

## INTERNAL REPORT 34

### CHECKLIST OF FISHES IN THE LAKE WASHINGTON DRAINAGE

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#### INTRODUCTION

Table 1 has been modified from Ajwani's (1956). Scientific and common names follow the American Fisheries Society Special Publication 6 (Bailey 1970). This list presents the families of fishes in a natural or phyletic sequence, but the species are alphabetized by their generic and specific names. References pertaining to additions to Ajwani's list are noted with the name of the species.

Thirty-five species occur in the drainage at present--24 species are native to the area and 11 other species have been introduced. Two native species, the chum and pink salmon, are included as of doubtful occurrence in the checklist. Neither of these species is common, and only an occasional fish may enter the drainage. The chum salmon has been used in some recent studies at the College of Fisheries hatchery by Dr. Lauren R. Donaldson. During the fall of 1970, two pink salmon entered the University of Washington hatchery pond and provided the first record of this species to enter the pond.

Three species have been added to Ajwani's original list. A longfin smelt population is of particular interest, because this is the first record of a landlocked population. The growth rate of these smelt is equal to or greater than that of anadromous populations (Dryfoos 1965). Also of interest is an undescribed cottid that apparently has adapted to a pelagic existence in Lake Washington from the usual benthic habits of the family (Ikusemiju 1967). Dr. Carl E. Bond, of the Department of Fisheries and Wildlife at Oregon State University, is studying the taxonomy of this form. Another native cottid, Cottus confusus, has been added to the list. This species was reported in Swamp Creek by B. G. Patten (1971), and in Issaquah Creek by B. Kynard, College of Fisheries, University of Washington (personal communication).

Other species that were listed by Ajwani (1956) have been eliminated from the list if they have not been collected during recent sampling by the faculty and students at the University of Washington. Several species that have not been collected during recent studies were retained on the list because they may be in parts of the drainage that have not been sampled or may exist in low numbers. For example, verbal reports have been received that lake trout have been caught recently by angling in Lake Washington. The occurrence of lake trout is questionable, however, because the species has not been collected during the current and extensive sampling program of Lake Washington, and because the last plant of this species was made in 1900 (Ajwani 1956). Also, Ajwani (1956) listed the brook trout as a predominant sport species in Beaver Creek in 1955. One short sampling trip of the Beaver Creek drainage was made in 1971, but no brook trout were collected. This species becomes established easily, however, and it may exist in the drainage.

Classifying the occurrence and relative abundance of the various fish is desirable to provide a general view of their roles in the ecosystem and to plan future studies of the drainage. As studies continue, this classification can be improved. The occurrence of the fish is listed as follows: L - resident of lakes; L(T) - transients in lakes; S - residents of streams; and S(T) - transients in streams. For example, a juvenile coho salmon would be considered a stream resident; because it would live there for one or two years before migrating to sea. This species would be considered a transient in the lake because it would only be in the lake a short time as it migrated to sea and again when the adult returned to spawn. A sockeye salmon, however, would be in a stream only to spawn and until the fry emerged from the gravel. It would, therefore, be considered a transient. The juveniles of this species develop in the lake and would be considered lake residents. Some species are known to live in both stream and lake habitats, but are recorded here in the habitat where they were collected. The relative abundance of each species is given for the overall drainage by the following general categories: A - abundant, C - common, O - occasional, and R - rare. One should keep in mind that the overall rating of abundance may be different for specific locations within the drainage. For example, largemouth bass may be considered abundant in suitable habitat, but are listed as common because suitable habitat is limited by shoreline development from urbanization.

Several comments can be made on fish abundance in specific locations within the drainage. In Lake Washington, six species are considered abundant: sockeye salmon, peamouth, northern squawfish, yellow perch, brown bullhead, and prickly sculpin. Six additional species are considered common in Lake Washington: longfin smelt, carp, largescale sucker, three-spine stickleback, largemouth bass, and black crappie. In many of the small tributaries to Lake Washington, cutthroat trout and brook lamprey are abundant, and the various species of cottids are common to abundant. In these small tributaries, coho salmon and rainbow trout are common. A preliminary survey of Chester Morse Lake indicated that rainbow trout, Dolly Varden, and mountain whitefish are all common to abundant species in the reservoir.

Table 1. Checklist of fishes in Lake Washington drainage.

Scientific name	Common name	Occurrence
<b>Petromyzontidae - Lampreys</b>		
<i>Entosphenus tridentata</i> (Gairdner)	Pacific lamprey	L9T), S; R
<i>Lampetra ayresi</i> (Gunther)	River lamprey	L(T), S; R
<i>Lampetra richardsoni</i> Vladykov and Follet	Western brook lamprey	S; A
<b>Salmonidae - Trout, Salmon, Whitefish</b>		
<i>Oncorhynchus gorbuscha</i> (Walbaum)	Pink salmon	L(T), S(T); R <sup>1</sup>
<i>Oncorhynchus keta</i> (Walbaum)	Chum salmon	S(T); R
<i>Oncorhynchus kisutch</i> (Walbaum)	Coho salmon	L(T), S; A-C <sup>1</sup>
<i>Oncorhynchus nerka</i> (Walbaum)	Sockeye salmon (migratory)	L, S(T); A <sup>2</sup>
<i>Oncorhynchus nerka</i> (Walbaum)	Kokanee (lacustrine)	L, S(T); C <sup>2</sup>
<i>Oncorhynchus tshawytscha</i> (Walbaum)	Chinook salmon	L(T), S(T); C
<i>Prosopium williamsoni</i> (Girard)	Mountain whitefish	L, S; C
<i>Salmo clarkii clarkii</i> Richardson	Coastal cutthroat trout	L, S; C
<i>Salmo gairdneri</i> Richardson	Steelhead trout (migratory)	L(T), S; C
<i>Salmo gairdneri</i> Richardson	Rainbow trout (resident)	L, S; C
<i>Salvelinus fontinalis</i> (Mitchill)	Brook trout	S; Unknown <sup>3</sup>
<i>Salvelinus malma</i> (Walbaum)	Dolly Varden	L, S; C
<i>Salvelinus namaycush</i> (Walbaum)	Lake trout	L; Unknown <sup>3</sup>
<b>Osmeridae - Smelts</b>		
<i>Spirinchus thaleichthys</i> (Ayres)	Longfin smelt	L, S(T); C <sup>4</sup>
<b>Cyprinidae - Minnows</b>		
<i>Cyprinus carpio</i> Linnaeus	Carp	L; C <sup>2</sup>
<i>Mylocheilus caurinus</i> (Richardson)	Peamouth	L, S(T); A
<i>Ptychocheilus oregonensis</i> (Richardson)	Northern squawfish	L, S(T); A
<i>Rhinichthys osculus</i> (Girard)	Speckled dace	S; C
<i>Richardsonius balteatus</i> (Richardson)	Redside shiner	S; O
<i>Tinca tinca</i> (Linnaeus)	Tench	L; O <sup>2</sup>
<b>Catostomidae - Suckers</b>		
<i>Catostomus macrocheilus</i> Girard	Largescale sucker	L, S(T); C
<b>Ictaluridae - Freshwater catfishes</b>		
<i>Ictalurus nebulosus</i> (LeSueur)	Brown bullhead	L; A <sup>2</sup>
<b>Gasterosteidae - Sticklebacks</b>		
<i>Gasterosteus aculeatus</i> Linnaeus	Threespine stickleback	L, S; C
<b>Centrarchidae - Sunfishes</b>		
<i>Lepomis gibbosus</i> (Linnaeus)	Pumpkinseed	L; C - O <sup>2</sup>
<i>Micropterus dolomieu</i> Lacepede	Smallmouth bass	L; O <sup>2</sup>
<i>Micropterus salmoides</i> (Lacepede)	Largemouth bass	L, S(T); C <sup>2</sup>
<i>Pomoxis nigromaculatus</i> (LeSueur)	Black crappie	L; C <sup>2</sup>

Table 1. (continued)

Scientific name	Common name	Occurrence
Percidae - Perches		
<i>Perca flavescens</i> (Mitchill)	Yellow perch	L; A <sup>2</sup>
Cottidae - Sculpins		
<i>Cottus aleuticus</i> Gilbert	Coastrange sculpin	L, S; C
<i>Cottus asper</i> Richardson	Prickly sculpin	L, S; A
<i>Cottus confusus</i> Bailey and Bond	Shorthead sculpin	S; C <sup>3</sup>
<i>Cottus gulosus</i> (Girard)	Riffle sculpin	S; C
<i>Cottus rhotheus</i> (Smith)	Torrent sculpin	S; C
<i>Cottus</i> sp.	Pelagic cottid	L; C <sup>6</sup>

<sup>1</sup>Doubtful occurrence of the species, except for an occasional fish.

<sup>2</sup>Introduced and has become established in the drainage.

<sup>3</sup>Uncertain that species is present in the drainage.

<sup>4</sup>Dryfoos 1965.

<sup>5</sup>Patten 1971.

<sup>6</sup>Ikusemiju 1967.

#### REFERENCES

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