

New Distributional Records of Marine Fishes off Washington, British Columbia and Alaska

ALEX E. PEDEN¹ and GLEN S. JAMIESON²

¹Royal British Columbia Museum, Victoria, British Columbia V8V 1X4

²Department of Fisheries and Oceans, Fisheries Research Branch, Pacific Biological Station, Nanaimo, British Columbia V9R 5K6

Peden, Alex E., and Glen S. Jamieson. 1988. New distributional records of marine fishes off Washington, British Columbia and Alaska. *Canadian Field-Naturalist* 102(3): 491-494.

Dasyatis violacea (Dasyatidae), *Cyclothone pallida* (Gonostomatidae), *Paralepis atlantica* (Paralepididae), *Scopelogadus mizolepis bispinosus* (Melamphaidae), *Taranetzella lyoderma* (Zoarcidae) and *Xiphias gladius* (Xiphiidae) are reported as new to, or confirmed within, Canada's 200 mile fishery zone in the eastern Pacific Ocean. First records of *Stellerina xyosterna* and *Xeneretmus leiops* (Agonidae) are reported for Alaska. Second records of *Taractes asper* (Bramidae) and *Seriola lalandi dorsalis* (Carangidae) are reported. *Luvarus imperialis* (Luvaridae) is reported just outside the southwestern corner of the Canadian fishery zone.

Key Words: North Pacific, British Columbia, Agonidae, Bramidae, Carangidae, Dasyatidae, Gonostomatidae, Luvaridae, Melamphaidae, Paralepididae, Xiphiidae, Zoarcidae.

Peden (1986) summarized a number of new occurrences of marine fish species from western Canadian waters, and adopted the 200 mile (322 km) fishery zone recognized by Jean et al. (1982) as the area for documenting Canadian marine fauna. Sightings of other species previously unknown to the region continue to be made, particularly through the flying squid research program in the northeastern Pacific Ocean (eg. Robinson and Jamieson 1984; Sloan 1984). Here we report new records of species for Canadian waters, and verify others seldom reported for the area or which represent significant extensions of their known geographic range.

DASYATIDAE

Dasyatis violacea (Bonaparte) Pelagic Stingray

Clemens and Wilby (1960) discussed the identity of stingrays taken in 1928 off Kyoquot, B.C., but the lack of museum specimens made it impossible to identify the species. Hart (1973) suggested that either *Dasyatis dipterura* (Jordan) or *D. violacea* could have been the species involved.

We now have a Canadian specimen of *Dasyatis violacea* taken by the Japanese fishing vessel *Tomi Maru* #88 on 26 August 1985 at 49°45'N latitude, 132°46'W longitude (about 225 nautical miles west of Nootka Island, B.C.). It is catalogued at the Royal British Columbia Museum (formerly the British Columbia Provincial Museum) fish collection as BCPM 985-485.

Known as the Pelagic Stingray, its place of capture on the high seas supports this identification, as does its rounded anterior profile and

purplish-grey coloured ventral surface (see Miller and Lea 1972). The dorsal spine was missing at the time of our examination. The specimen was preserved in a distorted position with its total length about 980 mm; snout to end of pectoral fin, 320 mm; and snout to end of pelvic fin, 335 mm.

Even though our record suggests that *D. dipterura* might not be the species to recognize off western Canadian waters, the 1928 records near Kyoquot were caught on salmon lures and presumably in much shallower water. Therefore, the identity of such a record in a different inshore water mass should still be considered in doubt.

GONOSTOMATIDAE

Cyclothone pallida Brauer Tan Bristlemouth

Northern records of *Cyclothone pallida* were discussed by Peden et al. (1985) and Peden and Hughes (1986), with specimens recorded as far north as Station Papa (50°N, 145°W) or Oregon (Pearcy 1972). We now have a Canadian specimen, 58.8 mm standard length (=SL) and catalogued as BCPM 986-91. It was taken southwest of La Perouse Bank, 18 March 1986, by Philip Lambert aboard the CSS *Endeavor* at 48°08.1'N, 126°36.9'W, in 0 to 650 m depths, and represents the first verifiable record of the species within the 200-mile Canadian fishery zone.

The VAV series of photophores between anal and pelvic fins are five in number and evenly spaced, thus differentiating the species from its sympatric congener *C. pseudopallida* (Mukhacheva 1964). Counts: dorsal fin rays 14, anal rays 18, gill rakers 13 + 2 + 6, branchiostegal photophores 10, IV

photophores (preceeding pelvic fins) 13, AC photophores (above anal fin base) 15.

PARALEPIDIDAE

Paralepis atlantica Kroyer **Duckbill Barracudina**

Peden (1980) recorded *Paralepis atlantica* from weathership station Papa (50°N, 145°W) and noted published records off Washington State, but no records of specimens within the Canadian fishery zone are published. There is a specimen in the fish collection of the University of British Columbia without accurate locality data.

We now have a documentable Canadian specimen (410 mm SL) donated to us by Dick Nagtegaal of the Pacific Biological Station at Nanaimo, B.C. (BCPM 985-484). It was taken in a trawl haul by the M/V *Howe Bay* between 48° 30.33'N, 126° 10.62'W and 48° 24.95'N, 126° 09.35'W at Deep Big Bank north of Cape Flattery, in 0 to 344 m depths on 16 September 1985. Being from a minimum of at least 20 nautical miles inside the southern boundary of Canadian waters, it provides the first authentic record of a Canadian specimen. The specimen's 10 dorsal fin rays, 23 anal rays, 16 short pectoral rays, 66 vertebrae (including urostyle), 59 lateral line pores, deciduous scales and pattern of toothed gill rakers readily confirmed the species as *P. atlantica* (Rofen 1966).

MELAMPHAIDAE

Scopelogadus mizolepis bispinosus (Gilbert)

Soft Melamphid

Berry and Perkins (1966) indicate that *Scopelogadus mizolepis bispinosus* is abundant off California, although Percy's tabulation (1972) of oceanic organisms does not list the species off Oregon. Ebeling (1962) and Ebeling and Weed (1973) reviewed the species of *Scopelogadus* and indicate that *S. m. bispinosus* is restricted to the eastern tropical Pacific Ocean.

On 17 March 1986 Philip Lambert obtained a 49 mm S.L. specimen (BCPM 986-90) southwest of La Perouse Bank (48°08.1'N, 126°36.9'W) in 0 to 675 m depths. This is the only known specimen taken off western Canada. The large scale pockets (indicating about 15 or fewer deciduous lateral scales), combination of fin ray counts (dorsal II,11; anal I,8; pectoral 13; pelvic I,8) and absence of a supramaxillary bone distinguish our specimen from other melamphid species.

BRAMIDAE

Taractes asper Lowe

Rough Pomfret

Peden and Ostermann (1981) reported on a specimen of *Taractes asper* taken off the Queen Charlotte Islands, and noted published records from California to Japan and Alaska. We have now

obtained nine adults of this poorly known species from the following three localities (the first being the second known museum specimen from Canadian waters):

BCPM 985-478 (1; 307 mm SL), from 47°18'N, 128°12'W; gillnet, M/V *Tomi Maru* #88, 9 July 1985,

BCPM 985-480 (1; 392 mm SL), from 46°44'N, 130°58'W; M/V *Tomi Maru* #88, 13 July 1985,

BCPM 985-479 (7; 291 to 336 mm SL), from 46°36'N, 130°54'W, M/V *Tomi Maru* #88, 15 July 1985.

Counts: principal dorsal rays 26 to 31 (mean 28.3), principal anal rays 20-23 (mean 21.7), pectoral rays 16 to 17, and scales in lateral series 44 to 47 (mean 45.6).

CARANGIDAE

Seriola lalandi dorsalis (Gill)

Yellowtail

Nagtegaal and Farlinger (1981) reported the only record of *Seriola* from British Columbia and extended its known geographic range as far as 54°35'N. We now have another specimen (BCPM 983-1729, 630 mm SL) from within the Canadian fishery zone. It was listed by Sloan (1984: 18) and captured in gill nets by the M/V *Tomi Maru* #88 on 5 August 1983 at 47°57'N, 130°50'W. We also have a specimen (BCPM 985-487, 530 mm SL) from just outside Canadian waters caught by the M/V *Tomi Maru* #88 on 13 July 1985 at 46°44'N, 130°58'W.

Seriola lalandi may be a regular summertime visitor to offshore Canadian waters, since Bernard (1980, 1981) records them in the following catch records incidental to the Japanese high seas squid fishery. Such records have not been commonly acknowledged by ichthyologists: 1 kg caught by M/V *Kohoku Maru* #18 on 3 October 1979 at 49°26.2'N, 128°53.6'W (Bernard 1980); 2 kg caught by M/V *Tenryu Maru* #37 on 28 September 1979 at 47°49.9'N, 128°27.9'W (Bernard 1980); 6 kg caught by M/V *Tenryu Maru* #37 on 29 September 1979 at 48°24.4'N, 126°2.6'W (Bernard 1980); 1 kg caught by M/V *Tomi Maru* #88 on 15 August 1980 at 48°25.4'N, 126°38'W (Bernard 1981); 24 kg caught by M/V *Tomi Maru* #88 on 23 August 1980 at 49°38.7'N, 132°52.0'W (Bernard 1981); 9 kg caught by M/V *Tomi Maru* #88 on 24 August 1980 at 49°24.5'N, 132°43.4'W (Bernard 1981).

LUVARIDAE

Luvarus imperialis Rafinesque

Luvar

Miller and Lea (1972) and Eschmeyer et al. (1983) record the distribution of *Luvarus imperialis* reaching northward to about Newport, Oregon. We obtained two specimens of about 705 and 660 mm SL (BCPM 985-482) taken by the M/V *Tomi Maru* #88 on 15 July 1985 at 46°36'N, 130°54'W. Another

two, about 615 and 680 mm SL (BCPM 985-488), were taken by the same vessel on 14 July 1985 at 46°22'N, 131°09'W.

One of the collections taken west of Washington State was from about 37 nautical miles west of the southwestern boundary of the Canadian fishery zone near Cobb Seamount and suggests the species probably strays into Canadian waters.

Although the species is readily identifiable by its unique appearance (small mouth, highly developed nape, spinous rays only in dorsal and anal fins, lunate caudal fin and caudal keel (Miller and Lea 1972), Bolin (1940) notes major morphometric changes, with the anterior rays of both the dorsal and anal fins being overgrown by tissue, and pelvic rays being reduced in adults to a single plate-like scute. Our specimens have 11 to 14 exposed spinous dorsal rays, 14 or 15 exposed spinous anal rays, 17 or 18 pectoral rays, and one specimen has a pelvic scute (this scute damaged or lost on other specimens). There are 19 to 21 vertebrae (including urostyle).

XIPHIIDAE

Xiphias gladius Linnaeus

Swordfish

The Swordfish, *Xiphias gladius*, was reported off Oregon (Miller and Lea 1972) and a large individual taken off Washington is being reported elsewhere (Douglas Nelson, personal communication). We also received the remains of yet another specimen representing the first Canadian specimen. It was taken in the extreme southwestern extension of the Canadian fishery zone, but similar to the Washington specimen, it was partly eaten by the ship's crew before being examined by researchers. Of the 50 kg estimated weight, the sword and the caudal fin (along with the diagnostic single keel of the caudal peduncle) were preserved and catalogued (BCPM 983-1730). It was retrieved by N. A. Sloan from the M/V *Tomi Maru* #88 on 8 August 1983 at 47° 6'N, 131°03'W and listed by Sloan (1984).

AGONIDAE

Stellerina xyosterna (Jordan and Gilbert)

Pricklebreast Poacher

Barraclough and Peden (1977) recorded *Stellerina xyosterna* as far north as the Queen Charlotte Islands. Examination of Alaskan collections held as voucher specimens for the U.S. Bureau of Land Management at the California Academy of Sciences revealed a specimen, 79 mm SL, taken off Icy Bay, Alaska, at 59°52'54"N, 141°51'18"W. It was taken in an otter trawl by the R/V *Miller Freeman* on 23 November 1979 in 27 to

29 m depths and represents the first record for the species in Alaskan waters as well as a significant (400 nautical mile) extension of the known northern range.

The specimen is catalogued as CAS 47039. Counts are dorsal rays VII, 6; anal rays 9; pectoral rays 19; dorsolateral plates 23; mid-dorsal plates 13; supralateral plates 31; lateral line pores 31; infralateral plates 37; ventrolateral plates 20; midventral plates 14.

Xeneretmus leiops Gilbert Smootheye Poacher

Barraclough and Peden (1977) recorded the first records for British Columbia as far north as 48°48'N latitude. We now have a specimen (NMC 66-268; 206 mm SL) taken off Forrester Island, Alaska, at 54°42'N, 134°W by W. Van Vleit while aboard the R/V *G.B. Reed* on 2 September 1966. It represents a 450 nautical mile northern extension of the known geographic range and the first published record for Alaskan waters.

The specimen is readily identified by the darkened distal margin of the spinous dorsal fin, with dark pigment extending halfway down the first two spinous dorsal rays. Counts are dorsal rays VI, 6; anal rays 5; pectoral rays 14; dorsolateral plates 23; middorsal plates 18; supralateral plates 40 + 1; lateral line pores 43; infralateral plates 40 + 1; ventrolateral plates 21; midventral plates 43.

ZOARCIDAE

Taranetzella lyoderma Andriashev

Ghostly Eelpout

Taranetzella lyoderma was described from the Bering Sea (Andriashev 1952). Many more specimens are known from off Oregon and Washington. We have examined OSUO 1896 and one from OSUO BMT 288, although many others are held at the California Academy of Sciences. Through the courtesy of David Stein, School of Oceanography, Oregon State University, we examined two specimens (OSUO DWD B.M.T.-2), 110 and 145 mm SL, taken west of Vancouver Island at 48°18.9'N, 127°01'W in depths of 2520 m. These are the only specimens known from Canadian waters.

The specimens are identifiable as *T. lyoderma* by the presence of pelvic fins, gill openings not extending forward under jaw, strong jaw teeth, loose "liparid-like" skin, wide interorbital space, and weak development of scales restricted to posterior portion of body (Andriashev 1952). Counts: dorsal rays 86 to 91; anal rays 72 to 79; pectoral rays 15; vertebrae 19 + 71 to 78 = 90 to 97.

Literature Cited

- Andriyashev, A. P.** 1952. Novaya glubokovodnaya ryba semeistva bel'dyugovykh (Pisces, Zoarcidae) iz Beringova morya [A new deep-sea fish of the eelpout family (Pisces, Zoarcidae) from the Bering Sea]. Trudy Zoologicheskogo Instituta Nauk SSSR. 12: 415-417 [Translated by Israel Program for Scientific Translations, Jerusalem, 1963.]
- Barraclough, W. E., and A. E. Peden.** 1977. First records of the pricklebreast poacher (*Stellerina xyosterna*), and the cutfin poacher (*Xeneretmus leiops*) from British Columbia, with keys to the poachers (Agonidae) of the Province. Syesis (1976) 9: 19-23.
- Bernard, F. R.** 1980. Preliminary report on the potential commercial squid of British Columbia. Canadian Technical Report of Fisheries and Aquatic Sciences No. 942. 51 pp.
- Bernard, F. R.** 1981. Canadian west coast flying squid experimental fishery. Canadian Industry Report of Fisheries and Aquatic Sciences No. 122. 23 pp.
- Berry, F. H., and H. C. Perkins.** 1966. Survey of pelagic fishes of the California current area. Fishery Bulletin, Bureau of Commercial Fisheries 65: 652-682.
- Bolin, R. L.** 1940. A redescription of *Luvarus imperialis* Rafinesque based upon a specimen from Monterey, California. California Fish and Game 26(3): 282-284.
- Clemens, W. A., and G. V. Wilby.** 1960. Fishes of the Pacific Coast of Canada. Bulletin of the Fisheries Research Board of Canada 68: 1-443.
- Ebeling, A. W.** 1962. Melamphidae I, Systematics and zoogeography of the species in the bathypelagic fish genus *Melamphaes* Gunther. Dana-Report, Carlsberg Foundation, Copenhagen, No. 58. 164 pp.
- Ebeling, A. W., and W. H. Weed.** 1973. Order Xenobryces (Stephanobryciformes). Memoir of the Sears Foundation for Marine Research 1(6): 397-478.
- Eschmeyer, W. N., E. S. Herald, and H. Hammann.** 1983. A field guide to Pacific Coast fishes of North America. Houghton Mifflin, Boston. 336 pp.
- Hart, J. L.** 1973. Pacific fishes of Canada. Bulletin of the Fisheries Research Board of Canada 180: 1-740.
- Jean, Y., A. E. Peden, and D. E. McAllister.** 1982. English, French and scientific names of Pacific fish of Canada. British Columbia Provincial Museum Heritage Record 13: 1-51.
- Miller, D. J., and R. N. Lea.** 1972. Guide to the coastal marine fishes of California. California Department of Fish and Game, Fish Bulletin 157: 1-235.
- Mukhacheva, V. A.** 1964. The composition of the genus *Cyclothone* (Pisces, Gonostomidae) in the Pacific Ocean. In Fishes of the Pacific and Indian oceans, biology and distribution. Edited by T. S. Rass. Trudy Instituta Okeanologii, Akademiya Nauk, SSSR. [Israel Program for Scientific Translation 1966: 98-135.]
- Nagtegaal, D. A., and S. P. Farlinger.** 1981. First record of two fishes, *Seriola dorsalis* and *Medialuna californiensis*, from waters off British Columbia. Syesis 13 (1980): 206-207.
- Pearcy, W. G.** 1972. Distribution and ecology of oceanic animals off Oregon. Pp. 351-377 in The Columbia River estuary and adjacent ocean waters, bioenvironmental studies. Edited by A. T. Pruter and D. L. Alverson. University of Washington Press, Seattle, Washington.
- Peden, A. E.** 1980. Rare captures of two fishes, *Benthodesmus* and *Paralepis*, off British Columbia. Syesis 12 (1980): 179-180.
- Peden, A. E., and G. W. Hughes.** 1986. First records, confirmatory records, and range extensions of marine fishes within Canada's west coast fishing zone. Canadian Field-Naturalist 100: 1-9.
- Peden, A. E., and W. Ostermann.** 1981. Three fish species previously unknown from waters off British Columbia. Syesis (1980) 13: 215-217.
- Peden, A. E., W. Ostermann, and L. J. Pozar.** 1985. Fishes observed at Canadian weather ship Ocean Station Papa (50° N, 145° W), with notes on the trans-Pacific cruise of the CSS *Endeavor*. British Columbia Provincial Museum Heritage Record 18: 1-50.
- Rofen, R. R.** 1966. Family Paralepididae. Pp. 205-461 in Fishes of the western North Atlantic. Memoir of the Sears Foundation for Marine Research 1(5).
- Robinson, S. M. C., and G. S. Jamieson.** 1984. Report on a Canadian commercial fishery for flying squid using drifting gill nets off the coast of British Columbia. Canadian Industry Report of Fisheries and Aquatic Sciences 150: 1-25.
- Sloan, N. A.** 1984. Canadian-Japanese experimental fishery for oceanic squid off British Columbia, summer 1983. Canadian Industry Report of Fisheries and Aquatic Sciences 152: 1-42.

Received 29 September 1986

Accepted 6 May 1987



Peden, Alex and Jamieson, Glen S. 1988. "New distribution records of marine fishes off Washington, British Columbia, and Alaska." *The Canadian field-naturalist* 102(3), 491–494. <https://doi.org/10.5962/p.356591>.

View This Item Online: <https://www.biodiversitylibrary.org/item/89713>

DOI: <https://doi.org/10.5962/p.356591>

Permalink: <https://www.biodiversitylibrary.org/partpdf/356591>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.