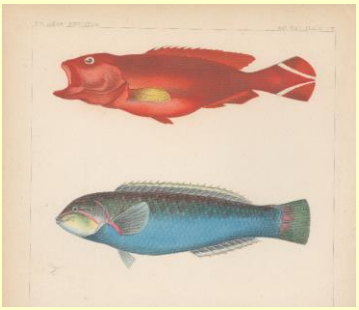
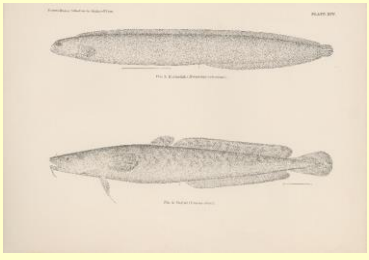
Fishy Business

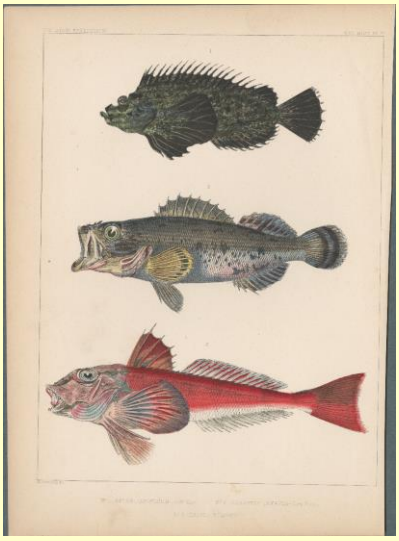
Andrea Sevetson
ProQuest

Mary J. Markland
Oregon State University
Hatfield Marine Science Center

Why Fish? Why Me?



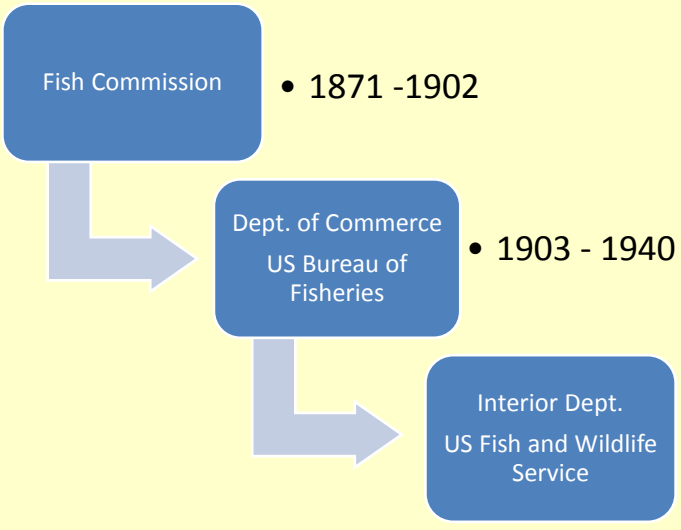


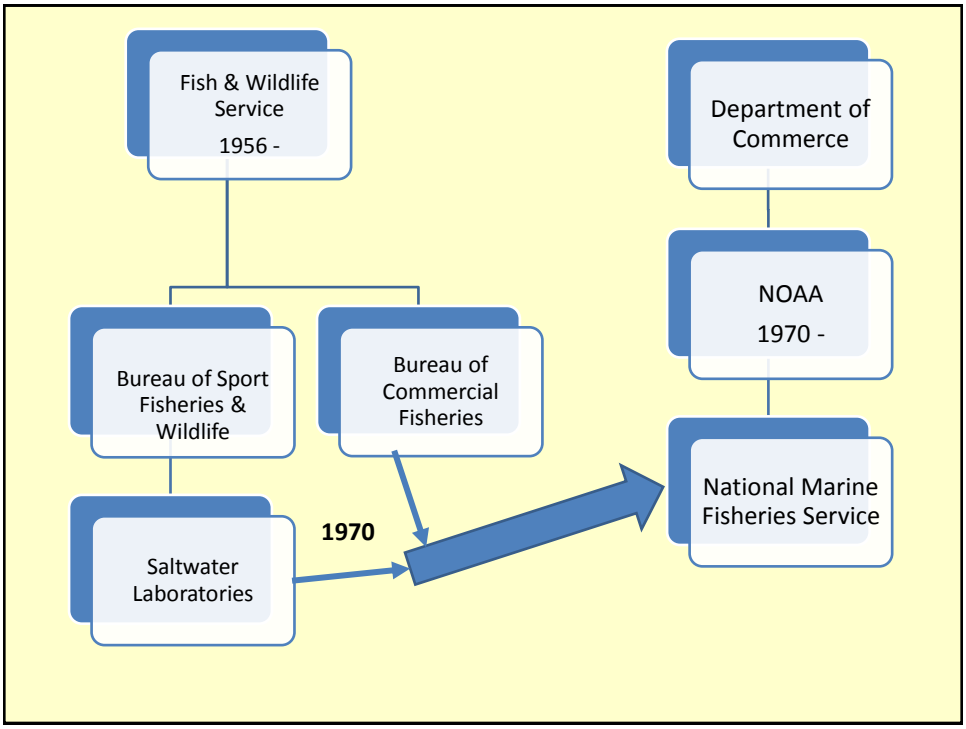


Agencies

(there are lots of agencies!)

Fish Commission





Subject Heading Examples

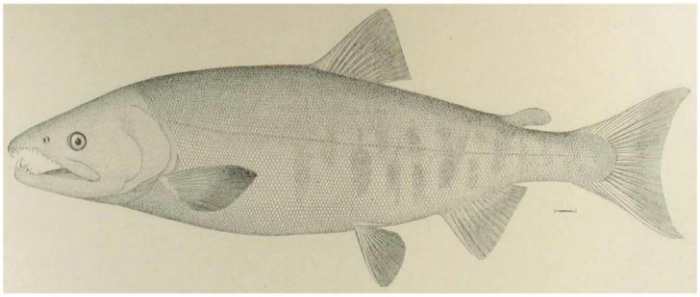
- Fish and fishing industry
- Foreign trade
- Rivers and waterways
- Water supply and use
- Foreign relations
- Indians
- Aquaculture
- Salmon
- Wildlife and wildlife conservation
- Foreign economic relations
- Agriculture in foreign trade
- Food industry
- Agricultural commodities
- Bureau of Fisheries
- Marine resources

Geographic Heading Examples

- Salmon canning industry, Columbia River, Oregon-Washington
- Fisheries, Alaska Territory
- Fisheries, Atlantic coast, North America
- Albatross -- steamer -- investigation of Alaska fisheries
- Mackerel, Atlantic coast, North America
- Trout, Yellowstone National Park, Wyoming
- Canneries, Oregon
- Canneries, Washington Territory
- Cod fisheries, New England coast, Nantucket Sound to Bay of Fundy
- Cod, Atlantic coast, North America
- Columbia River Basin, Salmon migration
- Columbia River, Oregon-Washington Territory

Biodiversity

- What species existed and where?
- How many were there?
- What was the climate like?
- Did it change with the seasons?



THE KAYKO OR DOG SALMON.

Oncorhynchus keta (Walb.), Gill & Jordan. (p. 476.)

Drawing by H. L. Todd, from No. 27687, U. S. National Museum, collected at Fort Alexander, Cook's Inlet, Alaska, July 4, 1868, by J. Cohen.

47TH CONGRESS, 1st Session. SENATE. MIS. DOC. No. 124.

Part I

UNITED STATES COMMISSION OF FISH AND FISHERIES
SPENCER F. BAIRD, COMMISSIONER

THE FISHERIES
AND
FISHERY INDUSTRIES
OF THE
UNITED STATES

PREPARED THROUGH THE CO-OPERATION OF THE COMMISSIONER OF FISHERIES AND THE SUPERINTENDENT OF THE TENTH CENSUS

BY

GEORGE BROWN GOODE
ASSISTANT DIRECTOR OF THE U. S. NATIONAL MUSEUM
AND A STAFF OF ASSOCIATES

SECTION I
NATURAL HISTORY OF USEFUL AQUATIC ANIMALS
WITH AN ATLAS OF TWO HUNDRED AND SEVENTY-SEVEN PLATES
TEXT

WASHINGTON
GOVERNMENT PRINTING OFFICE
1884

PART III.—FISHES.

BY G. BROWN GOODE.

WITH DISCUSSIONS OF THE PACIFIC SPECIES BY DAVID S. JORDAN AND TARLETON H. BEAN, NOTES ON THE FISHES OF THE GULF OF MEXICO BY SILAS STEARNS, AND CONTRIBUTIONS FROM JOSEPH W. COLLINS, H. E. ATWOOD, MARSHALL MACDONALD, R. EDWARD EARLL, LUDWIG KUMLIEN, AND OTHER AUTHORITIES.

On the Pacific coast the Halibut, which has been shown by Dr. Bean to be identical with that of the Atlantic, ranges from the Farallone Islands northward to Bering Straits, becoming more abundant northward. "Its center of abundance," says Bean, "is in the Gulf of Alaska, particularly about Kodiak, the Alexander Archipelago, and the Shumagins. Large halibut are numerous about the Seal Islands, but the small ones have been killed by the seals. I have heard from good authority of their capture as far north as Saint Lawrence Bay, near East Cape, in Siberia. It has several times been reported from off the heads of Marcus Bay, Siberia." It is occasionally taken off San Francisco and about Humboldt Bay. In the Straits of Fuca and in the deeper channels about Puget Sound it is taken in considerable numbers.

A large halibut bank exists in the mouth of the Straits of Fuca, about nine miles from Cape Flattery in a northwesterly direction, and their capture is an important industry to the Coast Indians.

1. Halibut location on the Pacific coast.

2. Mean date of arrival, departure and length of fishing season in NE Newfoundland, Southern & Northern Labrador

"Table showing the approximate mean date of arrival of Cod, mean date of departure, and mean length of the fishing season for Cod, in Northeastern Newfoundland, Southern and Northern Labrador.

Lat.	Locality.	Mean date of arrival.	Mean date of close of fisheries.	Mean length of fishing season.
	NEWFOUNDLAND.			
47 30	Conception Bay	June 1	Nov. 20	142 days.
48 20	Bonavista Bay	June 10	Nov. 10	
46 20	Notre Dame Bay	June 20	Nov. 10	
50 00	Cape Saint John to Par. Point	June 29	Nov. 1	
49 30	White Bay	June 10	Nov. 1	
51 00	Cape Ronge Harbor	June 10	Nov. 1	
51 30	Cape Bauld to Cape Onion (Over four degrees of latitude.)	June 20	Oct. 20	
	SOUTHERN LABRADOR.			
52 00	Chateau Bay	June 20	Oct. 1	97 days.
53 24	Batteaux	July 12	Oct. 10	
54 28	Indian Harbor	July 15	Oct. 1	
54 56	Cape Harrison (Over three degrees of latitude.)	July 18	Oct. 1	
	NORTHERN LABRADOR.			
55 14	Aillik	July 20	Oct. 1	61 days.
54 57	Kypokok	July 20	Oct. 1	
55 27	Hopedale	July 20	Oct. 1	
53 30	Double Island Harbor	July 22	Oct. 1	
55 52	Ukkaikselik	July 28	Oct. 1	
56 33	Nain	July 28	Oct. 1	
57 30	Okak	July 28	Oct. 1	
58 30	Hebron	Aug. 15	Sept. 25	
58 46	Lampson (Over three and a half degrees of latitude.)	Aug. 15	Sept. 15	

Economics

FISH EXPORTED, BOUNTIES AND ALLOWANCES PAID, TONNAGE EMPLOYED IN THE COD AND WHALE FISHERIES, AND THE DUTIES ON TONNAGE FOR THE YEARS 1791 TO 1800.

COMMUNICATED TO THE HOUSE OF REPRESENTATIVES, FEBRUARY 1, 1803.

TREASURY DEPARTMENT, *January* 29, 1803.

An Abstract of the quantity of Fish exported from the United States; the amount of Bounties and Allowances paid; also, the Tonnage of vessels employed in the Cod and Whale Fisheries; and the duties accruing thereon, for the years 1791 *to* 1800, *inclusive.*

YEARS.	FISH EXPORTED.			* Bounties on Fish and Provisions exported.	Allowances to vessels employed in the Fisheries.	Tonnage employed in the Cod Fishery.	Tonnage employed in the Whale Fishery.	Duties on Tonnage.
	Quintals.	Barrels.	Kegs.					
	Number.	Number.	Number.	Dollars.	Dollars.	Tons.	Tons.	Dollars.
1791	383,237	57,424	—	27,787	—	32,542	† —	651
1792	364,898	48,277	—	44,773	—	32,062	—	641
1793	372,825	45,440	—	16,731	72,965	38,177	—	764
1794	436,907	36,929	—	13,768	93,769	23,121	4,129	711
1795	400,818	55,999	—	14,855	66,280	30,939	3,163	809
1796	377,713	84,558	5,256	16,999	76,890	36,556	2,364	873
1797	406,016	69,782	7,351	12,399	80,476	40,423	1,104	875
1798	411,175	66,827	6,220	19,220	94,684	40,964	763	865
1799	428,495	63,542	15,993	20,769	128,606	31,003	599	656
1800	392,726	50,388	12,403	18,325	87,853	25,787	652	555

42D CONGRESS, 2d *Session.* } HOUSE OF REPRESENTATIVES. { MIS. DOC. No. 32.

COD AND WHALE FISHERIES.

REPORT

OF

HON. THOMAS JEFFERSON, SECRETARY OF STATE,

ON

The subject of the cod and whale fisheries, made to the House of Representatives, February 1, 1791.

ALSO

REPORT OF LORENZO SABINE, ESQ.,

ON

The principal fisheries of the American seas, being part of House Executive Document No. 23, *of the second session, Thirty-second Congress.*

JANUARY 8, 1872.—Ordered to be printed.

REPORT OF HON. THOMAS JEFFERSON.

The Secretary of State, to whom was referred by the House of Representatives the representation from the general court of the Commonwealth of Massachusetts, on the subjects of the cod and whale fisheries, together with the several papers accompanying it, has had the same under consideration, and thereupon makes the following report:

FEBRUARY 1, 1791.

The representation sets forth that, before the late war, about four thousand seamen and about twenty-four thousand tons of shipping were annually employed from that State in the whale fishery, the produce whereof was about three hundred and fifty thousand pounds lawful money a year.

That previous to the same period the cod fishery of that State employed four thousand men and twenty-eight thousand tons of shipping, and produced about two hundred and fifty thousand pounds a year.

That these branches of business, annihilated during the war, have been, in some degree, recovered since; but that they labor under many and heavy embarrassments, which, if not removed or lessened, will render the fisheries every year less extensive and important.

The American whale fishery is principally followed by the inhabitants of the island of Nantucket—a sand-bar of about fifteen miles long and three broad, capable of maintaining by its agriculture about twenty families, but it employed in these fisheries, before the war, between five or six thousand men and boys; and in the only harbor it possesses it had one hundred and forty vessels, one hundred and thirty-two of which were of the larger kind, as being employed in the south fishery. In agriculture, then, they have no resource, and if that their fishery cannot be pursued from their own habitations, it is natural they should seek others from which it can be followed, and preferably those where they will find a sameness of language, religion, laws, habits, and kindred. A foreign emissary has lately been among them for the purpose of renewing the invitations to a change of situation. But, attached to their native country, they prefer continuing in it, if their continuance there can be made supportable.

US Commission of Fish & Fisheries Annual Report 1888

After returning from Alaska, in September, the *Albatross* began a similar investigation along the coasts of Washington and Oregon, which was continued during October, 1888, and again in June, 1889. During the winter and early part of the spring, the work was extended

XII REPORT OF COMMISSIONER OF FISH AND FISHERIES.

to the coast of southern California, between Point Conception and the Mexican boundary line, and to the Gulf of California. In the course of these inquiries important results were accomplished and several new fishing-grounds were brought to the attention of the fishermen. The most important discoveries in this line had reference to Cortez and Tanner banks, directly off San Diego. Heceta Bank, off the coast of Oregon, and the halibut banks off Cape Flattery were also examined and the character and value of their resources partly determined. The observations made in the Gulf of California, together with an investigation of the Colorado River and its principal tributaries at about the same time, tend to prove that this river system is not suited to the introduction of the Atlantic shad, which has done so well farther north on the Pacific coast, and no traces were discovered of the few plantings made in this region several years ago. The problem of oyster-culture on the coast of California received attention from the naturalists of the *Albatross*, and the vessel also rendered assistance in distributing the live lobsters sent over from New England and placed in those waters.

- Heceta Bank, Oregon examined and character and value of resources partly determined
- Oyster-culture problems in California
- Distributed the live lobsters sent from New England in hopes of getting them established in Pacific NW

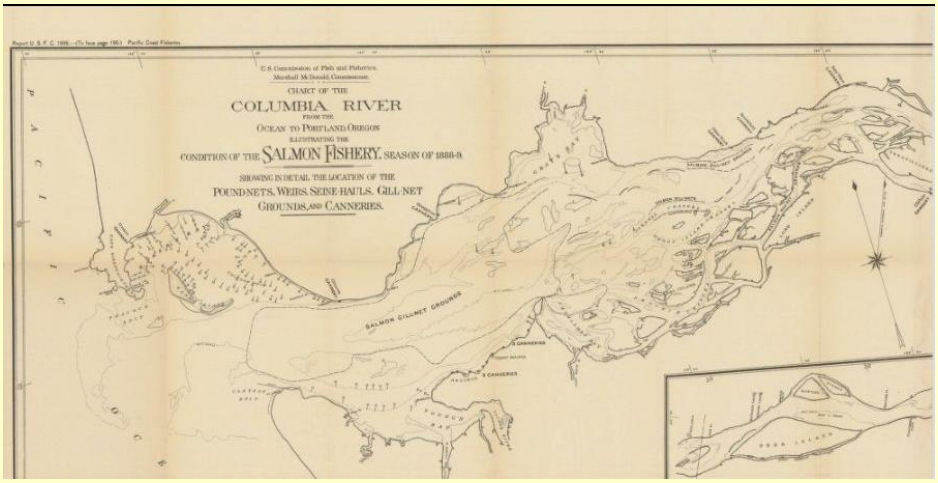
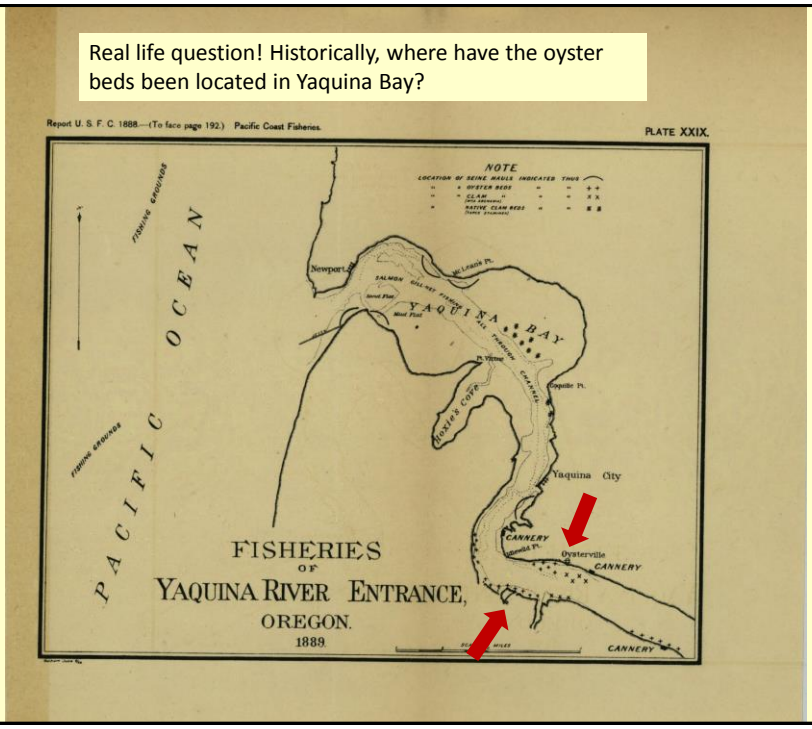


Chart of the Columbia River from the ocean to Portland, Oregon
Showing the condition of the salmon fishing, season of 1888-9.
Showing in detail the location of the pound-nets, seine-hauls, gill-net grounds, and canneries.

Real life question! Historically, where have the oyster beds been located in Yaquina Bay?



International Relations

73D CONGRESS, 2d Session } HOUSE OF REPRESENTATIVES { REPORT No. 350

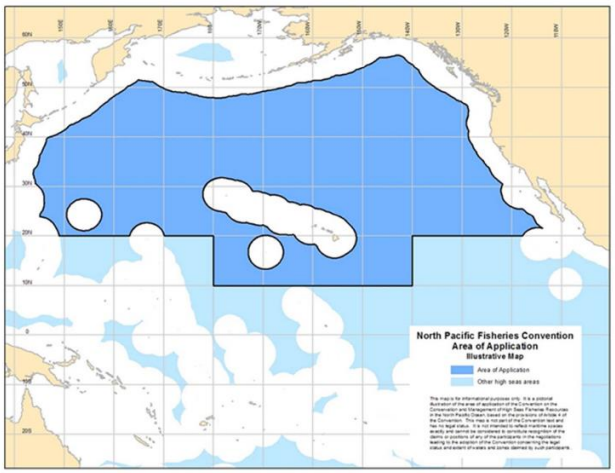
RELIEF OF SHIPWRECKED SEAMEN FROM FISHING AND WHALING VESSELS

JANUARY 26, 1934.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed

Mr. BLAND, from the Committee on Merchant Marine, Radio, and Fisheries, submitted the following

REPORT

North Pacific Fisheries Convention Implementation Act 2014



Source: Multilateral meeting on Management of High Seas Fisheries in the North Pacific Ocean: (http://nwpbfo.nomaki.jp/Map.html)

Aquaculture

DEPARTMENT OF COMMERCE AND LABOR

BULLETIN

OF THE

BUREAU OF FISHERIES

VOL. XXVIII

1908

IN TWO PARTS—PART 2

PART 2.

III

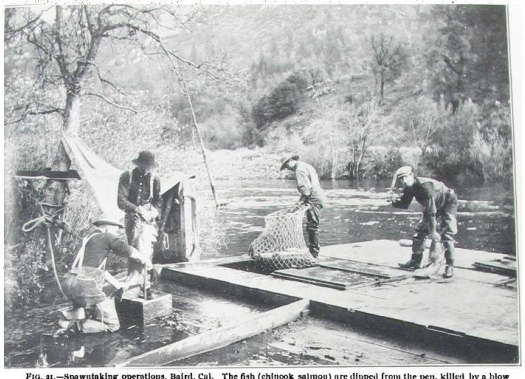


FIG. 31.—Spawntaking operations, Baird, Cal. The fish (chinook salmon) are dipped from the pen, killed by a blow on the head, and passed to the spawntakers. The eggs are taken by opening the abdomen, and the stream of eggs may be seen in the picture following the hand making the incision.

OUTPUT OF THE PACIFIC SALMONS IN 1908.

Stations.	Species.	Eggs.	Fry and fingerlings.
Alaska	Sockeye		61,369,000
California	Chinook	64,990,550	4,780,855
Oregon	Chinook	3,530,000	19,718,996
	Silver		215,932
Washington	Chinook		498,309
	Silver	296,000	13,262,714
	Sockeye	75,000	8,514,305
	Humpback	502,000	6,764,762

Ecology

91ST CONGRESS, 2d Session — SENATE — DOCUMENT No. 91-58

THE NATIONAL ESTUARINE POLLUTION STUDY

REPORT
OF THE
SECRETARY OF THE INTERIOR
TO THE
UNITED STATES CONGRESS
PURSUANT TO
Public Law 89-753
THE CLEAN WATER RESTORATION ACT OF 1966

MARCH 25, 1970.—Ordered to be printed with illustrations

U.S. GOVERNMENT PRINTING OFFICE
42-867 O WASHINGTON : 1970

TABLE IV.2.10.—ESTUARINE HABITAT REMOVED BY DREDGING AND FILLING OPERATIONS

Biophysical region	Available habitat in 1955 (acres)		Habitat lost, 1947–67	
	Area of total marsh and wetland	Area of important wildlife habitat	Area dredged and/or filled	Percent of habitat lost
North Atlantic	168,000	167,000	4,000	7.0
Middle Atlantic	424,000	424,000	89,000	8.6
Chesapeake Bay	441,000	428,000	3,000	.5
South Atlantic	1,551,000	797,000	25,000	2.3
Caribbean (Florida only)	469,000	99,000	15,000	7.5
Gulf of Mexico	6,000,000	3,426,000	167,000	4.8
Pacific Southwest	165,000	162,000	256,000	67.0
Pacific Northwest	174,000	98,000	5,000	4.0
Alaska	(1)	(1)	1,100	.2
Pacific Islands	10			
Total	9,392,000	6,175,000	565,100	7.0

[1] Insufficient data.

References: USDI, Fish and Wildlife circular 39, "Wetalnds of the United States," 1956. USDI, Fish and Wildlife Service data presented in congressional hearings, "Estuarine areas," House serial No. 90-3.

69TH CONGRESS, 1st Session — HOUSE OF REPRESENTATIVES — DOCUMENT No. 417

POLLUTION AFFECTING NAVIGATION OR COMMERCE ON NAVIGABLE WATERS

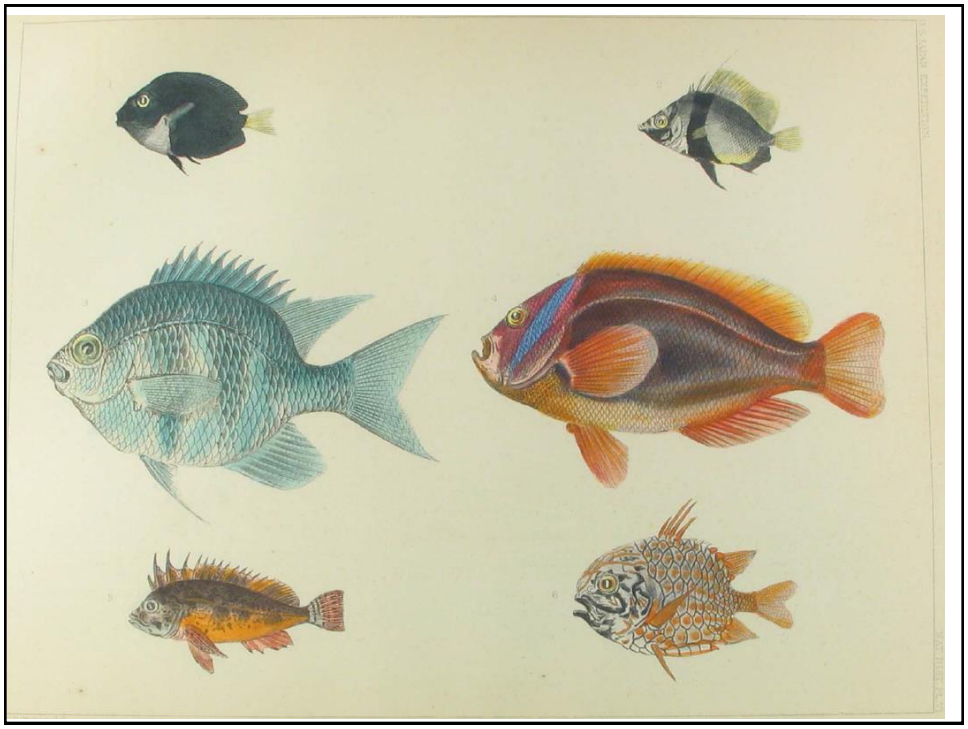
LETTER
FROM
THE SECRETARY OF WAR
TRANSMITTING

A REPORT FROM THE CHIEF OF ENGINEERS, UNITED STATES ARMY, GIVING THE RESULTS OF THE INVESTIGATION AUTHORIZED BY SECTION 9 OF THE OIL POLLUTION ACT, 1924, OF THE GENERAL SUBJECT OF POLLUTION AFFECTING NAVIGATION OR COMMERCE ON THE NAVIGABLE WATERS OF THE UNITED STATES OR THE FISHERIES THEREIN, TOGETHER WITH RECOMMENDATIONS FOR REMEDIAL LEGISLATION.

JUNE 7, 1926.—Referred to the Committee on Rivers and Harbors and ordered to be printed

5. *Navigable waters of the United States and nonnavigable waters connecting therewith into which polluting substances are being deposited to such an extent as to endanger or interfere with navigation, commerce, or fisheries.*

Locality	Waterway	Principal sources of pollution	Effect on commerce or navigation	Effect on fisheries
Millinocket, Me., to mouth	Penobscot River, Me., and Piscataquis River below Dover.	Domestic sewage; industrial wastes from, canning plants, textile mills, and pulp mills.		Injurious.
Skowhegan to mouth	Kennebec River, Me.	....do....		Do.
Berlin to mouth	Androscoggin River, Me.	....do....		Do.
Portland, Me.	Portland Harbor, Me.	Domestic sewage; industrial wastes		Injurious to shellfish.
Biddeford, Me.	Saco River, Me.	Domestic sewage; industrial wastes from canning plants and textile mills.		Injurious.
Somersworth and Portsmouth.	Salmon Falls River and Portsmouth Harbor, Me. and N. H.	Domestic sewage; industrial wastes from textile mills, pulp mills, chemical plants, tanneries, bleacheries, and dye works.		Injurious to fish and shellfish
Laconia, Concord, and Newburyport.	Merrimac River, N. H. and Mass., and Newburyport Harbor.	Domestic sewage; industrial wastes from textile mills.		Do.
Gloucester, Mass.	Gloucester Harbor and Annisquan River.	Domestic sewage		Injurious to shellfish.
Beverly, Salem, and Marblehead, Mass.	Beverly, Salem, and Marblehead Harbors.	....do....		Do.
Lynn, Mass.	Lynn Harbor, Saugus and Pines Rivers.	....do....		Do.
Boston, Mass.	Boston Harbor	Domestic sewage; industrial wastes		Do.
Plymouth, Mass.	Plymouth Harbor	Domestic sewage		Do.
New Bedford, Mass.	Acushnet River	Industrial wastes from textile plants, gas plants, and oil refineries.	Fish and shellfish destroyed	
Northeastern Rhode Island	Blackstone River and tributaries	Domestic sewage; industrial wastes from metal-working plants, textile mills, paper mills, gas plants, etc.		Injurious.
Eastern Rhode Island	Providence River, and Woonasquatucket and Mohassuck Rivers.	Domestic sewage; industrial wastes from textile plants and metal-working plants.		Do.
Southwestern Rhode Island	Pawcatuck River and tributaries	Domestic sewage; industrial wastes from textile and dye works, gas oil, acids, dyes, etc.		Do.
Keyport, N. J.	Keyport Harbor, N. J.	Domestic sewage; industrial wastes from Raritan Bay.	Pleasure boating curtailed	Fish life injured.
Shrewsbury, N. J.	Shrewsbury River, N. J.	Domestic sewage; industrial wastes; gas plants.		Injurious.
North New Jersey coast	Atlantic Ocean and bays	Domestic sewage; oil from oil-burning ships and from New York Harbor.		Do.
Philadelphia, Pa., to Delaware Bay.	Delaware River and Delaware Bay.	Domestic sewage; industrial wastes, acids, oil, and chemicals.		Injurious to fish life and the oyster industry.
Camden, N. J.	Cooper River and tributaries	Domestic sewage; industrial wastes from paper mills, knitting mills, tanneries, oil storage plants, soap plants, and chemical plants.		Injurious.
Wilmington, Del.	Brandywine and Christiana Rivers and tributaries.	Domestic sewage; industrial wastes from tanneries, textile plants, pulp and paper mills, gas plants, oil storage plants, chemical plants, and steel mills.		Injurious to fish and shellfish.
Chester, Pa.	Chester Creek	Domestic sewage; industrial wastes from textile plants and metal products, leather goods, fabrics, oil refineries, etc.		Injurious.
Philadelphia, Pa., to mouth	Schuylkill River	Industrial wastes, oil and tar	Fire hazard to shipping	Do.
Above Philadelphia	Schuylkill River and tributaries	Domestic sewage; industrial wastes—culm acid mine drainage.	Culm deposits cause shoaling. Dredging done by private canal companies.	Do.
Eastern Pennsylvania	Lehigh River and tributaries	....do....	....do....	Do.
Baltimore Harbor, Md.	Patapsco River, Curtis Bay and River, Colgate Creek, and Bear Creek.	Domestic sewage; industrial wastes from tanneries, oil-refining plants, distilleries, creameries, and garbage reduction works.		Fish life destroyed.
Eastern Pennsylvania	Lackawanna River	Domestic sewage; industrial wastes from tanneries, chemical works, and coal mines.		Do.
West of Williamsport, Pa.	West Branch Susquehanna River and tributaries above Williamsport.	Acid mine drainage		Destroys fish life.
Reedville, Va.	Cockrells Creek Va.	Industrial wastes from fish oil and fish fertilizer plants.		Fish and shellfish life destroyed.
Norfolk, Va.	Hampton Creek	Domestic sewage; industrial wastes		Injurious to oyster industry.
Do.	Elizabeth River	Domestic sewage; industrial wastes, oil, etc.		Do.
Weldon, N. C.	Roanoke River	Industrial wastes from pulp mill		Injurious to fish hatchery.
Louisiana	Amite, Tickfaw, and Tangipahoa Rivers.	Acids which exude from certain hardwood timber felled in or near these streams.		Kills fish.
New Orleans, La.	Bayou Bienvenue	Domestic sewage, oil		Fish life destroyed.



30th Congress, 1st Session. [SENATE.] Executive, No. 7.

NOTES OF A MILITARY RECONNOISSANCE,

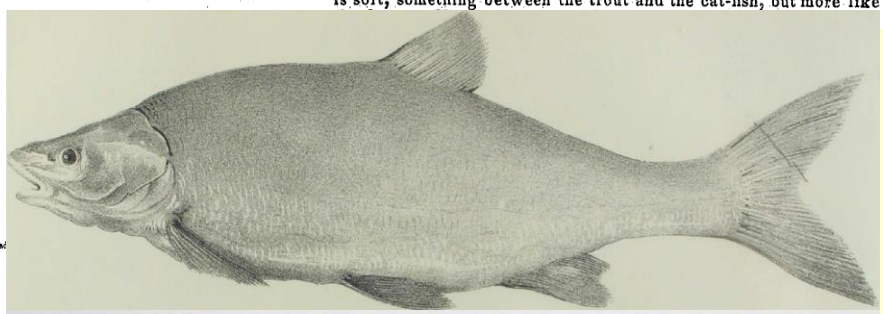
FROM

FORT LEAVENWORTH, IN MISSOURI,

TO

SAN DIEGO, IN CALIFORNIA,

We heard the fish playing in the water, and soon those who were disengaged were after them. At first it was supposed they were the mountain trout, but, being comparatively fresh from the hills of Maine, I soon saw the difference. The shape, general appearance, and the color are the same; at a little distance, you will imagine the fish covered with delicate scales, but on a closer examination you will find that they are only the impression of scales. The meat is soft, something between the trout and the cat-fish, but more like



GILA TROUT

32d Congress, 2d Session. SENATE. Executive, No. 59.

REPORT OF AN EXPEDITION

DOWN THE

ZUNI AND COLORADO RIVERS,

BY

CAPTAIN L. SITGREAVES,

CORPS TOPOGRAPHICAL ENGINEERS.

ACCOMPANIED BY MAPS, SKETCHES, VIEWS, AND ILLUSTRATIONS.

WASHINGTON:
ROBERT ARMSTRONG, PUBLIC PRINTER.
1853.

FISHES.

BY SPENCER F. BAIRD AND CHARLES GIRARD.

Genus GILA, B. and G.

GEN. CHAR.—Body subfusiform, compressed; back more or less arched, especially in large specimens, sometimes tapering very much posteriorly, with the peduncle of the tail rather slender; head depressed, proportionally small; upper outline concave; snout elongated; eyes circular or elliptical; mouth of medium size; upper jaw generally overlapping the lower, so as to conceal its cleft from above; no barbels, nor rudiments of barbels, at the angle of the mouth; pharyngeal teeth oblique, compressed, disposed on two rows, with their tip slightly hooked; branchial arches, four; scales varying in size according to the regions; small and not imbricated on the back, larger on the flanks, and of medium size on the belly and tail; lateral line well defined, forming an open curve on the abdomen, and straight on the tail; caudal fin forked or crescentic.

SYN.—*Gila*, B. and G., Proc. Acad. Nat. Sc., Phila., VI, 1853, 368.

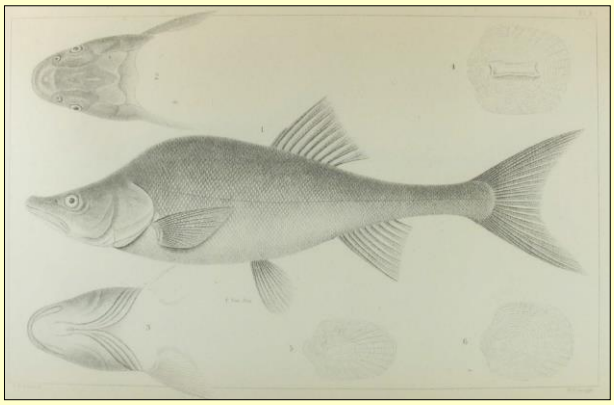
Discussion pgs 145-52, 3 plates at end of volume

Zuni and Colorado, cont.

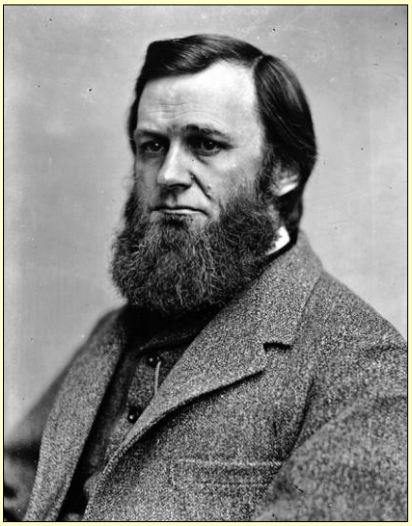
Illustrations by John H. Richard.

John H. Richard (1807-1881) first worked in the Smithsonian Building between 1852 and 1855 illustrating the reports of several government exploring expeditions. These included the *Wilkes Expedition*, the *Mexican Boundary Survey*, and the *U.S. Pacific Railroad Expedition and Survey*.

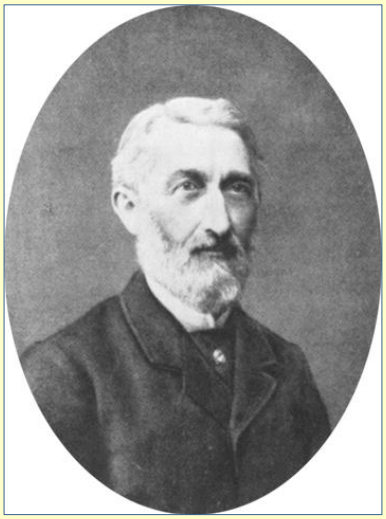
Between 1855 and 1875 Richard worked independently in Philadelphia, frequently taking on Smithsonian commissions, such as hand coloring the drawings of birds by ornithologist Robert Ridgway.

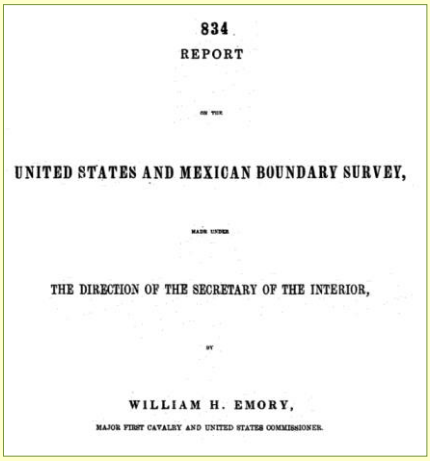


Spencer Fullerton Baird



Charles Frédéric Girard





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REPORT

ON THE

UNITED STATES AND MEXICAN BOUNDARY SURVEY,

MADE UNDER

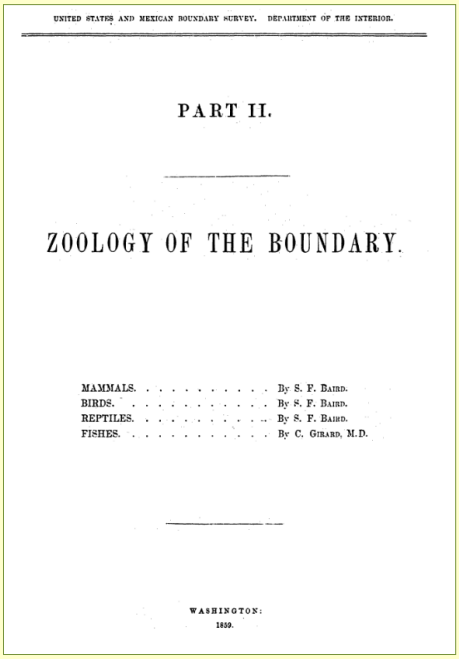
THE DIRECTION OF THE SECRETARY OF THE INTERIOR,

BY

WILLIAM H. EMORY,

MAJOR FIRST CAVALRY AND UNITED STATES COMMISSIONER.

For each section (mammals, etc) in the volume, they restart page numbering. This is the last section in the volume, and runs about 150 pages.
The text for *Fishes* (aka Ichthyology) runs 77 pages, followed by a 3-page list of plates, a 5 page index, and 40 plates.



UNITED STATES AND MEXICAN BOUNDARY SURVEY. DEPARTMENT OF THE INTERIOR.

PART II.

ZOOLOGY OF THE BOUNDARY.

MAMMALS. . . . . By S. F. Baird.
BIRDS. . . . . By S. F. Baird.
REPTILES. . . . . By S. F. Baird.
FISHES. . . . . By C. Girard, M.D.

WASHINGTON:
1859.

UNITED STATES AND MEXICAN

BOUNDARY SURVEY,

UNDER THE ORDER OF

LIEUT. COL. W. H. EMORY,

MAJOR FIRST CAVALRY, AND UNITED STATES COMMISSIONER.

ICHTHYOLOGY

OF THE BOUNDARY,

BY

CHARLES GIRARD, M. D.

CALLIURUS LONGULUS, Grd.

PLATE IV, FIGS. 1—4.

SPEC. CHAR.—Mouth moderate; gape oblique upwards. Posterior extremity of maxillary extending to a vertical line intersecting the pupil. Eyes moderate. Insertion of ventrals situated opposite the inferior edge of the base of the pectorals, and posteriorly to the origin of the dorsal; their tips extending to the vent. Scales moderate. Reddish brown above; greyish beneath. Soft portion of dorsal and anal fins provided with a black patch.

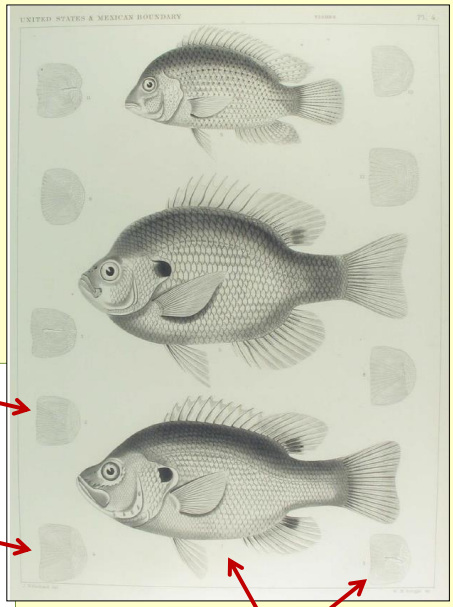
SYN.—*Pomotis longulus*, B. & G. in Proc. Acad. Nat. Sc. Philad. VI, 1853, 391; and, in *Marcy's* Expl. Red river of La. 1853, 345, pl. xii.

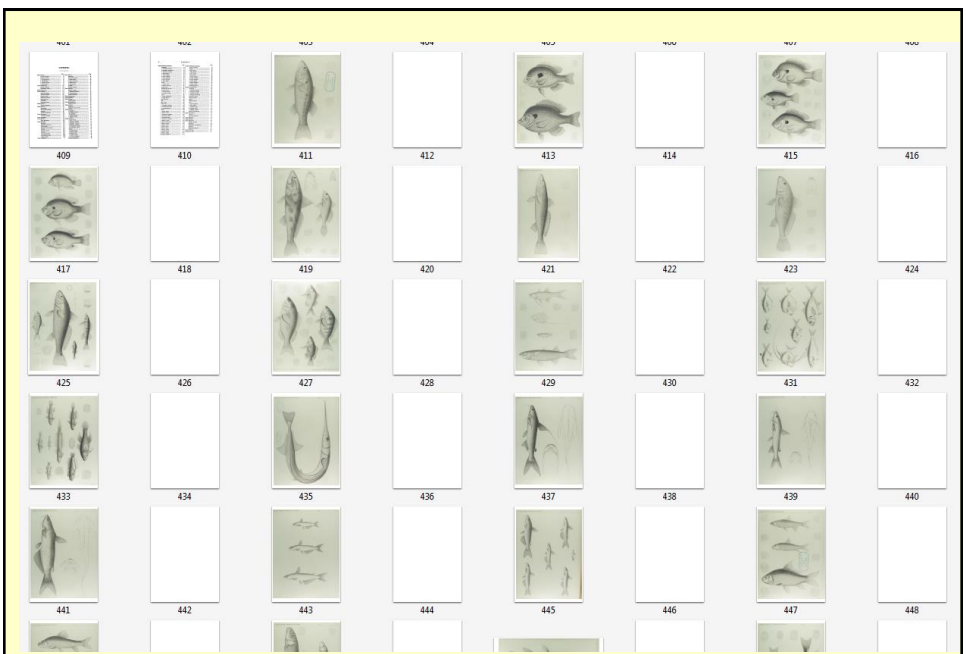
Brittus longulus, B. & G. in Proc. Acad. Nat. Sc. Philad. VII, 1854, 25.

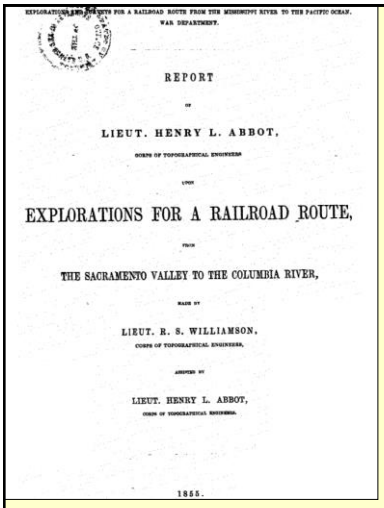
This species is described, illustrated, and compared to its congeners in the "Ichthyology of the U. S. P. R. R. Explorations and Surveys."

List of specimens.

Catal. No.	No. of spec.	Age.	Locality.	When collected.	Whence obtained.	Orig. No.	Nature of specimen.	Collected by—
405	2	Adult.	Rio Chelo, Texas.....	1851	Col. J. D. Graham....	6	Alcoholic.	John H. Clark.....
406	4	..do..	Minneville Rio, Texas.....	1854	Maj. Emory.....	.....	....do....	Dr. C. B. Kennerly.

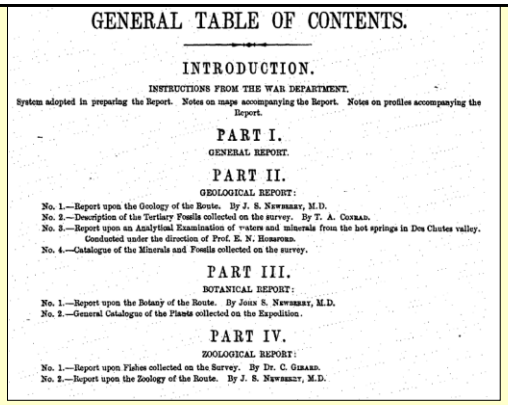




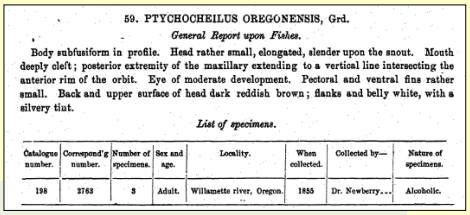


EXPLORATIONS AND SURVEYS FOR A RAILROAD ROUTE FROM THE MISSISSIPPI RIVER TO THE PACIFIC OCEAN.
WAR DEPARTMENT.

REPORT
OF
LIEUT. HENRY L. ABBOT,
CORPS OF TOPOGRAPHICAL ENGINEERS
UPON
EXPLORATIONS FOR A RAILROAD ROUTE,
FROM
THE SACRAMENTO VALLEY TO THE COLUMBIA RIVER,
MADE BY
LIEUT. R. S. WILLIAMSON,
CORPS OF TOPOGRAPHICAL ENGINEERS,
ASSISTED BY
LIEUT. HENRY L. ABBOT,
CORPS OF TOPOGRAPHICAL ENGINEERS.
1855.



GENERAL TABLE OF CONTENTS.



59. PTYCHOCHEILUS OREGONENSIS, Grd.

General Report upon Fishes.

Body subfusiform in profile. Head rather small, elongated, slender upon the snout. Mouth deeply cleft; posterior extremity of the maxillary extending to a vertical line intersecting the anterior rim of the orbit. Eye of moderate development. Pectoral and ventral fins rather small. Back and upper surface of head dark reddish brown; flanks and belly white, with a silvery tint.

List of specimens.

Catalogue number.	Correspond'g number.	Number of specimens.	Sex and age.	Locality.	When collected.	Collected by—	Nature of specimens.
198	2763	3	Adult.	Willamette river, Oregon.	1855	Dr. Newberry...	Alcoholic.

Vols 763 and 796.
For each section (Geology, etc) in the volume, they restart page numbering.
The text for *Fishes* (aka Ichthyology) runs 24 pages, followed by a 11 plates. It starts about 65% of the way through the volume.

Expeditions page from the Smithsonian site.

Baird "made sure that exploring parties were provided with personnel and equipment needed to collect and preserve natural history material. This material was ultimately sent to the Smithsonian for deposit and and study."

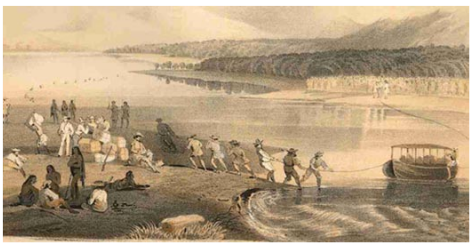
Spencer Baird and Ichthyology at the Smithsonian

EXPEDITIONS

During the 1850s, the U.S. government sponsored an extensive series of expeditions designed to gather information on the vast new territories that had been acquired in western North America. In addition, a major oceanic expedition was sent to the North Pacific, a region of increasing importance to national maritime interests. Together, these expeditions returned vast quantities of natural-history material to the Smithsonian Institution, where they formed the foundation for the collections.

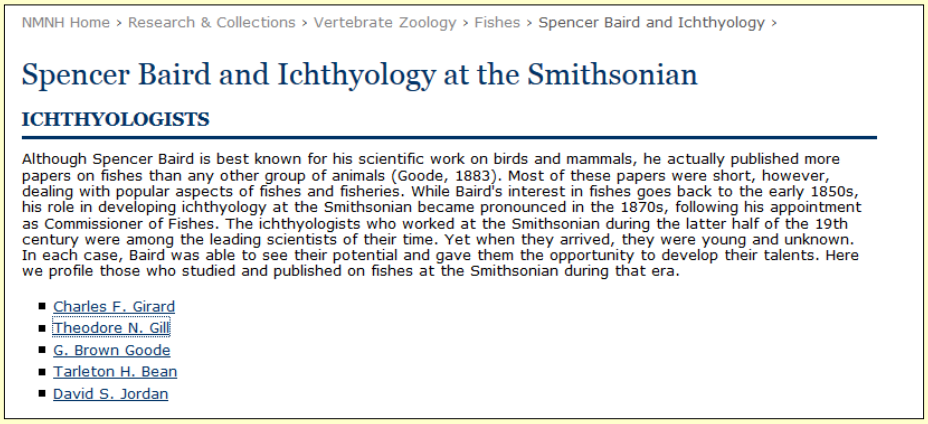
Spencer Baird saw in these expeditions an unparalleled opportunity to obtain collections from largely unexplored regions. He succeeded in soliciting the support of the officials in charge of these various surveys and provided equipment and supplies, as well as instructions on how to collect and preserve natural history specimens. For example, "Memoranda in reference to Natural History Operations" and "Instructions to Collectors" issued by the Smithsonian Institution were written by Baird. He also recruited naturalists to accompany the surveying parties, and many young men received their training and established their reputations by publishing reports on the results of the collecting expeditions.

Here we summarize a few of these surveys that were especially important in terms of ichthyological collections.



A scene from Whipple's Explorations, Pacific Railroad Survey
Plate from v.3 of Reports of Explorations and Surveys [Pacific Railroad Survey Reports]

United States and Mexican Boundary Survey (1848-1855). Following the annexation of Texas in 1846 and the U.S.-Mexican War of 1847, the United States acquired vast new territories in the west. The United States and Mexican Boundary Survey was established to fix the southern boundary of the United States from the mouth of the Rio Grande to the coast of California and to explore the territory it enclosed. From Brownsville to El Paso, there was no problem: the boundary simply followed the river. From that point west to the Pacific, at a point just south of San Diego, where the western terminus had been fixed, the job was much harder. There were no landmarks, and the intervening country was largely unknown. A completely artificial boundary had to be fixed and marked. The Survey was plagued throughout by mismanagement, disorganization and personnel changes, and had to be renewed after the Gadsden Purchase of 1853 added a new slice of land below New Mexico and Arizona. After the reorganization, Caleb Kennerly joined the expedition as physician and naturalist. Spencer Baird made sure that the exploring parties were provided with personnel and equipment needed to collect and preserve natural history material. This material was ultimately sent to the Smithsonian for deposit and study. The final report on the work of the Survey was published in 1857-1859, in three volumes. The report on fishes, *Ichthyology of the Boundary* (1859), was written by Charles Girard.



NMNH Home › Research & Collections › Vertebrate Zoology › Fishes › Spencer Baird and Ichthyology ›

Spencer Baird and Ichthyology at the Smithsonian

ICHTHYOLOGISTS

Although Spencer Baird is best known for his scientific work on birds and mammals, he actually published more papers on fishes than any other group of animals (Goode, 1883). Most of these papers were short, however, dealing with popular aspects of fishes and fisheries. While Baird's interest in fishes goes back to the early 1850s, his role in developing ichthyology at the Smithsonian became pronounced in the 1870s, following his appointment as Commissioner of Fishes. The ichthyologists who worked at the Smithsonian during the latter half of the 19th century were among the leading scientists of their time. Yet when they arrived, they were young and unknown. In each case, Baird was able to see their potential and gave them the opportunity to develop their talents. Here we profile those who studied and published on fishes at the Smithsonian during that era.

- Charles F. Girard
- Theodore N. Gill
- G. Brown Goode
- Tarleton H. Bean
- David S. Jordan

http://vertebrates.si.edu/fishes/ichthyology_history/ichthyologists.html

Baird and Gill became acquainted through correspondence, and *Baird arranged to publish Gill's report on the fishes of New York in the Smithsonian Annual Report for 1856*. In December, 1857, Gill visited Washington in preparation for an expedition he was about to make to the West Indies. There he met in person both Baird and Smithsonian Secretary Joseph Henry….

Theodore Gill, Esq. *On the Fishes of New York*, 890 S.misdoc.54, p. 253-269

New York, April 14, 1856.

The Secretary of the Smithsonian Institution.

Sir: Learning that you were collecting facts in behalf of the Smithsonian Institution with regard to the geographical distribution, habits, &c., of the various animals of North America, a short time since I tendered my services to you, through my friend, Mr. John G. Bell, and offered to prepare for you a brief list of the fishes observed by me in the markets of the city of New York. This offer

On the Fishes of NY

3. Labrax rufus, (*Mit.,*) *DeKay.*

DeKay, N. Y. Fauna, p. 9, fig. 7.

This species is found in our markets from the first of September till as late as the end of June, but in the greatest numbers in the early spring. The average size is less than ten inches long. It is sold at from six to eight cents, and occasionally at ten cents per pound.

This fish is generally known to the fisherman under the simple name of "Perch;" the Perca flavescens being distinguished as the "Yellow Perch."

Fishes are occasionally brought which are a shade lighter in their color than the general color of this species, but they agree in every other respect, even to the most minute points, with the L. rufus.

4. Lucioperca Americana, (*Cuv. and Val.*)

DeKay, N. Y. Fauna, p. 17, fig. 163.

This percoid is occasionally sent to our markets from the first of September till towards the middle of spring. It is called by the fishermen "Lake Pike," and by some "*Maskalonge.*"

This and many other species found in the interior of the State of New York, are packed in saw dust and sent to this city by express. I am informed that most of them are caught in the small lakes of central New York, Cayuga, &c.

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33d Congress, 2d Session. } HOUSE OF REPRESENTATIVES. { Ex. Doc. No. 97.

NARRATIVE

OF

THE EXPEDITION OF AN AMERICAN SQUADRON

TO

THE CHINA SEAS AND JAPAN,

PERFORMED IN THE YEARS 1852, 1853, AND 1854,

UNDER THE COMMAND OF

COMMODORE M. C. PERRY, UNITED STATES NAVY,

BY

ORDER OF THE GOVERNMENT OF THE UNITED STATES.

VOLUME II—WITH ILLUSTRATIONS.

NOTES

ON SOME

FIGURES OF JAPANESE FISH

TAKEN FROM RECENT SPECIMENS

BY THE ARTISTS OF THE U. S. JAPAN EXPEDITION:

BY JAMES CARSON BREVOORT.

Introductory Note following p. 210, vol. 803

The birds have been described by that well known naturalist, Mr. John Cassin, of Philadelphia; and for the classification and description of the fishes and shells, I am entirely indebted to the gratuitous servics of my personal friends, Messrs J. Carson Brevoort and J. C. Jay, of New York, each distinguished for their attainments in the departments of science in which they have respectively labored in friendly regard to me.

Plate VIII figure 3

34. JULIS LUTESCENS, Solander.

LABRUS LUTESCENS, Sol. mss.
JULIS " E. T. Bennett, Zool. Beechey's Voy. Blossom, Fishes, p. 65. pl. 19, f. 2.

PLATE VIII, figs.3 and 4.

NOTES.—From Napha, Lew Chew, (6⅞ inches,) D. 7. 13, A. 2. 7, P. I4. Operculum smooth, teeth interlacing, long retractile mouth.

Though varying in some respects from the description of Solander, this is certainly the same fish. He observed it also at Lew Chew and Tahiti. His description as quoted by Bennett is as follows:

"Piscis lutescens, strigis numerosis rubicundis transversalibus. Caput viridi lutescens, areis pluribus latis rubicundis. Abdomen virescens, vittis duabus luteis. Pinna dorsalis e viridi-lutescens, vittâ paulo infra medium croceâ, limite superiore coeruleo. Pinnae pectorales lutescentes, apicibus nigris. Pinnae ventrales lutescentes. Pinna ani viridi-lutescens, basi croceâ, limite coeruleo. Pinna caudae e flavo lutea, vittis marginalibus croceis. Iris argenteo virescens. Pupilla nigra."

The figure published by Bennett, is taken from the one brought home by Solander. It does not agree with the description, particularly in wanting the numerous cross bands of red. Mr. Bennett adds, that the Zoological Society has received specimens from the Mauritius, which however will probably prove to be the *Julis annulatus*, Val., vol. 13, p. 501, pl. 388, from that Island.

The figure brought home by the U. S. Expedition is not a very good one, but is interesting as having been taken from life.

Report of a military reconnaissance in Alaska, made in 1883.

2261 S.exdoc.2 (also included 3896 S. Rpt. 1023)

view of another glacier extending down between the two rivers. Here a dense grove of small firs near the river bank kept a number of the Indians busy cutting long, slender fishing-poles, which they put away in ~~secure places to be taken home upon their return from my expedition.~~ These poles, when seasoned, are pointed with a double-barbed gig, like the one shown in the figure, and which is a very common fishing instrument among all the natives of sub-Arctic America.

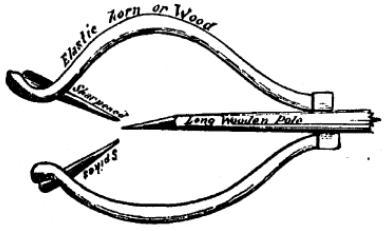

FIG. 3.

Fishing methods observed in Alaska

(3896 S. Rpt. 1023 p. 147, 227)

to fishing. In addition to the native fishermen, white men are engaged in salting salmon at two points in the inlet—at the mouth of the Kenai or Kaknu River and that of the Kassilof.[1] The mode of capturing the salmon adopted by the natives for their own purposes is exceedingly primitive and unsatisfactory. The fish being too large to spear with safety a frail staging of poles is erected at right angles with the river bank, extending into the stream. An Indian seats himself at the outward end of this frame, and, holding in the turbid water a large wicker basket with an aperture about 3 or 4 feet in diameter, waits patiently until a salmon enters the basket; but of course this mode of capture is impracticable where the water is clear, and even in the muddiest stream hundreds pass by where one enters.

dried seaweed, the seam of one kind of seaweed being sometimes 40 fathoms long. In the rivers they catch their fish by means of weirs and dams, killing them with spears. They make fire by friction, and use stone lamps for