii, Thymallus signifer. Places:

Mackenzie River delta, Fort Good Hope, Fort Simpson, Great Bear Lake. Remarks:

Descriptive notes.

Glova, G., and P. J., McCart. 1974. Life history of Arctic charr (Salvelinus alpinus) in the Firth River, Yukon Territory. In: P. J. McCart, ed. Life histories of anadromous and freshwater fish in the Western Arctic. Canadian Arctic Gas Study. Ltd., Calgary. Biol. Rep. Ser. 20(3).

Species:

Salvelinus alpinus, Thymallus arcticus.

Places:

Firth River.

Population estimated at 32,000 charr on basis of aerial surveys. Maps show distribution, spawning, nursery, wintering areas. Life history, length, weight of anadromous charr compared with resident fish. Tagging experiments analyzed.

Grainger, E. H. 1953. On the age, growth, migration, reproductive potential and feeding habits of the Arctic charr (Salvelinus alpinus) of Frobisher Bay, Baffin Island. J. Fish. Res. Bd. Canada 10(6):326-370.

Species:

Salvelinus alpinus.

Places:

Baffin Island, Frobisher Bay, Herschel Island, Aklavik.

Remarks:

Includes age, growth, fecundity, food habits data.

- Grainger, E. H., and J. G. Hunter. 1959. Station list of the 1955-1958 field investigations of the Arctic unit of the Fisheries Research Board, Canada. J Fish. Res Bd. Canada 16(4):403-420.
- Great Britain, Admiralty. 1854. Papers relative to the recent Arctic expedition in search of Sir John Franklin and the crews of H. M. Ships Erebus and Terror, London, XLII:102.
- Grekov, V. I. 1960. Ochrki iz Istorii Russkith Geograficheskith Issledovanii V 1725-1765 gg. Isdatel' stvo Akademiia Nauk SSSR, Moskva.
- Griffiths, W., P. Craig, G. Walder and G. Mann 1975. Fisheries investigations in a coastal region of the Beaufort Sea (Nunaluk Lagoon, Yukon Territory). Canadian Arctic Gas Study Ltd., Calgary. Biol Rep. Ser. 34(2):519.

Species:

Coregonus autumnalis, C. sardinella, Stenodus leucichthys, Salvelinus alpinus, Thymallus arcticus, Pungitius pungitius, Myoxocephalus quadricornis, Liopsetta glacialis.

Places:

Nunaluk Lagoon, Firth River, Malcolm River, Herschel Island, Mackenzie River.

Remarks:

Abundance, age, growth, size, sex ratios, life histories of major species.

Griffiths, W, A. Sekerak and M. Jones. 1974. Distribution of fish species along alternative gas pipeline corridors in Alaska and the Yukon Territory. *In:* P. J. McCart, ed. Classification of streams in Beaufort Sea Drainages and

distribution of fish in Arctic and subarctic drainages. Canadian Arctic Gas Study Ltd., Calgary. Biol. Rep. Ser. 19(2):176 p.

Species:

Lists 48 species.

Remarks:

Species and locations listed with supporting data. Maps show major drainages, locations of pipeline corridors, distribution patterns of fish species. Extensive references.

Gunn, W. W., Ed. 1973. Bibliography of the Naval Arctic Research Laboratory. Technical Paper. Arctic Inst. of N. A. 24:176.

Remarks:

Bibliography of oceanic and terrestrial aspects of Arctic Regions. Includes relevant publications on Arctic marine biology and oceanography.

- Halkett, A. 1913. Checklist of fishes of the Dominion of Canada and Newfoundland King's Printer, Ottawa. 138 p.
- Hall, Mark. 1971. A proposal for regional development of Arctic Alaska. Prepared for Human Population and Natural Resources. Harvard University, Cambridge, Mass.
- Hanbury, David T. 1904. Sport and travel in the Northland of Canada. Macmillan, New York.
- Hanson, W. C., and H. E. Palmer [n.d.] The accumulation of fallout cesium-137 in northern Alaska natives. Work performed under contract no. AT(45-1)-1350 between the Atomic Energy Commission and General Electric Co. Hanford Lab., Gen. Electric Co., Richland, Wa.

Species:

Salvelinus alpinus, Thymallus arcticus, Coregonidae, Boreogadus saida.

Places:

Barrow, Anaktuvuk Pass, Kotzebue, Point Hope, Noatak, Kobuk, Yukon River.

Remarks:

Coregonids and grayling most important species at Barrow.

Hanson, W. C., H. E. Palmer and B. I. Griffin. 1966. Radioactivity in northern Alaskan Eskimos and their foods summer, 1962. Pages 1151-1164. *In:* N. J. Wilimovsky and John N. Wolfe, eds. Environment of the Cape Thompson Region Alaska. Division of Technical Information, U.S. Atomic Energy Comm. Springfield, Va.

Salvelinus alpinus, Coregonus spp., Prosopium cylindraceum, Stenodus leucichthys, Oncorhynchus gorbuscha, O. keta, Boreogadus saida, Leptocottus armatus, Cottidae,

Places:

Anaktuvuk Pass, Barrow, Point Hope, Kotzebue, Little Diomede.

Remarks:

Discusses contributions of various species to native diets.

Hatfield, C. J., J. N. Stein, M. R. Falk and C. S. Jessop. 1972. Fish resources of the Mackenzie River Valley. Interim Report, vol. 1. Fisheries Service, Environment Canada, Winnipeg. 247 p.

Remarks:

Preliminary data on distribution, relative abundance, growth, migration, general life history of anadromous species in outer Mackenzie Delta.

Hatfield, C. R., J. N. Stein, M. R. Falk, C. S. Jessop and D. N. Shepherd. 1972.
 Fish resources of the Mackenzie River Valley Interim Report, vol. 2.
 Fisheries Service, Environment Canada, Winnipeg, 289 p.

Species:

 Coregonus autumnalis, C. pidschian, C. nasus, Stenodus leucichthys, Lota lota.

Places:

Colville River, Mackenzie River, Barter Island.

Remarks:

Details of survey methods, results. Stream catalog. Fisheries and biological data.

- Hattersley-Smith, G. F. 1952. Beaufort Sca Expedition 1951. Arctic Circular 5:13-17. (Mimeo).
- Healy, M. A. 1889. Report of the cruise of the Revenue Marine Steamer Corwin in the Arctic Ocean in the year 1884. U.S. Government Printing Office, Washington, D.C. (50th Cong., 1st sess., House of Rep. Misc. Sect. 602.)
- Hearne, Samuel. 1968. Journals of Samuel Hearne and Philip Turnor between the years 1774 and 1792. Originally published by the Champlain Society, Torono, 1934 (Champlain Publication XXI). Facsimile edition. Greenwood Press, New York. 611 p.
- Helmericks, C., and H. Helmericks. 1948. Our summer with the Eskimos. Little, Brown and Co., Boston. 239 p.

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 Pages 502-513. In: J. E. Bernier, ed. Report of the Dominion of Canada Expedition to the Arctic Islands and Hudson Strait on board the D.G.S. Arctic. Dep. of Marine and Fishery, Ottawa.
- Herlininveaux, R. H. 1970. Icepack 8/68 oceanographical and biological observations. Fish. Res. Bd. of Canada, Nanaima, B. C. 60 p. (Technical Rep. no. 159).
- Hewes, G. W. 1947. Aboriginal use of fishery resources in Northwest North America. Ph.D. Thesis. University of California, Berkeley, Ca.
- Hickok, D. M. 1970. Developmental trends in Arctic Alaska. Alaska Sea Grant program, Anchorage. 11 p. (Unpublished).
- Hickok, D. M. 1970-1971. Development of Alaska's underutilized arctic marine resources: a coherent area project. University of Alaska, Inst. of Marine Sci. May, 1970-1971.
- Hildebrand, H. 1948. Marine fish of Arctic Canada. M.S. Thesis. McGill University, Montreal. 123 p.
- Holmberg, H. G. 1956. Ethnographische Skizzen über die Volker des Russischen Amerika. Act. Soc. Sci. Fenn. 4
- Hooper, C. L. 1881. Report of the cruise of the U.S. Revenue Steamer Corwin in the Arctic Ocean, 1880. U.S. Government Printing Office, 1881.
- Hooper, C. L. 1884. Report of the cruise of the U.S. Revenue Steamer Corwin in the Arctic Ocean 1881. U.S. Government Printing Office, Washington, D.C.
- Hooper, W. H. 1853. Ten months among the tents of the Tuski with incidents of an Arctic boat expedition in search of Sir John Franklin as far as Mackenzie River and Cape Bathurst. London.
- Howard, R. L. 1974. Aquatic invertebrate-waterbird relationships on Alaska's Arctic coastal plain M.S. Thesis. Iowa State University, Ames, Ia. 49 p. Species:

Pungitius pungitius, Myoxocephalus quadricornis.

Places:

Prudhoe Bay

- Howard, W. L. Diary of the Point Barrow Expedition 12th April to 9th August, 1886. 56M-180 (1) 6 MS Am 1486. The Houghton Library. Harvard University, Cambridge, Mass. (Unpublished).
- Howard, W. L. Sledging Expedition to the "No-talk" River, 1st December 1885 to 5th April 1885. 56M(2) 6 MS Am 1486. The Houghton Library, Harvard University, Cambridge, Mass. (Unpublished).
- Hubbs, Carl L. 1925. A revision of the osmerid fishes of the North Pacific. Proc. Biol. Soc. Washington 38:49-55.

Five species native to Bering and Beaufort seas. Taxonomic emphasis.

- Hubbs, C. L., and N. J. Wilimovsky 1964. Distribution and synonymy in the the Pacific Ocean, and variation of the Greenland halibut, *Reinhardtius hippoglossoides* (Walbaum) J. Fish. Res. Bd. Canada 21(5):1129-1154.
- Hufford, G. L. 1971. The biological response to oil in the marine environment. Report to U.S. Coast Guard of Project no 714141/003. Washington, D.C.
- Hunt, A. D., G. M. MacNabb and J. S. Tener. 1974. Mackenzie Valley-Northern Yukon pipelines, socio-economic and environmental aspects. Environment Canada, Ottawa. Photographs, maps. (Report to Task Force on Northern Oil Development 74-17).

Species:

Herring, Coregonidae, Stenodus leucichthys, Salvelinus alpinus, S. namaycush, Thymallus arcticus, Esox lucius, Catostomidae, Lota lota.

Places:

Mackenzie River Delta and Valley, Herschel Island, Firth River, Babbage River, Blow River, Richards Island, Kugmallit Bay, Tuktoyaktuk, Eskimo Lakes.

Remarks:

Main commercial, subsistence and sport fishing sites indicated. Coregonids, salvelinids, grayling, pike are most important species.

Hunter, J. G. 1957. Fishery resources survey of the western Arctic Arctic Biol. Station, Fish. Res. Bd. Ste. Anne de Bellevue, Quebec.

Species:

Coregonus autumnalis, C. sardinella, C. clupeaformis, C. nasus, Stenodus leucichthys, Salvelinus alpinus, Gadidae, Osmeridae, Cottidae, Pleuronectidae.

Places:

Shoalwater Bay, Herschel Island.

Fish concentrate in Shoalwater Bay in summer.

- Hunter, J. G. 1966a. The Arctic charr: Fisheries fact sheet. Arctic Biol. Station, Canada Fish Res. Bd. 3 p
- Hunter, J. G. 1966b. The Arctic charr fish. Canada 19(3):17-19.
- Hunter, J. G. 1967. Field activities of the Fisheries Research Board in the Arctic in 1965. Arctic Circ. 17(1):14-16
- Hunter, J. G. 1971. Fisheries Research Board studies in Canada's Arctic. Can Geogr. J. 82(5):100-107
- Hunter, J. G 1975. Fishery resources of the western Arctic. Manuscript Rep Ser Fish Res. Bd Canada, no 1335. 33 p.

Species:

Clupea harengus, Coregonus autumnalis, C. sardinella, C. nasus, C. clupeaformis, Stenodus leucichthys, Mallotus villosus, Osmerus mordax, Boreogadus saida.

Places:

Mackenzie River Delta, Whitefish Station East, Tuktoyaktuk Peninsula, Cape Bathurst, Arctic Red River, Beaufort Sea.

Remarks:

Whitefishes most common species. Herring fished at Cape Bathurst. Large numbers larvae at Tuktoyaktuk Peninsula. Distribution of all species patchy.

Isakson, J. S., J. M. Storie, J. Vagners et al. 1975. Offshore Prudhoe Bay, Inshore Prudhoe Bay. Pages D204 to D213. In: Comparison of ecological impacts of postulated oil spills at selected Alaskan locations. Introduction, summary, methodology, evaluation, and appendices, June, 1975. Final Report. Vol. 1, Mathematical Sci. Northwest, Inc. Bellevue, Wa.

Species:

Herring, Coregonids, Mallotus villosus, Osmeridae, "Navaga cod." Eleginus gracilis, Boreogadus saida, Theragra chalcogramma, Cottidae, Myoxocephalus quadricornis, Triglops pingeli, Ammodytes hexapterus, Liparids, Liopsetta glacialis, Platichthys stellatus, Limanda aspera, Pleuronectes quadrituberculatus.

Places:

Prudhoe Bay, Point Barrow, Umiat, Colville River.

Important species tabulated, together with sensitivity to oil spills; commercial, subsistance, sport fishery importance; spawning period; depth range; life history; food habits.

Isakson, J. S., J. M. Storie, J. Vagners et al. 1975. Comparison of ecological impacts of postulated oil spills at selected Alaska locations. Final Report.
 Vol. II. Results, Mathematical Sci. Northwest, Inc. Bellevue, Wa. Species:

Lists more than 30 species.

Places:

Kotzebue Sound, Cape Blossom, Prudhoe Bay, Colville River Delta, Umiat, Sagavanirktok River.

Remarks:

Summarizes information on fishes of areas treated. Discusses vulnerability of various species to different types of oil spills, and to spills in different habitats.

- Jackson, H. H. T., E. M. Charters, A. J. Duvall and F. Hildebrand. 1949.
 Literature on the natural history of the arctic region with special reference
 to Alaska and Canada. Wildlife Leaflet, U.S. Fish and Wildlife Service 317:1-48.
- Jangaard, P. M. 1974. The capelin (Mallotus villosus): biology distribution, exploitation, utilization and composition. Bull. Fish. Res. Bd. Canada 186:70 p.

Remarks:

Summarizes existing knowledge of distribution, abundance, life history, fisheries.

- Jenness, D. 1922a. Food. Pages 97-108. *In:* The Life of the Copper Eskimo. Report of the Canadian Arctic Expedition, 1913-1918. Vol. 12.
- Jenness, D. 1922b. Fishing. Pages 152-157. *In:* The life of Copper Eskimo. Report of the Canadian Arctic Expedition, 1913-1918. Vol. 12.
- Jenness, D. 1957. Dawn in Arctic Alaska. University of Minnesota, Minneapolis, Mn. 22 p.
- Johansen, Frits. On arctic fishes of North America in the Division of Zoology. Natl. Mus. of Canada. (Unpublished).
- Jones, M., and R. Kendel. 1973. The Beaufort Sea gillnetting program in the

vicinity of King Point, Yukon. Memo. Rept. Fish. and Marine Service, Dep. of the Environment, Whitehorse, Yukon Territory.

Species:

Stenodus leucichthys, Myoxocephalus quadricornis.

Places:

Beaufort Sea, Shingle Point.

Jessop, C. S., K. T. J. Chang-Kue, J. W. Lilley and R. J. Percy. 1974. A further evaluation of fish resources of Mackenzie River Valley as related to pipeline development. Fish. and Marine Service. Environment Canada, Winnipeg. 95 p. (Task Force on Northern Pipelines, Rep. no. 74-7).

Species:

Coregonus nasus, C. pidschian, Stenodus leucichthys, Salvelinus alpinus, Thymallus arcticus, Esox lucius.

Places:

Mackenzie River Delta, Beaufort Sea coast, Aklavik, Fort McPherson, Arctic Red River, Horseshoe Bend, Big Fish River.

Remarks

Study of freshwater migration and ecology of species common in Mackenzie River delta.

Jessop, C. S., T. R. Porter, M. Blouew and R. Sopuck. 1973. Fish resources of the Mackenzie River Valley. Special Report: an intensive study of the fish resources of 2 mainstem tributaries. Fish. Service. Dep. of the Environment, Winnipeg. 148 p

Species:

Coregonus autumnalis, C. nasus, C. pidschian, C. sardinella, Prosopium cylindraceum, P. williamsoni, Stenodus leucichthys, Salvelinus alpinus, Thymallus arcticus, Catostomus catostomus, C. commersoni, Couesius plumbeus, Notropis hudsonicus, N. atherinoides, Lota lota, Pungitius pungitius, Cottus cognatus.

Places:

Rat River, Rabbitskin River.

Jessop, C. S., and J. W. Lilley. 1975. An evaluation of the fish resources of the Mackenzie River Valley based on 1974 data. Fish. and Marine Service, Environment Canada, Winnipeg. (Technical Rep. Ser. no CEN/T-75-6) Species:

Lists 21 species plus "others"

Places:

Aklavik, Norman Wells, Fort Simpson, Mackenzie River Delta.

Remarks:

Refines and supplements earlier data, especially relating to fry and iuveniles.

Josephson, Karla 1974. The use of the sea by Alaska natives, a historical perspective University of Alaska, Arctic Environmental Information and Data Center, Anchorage 95 p (Alaska Sea Grant Rept. no. 73-11)

Species:

Herring, Salmon, Whitefish, Tomcod, Sculpin.

Places:

Point Barrow, Cape Smythe, Icy Cape, Wainwright

Remarks:

Discusses seasonal availability of fishes for food.

Johnson, M. L., C. H. Fiscus, B. T. Ostenson and M. L. Barbour. 1966. Marine Mammals. Pages 877-926. *In:* N. J. Wilimovsky and J. N. Wolfe, eds. Environment of the Cape Thompson Region Alaska. Division of Technical Information, U. S. Atomic Energy Comm. Springfield, Va.

Remarks:

Lists 18 species fishes utilized by ringed and bearded seals at Point Hope.

Kemp, V. A. M. 1928. Report on the fisheries of the Mackenzie River Delta. Appendix no. 11. Pages 209-210 *In:* Canada, Department of Marine and Fisheries, Annual Report for 1927-1928. Ottawa.

'Species:

Salmon trout, Herring, Whitefish, Jackfish, Conie.

Places:

Mackenzie River Delta, Shingle Point, Kittagaruit.

- Kendel, R, and M. Jones. 1973. Report on gillnetting in the Beaufort Sea near Shingle Point and King Point, April, 1973. Fish. Service Manuscript, Canadian Fish Res. Bd. 6 p.
- Kendel, R. E., R. A. C. Johnston, U. Lobsiger and M. D. Kozak. 1974. Movements, distribution, populations, and food habits of fish in the western coastal Beaufort Sea, Dec., 1974. Beaufort Sea Project, Victoria B.C. (Interim Rep. of Beaufort Sea Proj. Study Bl).

Species:

Lampetra japonica, Clupea harengus, Coregonus clupeaformis, C. autumnalis, C. sardinella, C. nasus, Stenodus leucichthys, Salvelinus alpinus, Osmerus eperlanus, Mallotus villosus, Couesius plumbeus, Esox lucius, Boreogadus saida, Eleginus navaga, E. gracilis, Myoxocephalus quadricornis, Liopsetta glacialis, Platichthys stellatus.

Places:

Phillips Bay, Trent Bay, Shingle Point, King Point.

Largest concentrations of fish found near shore, especially Shingle Point, Trent Bay east to King Point, *C. sardinella* the most frequently caught species.

Kendel, R. E., R. A. C. Johnston, U. Lobsiger and M. D. Kozak. 1975. Fish of the Yukon coast. Beaufort Sea Project, Dep. of the Environment, Victoria, B.C. 114 p. (Beaufort Sea Technical Rep. no. 6).

Species:

Lampetra japonica, Clupea harengus, Coregonus clupeaformis, C. autumnalis, C. sardinella, C. nasus, Stenodus leucichthys, Salvelinus alpinus, Osmerus eperlanus, Mallotus villosus, Couesius plumbeus, Esox lucius, Boreogadus saida, Eleginus navaga, E. gracilis, Myoxocephalus quadricornis, Liopsetta glacialis, Platichthys stellatus.

Places:

Phillips Bay, Stokes Lagoon, Herschel Island, Shingle Point, Stokes Point, Kay Point, King Point, Station 200.

Remarks:

Examines squatic environment of western Beaufort Sea. Distribution, age-maturity, food habits, migrations of major species discussed.

- Kerswill, C. J. 1969. Surveys, development, and management of renewable resources, arctic fisheries and sealing. Report on Man in Cold Water Conf., May 12-13, 1969. Montreal.
- Kerswill, C. J., and J. G. Hunter. 1970. Fishes. Pages 9-10. *In:* Fisheries Research Board studies in Canada's Arctic. Misc. Spec. Publ. Fish. Res. Bd. Canada 13.

Species:

Clupea harengus, Salvelinus alpinus, S. namaycush, Coregonidae, Mallotus villosus, Gadidae, Pleuronectidae.

Places:

Mackenzie River Delta, Yukon coast, Beaufort Sea, Banks Island.

Remarks:

- S. alpinus most abundant coastal and island species. Total production from delta region estimated at 2.5 million pounds annually. Potential for arctic Canada 5 million pounds. Marine potential 20 million pounds.
- Klumov, S. K. 1937. Polar cod and their importance for certain life processes in the Arctic. Izvest. Akad. Nauk. SSSR(biol.) no. 1.
- Kogl, D. R. 1971. Monitoring and evaluation of Arctic waters with emphasis on the North Slope Drainages: Colville River study. Annual Report of

Progress. Federal Aid in Fish Restoration. Alaska Dep. of Fish and Game 12:23-61 (1970-1971). Job G-111-A, Project F-9-3.

Species:

Coregonus autumnalis, C. nasus, C. pidschian, C. sardinella, Prosopium cylindraceum, Salvelinus alpinus, S. namaycush, Thymallus arcticus, Osmerus mordax, Catostomidae, Lota lota.

Remarks:

Preliminary findings on relative abundance, distribution, age, growth, sexual maturity, spawning areas.

Kogl, D. R., and D. M. Schell. 1975. Colville River Delta fisheries research. Pages 483-504. *In:* V. Alexander, D. C. Burrell, J. Chang, eds. Environmental studies of an Arctic estuarine system. Final Report. U. S. Environmental Protection Agency, Corvallis, Or

Species:

Lampetra japonica, Acipenser sp., Coregonus autumnalis, C. sardinella, C. nasus, C. pidschian, Prosopium cylindraceum, Stenodus leucichthys, Salvelinus alpinus, Oncorhynchus keta, O. gorbuscha, Osmerus mordax, Catostomus catostomus, Lota lota, Pungitius pungitius, Myoxocephalus quadricornis, Cottus cognatus, Liopsetta glacialis.

Places:

Colville River Delta.

Remarks:

Describes history of regional fishery utilization. Discusses life histories and movement patterns of major species. Suggests burbot could support small fishery.

- Lantis, M. 1938. The Alaskan whale cult and its affinities. Amer. Anthropol. 40:438-464.
- Lantis, M. 1954. Problems in the human ecology in the North American Arctic. Arctic 7(3) and (4).
- Larsen, H., and F. Rainey. 1948 Ipiutak and the Arctic whale hunting culture. Anthropoligical Papers of the Amer. Mus. of Natur. Hist. vol. 42.
- Leffingwell, E. 1919. The Canning River, Northern Alaska. U.S. Government Printing Office, Washington, D.C. 251 p. (U.S. Geological Survey Professional Paper 109).

Species:

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Grayling, Salmon trout, Whitefish, Humpback salmon.

Places:

Oliktok, Beechey Point, Brownlow Point, Harrison Bay, Shaviovik River.

Describes coastal fishing.

- Lindberg, G. U. 1936. Materialy po rybam primor' ya [Data on the fishes of the Maritime Territory]. Trudy Zoologicheskogo Instituta. Akademiia Nauk SSSR III:393-407.
- Lindberg, G. U. 1937. On the classification and distribution of sandlances genus Ammodytes (Pisces). East Branch Acad. Sci. U.S.S.R. Bull. 27:85-93.
- Lotz, J. R. 1964. Yukon Bibliography. Northern Coordination and Res. Center, Dep. of Northern Affairs and Natural Resources, Ottawa. 155 p.
- McAllister, D. E. 1960a. Keys to the marine fishes of Arctic Canada. Natural History Papers, Nat. Mus. of Canada 5:1-21.
- McAllister D. E. 1960b. List of marine fishes of Canada. Nat. Mus. of Canada Bull. 168:1-76.

Remarks:

Includes 107 arctic spp., 36 endemic arctic spp., 5 spp. common to Arctic and Pacific

McAllister D E 1960c The origin and status of deepwater sculpin, *Myoxocephalus thompsonii*, a neartic glacial relict. Nat. Mus. of Canada Bull. 171:44-64.

Remarks:

Discussion of taxonomy and evolutionary relationships.

- McAllister D. E. 1961. Revised keys to the marine fishes of Arctic Canada. Natural History Paper, Nat. Mus. of Canada 5:17 p.
- McAllister D E 1963a. Fishes of the 1960 Salvelinus program from western Canada. Nat. Mus. of Canada Bull. 185:17-39.

Species:

Total of 36 spp listed

Places:

Mackenzie River and delta, Aklavik, Herschel Island, Pauline Cove, Peel Channel.

Remarks:

Thirty spp from Herschel Island, 14 from Aklavík. Three spp. were new to Arctic Canadian fauna. Faunal relationships between Herschel Island and other areas discussed.

- McAllister D. E. 1963b. A revision of the smelt family, Osmeridae, Nat. Mus. of Canada Bull. no 191 (Biological Ser. 71).
- McAllister D E. 1966. Bibliography of the marine fishes of Arctic Canada. University of British Columbia, Institute of Fisheries, Vancouver. 16 p. (Museum Contribution no 8).
- McCart, P. 1974a. Preliminary assessment of the impact on aquatic habitats of proposed "Outer Mackenzie Delta" alternative. A report to Northern Engineering Services Co., Ltd., for Canadian Arctic Gas Study Ltd. 13 p
- McCart, P. 1974b. Late winter surveys of lakes and streams in Canada and Alaska along gas pipeline routes under consideration by Canadian Arctic Gas Study Limited, 1972-73. Canadian Arctic Gas Study Ltd. Calgary. Biological Rep. Ser. 19(1).

Arctic charr, Grayling.

Places:

Coastal rivers from Prudhoe Bay to Mackenzie River Delta.

Remarks:

Notes wintering and spawning areas.

- McCart, P 1974c. Classification of streams in Beaufort Sea drainages and distribution of fish in Arctic and sub-arctic drainages. Canadian Arctic Gas Study, Ltd. Biol. Rep. Ser. 17:223 p.
- McCart, P., P. Craig and H. Bain. 1972. Report on fisheries investigations in the Sagavanirktok River and neighboring drainages. Alyeska Pipeline Service Co. Bellevue, Washington. 186 p.

Species:

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Coregonus autumnalis, C. clupeaformis, C. nasus, C. sardinella, Prosopium cylindraceum, Salvelinus alpinus, S. namaycush, Thymallus arcticus, Oncorhynchus keta, O. kisutch, Lota lota, Cottus cognatus, Pungitius pungitius.

Remarks:

Streams categorized as perennial, mountain, spring or foothill. Life history data given for S, alpinus, S, namaycush, P, cylindraceum and T, arcticus.

McCart, P., W. Griffiths, C. Gossen, H. Bain and D. Tripp. 1974. Catalog of lakes and streams in Canada along routes of the proposed Arctic Gas Pipeline from the Alaskan Canadian border to the 60th parallel. Canadian Arctic Gas Study, Ltd. Calgary. Biological Rep. Ser. 16:1-251.

Lists 34 spp. of marine, anadromous and freshwater fishes.

Remarks:

An extensive compliation of data on streams along proposed Arctic Gas pipeline routes. Includes fishes, water chemistry, benthic invertebrates, winter conditions.

- M'Clure, R. J. 1856. The discovery of the Northwest Passage by H.M.S. Investigator, 1850-54. Edited by Sherard Osborn. Longmans, London. 405 p. Maps, plates.
- McCormick, R. 1884. Voyages of discovery in the Arctic and Antarctic Seas, and round the world: being personal narratives of attempts to reach the North and South Poles, and of an open boat expedition up the Wellington Channel in search of Sir John Franklin and Her Majesty's Ships Erebus and Terror, in H.M.S. Forlorn Hope. 2 vol. London.

Remarks:

Includes notes on natural history at Beechey Island.

MacDonald, S. D. 1954. Report on biological investigations at Mould Bay, Prince Patrick Island, N.W.T. in 1952. Ann. Rep. Nat. Mus. of Canada 1952-53. Bull. no. 132:214-238.

Species:

Salvelinus alpinus, Lycodes pallidus, Icelus bicornis, Myoxocephalus quadricornis, Polar tomcod, Blue catfish, Lump sucker.

MacGinitie, G. E. 1955. Class Pisces. Pages 183-185. *In:* Distribution and ecology of the marine invertebrates of Point Barrow, Alaska. Smithsonian Misc. Collections 128(9):1-201.

Species:

Mallotus villosus, Boreogadus saida, Myoxocephalus quadricornis.

Places:

Point Barrow, Elson Lagoon.

Remarks:

Notes on abundance and economic value.

- MacIntyre, R. L. 1961. List of titles of publications of Fisheries Research Board of Canada, 1955-1960. Circular, Fish. Res. Bd. Canada, Nanaimo Biol. Sta. 58:94 p.
- Mackay, R. 1963 The Mackenzie Delta Area, Northwest Territory. Dep. of Mines and Tech Surveys. Ottawa. 202 p (Geographical Branch, Memoir 8).

- Mackenzie, Alexander. 1803 Voyages from Montreal on the River St. Lawrence, through the continent of North America to the Frozen and Pacific Oceans in the years 1789 and 1793. Evert Duyckinck, New York.
- Mackenzie, G. P. 1927 Canada's Arctic Islands-Canadian Expeditions, 1922 and 1923 Northwest Territories and Yukon Branch, Dep. of the Interior. King's Printer, Ottawa.
- McLaren, L. A. 1959 Aquatic biology. Pages 70-73 In: G. Hattersley-Smith. Operation Hazen Narrative and preliminary reports, 1957-58. Defence Research Board, Ottawa
- McMillan, J. G. 1910. Animal life on Melville Island. Pages 473-479. *In:* J. E. Bernier, ed. Report of the Dominion of Canada Government Expedition to the Arctic Islands and Hudson Strait on board the D.G.S. Arctic, Ottawa.
- Macoun, J. 1888. List of fishes known to occur in the Mackenzic Basin. Pages 264-265 *In:* Report of the Select Committee appointed to enquire into the resources of the Great Mackenzie Basin. Appendix I. Canadian Parliment Session, 1888. Senate Journals 22.
- McPhail, J. D. 1960 Annotated bibliography on Arctic North American fresh water fishes. University of British Columbia, Institute of Fisheries, Vancouver. 24 p. (Museum Contribution no. 6).
- McPhail, J. D. 1961. A systematic study of the *Salvelinus alpinus* complex in North America. J. Fish. Res. Bd. Canada 18(5):793-816.

Salvelinus malma, S. alpinus.

Places:

Seventy-seven localities from Kodiak north and east through the Canadian Arctic Archipelago.

Remarks:

A taxonomic analysis

McPhail, J. D. 1963. Geographic variation in North American Ninespine Sticklebacks, *Pungitius pungitius J.* Fish. Res. Bd. Canada 20(1):27-44.

Pungitius pungitius

Places:

Meade River, Ikroavik River, Singakit River, Itkillik River, Colville River, Herschel Island, Kikiukroik River, Horton River, Aklavik River, Anderson River, Bernard Harbor, Cambridge Bay.

Remarks:

A taxonomic study.

McPhail J. D 1966. The *Coregonus autumnalis* complex in Alaska and Northwestern Canada J. Fish Res. Bd. Canada 23(1):141-148.

Species:

Coregonus autumnalis, C laurettae, Argyrosomus alascanus.

Places:

Point Barrow, Elson Lagoon, Oliktok, Herschel Island, Beaufort Sea, Tuktoyaktuk, Aklavik, Peel River, Liverpool Bay, Baillie Island, Victoria Island, Bathurst Inlet, Escholtz Bay, Port Clarence.

Remarks:

Taxonomic study of the *C. autumnalis* group.

McPhail, J. D., and C. C. Linsey 1970. Freshwater fishes of Northwestern Canada and Alaska. Fish. Res. Bd. Canada, Bull. 173:381 p.

Remarks:

Contains descriptions, summaries of zoogeography, biology, utilization.

- McPherson, E. H. et al. 1972. Potential effects on social values in wildlife and fisheries resources. Pages 79-80. In: R. G. Leggett and I. C. MacFarlane, eds. Canadian Pipeline Research Conference, Ottawa, 1972. Proc. National Research Council of Canada, Ottawa. (National Research Council. Tech. Memo. no. 104).
- McRoy, C. P., G. J. Mueller, J. Crane and S. W. Stoker. 1971. Nearshore Marine Biological results-Colville River. Pt. 5, no. 3, unnumbered paging In: P. Kinney, et al. eds. Baseline data study of Alaskan Arctic aquatic environments: eight months progress 1970. University of Alaska, Institute of Marine Science, Fairbanks, Alaska (IMS Rep. 71-4).

Species:

Boreogadus saida, Myoxocephalus sp., Lumpenus fabricii, Liparis liparis. Liopsetta glacialis, unknown larvae.

Places:

Simpson Lagoon and barrier islands, Iliktok Point.

Remarks:

Results of experimental otter trawl sampling

- Maguire, R. 1854. Proceedings of Commander Maguire, H.M. Discovery Ship Plover. London, 1854. (Parliamentary Reports, XLII:165-185. 1854.).
- Maguire, R. 1855. Proceedings of Commander Maguire, H.M. Discovery Ship Plover. Further papers relative to the recent Arctic expedition in search of Sir John Franklin, etc., p. 905 (second year). Presented to both Houses of Parliament, January, 1855. London.
- Maguire, R. 1856. Account of the Plover, 1852-53. *In:* Sherard Osborn, ed. The discovery of the Northwest Passage by H.M.S. Investigator, Captain R. M'Clure. Longman, Brown, Green, Longmans and Roberts, London.
- Mair, C., and R. MacFarlane. 1908. Through the Mackenzie Delta. William Briggs, Toronto. 494 p.

Inquiry into resources of Mackenzie Basin. Passing reference to fish.

Manchester, L. 1954. Fish and Fishing. Page 96. *In:* Clifford Wilson, ed. North of 55 degrees. Ryerson, Toronto.

Species:

Herring, Whitefish, Stenodus leucichthys, Salvelinus alpinus.

Places:

Mackenzie River Valley and Delta.

Remarks:

Details quantities of fish used for human and dog food.

- Mann, G. J. 1974a. Life history types of the least cisco (Coregonus sardinella Valenciennes) in Beaufort Sea drainages in the Yukon Territory, North Slope, and in the eastern Mackenzie River Delta drainages. M.S. Thesis. University of Alberta, Dep. of Zoology. 157 p.
- Mann, G. J. 1974b. Alternate life histories of the least cisco (Coregonus sardinella Valenciennes) in the Yukon Territory, North Slope, and eastern Mackenzie River drainages. Canadian Arctic Gas Study Ltd. Calgary, Alberta Biological Rep. Ser. 18(3):132 p.
- Mann, G. J. 1975. Winter fisheries survey across the Mackenzie Delta. Canadian Arctic Gas Study Ltd. Calgary. Biological Rep. Ser. 34(3):54. (October, 1975).

Species:

Clupea harengus, Coregonus clupeaformis, C. nasus, C. sardinella, Stenodus leucichthys, Thymallus arcticus, Osmerus eperlanus, Esox lucius, Lota lota, Catostomus catostomus, Pungitius pungitius, "Sculpins".

Places:

Lower Mackenzie Delta.

Remarks:

Results of three winter surveys, 1974-75. Mackenzie Delta important migration path for anadromous spp. Lakes and small channels vital to survival of 23 spp.

- Mann, G. V et al. 1962. The health and nutritional status of Alaskan Eskimos. Am J of Clinical Nutrition 11(1):31-76. (July, 1962).
- Manning, T. H. 1953. Notes on the fish of Banks Island. Arctic 6(4):276-277. Species:

Coregonus sardinella, Coregonus spp, Salvelinus alpinus, S. namaycush, "Sculpin"

Places:

Banks Island, Sachs River, De Salis River, Castel Bay, Raddi Lake, Wollaston Lake, Victoria Island

Remarks:

Summary of the fishes caught or seen. Eskimoes reported no fish around Banks Island except at mouths of Sachs and De Salis rivers.

- Manning, T. H. 1954, Defence Research Board's 1953 Banks Island Expedition.

 Arctic Circular 7:11-15
- Manteufel, B. P. 1943. The Polar cod and its fishery. Arkhangelsk.
- Martin, W. R 1939. The Arctic char of North America. M.A. Thesis. University of Toronto, Toronto, Ontario 64 p
- Mathews, D 1973 A baseline for Beaufort. Exxon U.S.A. 12(1):2-7. Remarks:

Beaufort Sea described as a cold, biological desert because of nutrient-poor water, year-round presence of ice and long winter darkness.

- Mecham, G. F. 1855. Southern and western Melville Island. Pages 498-540. *In:* Great Britain Admiralty Further Papers relative to the recent Arctic expedition in search of Sir John Franklin. Presented to both Houses of Parliament, January, 1855. London
- Melville, J. C. D. 1914. Notes on the distribution and economic importance of "Inconnu" (Stenodus Mackenzie) in the Mackenzie River Valley. Ann. Rep. Dep. of Marine and Fisheries, Canada. 47:238-243.

Species:

Stenodus mackenzie.

Places:

Mackenzie River Valley and Delta, Slave River, Riviere de Rochers, Stony Island, Buffalo River, Great Slave Lake, Sans Sault Rapids, Fort Smith, Anderson River, Churchill, Coppermine River.

- Merrell, T. R. Jr. 1971. Under ice observations, with scuba, of marine organisms, Beaufort Sea, north coast of Alaska, Feb. 1971-April 1971. Biological Lab., Nat. Marine Fisheries Service, Auke Bay, Alaska.
- Milan, F. A. 1958. Observations on the contemporary Eskimo of Wainwright, Alaska Tech. Rep. 57-14 Arctic Aeromed. Lab., Ladd A.F. Base, Fairbanks, Alaska
- Milan, F. A. 1964 The acculturation of the contemporary Eskimo of Wainwright, Alaska Anthropological Papers, University of Alaska 11(2).
- Milne, A. R., and B. D. Smiley. 1976. Offshore drilling for oil in the Beaufort Sea: a preliminary environmental assessment. Revised Janary 20, 1976. Beaufort Sea Project, Dep. of Environment, Victoria, B.C. (Beaufort Sea Tech Rep. no. 39).

Species:

Clupea harengus, Coregonus artedii, C. nasus, C. pidschian, "Whitefish", Stenodus leucichthys, Salvelinus alpinus, Thymallus arcticus, Mallotus villosus, "Smelts", Gadus ogac, Eleginus gracilis, Arctogadus glacialis, Boreogadus saida, Lota lota, Esox lucius, "Sculpins", "Flatfish", Larval groundfish spp.

Places:

Mackenzie Delta, Tuktoyaktuk Peninsula, Mackenzie Bay, Liverpool Bay, Richards Island, Atkinson Point, Aklavik, Inuvik, Mason Bay, Mallik Bay, Paulatuk, Holmes Creek.

Remarks:

Describes volume of subsistence and commercial fisheries; amounts consumed by people and dogs. Possible effects of blow-outs on food chain and fisheries.

Mohr, J. L., N. J. Wilimovsky and E. Y. Dawson. 1957. An Arctic Alaskan kelp bed. Arctic 10(1):45-52

Species:

Boreogadus saida, Gymnelis viridis, Myoxocephalus scorpius, Artediella scaber, Enophrys diceraus.

Remarks:

Discussion of fauna of a kelp bed 50 miles southwest of Barrow, Alaska.

- Moiseev, P. A. 1952. Some characteristics of the distribution of bottom and demersal fishes of the far-eastern seas. Izvestiia Tikhookeanskogo no I. Instituta Rybnovo Khoz Khoziaistva i Okeanografii 37:129-137 Vladivostok. Available in English as Fish. Res. Bd. Canada translation 94.
- Moiseev, P. A. 1953a. Some characteristics of the distribution of bottom and demersal fishes of the fareastern seas. Ivestiia Tikhookean. N-I. Instituta Ryb. Khoz. i Okeanografii 37:129-137 (1952), Vladivostok. Available as Fish. Res. Bd. Canada Trans. 94. 10 p.
- Moiseev, P. A. 1953b. Cod and flounders of the far-eastern sea. Ivestiia Tikhookeanskogo. N.I. Inst. Rybnogo Khoziastva i Okeanografii 40:1-287. Available in English as Fish. Res. Bd Canada, Trans. no. 119.
- Moiseev, P. A. 1954. Izuchenie morskikh i presnovodnykh bogatstv Dal'nego Vostoko [Study of marine and freshwater reserves of the Far East]. Izvestiya Tikhookeanskogo Instituta Rybnogo Khozyaistva i Okeanografii 39.
- Moiseev, P. A. 1956. Pecularities in the population dynamics of the commercial fauna in the northeastern part of the Pacific Ocean and its causes. Zool. Zh. 35(11):1601-1607.
- Montgomery, D. T., and L. A. Boughton. 1974. Preliminary biological data for outer continental shelf resources reports on Alaska. Fish and Wildlife Service, U.S. Dep. of the Interior, 23 p.
- Moskalenko, B. K. 1964. On the biology of Arctic cod, *Boreogadus saida* (Lepechin). Voprosy Ikhtiologii 4(3):32, 433-443.
- Mueller, G. J. 1971. Species analysis of Oliktok-Colville Project, 61-A, 19-27
 August, 1970. University of Alaska, Fairbanks. (Unpublished memo.).
 Species:

Boreogadus saida, Lumpenus fabricii, Myoxocephalus quadricornis, Liparis liparis, Liopsetta glacialis, unknown larval spp.

Places:

Oliktok, Colville River, Thetis Island,

Remarks:

Results of experimental otter trawl sampling.

Murdoch, J. 1884. Fish and fishing at Point Barrow, Arctic Alaska. Trans. Amer. Fish Cultural Assoc. 13:111-115.

Coregonus kennicotti, C. laurettae, C. nelsoni, Salvelinus malma, Oncorhynchus gorbuscha, Mallotus villosus, Osmerus dentex, Boreogadus saida. Lota maculosa.

Places:

Point Barrow, Flson Bay, Wainwright Inlet, Colville River, Perginak,

Describes relative abundance of fishes; Eskimo fishing methods.

Murdoch, J. 1885. Fishes, Pages 129-132. *In:* P. H. Ray, ed. Report of the International Polar Expedition to Point Barrow, Alaska. 1882-1883, Pt IV. Sec. 3, U.S. Government Printing Office, Washington, D.C.

Species:

Coregonus kennicotti, C. laurettae, C. nelsoni, Salvelinus malma, Oncorhynchus gorbuscha, Oncorhynchus sp., Mallotus villosus, Osmerus dentex, Boreogadus saida, Lota maculosa, Gymnelis viridis, Lycodes turneri, L. coccineus, Gasterosteus pungitius, Cottus quadricornis, C decastrensis, Liparis gibbus.

Places:

Point Barrow, Meade River, Kuaru River, Cape Smythe, Elson Bay, Pergniak, Wainwright Inlet.

Remarks:

A list of species taken, with notes on methods, abundance, distribution

Murdoch, J. 1892. Fishes. Page 58. *In:* Ethnological results of the Point Barrow Expedition, International Polar Expedition to Point Barrow, Alaska, 1881-1883. Ann. Rep. Bur. Ethnol. 9.

Species:

Coregonus laurettae, C. kennicotti, C. nelsoni, Salvelinus malma, Oncorhynchus gorbuscha, Oncorhynchus sp., Thymallus signifer, Osmerus dentex, Mallotus villosus, Boreogadus saida, Cottus quadricornis, C. decastrensis.

Places:

Point Barrow, Elson Bay, Colville River mouth, Kuaru River, Kulugrua River, Ku River.

Remarks:

B saida plentiful all year, M villosus in summer. Greatest quantities of fish from rivers

Murdoch, J. 1898. The animals known to the Eskimos of northwestern Alaska. Amer. Naturalist 32(382):719-734.

- Musienko, R. P. 1957. Young flatfishes (Pleuronectidae) of the Far Eastern seas. Distribution, age and growth Pages 76-98. In: G. N. Nikitin, ed. Marine biology Trans. Inst. Oceanology, U.S.S.R. Academy of Science Press, Moscow.
- Muth, K. M. 1969. Age and growth of the broad white fish (*Coregonus nasus*) in the Mackenzie and Coppermine Rivers, N.W.T. J. Fish. Res. Bd. Canada 26(8):2252-2256.
- Namtvedt, T., S. Parrish, N. Friese and W. Quirk. 1974. Fish. Pages 252-268. *In:* Alaskan arctic coast-a background study of available knowledge. Prepared for Dep. Army, Alaska District, Corps of Engineers. Alaska Office, Arctic Institute of North America.

Clupea harengus, Mallotus villosus, Osmerus mordax, Boreogadus saida, Eleginus gracilis, Artediellus scaber, Gymnocanthus tricuspis, Myoxocephalus scorpius, Triglops pingeli. Total of 69 marine and 23 freshwater spp. discussed briefly.

Places:

Kotzebue Sound to Cape Lisburne; Point Hope to Demarkation Point.

Remarks:

Outlines available knowledge of factors determining distribution and abundance of fishes in Beaufort and Chukchi seas. Anadromous fish streams from Point Hope to Demarkation Point indicated. Spawning seasons and areas tabulated.

Nelson, Edward W. 1886. Field notes on Alaskan fishes with additional notes by Tarleton H. Bean Pages 295-322 *In:* L. M. Turner, ed. Contributions to the natural history of Alaska. Results of expeditions made chiefly in the Yukon District and the Aleutian Islands. Conducted under the auspices of the Signal Service, U.S. Army, extending from May, 1874 to August. 1881. U.S. Government Printing Office, Washington, D.C.

Species:

Stenodus mackenzii, Thymallus signifer, Osmerus dentex, Pleuronectes glacialis.

Places:

Bering Sea, Yukon River upstream to Fort Yukon, Kuskokwim River to Point Barrow.

Remarks:

Descriptions, brief general notes on various spp

Nelson, R K 1965. Alaskan Eskimo exploitation of the sea ice environment.

Prepared for the Arctic Aeromed Lab. University of Wisconsin, Madison.

354 p

- Nelson, R. K. 1966. Literature review of Eskimo knowledge of sea ice environment. Arctic Aeromed. Lab. (AAL-TR-65-7).
- Nelson, R. K. 1969 Hunters of the northern ice. University of Chicago Press, Chicago.
- Nikolskii, G. V. 1947. On biological pecularities of faunistic complexes and on the value of their analysis for zoogeography. Zool. Zhur. 26(3).
- Nikolskii, G. V., and D. V. Radakov. 1968 Food interrelations of pelagic fish in the northern seas. Rapp Proc. Verb. Cons. Int. Explor. Mer. 158:143-146.
- Noerenberg, W. H. 1974. Fish and wildlife information and recommendations. Appendix E-3, 1025. July 20, 1974. Fish and Wildlife Consultant, Trans-Alaska Pipeline.
- Nordenskiold, N. A. E. 1882. The voyage of the Vega round Asia and Europe with a historical review of previous journeys along the north coast of the Old World. Translated by Alexander Leslie. MacMillan Company, New York.
- Nordenskiold, N. A. E. 1882-1887. Vega-expeditionens vetenskapliga iaktagelser bearbetade af Heltagare i resan och andra forskare. Volumes 1-5. F. and G. Beijers, Stockholm.
- Northwest Alaska Native Association. 1973. Survey of resources harvested in the NANA region.
- Nursall, J. R., and D. Buchwald. 1972. Life history and distribution of arctic lamprey, *Lethenteron japonicum* (Martens) of Great Slave Lake, N.W T. Fish. Res. Bd. Can. Tech. Rep. no. 304.
- Orcutt, H. G., 1950. The life history of the Starry flounder, *Platichthys stellatus* (Pallas). Calif. Fish. Bull. 78:1-64.
- Osborn, Sherard. 1856. The discovery of the Northwest Passage by H.M.S. Investigator, Captain R. M'Clure, 1850, 1851, 1852, 1853, 1854. Edited by Commander Sherard Osborn from the logs and journals of Captain Robert M'Clure. London.

Describes fauna of Prince Albert Land, Banks Island, Prince of Wales Strait and Mercy Bay.

- Oswalt, W. H. 1967. Alaskan Eskimos. Chandler Publishing Company, San Francisco.
- Pallas, P. 1811. Zoographia Rosso-asiatica, sistens omnium animalium in extenso Imperio rossico, et adjacentibus maribus observatorium recensionem, domicilia, mores, et descriptiones, anatomen, atque icones plurimorum. Auctore Petro Pallas . . . Petropoli, in officina caes, academiae scientiarum impress, Petropoli.
- Parker, W., D. Swanson, V. Fischer and J. Christian. 1972. Northwest Alaska economic and transporation prospects, a survey report prepared by the Institute of Social, Economic, and Government Research, University of Alaska, Fairbanks, for Alaska District, U.S. Army Corps of Engineers.
- Parry, W. E. 1824. Journal of a second voyage for the discovery of a Northwest Passage to the Pacific Ocean performed in the years 1821, 22, 23 in H.M.S. Fury and Hecla. London.
- Patterson, A. 1974. Subsistence harvests in five native regions. Resource Planning Team, Joint Federal-State Land Use Planning Comm. for Alaska, Anchorage. 49 p.
- Pearse, G. A. 1969. A partial bibliography of Arctic fish. Available from University of Alaska, Dep. of Wildlife Management. (Unpublished).
- Pearse, G., R. Peckham, M. Kramer and K. Alt. 1976. Creel census in Prudhoe Bay. Pages 129-149. *In:* Inventory and cataloging of North Slope waters. Alaska Dep. Fish Game, Fed. Aid Fish Restor. Ann. Rep. Vol. 7.

Salvelinus alpinus, S. namaycush, Thymallus arcticus.

Places:

Prudhoe Bay, Sagavanirktok River and tributaries.

Remarks:

Limited angling in Prudhoe Bay in July and August. Mentions overwintering areas.

Pedersen, S. 1971. Status and trends of subsistence resource use at Point Hope. *In:* Point Hope Project Report. University of Alaska, Fairbanks. Species:

Clupea harengus, Coregonus spp., Salvelinus alpinus, S. malma, Oncorhynchus gorbuscha, Thymallus arcticus, Osmerus dentex, Boreogadus saida.

Places:

Point Hope, Kukpuk River, Itublarak River.

Remarks:

Describes annual cycles of utilization of fishes.

Penhale, P. 1972. Food requirements of the ninespine stickleback, *Pungitius pungitius*, in an Arctic tundra lake of Alaska. M.S. Thesis. University of North Carolina, Chapel Hill.

Pennant, Thomas. 1784-1787. Arctic Zoology. 2 vol. H. Hughes, London.

Pennoyer, S. 1965. Arctic-Yukon-Kuskokwim area: salmon fishing history. Informational Leaflet. Alaska Dep. Fish Game 70:51 p.

Percy, R. 1975. Fishes of the outer Mackenzie Delta. Beaufort Sea Project, Dep. of the Environment, Victoria, B.C. 114 p. (Beaufort Sea Tech. Rep. 8). Species:

Lampetra japonica, Clupea harengus, Coregonus autumnalis, C. clupeaformis, C. nasus, C. sardinella, Prosopium cylindraceum, Stenodus leucichthys. Salvelinus alpinus. S. namaycush, Thymallus arcticus, Osmerus eperlanus, Hypomesus olidus, Catostomus catostomus, Couesius plumbeus, Esox lucius, Eleginus gracilis, Lota lota, Percopsis omiscomaycus, Pungitius pungitius. Cottus ricei. Myoxocephalus quadricornis, Liopsetta glacialis, Platichthys stellatus.

Places:

Mackenzie River Delta, Beaufort Sea.

Remarks:

Review of existing knowledge of migration routes and timing, food habits, life histories.

Percy, R., W. Eddy and D. Munro. 1974. Anadromous and freshwater fish of the outer Mackenzie Delta. Fish. and Marine Service, Environment Canada. (Interim Rep. of the Beaufort Sea Project Study B2).

Species:

Lampetra japonica, Clupea harengus, Coregonus spp., Coregonus autumnalis, C. clupeaformis, C. nasus, C. sardinella, Prosopium cylindraceum, Stenodus leucichthys, Salvelinus namaycush, Thymallus arcticus, Hypomesus olidus, Osmerus eperlanus, Catostomus catostomus, Couesius plumbeus, Esox lucius, Lota lota, Eleginus gracilis, Percopsis omiscomaycus, Pungitius pungitius, Myoxocephalus quadricornis, Cottus ricei, Liopsetta glacialis, Platichthys stellatus.

Places:

Mackenzie River Delta, Richards Island, Mason Bay, Mallik Bay, Kugmallit

Bay, Shallow Bay, Swan Channel, East Channel, Tuktoyaktuk, Kendall Island, Pullen Island, Rae Island, Holmes Creek, Tununuk.

Remarks:

Summary of abundance, summer and winter distribution, nursery areas, food habits, migrations, age-length relationships.

- Peterman, A. 1852. Notes on the distribution of animals available as food in the Arctic regions. J. Roy. Geog. Soc. London 20:118-127.
- Peterson, N. M. 1974. Ecology of the Canadian Arctic Archipelago: selected references. 3 vol. Annotated by Merle Peterson. Western Ecological Services, Ltd. Edmonton, Alberta.
- Petroff, I. 1882. Report on the population, industires, and resources of Alaska, 1880. Census Office, U.S. Dep. of the Interior, Washington, D.C.

Species:

Oncorhynchus sp., Coregonus sp., "Salmon trout", Tomcod (Pleurogadus navaga).

Remarks:

Very little information relating to arctic fishes.

- Ponomarenko, V. P. 1968a. Some data on the distribution and migrations of polar cod in the seas of the Soviet Arctic. Rapp. Proc. Verb. Cons. Int. Explor, Mer. 158:131-135.
- Ponomarenko, V. P. 1968b. Migratsii sayki v Sovetskom sektore Artiki [Migration of the Polar cod in the Soviet Arctic]. Murmansk, Polyarnyy n-issl. inst. morskogo rybnogo Khozyaystva i Okeanografii. Trudy 1968, no. 23:500-512. [In Russian, English summary].
- Ponomarenko, V. P., Kh. M. Natenzon and V. M. Naumov. 1962. Experimental cruise on Polar cod fishing. Ryb. Khoz. 12:36-40.
- Popov, A. M. 1933. To the knowledge of the ichthyofauna of the Siberian Sea. Arctica 1:157-168.

Species:

Boreogadus saida, Artediellus scaber, Gymnocanthus tricuspis, Icelus bicornis.

Places:

Chukchi Sea.

Porsild, A. E. 1950. A biological exploration of Banks and Victoria Island. Arctic 3:45-54.

- Porter, R. P. 1893. Population and resources of Alaska at the eleventh census, 1890. Census Office, Dep. of the Interior, Washington, D. C. 282 p.
- Potapova, G. A. 1965. Bibliography on fishery investigations in the Northwest Pacific Ocean. Pages 297-373. *In:* Soviet fisheries investigations in the Northeast Pacific. Pt. IV. Translated from Russian by Israel Program for Scientific Translation, Jerusalem.
- Preble, E. A. 1908. Fishes of the Athabaska-Mackenzie region. Pages 502-515. In: A biological investigation of the Athabaska-Mackenzie region. Bureau of Biological Survey. U.S. Dep. of Agriculture, Washington, D.C. (North American fauna 27).

Lampetra aurea, Coregonus spp., Argyrosomus tullibee, A. lucidus, Stenodus mackenzii, Oncorhynchus nerka, Salvelinus malma, Osmerus dentex, Pygosteus pungitius, Cottus cognatus, Oncocottus hexacornis, Lota maculosa.

Remarks:

Deals chiefly with inland areas, but includes some date relating to the Mackenzie River Delta.

Quast, J. C. 1972. Preliminary report of fish collected on WEBSEC-70. Oceanographic Unit, U.S. Coast Guard. Washington, D.C. (U.S. Coast Guard Oceanographic Rep. 50).

Remarks:

Lists 26 spp. Gives localities, depths, collection methods, temperature, life history stages. Species occurrence highest in Cape Lisburne area, lowest in NE Chukchi Sea.

- Quast, J. C. 1974. Density distribution of juvenile Arctic cod, *Boreogadus saida* (Lepechin), in the castern Chukchi Sea in the fall of 1970. Fish. Bull. 72(4):1094-1104.
- Quast, J. C., and E. L. Hall. 1972. List of fishes of Alaska and adjacent waters with a guide to some of their literature. U.S. Dep. of Commerce, 1972. (NOAA Tech. Rep. NMFS. SSRF-658).
- Rae, J. 1852. Journey from Great Bear Lake to Wollaston Land and explorations along the south and east coast of Victoria Land. Roy. Geog. Soc. 22.
- Rainey, G. G. 1941. Native economy and survival in Arctic Alaska. Appl. Anthropol. 1(1).

Rainey, F. G., and H. E. Larsen. 1948. Ipiutak and the Arctic whale hunting culture. Anthro. Pap. Amer. Mus. Nat. Hist. 42:276 p.

Species:

Oncorhynchus spp., Coregonus spp., Thymallus arcticus, "Tomcod". Remarks:

Occasional mention of fishes and fishing implements.

- Rass, T. S. 1955. New regions and resources open to commercial fishing in far eastern waters. Vop. Ikhtiol. 4:71-81. Available as Trans. 143, Fish. Res. Bd. Canada. 24 p.
- Rass, T. S. 1956. The possibilities of substantially increasing catches in the Far East. Ryb. Khoz. 9:57-60. [In Russian].
- Rass, T. S. 1958. Ichthyological investigations of the Institute of Oceanology of the Academy of Sciences of the U.S.S.R. in the far eastern seas. Trud. Okeanogr. Kom. Acad. Nauk SSSR 3:118-121. [In Russian].
- Ray, P. H. 1885. Fishes. Pages 129-132. In: J. A. Murdoch, ed. Report of the International Polar Expedition to Point Barrow, Alaska, 1882-1883. U. S. Government Printing Office, Washington, D.C.
- Redburn, D. R. 1974. The ecology of the inshore marine zooplankton of the Chukchi Sea near Point Barrow, Alaska, M.S. Thesis. University of Alaska, Fairbanks.
- Rendahl, H. 1931. Fische aus dem ostlichen Sibirischen Eismeer und dem Nordpazific. Arkiv Zool. 22A(10):81 p.

Remarks:

Discusses marine species of Bering Strait-Chukchi Sea.

- Ricciardelli, A. F. 1953. The causes which led to the abandonment of the Arctic Slope of Alaska. M.A. Thesis. University of Pennsylvania, Philadelphia.
- Richards, H. G. 1950. Postglacial marine submergence of Arctic North America with special reference to the Mackenzie Delta. Proc. Am. Phil. Soc. 94:31-37.
- Richardson, J. 1823. Notices of the fishes. Pages 705-728. *In:* John Franklin, ed. Narrative of a journey to shores of the Polar Sea in the years 1819, 1820, 1821, and 1822. Appendix no. 6. John Murray, London.

Richardson, J. 1824. Account of some fishes observed during Captain Franklin and Dr. Richardson's journey to the Polar Seas. Memoirs Wernerian Nat. Hist. Soc. Edinburg 5, pt. 1:509-522.

Species:

Coregonus albus, C artedi, Hiodon clodalis.

Remarks:

Taxonomic descriptions, of historical interest only.

- Richardson, J. 1835. Salmones. Pages 55-58. *In:* J. C. Ross, ed. Appendix to the narrative of a second voyage in search of a Northwest Passage, and of a residence in the Arctic regions during the years 1829, 1830, 1831, 1832, and 1833. A. W. Webster, London.
- Richardson, J 1836. The Fish. Part 3. *In:* Fauna Boreali-Americana; or the Zoology of the northern parts of British America. Richard Bentley, London. 327 p, 24 pl.

Remarks:

Detailed descriptions of 140 spp. Notes on distribution, biology.

Richardson, J. 1837. Report on North American Zoology. Pages 121-224. *In:* Report. 6th meeting British Association for the Advancement of Science, 1836, pt. v.

Remarks:

Many species described from Mackenzie River region.

Richardson, J. 1851. Arctic searching expediton, a journal of a boat voyage through Rupert's land and the Arctic Sea in search of the discovery ships under command of Sir John Franklin with an appendix on the physical geography of North America. 2 vol. Longman, Brown, Green, and Longman, London.

Species:

Coregonus spp., Salmo mackenzii, "Trout", Oncorhynchus sp.

Remarks:

Numerous references to fishes, native methods of catching and preserving.

Richardson, J. 1861. Zoology Pages 274-284. *In:* The Polar regions. Edinburgh. Remarks:

Contains brief remarks on distribution and general characteristics of more common birds, mammals, fishes.

Richardson, J. 1870. Fish. Pages 518-522, appendix. *In:* George Back, ed. Narrative of the Arctic Land Expedition to the mouth of the Great Fish River and along the shores of the Arctic Ocean in the years 1833, 1834, and 1835. Charles F. Tuttle, Rutland, Vermont. 663 p.

Coregonus spp., Salmo mackenzii, S. namaycush, Catostomus sp., Esox lucius, Lota maculosa.

Remarks:

Deals chiefly with inland spp., little information on marine forms.

- Richardson, J., N. A. Vigors, G. T. Lay et al. 1839. Fishes. Pages 41-75. In:

 Zoology of Captain Beechey's voyages compiled from collections and notes made by Captain Beechey, the officers and naturalists of the expedition during a voyage to the Pacific and Behring's Straits performed in H.M.S. Blossom under the command of Captain F. W. Beechey . . . in the years 1825, 1826, 1827, and 1828. Henry G. Bohn, London.
- Riske, M. E. 1960. A comprehensive study of north Pacific and Canadian arctic herring, *Chapea*. M.S. Thesis. University of Alberta, Edmonton.

Remarks:

Provides life history and distribution data of species in Mackenzie Delta-Beaufort Sea area.

- Rock, H. 1964. Arctic Survival. Tundra Times. Vol. 3, No. 2, 26 October, 1964.
- Rockwell, J. 1972. Critical times in streams. Data supplied by H. T. Yoshihara, N. F. Netsch and K. Robertson. Interagency Fish and Wildlife Team, Anchorage, Alaska. 76 p.
- Roguski, E. A., and E. Komarek, Jr. 1971. Monitoring and evaluation of Arctic waters with emphasis on North Slope drainages. Arctic Wildlife Range Study. Rep. no. F-9-3. Alaska Dep. Fish Game. 38 p.

Species:

Coregonus autumnalis, Coregonus spp., Salvelinus alpinus, Thymallus arcticus, Myoxocephalus quadricornis.

Places:

Demarkaton Point, Siku Point, Pokuk Bay, Barter Island, Simpson Cove, Brownlow Point, Aichilik River, Jago River, Kaktovik, Griffin Point, Anderson Point, Canning River.

Remarks:

A study of water conditions and fish species in the Arctic National Wildlife Range. Contains data on age, growth, length frequencies, sexual maturity, distribution.

Roguski, E. A., E. Komarek, Jr. and D. R. Kogl. 1971. Annual Progress Report for monitoring and evaluation of Arctic waters with emphasis on North Slope drainages July 1, 1970 to June 30, 1971. Div. of Sport Fish, Alaska Dep. Fish Game. Job G-111-A. Vol. 12:61 p.

Coregonus autumnalis, C. nasus, C. pidschian, C. sardinella, Prosopium cylindraceum. Salvelinus alpinus, S. namaycush, Thymallus arcticus, Osmerus mordax, Catostomus catostomus, Esox lucius, Lota lota, Pungitius pungitius. Cottus cognatus, Myoxocephalus quadricornis, Liopsetta Igacialis.

Places:

Arctic Coast and north slope of Alaska from Demarkation Point to Colville River and south to Anaktuvuk Pass.

Remarks:

Data on ice conditions, depths, bottom type, currents, salinities at river mouths and lagoons in Arctic Wildlife Range. Age, growth, length frequencies, sexual maturity, distribution of fishes.

- Romanov, N. S. 1959. Annotated bibliography on far eastern aquatic fauna, tlora, and fisheries [Ukazatel' literatury po rybnomu Khazyaistvu dal' nego Vostoko 1923-1956/gg. Izdatel'stvo Akademiya Nauk SSSR.
 - Otodclenie Biologicheskikh Nauk, Ikhtiologicheskaya Kommisiya, Moskva.
 Translated by Isreal Program for Scientific Translations, 1966. 391 p.
 Available from Nat. Marine Fish. Service, Trans. 64-11101.
- Ross, C. 1835. Fish. Pages 46-54 *In:* John Ross, ed. Appendix to the narrative of a second voyage in search of the Northwest Passage. A. W. Webster, London.
- Rostlund, E. 1952. Freshwater fish and fishing in native North America. University of California, Publ. Geog. 9:313 p.

Remarks:

Arctic charr the only fish of real economic importance to polar and central February

- Royal Northwest Mounted Police. 1919. Report of Bathurst Inlet Patrol, 1917-18. Ottawa
- Sabine, E. 1821. An account of the animals seen by the late northern expedition whilst within the Arctic Circle. Pages 33-36. *In:* William Parry, ed. Journal of a voyage for the discovery of a Northwest Passage from the Atlantic to the Pacific performed in the years 1819-20 in H.M.S. Hecla and Griper. 2nd ed. Appendix no 10. John Murray, London.

- Sabine, E. 1826. Fishes. Pages 109-111. *In:* Captain William Parry ed. Journal of a third voyage for the discovery of the Northwest Passage from the Atlantic to the Pacific performed in the years 1824-25 in H.M.S. Fury and Hecla under orders of Captain William Edward Parry. John Murray, London.
- Schallock, Eldor. 1971. Sagavanirktok River Basin Study. Angling and observations. Alaska Water Lab. Environmental Protection Agency, College, Alaska. 6 p.
- Schmidt, P. J., and A. P. Andriyashev. 1935. A Greenland fish in the Okhotsk Sea. Copeia 1935 (2):57-60.

Eumesogrammus praecisus.

Places:

Beaufort Sea, Bering Sea, Sea of Okhotsk.

Schmidt, W. T. 1970. A field survey of bird use at Beaufort Lagoon. Prepared for the Bur. Sport Fish. Wildl. Arctic Nat. Wildl. Range, June-September, 1970.

Remarks:

Discusses utilization of fishes by birds.

- Schrader, F. C. 1904. A reconnaissance in northern Alaska across the Rocky Mountains, along Koyakuk, John, Anaktuvak, and Colville Rivers and the Arctic coast to Cape Lisburne in 1901. U.S. Government Printing Office, Washington, D.C. (U.S. Geological Survey Prof. Pap. no. 20).
- Schultz, L. P., and A. D. Welander. 1935. A review of the cods of Northeastern Pacific with comparative notes on related species. Copeia 1935(3):127-139.
- Scofield, N. B. 1899. List of fishes obtained in Arctic Alaska. Pages 493-509. *In:* David Starr Jordan, ed The fur seals and fur seal islands of the North Pacific Ocean. Report of the fur seal investigations, 1896-97, pt. 3. U.S. Treasury Dep. Washington, D.C.

Species:

Clupea harengus, Coregonus kennicotti, Argyrosomus pusiilus, A. lucidus, A. alascanus, Stenodus mackenzii, Salvelinus malma, Boreogadus saida, Oncocottus hexacornis. Cottus quadricornis, Gymnocanthus galeatus, Liparis herschelinus, Lycodalepis turneri.

Places:

Herschel Island, Mackenzie River mouth, Barter Island, Point Barrow, Point Hope, Pot Clarence.

- Scoresby, W. 1820. An account of the Arctic regions with a history and description of the northern whale fishery. 2 vol. A. Constable, Edinburgh.
- Scott, W. B., and E. J. Crossman. 1973. Freshwater fishes of Canada. Fish. Res. Bd. Canada, Bull, 184:966 p.
- Seeman, B. 1853. Narrative of the voyage of the H.M.S. Herald during the years 1845-1851, 2 vol. Keeve, London.
- Sergeant, D. E. 1962. Biology and hunting of beluga and white whales in the Canadian Arctic. Arctic Unit, Fish. Res. Bd. Canada, Circular no. 8:13 p. Species:

Arctic charr, Capelin, Cod, Sculpin.

Places

Beaufort Sea. Amundsen Gulf, M'Clure Strait.

- Sergejeff, K. 1960. Salmon species new to the Arctic Ocean. Suomen Kalastuslehti 67(6):219-221. Translation available as Trans. Ser. Fish Res. Bd. Canada 427.
- Schmidt, P. Yu. 1904a. Pisces marium orientalium. Imperii Rossici. Ed. Soc. Geogr. Russ. St. Petersburg. [In Russian.]
- Schmidt, P. Yu. 1904b. Ryby vostochnych morei Rosiiskoi Imperii [Fishes of the Eastern Seas of the Russian Empire]. *In:* Nauchnye Re zult'taty Koreiska-Sakhalinskoi Ekspeditsii Imperatorskogo Rossiiskogo Geograficheskogo Obshchestva. 466 p.
- Schmidt, P. Yu. 1934. On the zoogeographical distribution of the main commercial fishes in the western part of the North Pacific. Bull. Pacific Comm. Acad. Sci. U.S.S.R. 3. [In Russian.]
- Shmidt, P. Yu. 1948. The division of the fauna of the temperate zone. Its origin and the formation of the Arctic fish fauna. *In:* Fish of the Pacific Ocean. Pishchepromizdat. 1948. 54p. [In Russian.]
- Shotton, R. T. 1971. Fish survey base data report. Appendix II. *In:* Towards an environmental impact assessment of a gas pipeline from Prudhoe Bay, Alaska to Alberta. Report for the Environmental Protection Bd. by

Inter-Disciplinary Systems, Ltd. Winnipeg, Manitoba. (Interim Rep. no. 1). 251 p. Diagrams, tables.

Remarks:

Lists 21 fish spp. S. alpinus and T. arcticus the most abundant spp. along coastal route. Some notes on spawning.

Shotton, R. T. 1973. Fish Survey 1972. Base Data Report for Environment Protection Board sponsored by Canadian Arctic Gas Study Limited.
Appendix II. Towards an environmental impact assessment of the portion of the Mackenzie Gas Pipeline from Alaska to Alberta. Winnipeg, Manitoba. 199 p.

Remarks:

Notes location and frequency of occurrence of 16 spp., mostly freshwater. Most of the survey well inland.

- Simpson, J. 1875. Observations on the western Eskimo and the country they inhabit, from notes taken during two years at Point Barrow. Pages 233-275. *In:* A selection of papers on Arctic geography and ethnology. Reprinted and presented to the Arctic Expedition of 1875 by the Roy. Geog. Soc. (Arctic Blue Book). London, 1875.
- Simpson, T. 1843. Narrative of discoveries on the north coast of America effected by the officers of the Hudson's Bay Company during the years 1836-39. R. Bentley, London, 419 p.

Remarks:

Mentions 14 fishes by common names. Red River settlement to mouth of Mackenzie. Coastal explorations Coppermine River to Point Barrow.

- Sinclair, S., et al. 1967. Physical and economic organization of the fisheries of the Mackenzie District, N.W.T. Fish. Res. Bd. Canada, Ottawa.
- Slaney, F. F. 1973a. Environmental field program, Taglu-Richards Island.

 Mackenzie Delta Interim report for Imperial Oil, Ltd. Calgary, Alberta.
- Slaney, F. F. 1973b. Environmental effects assessment-voyageur air cushion vehicle. Mackenzie Delta, N.W.T. Vol. 2, Field Studies. Environmental Protection Bd. Ottawa.
- Slaney, F. F. 1973c. Environmental impact assessment, Immerk artificial island construction. Vol. 3, F. F. Slaney and Co. Ltd. Vancouver, B.C. 58 p.
- Slancy, F. F. 1973d. Aquatic resources of Tuktoyaktuk Harbour, F. F. Slaney and Co. Ltd. Vancouver, B.C.

Slaney, F. F. 1973e. Fishes. Pages 17-19. *In:* Environmental impact assessment, Immerk artificial island construction, Mackenzie Bay. N.W.T. Vol. 1. Environmental Statement. Vancouver, Canada. 28 p.

Remarks:

Fishes conspicuous in the ecosystem. Study area utilized by larval fishes of unknown number of spp.

Slaney, F. F. 1973f, Fishes Pages 28-32, app. 9-14. *In:* Environmental impact assessment Immerk artificial island construction Mackenzie Bay, N.W.T. Vol. 2. Environmental studies. F. F. Slaney and Co. Ltd. Vancouver. 59 p. Species:

Lists 18 spp. fishes.

Places:

East Mackenzie Bay.

Remarks:

Data on distribution, abundance, population structure, food habits, utilization of fishes.

- Slaney, F. F. 1974. 1973-74 winter benthic and oceanographic surveys, offshore.
 Mackenzie Delta, N.W.T. F. F. Slaney and Co. Ltd. for Imperial Oil Co. Ltd. Calgary. 25 p. and appendix.
- Slaney, F. F. 1975. Summer environmental program-Mackenzie River Estuary. Vol. 3. F. F. Slaney and Co. Ltd. Vancouver, B.C. 49 p.

Species:

Osmerus eperlanus, Eleginus navaga.

- Slavenwhite, D. D. 1967. Arctic style charr. North 14(3):1-7.
- Smith, D. G. 1969. The Mackenzie Delta, domestic economy of the native peoples. A preliminary study. Northern Coordination and Res. Center, Dep. of Indian Affairs and Northern Development, Ottawa. (Mackenzie Delta Res. Project 3).

Remarks:

Describes subsistence fisheries.

- Sonnenfeld, J. 1955. Changes in subsistence among Barrow Eskimos. Terminal report, Field work, 1954. Arctic Institute of N.A. Project no. ONR-140. 589 p. (Unpublished).
- Sonnenfeld, J. 1957. Changes in subsistence among the Barrow Eskimos. Ph.D. Dissertation, Johns Hopkins University, Baltimore.

- Spencer, R. 1959 The North Alaskan Eskimo: a study in ecology and society Bur, Amer. Ethnol. Bull. 171.
- Sprague, J. B. 1973. Aquatic resources in the Canadian North, knowledge, dangers and research needs. Pages 169-189. *In:* D. H. Pimlott, K. M. Vincent and C. E. McKnight, eds. Arctic Alternatives. Mail-O-Matic Printing, Ottawa.
- Stefanich, F. 1973a. Resource inventory, Northwest region. Resource Planning Team, Joint Federal-State Land Use Planning Comm. for Alaska, Anchorage. 13 p.
- Stefanich, F. 1973b. Fisheries resources. 6 vol. Joint Federal-State Land Use Planning Team. Anchorage, Alaska.
- Stefansson, V. 1919. The Stefansson-Anderson Expedition of the American Museum Anthropol. Pap. Amer. Mus. Nat. Hist. 14(1-2).
- Stefansson, V. 1937. Food of the ancient and modern Stone Age Man. J. Amer. Dietetic Assoc. 13(2):102-119.
- Stefansson, V. 1944. Fishes. Pages 118-124. *In:* Arctic Manual. Prepared under the direction of the Chief of the Air Corps U. S. Army, with a special introduction and index. Macmillan Co. New York.

Clupea pallasi, Argyrosomus tullibee, Leucichthys lucidus, Stenodus mackenzii, Salvelinus malma, Cristivomer namaycush, Thymallus signifer, Osmerus dentex, Catostomus catostomus, Esox lucius, Lota maculosa, Microgadus proximus, "Rock cod", Oncocottus hexacornis, Platichthys stellatus.

Places:

Mackenzie River Delta, Coronation Gulf, Cape Bathurst, Herschel Island, Langton Bay, Baillie Islands, Hulahula River, Chandler River, Horton River, Dease River, Toker Point, Liverpool Bay, Kittagaryuit.

Remarks:

Species, distribution, rough estimates of relative abundance based on fishing expeditions 1908-1912.

- Stefansson, V. 1957. The fat of the land, Macmillan, New York.
- Stefansson, V. 1960. Food and food habits in Alaska and northern Canada. Reprinted from Human Nutrition, Historic and Scientific Monograph 3:23-60. International Universities Press, New York.

Discusses fishing methods and use of fish as food at Mackenzie River Delta and Coppermine River.

Steigenberger, L. W., G. G. Burch, P. G. Bruce and R. A. Robertson. 1974.

Northern Yukon freshwater fishery studies, 1973. Fish. and Marine Serv.

Environment Canada, Ottawa. 51 p. Tables, maps. (Task Force on Northern Oil Development Rep. 74-20).

Species:

Records 25 spp. marine, anadromous and freshwater fishes.

Places:

Coastal Yukon Territory from Alaska to N.W.T. Shingle Point, Thetis Bay, Herschel Island, Komakuk Beach, Firth River, Malcolm River, Shoalwater Bay, Clarence Lagoon, Babbage River.

Remarks:

Catch data. Overwintering and spawning areas pinpointed. Emphasizes importance of estuaries and springs.

Steigenberger, L. W., M. E. Elson and R. T. Delury. 1975. Northern Yukon fisheries studies 1971-74. Vol. 1. Northern Operations Branch, Fish. and Marine Serv. Vancouver. PAC/T 75-19.

Remarks:

Discusses past and current utilization levels of fish at Herschel Island, Shingle Point, Shoalwater Bay.

Steigenberger, L. W., R. A. Robertson, K. Johansen and M. S. Elson. 1975. Biological engineering evaluation of the proposed pipeline crossing sites in Northern Yukon Territory. Pacific region, Fish. and Marine Serv. Vancouver. PAC/T 75-11.

Species:

Salvelinus alpinus, Coregonus sardinella.

Places:

Beaufort Sea, Firth River, Babbage River, Fish Creek, Shingle Point.

Remarks:

Estimates contribution of each stream to arctic charr population of Beaufort Sea.

Stein, J. N., C. S. Jessop, T. R. Porter and K. T. J. Chang-Kue. 1973a. Fish resources of the Mackenzie River Valley. Interim Rep. II. Fish. Serv. Dep. of the Environment for the Environmental-Social Program, Northern Pipelines. 260 p.

Stein, J. N., C. S. Jessop, T. R. Porter and K. T. J. Chang-Kuc. 1973b. An evaluation of the fish resources of the Mackenzie River Valley as related to pipeline development. Vol. 1. Fish. Serv. Dep. of the Environment, for the Environmental-Social Program, Northern Pipelines. Ottawa. 121 p. Maps, tables, photos. (Task Force on Northern Oil Development Rep. 73-1).

Species:

Lists 34 spp. marine, anadromous and freshwater fishes.

Remarks:

Emphasis on upstream portions of Mackenzie River drainage. Data on migration routes and spawning habits.

- Stein, J. N., C. S. Jessop, T. R. Porter and K. T. J. Chang-Kue. 1973c. An evaluation of fish resources of the Mackenzie River Valley. Vol. 2. Fish. Serv. Dep. of the Environment for the Environmental-Social Program, Northern Pipelines. Ottawa.
- Stonehouse, B. 1971. Animals of the Arctic, the ecology of the far north. Holt, Rinehart, Winston, San Francisco. 172 p.
- Stoney, G. M. 1899. Explorations in Alaska, Proc. U.S. Naval Inst. 25:533-584, 799-849
- Stuck, H 1920. A winter circuit of our Arctic coast: a narrative of a journey with dog sleds around the entire arctic coast of Alaska. Charles Scribner's Sons, New York. 347 p.
- Sutherland, P. C. 1852. Journal of a voyage in Baffin's Bay and Barrow Straits, in the years 1850-51, performed by H.M.S. Lady Franklin and Sophia under the command of Mr. William Penny in search of the missing crews of H.M.S. Erebus and Terror: with a narrative of sledge excursions on the ice of Wellington Channel and observations on the natural history and physical features of the countries and frozen seas visited. 2 vol. Longman, Brown, London. Maps. plates, wood engravings.
- Svetovidov, A. N. 1948. Fishes. Codlike fish. Fauna U.S.S.R. 9(4):1-222. [In Russian]
- Svetovidov, A. N. 1952. Fishes. Herrings (*Chipeidae*). Fauna U.S.S.R. 2, pt. 2(48):1-331. [In Russian.]
- Swaine, C. 1749. An account of a voyage for the discovery of a Northwest Passage by Hudson's Straits to the Western and Southern ocean of

America, performed in the year 1746 and 1747, in the ship California, Captain Francis Smith, Commander, 2 vol. Printed and sold by Mr. Jolliffe in St. James Street . . . London.

- Taranets, A. Ya. 1937. Kratkii opredelitel' ryb Sovetskogo Dal'nego vostoka i prilezhashchikh vod [A short guide to the fishes of the Soviet Far East and adjacent waters]. Izvestiya Tikhookeanskogo Instituta. Rybnogo Khozyaistva i Okeanografii (Vladivostok) 11:200 p.
- Thayer, A. S. 1966 Surveillance in Arctic National Wildlife Range, July, 1966. U.S. Fish and Wildlife Service, Anchorage.
- Thayer, A. S. 1970. Arctic National Wildlife Range, annual narrative report. U.S. Bureau of Sport Fisheries and Wildlife, Anchorage, Alaska. (Unpublished).
- Thayer, A. S. (ed.). 1971. Environmental influences of oil and gas development in Arctic Slope and Beaufort Sea. U.S. Fish Wildl. Serv. Resource Publ. 96. Species:

Gadidae, Osmeridae.

Places:

Point Barrow.

- Thibault, E. 1975. Regional socio-economic overview study, Yukon Territory. Indian Affairs and Northern Development, Environment Canada for Environmental Social Program, Northern Pipelines, Ottawa. 78 p.
- Troyer, W. 1973. Along the Arctic Coast. National Parks and Conservation Magazine, October, 1973. Pages 12-15.
- Tuck, L. M. 1960. The murres-their distribution, population, and biology, a study of the genus *Uria*. Canadian Wildl. Serv. Ottawa. 260 p. (Canadian Wild. Ser. no. 1).

Species:

Polar cod, Cod, Herring, Smelt, Greenland halibut, Arctic charr.

Places:

Beaufort Sea, Banks Island, Melville Sound.

Remarks:

Explores arctic marine ecosystems.

Uhl, E. 1962. Food in the Arctic Region, its availability, nutritive value and utilization. Conf. on Med. and Pub. Health in the Arctic and Antarctic. World Health Organization, Geneva. (Conf. Doc. no. 13).

- U. S. Bureau of Indian Affairs. 1963. Anaktuvuk Pass and Wainwright in village surveys.
- U. S. Bureau of Land Management 1973a. Proposed Trans-Alaska pipeline system: environmental assessment atlas. Dep. of the Interior.
- U. S. Bureau of Land Management. 1973b. Staff report on Northeastern Alaska utility corridor alternatives, June 25, 1973. Pipeline Div. Alaska State Office, U.S Dep. of the Interior.
- U. S. Bureau of Sport Fisheries and Wildlife. 1960-72. Unassembled field data and numerous unpublished reports. Files of Arctic Nat. Wildl. Range. Fairbanks, Alaska.
- U. S. Bureau of Sport Fisheries and Wildlife. 1972. Arctic National Wildlife Range wilderness study report. Anchorage, Alaska. 94 p. (Unpublished). Species:

Coregonus autumnalis, Coregonus spp., Salvelinus alpinus, Oncorhynchus keta, Thymallus arcticus, Lota lota, Gasterosteidae, Cottidae, Pleuronectidae.

Places:

Covers Arctic coast from Canadian border to Canning River and 150 miles south.

Remarks:

Distribution and relative abundance of fishes in the area.

U. S. Department of the Interior. 1970. A reconnaissance report of the impact on fish and wildlife of the North Slope oil development, Trans-Alaska Pipeline System, and marine terminal sites. U.S. Fish and Wild. Serv. Juneau, Alaska.

Species:

Coregonus spp., Salvelinus alpinus, S. namaycush, Thymallus arcticus, Mallotus villosus, Lota lota, "Tomcod".

Places:

Point Barrow, Beaufort Sea coast, Sagavanirktok River.

- U. S. Department of the Interior, 1971a. Arctic National Wildlife Range Master Plan. Portland, Oregon.
- U. S. Department of the Interior. 1971b. Fish and wildlife resources, fishery resources. Pages 53, 54, 117-119. In: Draft Environmental Impact Statement for the Trans-Alaska Pipeline. Section 102(2)c. of the National Environmental Policy Act of 1969.

Beaufort Sea and Sagavanirktok River habitats discussed. Subsistence fishing for cod (Gadidae sp.) and smelt (Osmerid sp.) at Point Barrow, Small fishery for Salvelinus alpinus and white fish (Coregonus sp.) at Colville River mouth. Salvelinus alpinus and Thymallus arcticus primary species in Sagavanirktok River system with whitefish (Coregonus sp.) and Lota lota also present.

U. S. Department of the Interior. 1972. Fish and wildlife. Pages 150-158. In: Final Environmental Impact Statement. Proposed Trans-Alaska Pipeline. Vol 2. Environmental setting of the proposed Trans-Alaska Pipeline System. Prepared by a Special Interagency Task Force for the Federal Task Force on Alaskan Oil Development. Washington, D.C.

Species:

Salvelinus alpinus, S. namaycush, Oncorhynchus gorbuscha, O. keta, Thymallus arcticus, Mallotus villosus, Osmerid spp., Lota lota, Boreogadus saida, Eleginus gracilis, Tomcod, Liopsetta glacialis.

Places:

Arctic coast from Point Barrow to Banks Island and Prince Patrick Island. Sagavanirktok River.

Remarks:

Discusses oceanographic and environmental factors important to fishes, birds, marine mammals. Remarks on subsistence and sport fishing potentials. Some life history information.

- U. S. Department of the Interior. Library Services Office. 1974. Trans-Alaska Pipeline and environment, bibliography. Compiled by Richard W. Schoepf. U.S. Government Printing Office, Washington, D.C. (Bibliog. Ser. 30).
- U. S. Department of the Interior. 1975a. Alaska Natural Gas Transportation System. Draft Environmental Impact Statement. Part II. Alaska. Vol. 1 of 3, June, 1975. Washington, D.C.

Species:

Coregonus autumnalis, C. nasus, C. pidschian, C. sardinella, Prosopium cylindraceum, Salvelinus alpinus, S. namaycush, Oncorhynchus keta, Thymallus arcticus, Lota lota, Pungitius pungitius, Myoxocephalus quadricornis, Cottus cognatus, Liopsetta glacialis.

Places:

Arctic coastal plain of Alaska.

Remarks:

Stream classification. Distribution, abundance, overwintering requirements of fishes.

U. S. Department of the Interior. 1975b. Alaska Natural Gas Transportation System. Draft Environmental Impact Statement. Part II. Alaska. Vol. 2 of 3, June, 1975. Washington, D.C.

Remarks:

Study confined to species in inshore habitats of Beaufort Sea, especially inside barrier islands. Summary of available knowledge of fish movements in area between Prudhoe Bay and Demarkation Point.

U. S. Department of the Interior. 1975c. Fisheries Resources. Beaufort Sea (North Slope) Drainage, Mackenzie River Drainage. Pages III-563 to III-578 In: Alaska Natural Gas Transportation System. Draft Environmental Impact Statement. Part III. Canada. Vol. 1 of 3, June, 1975. Washington, D.C.

Remarks:

Maps, tables, text indicate distribution, feeding, spawning movements of fish species. Fourteen fresh water species in Beaufort Sea Drainage, 45 freshwater and anadromous species in Mackenzie watershed.

U. S. Department of the Interior. 1975d. Proposed Arctic National Wildlife Refuge, Alaska. Final Environmental Statement. Prepared by Alaska Planning Group, October, 1974. U.S. Government Printing Office, Washington, D.C

Species:

Coregonus autumnalis, C. clupeaformis, C. nasus, C. sardinella, Prosopium cylindraceum, Stenodus leucichthys, Salvelinus alpinus, S. namaycush, Oncorhynchus gorbuscha, O. keta, Thymallus arcticus, Catostomus catostomus, Esox lucius, Pungitius pungitius, Cottus cognatus.

Remarks:

Emphasis on distribution, abundance, utilization. Water quality, stream types. Socio-economic impact.

- U. S. Federal Field Committee for Development Planning. 1968. Alaska natives and the land Anchorage, Alaska. 565 p. U.S. Government Printing Office, Washington, D.C.
- U. S. Fish and Wildlife Service 1955. Fishery Publication Index, 1920-54. Publications of the Bureau of Fisheries and Fishery Publications of the Fish and Wildlife Service, by series, authors, and subjects. U.S. Fish and Wildlife Service Circular 36
- U. S. Fish and Wildlife Service 1959. North Pacific exploratory tishery program: Chukchi Sea in Northwest Alaska. Comm. Fish. Review 21(11):42-44.

- U. S. Fish and Wildlife Service. 1966a. List of circulars of the U.S. Fish and Wildlife Service Fishery Leaflet 596.
- U. S. Fish and Wildlife Service. 1966b. List of Fishery Bulletins. U.S. Fish and Wildlife Service. Fishery Leaflet 597.
- U. S. Fish and Wildlife Service. 1967. List of special scientific reports and special scientific report-Fisheries of the U.S. Fish and Wildlife Service. Fishery Leaftlet 605.
- U. S. Fish and Wildlife Service. 1970a. A reconnaissance report on the impact on fish and wildlife resources of the North Slope oil development, the Trans-Alaska Pipeline System and the marine terminal sites. Typewritten report Juneau, Alaska. 57 p.
- U. S. Fish and Wildlife Service. 1970b. Arctic National Wildlife Range, Alaska. Narrative 1970 by Averill Thayer. Anchorage. 71 p. Tables, charts. (Unpublished).

Protein flow in lagoon area ecosystem described. *Thymallus arcticus*, Salvelinus alpinus and ciscoes (Coregonus sp.) abundant in summer.

U. S. Fish and Wildlife Service, 1974. Narrative report FY-74. Arctic National Wildlife Range Summary of status of wildlife populations.

Remarks:

Industrial and related activities have resulted in greater fishing pressure at Schrader Lake and North Slope charr drainages. Sea-run Salvelinus alpinus stocks not significantly affected. Subsistence fishers have traditionally netted large numbers. Salvelinus namaycush in Schrader Lake. Size of fish declining due to sport fishery.

- U. S. Joint Federal-State Land Use Planning Commission for Alaska. 1972. The native subsistence values and their relationships to d(1) d(2) land classification. Anchorage, Alaska.
- U. S. Joint Federal State Land Use Planning Commission. Resource Planning Team. 1974a. Inventory of recreation and preservation opportunities, Arctic region. Anchorage, Alaska. 89 p.
- U. S. Joint Federal-State Land Use Planning Commission for Alaska. Resource Planning Team. 1974b. Resources of Alaska: a regional summary. The Commission, Anchorage.

Oncorhynchus spp., Salvelinus alpinus, Coregonus spp., Stenodus leucichthys.

Places.

Barrow, Colville River Delta, Kotzebue Sound, Kobuk River, Barter Island, Wulik River, Kivalina River, Noatak River, Selawik Lake.

Remarks:

Summary of fish distribution and utilization.

- U. S. Revenue Service. 1899. Report on the cruise of the U.S. Revenue Cutter Bear and the Overland Expedition for the relief of the whalers in the Arctic Ocean from November 27, 1897 to September 18, 1898. Treas. Dep. Doc. 2101.
- University of British Columbia. Institute of Animal Resource Ecology. [n.d.] Catalogue of fish species distribution. On file in Fish Museum.
- Urban and Rural Systems Associates. 1974. An analysis of the socio-economic impact of the Alaskan Arctic Gas Pipeline Company pipeline. 360 p.
- Ushakov, P. V. 1952. The Chukchi Sea and its bottom fauna. Extreme Northeast of the U.S.S.R. 2. [In Russian.]
- Usher, P. J. 1965. Economic basis and resource use of the Coppernine River-Holman region, N.W.T. Northern Coordination Research Centre, Dep. of Northern Affairs and Natural Resources, Ottawa. 290 p. (NCRC-65-2).
- Usher, P. J. 1966. Banks Island, an area economic survey, 1965. Industrial Division, Dep. of Indian Affairs and Northern Development, Ottawa. 91 p. (A.E.S.R. m 65/1).

Species:

Coregonus clupeaformis, C. sardinella, Coregonus sp., Salvelinus alpinus, S. namaycush, Mallotus villosus, Gadus ogac.

Places:

Banks Island, Sachs Harbor, Fish Lakes, Raddi Lake, Thomsen River, Castel Bay.

Remarks:

Moderate runs of *S. alpinus* at Sachs Harbor. Castel Bay fishery probably unable to support more than 2 or 3 families.

Usher, P. J. 1971. Bankslanders: economy and ecology of a frontier trapping

community. Northern Administration Branch, Indian Affairs and Northern Development. Ottawa. 88 p. (N.S.R.G. 71-2).

Species:

Salvelinus alpinus, S. namayeush.

Places:

Banks Island, Sachs Harbor, Fish Lakes.

Remarks:

Runs are small, utilization minimal.

- Van Stone, J. W. 1960. A succuessful combination of subsistence and wage economics on the village level. Economic Development and Cultural Change 8(2):174-191.
- Van Stone, J. W. 1962. Point Hope, an Eskimo village in transition. University of Washington Press, Seattle.
- Van Stone, J. W., and W. H. Oswalt. 1960. Three Eskimo communities. Anthropol. Pap. of the University of Alaska 9(1):17-56.
- Van Wyhe, G. L. 1969. Pipeline impact on sport fish resources. Mimeo Report. Sport Fish Div. Alaska Dep. Fish Game. Fairbanks. 20 p.
- Van Wyhe, G L 1971. Impact of North Slope oil development on sport fisheries of interior and Arctic Alaskan waters. Available at Alaska Dep. Fish Game, Fairbanks. (Unpublished Abstract in Proc. Alaska Science Conf. 22:108).
- Vincent, R. E. 1973. Data report. Late winter surveys of lakes and streams in Canada and Alaska along the gas pipeline routes under consideration by Canadian Arctic Gas Study Ltd. Prepared by Aquatic Environments, Ltd.
- Vladykov, V D 1934. On the occurrence of some North Pacific fishes in Hudson Bay with remarks on the fish fauna of the Pitter area. Proc. Pac. Sci. Congress. University of Toronoto Press, Toronto. 5:3787-3789.

Species:

Raja radiata, Mallotus villosus, Boreogadus saida, Gadus ogac, Gymnelis viridis. Lycodes reticulatus, Lycodalepis (polaris?), Lumpenus fabricii, Stichaeus punctatus, Eumesogrammus praecisus, Pholis fasciatus, Myoxocephalus quadricornis, M. scorpioides, M. scorpius, Icelus bicornis, Gymnocanthus tricuspis, Aspidophoroides olrikii, Emuicrotremus derjugini, E. spinosus.

Remarks:

Theories on distribution of species of arctic fishes.

Walters, V. 1953a. Notes on fishes from Prince Patrick Island and Ellesmere Islands, Canada. Am Mus. Novitates 1643:1-17.

Species:

Salvelinus alpinus, Boreogadus saida, Gymnelis viridis, Lycodes pallidus, Anarhicas denticulatus, Icelus bicornis, Myoxocephalus quadricornis, Eumicrotremus spinosus, Liparis koefoedi, Liparis liparis.

Places:

Ellesmere Island, Alert, Prince Patrick Island, Mould Bay.

Remarks:

Distributional records.

Walters, V. 1953b. The fishes collected by the Canadian Arctic Expedition, 1913-1918, with additional notes on the ichthyofauna of western Arctic Canada Nat. Mus. Canada Bull. 128:257-274.

Species:

Mentions 41 spp. of fishes.

Places:

Cape Sabine, Alaska, to Bathurst Inlet, N.W.T., north to Borden Island.

Remarks:

Distributional records.

- Walters, V. 1955. Fishes of western Arctic America and Eastern Arctic Siberia: taxonomy and zoogeography. Amer. Mus. Nat. Hist. Bull. 106(5):255-368.
- Ward, D., and P. J. Craig. 1974. Catalogue of streams, lakes, and coastal areas in Alaska along routes of the proposed gas pipeline from Prudhoe Bay, Alaska to the Alaskan-Canadian border. Canadian Arctic Gas Study, Ltd. Calgary, Alberta Biological Rep. Ser. 19:381.

Species:

Coregonus autumnalis, C. clupeaformis, C. nasus, C sardinella, Prosopium cylindraceum, Salvelinus alpinus, S namaycush, Oncorhynchus gorbuscha, O. keta, Thymallus arcticus, Catostomus catostomus, Esox lucius, Boreogadus saida, Cottus cognatus, Myoxocephalus quadricornis, Liopsetta glacialis.

Remarks:

Water bodies described with respect to chemistry, winter conditions, presence of benthic invertebrates

Washington (State) University. Fisheries Oceanography Library. 1972. Selected references to literature on marine expeditions, 1700-1960. G. K. Hall, Boston, Massachussetts. 517 p.

Watson, G. E., and G. J. Divoky. 1974. Marine birds of the western Beaufort Sea. Pages 681-695 *In:* J. D. Reed and J. E. Sater, eds. The coast and shelf of the Beaufort Sea. Proc of a Symposium on Beaufort Sea coast and shelf research. Arctic Institute of N.A., Arlington, Va.

Remarks:

Five species of marine birds feed primarily on fish in coastal areas of the Yukon Territory.

Watt, R. D. 1966. The recreational potential of the Arctic Wildlife Range. M.S. Thesis. University of Alaska, Fairbanks. 103 p.

Remarks:

Thymallus signifer common in larger tributary streams. Salvelinus alpinus, S. namaycush found in deeper lakes and many north slope streams. Lake Peters and Lake Schrader contain Salvelinus namaycush but probably unable to support sustained fishing pressure.

- Wilimovsky, N. J. 1952a. Marine fishery resources of the Arctic regions. Special Report, U.S. Fish Wildl. Serv. no. 3.9 p.
- Wilimovsky, N. J. 1952b. The utilization of fishery resources by the Arctic Alaskan Eskimo. Stanford University, Tech. Pap. 2 on Contract N6onr-25136.17 p.

Species:

Oncorhynchus spp., Salomonidae (trout), Salvelinus namaycush, Coregonus spp., Prosopium cylindraceum, Stenodus leucichthys, Thymallus arcticus, Osmerus sp., Mallotus villosus, Catostomus catostomus, Lota lota, Boreogadus saida, Eleginus gracilis, Limanda aspera, Liopsetta glacialis.

Remarks:

Marine spp. not fully utilized, commercial exploitation doubtful.

- Wilimovsky, N. J. 1954a. Recent literature on far northern fishes. Copeia 1954(3):244-245.
- Wilimovsky, N. J. 1954b. A catalog of the fishes of Alaska. Stanford Ichthyol. Bull. 4(5):279-294.

Remarks:

Lists 39 spp. with ranges.

Wilimovsky, N. J. 1956. Appendix I. In: Beaufort Sea Report. Folder at U.S. Fish Wildl. Office, Anchorage, Alaska.

Oncorhynchus spp., Osmerus sp., Mallotus villosus, Boreogadus saida, Eleginus gracilis, Limanda aspera, Liopsetta glacialis.

Remarks:

Limited sea fishing for cod and smelt. More in lagoons and inland.

Wilkinson, D. 1970. The Arctic coast. Natur. Sci. Canada, Ltd. 160 p.

Remarks:

Semi-popular account of the Candian Arctic coast. Mentions 57 spp. fishes.

- Wilson, D. S. 1956. Processing of Arctic charr at Coppermine. Northern Affairs Bull. 3(3):7-9 (April-May, 1956).
- Winslow, P. C., and E. A. Roguski. 1969-70. Monitoring and evaluation of Arctic waters with emphasis on North Slope drainages. Alaska Dep. Fish Game. Federal Aid in Fish Restoration, Annual Report of Progress, 1969-70, Project F-9-2, 11:279-302.

Remarks:

Preliminary investigations of fish populations in waters of North Slope Brooks Range, and Northwestern Alaska.

Wohlschlag, D. E. 1953 Some characteristics of the fish population in an Arctic Alaskan lake. University California Publ. Biol. Sci. 11:19-29.

Species:

Leucichthys sardinella, Prosopium cylindraceum, Pungitius pungitius.

Places:

Ikroavik Lake.

Remarks:

Biology, development, population data.

- Wohlschlag, D. E. 1954a. Growth pecularities of the cisco (Coregonus sardinella, Valenciennes) in vicinity of Point Barrow, Alaska. Stanford Ichthyol. Bull. 4(3):188-209.
- Wohlschlag, D. E. 1954b. Mortality rates of whitefish in an Arctic lake. Ecology 35(3):388-396.
- Wohlschlag, D. E. 1956. Information from studies of marked fishes in the Alaskan Arctic. Copeia 1956(4):237-242.

Species:

Coregonus sardinella, C. nasus kennicotti, Myoxocephalus quadricornis.

Used mark and recapture techniques to estimate populations in Ikroavik Lake and Elson Lagoon

- Wohlschlag, D. E. and D. M. Cohen. 1953. Population dynamics of isolated, unexploited fish populations with very short growing seasons at Point Barrow, Alaska. Final Rep. on Contract Nonr-225(08). 69 p.
- Woolford, R. [n.d]. Notes on village economics and wildlife utilization in Arctic Alaska, U S Fish Wildl. Serv. Fairbanks. Alaska.

Species:

Coregonus spp., Stenodus leucichthys, Oncorhynchus spp., Salvelinus malma, S namaycush, Thymallus arcticus, Osmerids, Esox lucius, Lota lota.

Places:

Point Barrow, Wainwright, Point Lay, other villages south to Kotzebue region.

- Woolford, R 1954. Village economics in Arctic and interior Alaska. Manuscript presented at Fifth Alaska Sci. Conf.
- Wrangell, F. von. 1840. Narrative of an expedition to the Polar Sea in the years 1820, 1821, 1822, and 1823. Ed. by Edward Sabine. J. Madden, London.
- Wynne-Edwards, V. C. 1947. Northwest Canadian fisheries survey. Fish. Res. Bd. Canada Bull. 72:21-30.

Remarks:

Survey of fishery utilization and potential of Mackenzie River. Estimates of consumption by men and dogs. Greatest abundance of fish in delta area.

Wynne-Edwards, V. C. 1952. Freshwater vertebrates of the Arctic and Subarctic. Fish. Res. Bd. Canada Bull. 94:28 p.

Remarks:

Brief summaries of life histories and habitats of 17 spp. fishes.

- Yoshihara, H. T. Life history aspects of an anadromous Arctic charr (Salvelinus alpinus) in the Sagavanirktok River drainage, Alaska Dep. Fish Game, Fairbanks. (Unpublished).
- Yoshihara, H. T. 1972. Monitoring and evaluation of Arctic waters with emphasis on North Slope drainages. Alaska Dep. Fish Game. Federal Aid in Fish Resotration, Annual Report of Performance, 1971-72. Project F-9-4, 13:49 p.

Investigates Sagavanirktok River drainage between Prudhoe Bay and Accomplishment Creek to determine distribution and abundance of fish species, migration timing, and biological productivity. Life history aspects of Salvelinus alpinus studied.

Yoshihara, H. T. 1973. Monitoring and evaluation of Arctic waters with emphasis on North Slope Drainages. Alaska Dep. Fish Game. Federal Aid in Fish Restoration, Annual Report of Progress, 1972-73. Project F-9-5 14:83 p

Species:

Coregonus autumnalis, C. clupeaformis, C. nasus, C. sardinella, Prosopium cylindraceum, Salvelinus alpinus. Oncorhynchus gorbuscha, O. keta. Thymallus arcticus, Lota lota, Pungitius, pungitius. Cottus cognatus.

Places:

Alaska North Slope, Sagavanirktok River, Kivalina.

Remarks:

Emphasis on biology of S. alpinus in vicinity of oil development projects.

- Yoshihara, H. T., D. R. Kogl and S. Dole. 1971. Field notes on streams and lakes of Sagavanirktok River system. Sport Fish Div. Alaska Dep. Fish Game, Fairbanks.
- Zenkevitch, L. A. 1951. Morya SSSR, ikh fauna i flora [Seas of the U.S.S.R. their fauna and flora]. Uchpedgiz., Moscow. 368 p.

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