Spinus pinus Spinus tristis Loxia curvirostra Chlorura chlorura

Pipilo erythrophthalmus

Calamospiza melanocorys

Chondestes gramineus
Chondestes grammacus
Junco oreganus
Spizella passerina
Spizella Breweri
Zonotrichia leucophrys
Melospiza lincolnii

Melospiza melodia

Pine Siskin (Common)
American Goldfinch (Common)
Red Crossbill (Ice Cave)
Green-tailed Towhee
(Lost Creek)
Rufous-sided Towhee
(Lost Creek)
Lark Bunting
(1 mile East of Pryor)
Vesper Sparrow (Common)
Lark Sparrow (Common)
Oregon Junco (Common)
Chipping Sparrow (Common)
Brewer's Sparrow (Ice Cave)

White-crowned Sparrow (Common)
Lincoln's Sparrow
(Upper Sage Cr.)
Song Sparrow (Common)

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ZOOLOGICAL SCIENCES SECTION

### SECTION

A PRELIMINARY LIST OF MONTANA FISHES\*

C. J. D. Brown

The only published list of Montana fishes which includes the whole state is that of Henshall (1906). This gave 13 families and 45 species, nine of which were introduced. Schultz (1941) reported eight families and 23 species for Glacier National Park. Five of these were exotic to the state. Weisel (1955) listed 11 families and 29 species for the intermountain area of Montana and these included 12 introduced species. The following list comprises 17 families and 75 species. Fifty species are considered native while 25 species representing six families are probably foreign to the original fish fauna of Montana. Only two families, the Esocidae with one species, and the Poecilidae with two species, are wholly exotic. Other species not listed are known to have been introduced but have failed to become established in the wild.

A considerable number of subspecies has been reported by various workers but these are not included because the validity of most are still in doubt. Hybrids between species and genera are also omitted even though a considerable number of them are known from wild populations. The order of arrangement and nomenclature follow the nomenclature of the American Fisheries Society (1960).

This Montana list is based on approximately 800 collections, including more than 75,000 specimens, taken from the various streams and lakes throughout the state. Fair coverage was made of all drainages within Montana but collecting was more intensive east of the Continental Divide. The distribution of species is shown for the five major drainages: Yellowstone, Missouri, St. Mary, Clark Fork and Kootenai. Details of distribution will be presented at a later time. Only three species (white strugeon, bigmouth buffalo and sturgeon dace) are included in the list which are not represented by actual collections, but their presence in the state is quite indisputable. Most of the specimens collected are deposited at Montana State College, where they are available for study.

The help of former fisheries students and Montana fisheries biologists in the collection of Montana fishes is acknowledged. Dr. Reeve M. Bailey gave advice and

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<sup>\*</sup>Contribution from Montana Fish and Game Department and the Montana Agricultural Experiment Station Project No. MS 844, paper No. 581 Journal Series.

Brown: Preliminary List of Montana Fishes

assistance in the identifications and my wife, Evangeline S. Brown did most of the cataloguing. Financial assistance was furnished by the Montana Fish and Game Department and the Montana Agricultural Experiment Station.

Fam	ilies of Montana	F	ishes	Number of Species
4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Acipenseridae Polydontidae Lepisosteidae Salmonidae Hiodontidae Esocidae Cyprinidae Catostomidae Ictaluridae Cyprinodontidae Poecilidae Gadidae Gasterosteidae Centrarchidae Percidae Scianidae Cottidae		Sturgeon Paddlefish Gar Salmon Mooneye Pike Minnow Sucker Catfish Killifish Topminnow Cod Stickelback Sunfish Perch Drum Sculpin	3 1 1 13 1 20 9 4 1 2 1 1 8 4 1 4
				75

#### List of Species

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1. Acipenseridae

Acipenser transmontanus	White sturgeon	K°	
(Richardson) Scaphirhynchus albus (Forbes and Richardson)	Pallid sturgeon	Υ,	М
Scaphirhynchus platorhynchus (Rafinesque)	Shovelnose sturgeon	Υ,	М
Polyodontidae			

Polyodontidae

Polyodon spathula (Walbaum) Paddlefish

Lepisosteidae

Lepisosteus platostomus Shortnose gar M (Rafinesque)

### 4. Salmonidae

	*Coregonus clupeaformis (Mitchill)	Lake whitefish	C, S
	Prosopium williamsoni	Mountain whitefish	A11
	(Girard) Prosopium coulteri	Pygmy whitefish	С
	(Eigenmann & Eigenmann) *Oncorhynchus nerka (Walbaum)	Kokanee	M, Y, C, S
	*Oncorhynchus kisutch (Walbaum)	Coho salmon	С
	*Salmo aquabonita (Jordan) Salmo clarki (Richardson) *Salmo gairdneri (Richardson)	Golden trout Cutthroat trout Rainbow trout	M, Y, C, K All All
	*Salmo trutta (Linnaeus) *Salvelinus fontinalis (Mitchill)	Brown trout Brook trout	All All
	Salvelinus malma (Walbaum) Salvelinus namaycush (Walbaum)	Dolly varden Lake trout	C, S M, C, S
	Thymallus arcticus (Pallas)	Arctic grayling	M, C, S
5.	Hiodontidae		
	Hiodon alosoides (Rafinesque)	Goldeye	Υ, Μ
6.	Esocidae		
	*Esox lucius (Linnaeus)	Northern pike	Y, M, C, S
7.	Cyprinidae		
	*Carassius auratus (Linnaeus)	Goldfish	М
	*Cyprinus carpio (Linnaeus) Chrosomus eos (Cope)	Carp Northern redbelly	A11
	<u> </u>	dace	М
	*Gila atraria (Girard)	Utah chub	М
	Hybognathus hankinsoni (Hubbs)	Brassy minnow	M
	Hybognathus nuchalis (Agassiz)	Silvery minnow	Υ, Μ
	Hybognathus placitus	Northern plains	
	(Girard)	minnow	Y, M
	Hybopsis gracilis	Flathead chub	Y, M
	(Richardson)		

<sup>\*</sup>Introduced species - not native to Montana.

<sup>°</sup>Y - Yellowstone drainage; M- Missouri drainage; S - St. Mary drainage; C - Clark Fork drainage (of Columbia River); K - Kootenai drainage.

7.	Cyprinidae	(cont'd)
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Hybopsis plumbea (Agassiz)Lake chub Hybopsis gelida (Girard) Sturgeon chub Mylocheilus caurinus Peamouth (Richardson)	Y, M, S Y C, K
Notemigonus crysoleucas Golden shiner	М
Notropis atherinoides Emerald shiner (Rafinesque)	Υ, Μ
Notropis stramineus (Cope) Sand shiner Pimephales promelas Fathead minnow (Rafinesque)	Y, M Y, M
Ptychocheilus oregonensis (Richardson) Rhinichthys cataractae (Valenciennes)  Northern squaw-fish Longnose dace	C A11
Richardsonius balteatus Redside shiner (Richardson)	C, K
Semotilus atromaculatus Creek chub	Υ, Μ
Semotilus margarita (Cope)Pearl dace	Y, M, S

## 8. Catostomidae

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Carpiodes carpio (Rafinesque)	River carpsucker	Υ, Μ
(Forster) catostomus	Longnose sucker	A11
Catostomus commersoni (Lacepede)	White sucker	Y, M, S
Catostomus macrocheilus (Girard)	Largescale sucker.	С, К
Cycleptus elongatus (LeSueur)	Blue sucker	М
Ictiobus cyprinellus (Valenciennes)	Bigmouth buffalo	M
Ictiobus bubalus (Rafinesque) Moxostoma macrolepidotum (LeSueur) Pantosteus platyrhynchus (Cope)	Smallmouth buf- falo Northern red- horse Mountain sucker	M Y, M Y, M
(cope)		. ,

# 9. Ictaluridae

*Ictalurus melas (Rafinesque)	Black bullhead	М, Y, С
*Ictalurus natalis (LeSueur)	Yellow bullhead	Y, C

<sup>\*</sup>Introduced species - not native to Montana.

9.	, Ictaluridae (cont'd)		
	Ictalurus punctatus (Rafinesque)	Channel catfish	Υ, Μ
	Noturus flavus (Rafinesque)	Stonecat	Υ, Μ
10.	Cyprinodontidae		
	Fundulus diaphanus (LeSueur)	Banded killifish	Y
11.	Poecilidae	r	
	*Gambusia affinis (Baird and Girard)	Mosquitofish	С
	*Xiphophorus variatus (Meek)	Platy	М
12.	Gadidae _	•	
	Lota lota (Linnaeus)	Burbot	м, у, к
13.	Gasterosteidae	6	
	Eucalia inconstans (Kirtland)	Brook stickleback	Υ, Μ
14.	Centrarchidae		
	*Ambloplites rupestris (Rafinesque)	Rock bass	Υ
	*Lepomis cyanellus (Rafinesque)	Green sunfish	Y
	*Lepomis gibbosus (Linnaeus)	Pumpkinseed	Y, M, C
	*Lepomis macrochirus (Rafinesque)	Bluegill	Υ, Μ
	*Micropterus dolomieui (Lacepede)	Smallmouth bass	С
	*Micropterus salmoides (Lacepede)	Largemouth bass	Y, M, C
	*Pomoxis annularis (Rafinesque)	White crappie	Υ, Μ
	*Pomoxis nigromaculatus (LeSueur)	Black crappie	Υ, Μ
15.	Percidae		
	Etheostoma exile (Girard) *Perca flavescens (Mitchill)		Y, M All
	Stizostedion canadense (Smith)	Sauger	Υ, Μ
	*Stizostedion vitreum (Mitchill)	Walleye	Υ, Μ

<sup>\*</sup>Introduced species - not native to Montana.

16. Sciaenidae

Aplodinotus grunniens Freshwater drum Y, M

17. Cottidae

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Cottus bairdi (Girard) Cottus cognatus	Mottled sculpin Slimy sculpin	All C
(Richardson) Cottus rhotheus (Rosa Smith)	Torrent sculpin	K
Cottus ricei (Nelson)	Spoonhead sculpin	S

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