Oregon's estuaries are important ecosystems for scientific study. Consequently, knowledge of what research has been conducted helps us identify benchmarks and plan new projects. A comprehensive bibliography of published research, technical reports, local documents, and data sets is one means of recording this knowledge. For these reasons, Guin Library staff have compiled bibliographies about Netarts Bay, the Salmon River Estuary, Siletz Bay, Yaquina Bay, the Alsea River Basin, the Yachats River Estuary and the Umpqua River Basin.

Siletz Bay is a moderately sized estuary approximately 1,461 acres in area. Its watershed covers about 373 square miles. Major modifications to the bay have come through sedimentation from human activity, mainly logging, and by changes to the shoreline. Much of the land around the bay is now part of the Siletz Bay National Wildlife Refuge. The Siletz River has a native summer steelhead trout run that is unique in Oregon, and is widely known for its excellent fishing.

This bibliography is about Siletz Bay. Geographic coverage occasionally ranges upriver, but the primary focus is on the estuary. The Siletz Bay Bibliography attempts to identify research on the physical and biological aspects of the Siletz River and estuary, with an emphasis on fisheries and natural resources. In addition to some attention to the area’s pre-history, references date from Theodore Talbot’s 1849 trip through the region through June, 2023.

A web-based version of this bibliography is available at: https://guin.library.oregonstate.edu/oregon-estuaries. The web version offers keyword searching, which includes major concepts as well as species names and geographic referents.

Fagan, David D. 1885. A History of Benton County, Oregon Including Its Geology, Topography, Soil and Productions. Portland, Or.: A.G. Walling. Written just a few years after the central Oregon Coast was opened for white settlement, and when the Siletz watershed was still part of Benton County, Fagan's history gives a good look at the beginnings of white villages and commerce in the area. Although the author’s ethnocentrism may make the reader cringe, there is an honest expression of contemporary sentiments. Chapter 35 (geography) and 43 (The Siletz Indian Reservation) are of particular interest. "A few miles north of Yaquina bay is the Siletz Reservation, a tract of one hundred and seventy-five thousand acres of fine open country upon which about six hundred Indians are located."
This territory is looked upon with longing and covetous eyes by settlers, who hope for the removal of the aboriginal with keen expectancy." (p.300)

Collins, J. W. , and United States Fish Commission. 1889. Report on the fisheries of the Pacific Coast of the United States. . Report of the Commissioner for ... / United States Commission of Fish and Fisheries. pt.16,, no. appendix 1: p.3-269. Covers July 1, 1888 to June 30, 1889. This document offers a glimpse of the beginnings of the fishing industry on the Oregon Coast. Describes each major river and estuary, locations with greatest fishing activity, major fisheries, species harvested, fishing seasons, fishing grounds, equipment used and how products were preserved or distributed. Statistics for 1888 are given. Includes maps of major streams. Note: many stream names have old-style spelling. https://penbay.org/cof/COF_1888_5.pdf

Oregon. State Board of Fish Commissioners. 1893. Fifth and Sixth Annual Reports to the Governor, 1891-1892. "Umpqua river.-One cannery in operation; pack, about 12,000 cases; used fresh, 20,000 pounds. There are 50 men engaged in fishing, the cannery taking all the fish except those used fresh. Siuslaw river.-Two canneries were operated this season, packing about 18,000 cases. About 350 barrels will be salted, and 10,000 pounds used fresh. There are 60 men engaged in fishing, some of them going from the Columbia river after the season closed. Alsea bay.-One cannery in operation this season, packing 3,600 cases; there will be about 100 barrels salted. Yaquina river.-No cannery in operation this year. There are 52 men engaged in fishing, including 12 oystermen. Of the salmon caught there will be about 600 barrels salted, and about 125,000 pounds shipped fresh. The oyster fisheries are not improving to any great extent, the amount for the past year being 1,217 sacks, containing two bushels each. The greater portion of these were shipped to San Francisco. On the Siletz, Salmon, and Nestucca rivers no fishing was done except for home consumption. The catch of the streams combined may reach 50,000 pounds." (6th report, 1892, p.33-34) In addition to the Annual Reports, gives the fish laws and game laws of Oregon. https://ir.library.oregonstate.edu/concern/technical_reports/qv33rx511

Curry Jr., George L. 1895. "The Siletz Country: A Trip Down the River to the Ocean: The Outlook for the Future - Topography - The Indians Who Are There - Resources." *The Morning Oregonian*, 1895, Aug. 7, p.9. Extensive account of a trip down the Siletz river, describing the river, the bay, and the surrounding countryside. Boosterism and ethnocentrism are typical of the period. This article reveals the raw greed with which the rest of the state viewed the Siletz lands. "Where the river strikes the bay, on either hand extend rich, grassy lands, standing above high tide, most excellent for grazing purposes, but as yet practically unused. All these lands are owned by the Indians. To a white man they would be of almost incalculable value."


United States. Congress. House of Representatives. 1897. Preliminary examination of Siletz River, Bar and Entrance, Oregon. Letter from the Secretary of War, transmitting, with a letter from the Chief of Engineers, report of examination of Siletz River, Bar and Entrance, Oregon. *House Document (United States. Congress. House.)* no.107, 55th Congress, 2nd session., 4 p. G.P.O. (Washington, D.C.) Report of a preliminary examination of the entrance to Siletz Bay. Describes the area, which had recently been part of the Siletz Indian Reservation. Recommends against developing the harbor as too expensive, with uncertain returns. “The only industry near the mouth of the river is that of Kern Bros.’s salmon cannery, which is located about 2 miles above the bay. This cannery has a capacity of 300 cases per ten hours, and its output for the season of 1896 was 6,000 cases.” (p.3) Includes a map of the bay (p.4) showing it in an almost completely undisturbed condition.

Wilcox, William A. 1901. "Notes on the fisheries of the Pacific Coast in 1899." *Report of the Commissioner for ... / United States Commission of Fish and Fisheries.* pt.27,p.501-574. The annual report in which this article is published covers July 1, 1900 to June 30, 1901. Gives fisheries statistics and brief summaries of the state of the fisheries in 1899. [https://tinyurl.com/2f5xutft](https://tinyurl.com/2f5xutft)

Anonymous. 1903. "Salmon reviews. Columbia River." *Pacific Fisherman.* 1 no. 8: p.7. “Very little preparation is being made for salmon canning on the Oregon coast streams during the present fall season, because the price of that character of fish is low and considerable stock is held over. The canneries that will be operated are as follows: Coquille, Umpqua, Siuslaw, Alsea and Tillamook. The canneries that will not be in operation are at Nehalem, Nestucca, Yaquina, Siletz and Coos Bay.” [https://digitalcollections.lib.washington.edu/digital/collection/pacfish/id/2954](https://digitalcollections.lib.washington.edu/digital/collection/pacfish/id/2954)


Anonymous. 1904. "Coast canneries operating." *Pacific Fisherman.* 2, no. 10: p.12. Ten canneries will be in operation on the Oregon coast during the present fall season. They are the plants of S. Elmore & Co., at Nehalem, Tillamook, Alsea, Siletz and Umpqua; Hurd’s at Siuslaw; Smith’s at Coos Bay; Timmons’ and Prospers’ canneries at Coquille, and Barnes’ canners at Yaquina. [https://digitalcollections.lib.washington.edu/digital/collection/pacfish/id/4303](https://digitalcollections.lib.washington.edu/digital/collection/pacfish/id/4303)


annual report in which this article is published covers July 1, 1904 to June 30, 1905. Gives fisheries statistics by counties and brief summaries of the state of the fisheries in 1904. https://tinyurl.com/jjmevwv7


Anonymous. 1908. "Coast districts [Oct. 1908]." Pacific Fisherman. 6, no. 10: p.28. General business news. Lists salmon canneries operating on the coast, comments on “the short run of salmon this year” on the Siuslaw, thought to be caused by “the large number of spotted or hairless seals at the mouth of the river... The sand banks are simply alive with them and subscriptions are being taken up to get ammunition to set men to kill them off.” There is also an interesting news note about a die-off of herring during their run in Yaquina Bay. “...thousands of herring were strewn on the beach of the Pacific Ocean near Yaquina Bay... This year heavy sudden rains fell when the herring were going upstream and so much fresh water overwhelmed the fish.” https://digitalcollections.lib.washington.edu/digital/collection/pacfish/id/6035


Puter, Stephen A. Douglas, and Horace Stevens, 1858-. 1908. "Chapter XXX [Siletz]." In Looters of the Public Domain; Embracing a Complete Exposure of the Fraudulent Systems of Acquiring Titles to the Public Lands of the United States, by S. A. D. Puter, in Collaboration with Horace Stevens., p.469-482. Portland Printing House Publishers. This look at a disgraceful episode in Lincoln County history describes land fraud that took place when former Siletz Indian Reservation lands were opened up to the public after 1894. The fraud involved filing false homestead claims on valuable timber lands, which were then to be
sold to speculators. "In the case of the Siletz entries, it is a matter of record that in nearly every instance the claims were transferred to speculators as soon as final certificates were granted by the local Land Office, and that the holders of the title were exceedingly active in securing the issuance of patents." (p.480-482) Includes b/w photographs of alleged "homestead cabins." https://tinyurl.com/yeym9v8u

Van Dusen, J. R. 1908. "Oregon Fish Warden report." Pacific Fisherman. 6, no. 3: p.12-15. From the Oregon Fish Warden’s annual report for 1907. Reports on fish runs and hatchery operations for coastal streams. "The hatchery work on the streams of the state flowing into the Pacific Ocean, south of the Columbia River, was, without doubt, interfered with considerably this season by the extreme dry spell of weather that we had throughout the entire fall months, thereby causing the streams to all run so low that the chinooks were kept back from ascending the streams to spawn, and when the rains did come – late in the season – they caused such severe freshets that our temporary racks broke, thereby permitting the salmon to all pass by the hatcheries, and where we had permanent racks the greater number of the salmon passed over and went on to the extreme sources of the streams, where they, of course, spawned naturally. "

McAllister, H. C. 1909. "Report of Oregon Master Fish Warden -- 1908. District no.2. Coast streams." Pacific Fisherman. 7, no. 2: p.35. "The conditions on [coastal] ... streams this year were anything but favorable. Owing to the excessive dry weather and continued drought, the streams were all at a very low stage during the greater part of the fishing season; in fact, lower than for years past. This, in a measure, prevented the salmon from coming in, and in consequence the industry suffered, as did our hatchery work,. While the total pack this year is practically the same as in 1907, it shows a falling off of 50 per cent on Chinooks. ...We now have permanent hatcheries on the following streams: South Coos, Siuslaw, Yaquina, Umpqua and Trask. It is my desire to locate also on the Coquille, Alsea, Nehalem, Siletz and Nestucca." Statistics show fry liberated from hatcheries. 


Winningstad, O. 1912. Corvallis and Eastern Railroad Company Section Maps. Scale: 400' = 1".

erosion and to lessen the force of the floods. The gradient of the stream is steep, and fluctuations in stage are sudden and large, rises of a foot an hour for twelve or more hours being not uncommon." (p.48)


Anonymous. 1918. "1917 Oregon Coast canned salmon pack." *Pacific Fisherman* 16,p.58. 1 Gives 1917 canned salmon pack statistics for Oregon coast rivers and bays. The Yaquina cannery was consolidated with a Waldport cannery, and ceased operation. Canneries at Empire City (Coos Bay), Florence (Siuslaw) and Gardiner (Umpqua), did not operate in 1917, although canneries in Florence and Reedsport did. In Google Books. https://tinyurl.com/y7734zd


company name, cannery location and statistics for the canned salmon pack for 1919 for each cannery.

---. 1920. "Coast canneries close." *Pacific Fisherman*. 18, no. 8: p.28. News item. “Owing to the slump in the market for low-grade salmon, it is expected that few of the canneries along the Oregon and Washington coasts that rely on the fall run will operate this season.” Representatives of three large canneries are quoted discussing their options.

---. 1921. "1920 Oregon Coast Canned Salmon Pack." *Pacific Fisherman Yearbook, 1921*. p.43. Earlier overfishing, poor market conditions and poor runs combined to close many Oregon coast salmon canneries in 1920. Table gives company name, cannery location, and statistics for Chinook and coho salmon.

---. 1921. "Flood clears off land: high water has good results on lower Siletz River." *Morning Oregonian*, 26 Dec 1921, p.16. One method for clearing downed logs on the lower Siletz River was to let high waters wash the logs into the bay. This article describes how the 1921 flood on the Siletz "removed all the logs and brush from ... meadows" of four local farmers. "It is said there is no place on the Pacific coast where such heavy clearing can be done as cheaply as on the lower Siletz."

---. 1921. "Siletz bridges washed out: waters in district reported to be highest in 30 years." *Morning Oregonian*, 23 Nov 1921, p.7. "The Orton bridge over the Siletz river, the steel bridge at Siletz, the Fuller bridge and lower Farm bridges were all washed out by the flood. This district experienced the heaviest flood in 30 years, the water rising more than 30 feet in three days. The rainfall in the first 24 hours was 5 1/4 inches, and for 36 hours was 6 3/4 inches." This flood caused "numerous washouts." Other bridges washed out included railroad bridges near Chitwood, a railroad bridge at Pioneer, and a new county bridge over the Big Elk. Authorities indicated it would take "two to three weeks" to get the rail lines clear.

Cobb, John N. 1921. "Pacific salmon fisheries (3rd ed.)." *Report of the Commissioner for ... / United States Commission of Fish and Fisheries*. Appendix 1,255 p. The annual report in which this article is published covers July 1, 1920 to June 30, 1921. Some good canned salmon pack statistics from the 1880s to 1919. Includes b+w photographs of hatcheries, canneries, etc. [https://tinyurl.com/2pjy32t](https://tinyurl.com/2pjy32t)

Anonymous. 1922. "1921 - Oregon Coast Canned Salmon Pack " *Pacific Fisherman*. 20, no. 1 p.48. The only canneries to operate on the Oregon coast in 1921 were F.W. Gertulla's cannery on the Siletz, and a cannery on the Rogue at Wedderburn. This table can be read in Google Books. [https://tinyurl.com/y7734zd](https://tinyurl.com/y7734zd)

---. 1922. "Review of Pacific coast canning season of 1921." *Pacific Fisherman*. 20, no. 1 p.35-39. In 1921, the Pacific Coast canned salmon industry collapsed. Depressed salmon runs combined with abundant supply from the previous year and costs of outfitting canneries
to cause many canneries to close. “The total output was considerably less than half that of the record season of four years before, and much the smallest since 1910” (p.35). Only two canneries operated on the Oregon Coast. This article can be read in Google Books.
https://tinyurl.com/y7734zd


Anonymous. 1923. "Will sell Elmore properties." Pacific Fisherman. 21, no. 1: p.18. Brief news item. “In consequence of the retirement of the Elmore interests from the salmon industry, as announced some time ago, the various Elmore cannery properties are being offered for sale.” Canneries, buildings, docks and so forth are mentioned.

Anonymous. 1923. "1922 - Oregon Coast Canned Salmon Pack." Pacific Fisherman. 21 no. 1 p.53. Market conditions improved in 1922, and a few Oregon coast canneries re-opened. Canneries operated in the Nehalem, Tillamook, Siletz, Coquille and Rogue estuaries. Other canneries remained closed in the Tillamook, Nestucca, Nehalem, Siletz, Siuslaw and Umpqua estuaries. The Reedsport Packing Company became the Pacific Fish & Cold Storage Co., and operated cold storage but did not can salmon. The Siletz cannery operated by F.W. Gertulla under his name was still run by him, but changed its name to the Siletz Bay Packing Co. https://tinyurl.com/y7734zd

---. 1924. "1923 Oregon coast canned salmon pack." Pacific Fisherman. p.49. Statistical table gives company name, cannery location and data for Chinook and coho salmon. In 1923, the Pacific Coast canned salmon industry had its best season since 1919. Canning operations re-started on several streams where they had stopped due to low prices.

United States. Congress. House of Representatives. 1924. Siletz River, bar, and entrance, Oregon. Letter from the Secretary of War, transmitting, with a letter from the Chief of Engineers, report on preliminary examination of Siletz River, bar, and entrance, Oregon
House document (United States. Congress. House.) no.478, 68th Congress, 2nd session, 9 p. G.P.O. (Washington, D.C.) It was hard luck for the future development of Siletz Bay to be in a port district that had been formed for the improvement of the Yaquina River, but in 1924 that was the case, and these improvements had left the district “bonded almost to the legal limit.” (p.2) There was precious little room for Siletz. In the early 1920s, the Multnomah Lumber & Box Co. was pressing for improvements to the Siletz harbor to allow shipping of timber out of the harbor, but the request, which would have meant expensive jetties, went nowhere. “While the large amount of timber tributary to Siletz River is of considerable value, the local conditions are such as to justify the belief that it can be more economically handled overland through the port of Yaquina Bay...” (p.4) The report gives a brief physical description of the area, the state of the bar, and economic development. A table gives shipments at Siletz Bay for 1923. In Google Books. https://tinyurl.com/yyfnp4f2

Anonymous. 1925. "1924 Oregon coast canned salmon pack." Pacific Fisherwoman Yearbook. p.70. Statistical table gives company name, cannery location and data for Chinook and coho salmon. In 1924, there were good salmon runs in Oregon. The Siletz Bay Packing Company was purchased by the Burke Fish Company.


Shoemaker, Carl D. 1925. "The salmon fisheries of Oregon." Pacific Fisherwoman. 25, no. 2: p.12-13, 20. This is a brief overview of Oregon salmon fisheries by the General Manager of the Oregon State Fish Commission. One of the more interesting aspects of this account is the author’s comments on the citizenship requirement for getting a fishing license. The citizen requirement had been passed during a period of xenophobic alarms about foreigners taking “our fish.”

Anonymous. 1926. "Oregon coast canned salmon pack -- 1925." Pacific Fisherwoman Yearbook. 24, no. : p.70. The Oregon coast salmon runs were good in 1925 -- not quite as good as 1924, but still "well ahead of 1923 and other years since 1919." (p.60) This table gives the names of companies running salmon canneries, cannery locations, and statistics for fish canned.

Anonymous. 1927. "Oregon coast canned salmon pack -- 1926." Pacific Fisherwoman. 25, no. 2: p.92. Salmon runs on the Oregon coast were described as "light" (p.80), in 1926. Table gives companies, locations of canneries, and statistics for canned salmon.
Anonymous. 1927. "1926 Pacific mild-cured salmon pack." *Pacific Fisherman* 25, no. 2: p.190. The Burke Packing Company had plants up and down the Oregon Coast packing mild cured salmon, including plants on the Siletz, Yaquina and Umpqua Rivers. Statistics are in units of tiersces (about 800 pounds) and are lumped in with statistics for Bay City, Cushman and Pacific City.

---. 1928. "1927 Oregon coast canned salmon pack." *Pacific Fisherman*. 26, no. 2: p.80. Figures for the Burke Packing Company cannery at Taft are combined with those of the Burke cannery at Gold Beach. Figures for the Umpqua are from the Arthur Anderson Packing Company.

Anonymous. 1929. "Fall salmon canning results in light pack." *Pacific Fisherman*. 27, no. 13: p.15, 17. The 1929 salmon run on the Oregon Coast was reduced, where low water was blamed for light returns. “The Siletz River had relatively the best salmon run on the Oregon coast from Yaquina Bay north to the Columbia, proving to be the best this stream has had in some years. Consisting principally of very large Silvers, the Siletz run was an important factor on the Oregon coast this fall. On Yaquina Bay the situation was rather disappointing, the catch dwindling long before the end of the season, Nov. 15. The run into this bay is never large, Yaquina deriving its salmon principally from the troll operations during the summer. As there are no canneries at this point, the fish go for fresh shipping, mild curing and freezing.” (p.17)

Anonymous. 1929. "1928 Pacific mild-cured salmon pack." *Pacific Fisherman*. 27, no. 2: p.152. The Burke Packing Company had plants up and down the Oregon Coast packing mild cured salmon, including plants on the Siletz, Yaquina and Umpqua Rivers. Statistics are in units of tiersces (about 800 pounds) and are lumped in with statistics for Bay City, Cushman and Pacific City. Statistics are also given for the Newport Fish Co. on Yaquina Bay and the Morris Beck company at Florence, as well as for other coastal sites. These are the only canning statistics found for the Oregon Coast in 1928.


Hayden, Mildred Vera. 1930. "History of the Salmon Industry in Oregon." M.A., University of Oregon History of the salmon industry. Statistics cover the fish pack from 1866-1927. Worth reading to see what the issues looked like to someone at that time.
Anonymous. 1931. "Anchovies near to Taft: fish blacken water at mouth of Siletz Bay." *Morning Oregonian*, 9 Sep 1931, p.1. "A school of anchovies blackened the sea near the entrance to Siletz bay today and local fishermen were anxiously awaiting the entrance of this choice fish to inside waters where they might be taken with line and net." The run had started about six weeks earlier. It had been several years since anchovies had entered Siletz Bay.

---. 1931. "Pacific Coast Ports: [Oregon]." *Pacific Fisherman*. 29, no. Handbook Number: p.78-85. These are brief looks at facilities available for fishers in Oregon around 1930. Maps show harbors, fuel and oil stations, yacht clubs, small craft landings, small craft anchorages and drawbridges. Entries are brief. Here, for example, is the entry for the Umpqua River, “Gardiner and Reedsport are principal centers. Cold storage and fresh shipping of salmon and shad. Troll and gillnet salmon, gillnet shad, most of which are shipped fresh, either direct to markets or to other points for packing. Ice, oil, stores. Coast guard lifesaving station. Bar impassable in rough weather.” (p.85) Includes maps of Astoria, Yaquina Bay and Coos Bay.

---. 1931. "Sun dodging out as floods recede: highways reopened in intermittent [sic] rain. Silt coats coast grass. Tillamook and Lincoln County meadows lack food for stock; farmers must buy hay." *Morning Oregonian*, 2 Apr. 1931, p.1-2. This article describes effects of 1931 floods across Oregon, from bridge washouts to highway closures, including a logjam against a drawbridge on the coast highway near the mouth of the Siletz River. Interestingly, in 1931 Tillamook Bay recovered quickly from flooding. “Flood waters quickly passed off the Tillamook district due to the fact that five streams entering the bay there are small and the ocean is large, quickly absorbing the surplus.”

Jones, Benjamin E., Harold T. Stearns, and United States. Geological Survey. 1931. *Water Power Resources of Siletz River Basin, Oregon*. 47 p. U.S. Geological Survey (Washington, D.C.) This early survey of the Siletz River was undertaken to consider putting in dams for flood control, water storage and power generation. The author suggested developing five power sites along the Siletz to fully utilize the power in the fall of the river. Undeveloped power sites considered were at Valsetz, Siletz Falls, around Sunshine Creek, and near Euchre Creek. As is typical of the period, the needs of fish and wildlife were not considered. Precipitation and flow data are included. A pocket holds 5 maps, some with nice detail about the countryside around 1930, including some named farms.


During the winter of 1932-33 a good many steelhead trout taken from the Alsea river in Lincoln county were found infested with thorn-headed worms... Just how serious this parasite is to the fish is not definitely known." (p.16) Regarding the nematode Contracoecum, "Chinook salmon ... from the Siletz River some three miles from the mouth were quite heavily parasitized ... This parasite lives in the stomach and intestines of fish-eating birds, fish-eating mammals, and fish. To what extent this parasite damages the salmon is not definitely known."

https://ir.library.oregonstate.edu/concern/administrative_report_or_publications/mk61r

Senate, U.S. 1935.  Coast Guard station at Taft, Oreg. Senate Report. 74th Congress, 1st session, Senate Report no.871. , 2 p. (Washington, D.C.) 74th Congress, 1st session, Senate report no.871, 1935. 2 p. Senate Bill 501 (74th Congress, 1st session) had asked for a Coast Guard station at or near Taft. The chair of the Committee on Commerce asked the commander of the Coast Guard district for suggestions. He indicated that Taft was the best location. Among his reasons were, “. . . that during the 10-year period from 1923 to 1933 the water-borne commerce in and out of the Siletz River amounted in value to more than 4 ½ million dollars, consisting of rafted logs and fish; that during the calendar year 1934 to August 31, 52 log rafts crossed out over the bar with a total of 13,544,000 feet of logs; that during the fishing season there are between 20 and 30 small vessels operating out of this port, . . . that during 1934 the Yaquina Bay Station had 11 calls for assistance from Taft and vicinity.” Despite all these good reasons, the expansion of the Coast Guard “would not be in accord with the financial program of the President,” and was not recommended to go further. Taft never did get its Coast Guard station.


Anonymous. 1936. "Federal engineer turns down plan: benefits held insufficient to warrant cost." Morning Oregonian, 13 Apr. 1936, p.10. This article describes the rejection by Federal officials of a proposal for flood control on the Siletz Bay and River. The plan was rejected as not being cost-effective. “The report finds that along the river there are about 1900 acres of land subject to overflow... Roads and bridges suffer considerable damage and there is some bank erosion. The town of Taft, located on the bay below the mouth of the river, is not affected by river floods but is subject to inundation and damage from
large deposits of drift during periods of high tides and strong winds.” The engineer, a Colonel Robbins, suggested building a sea wall at Taft and a reservoir near the Siletz Falls. The final unfavorable report was announced in March, 1937.


Oregon. State Planning Board. 1936. Oregon's Wild Life Resource. A Report by Advisory Committee on Wild Life and Research Staff. State Planning Board. 148 p. Oregon State Planning Board, (Salem, Or.) Before World War II, relatively few natural resource management reports from Oregon state agencies were published. This report covers current (circa 1936) management issues, fur-bearing animals, predators, waterfowl, upland game birds, fisheries and conservation. Fisheries data includes salmon pack statistics, 1880-1931, as well as statistics (various years) for seal and sea lion bounties, hatchery releases and fish eggs taken, and fisheries catch statistics. The report contains interesting details, such as a list of private game reservations. “Commercial catching of clams is forbidden the year round at Netarts Bay, Tillamook County.” (p.81) “Rakes or submerged pots may not be used to catch crabs in Yaquina or Siletz Bay or Rivers. The only device legal there is the regular open net called a ring or hoop.” (p.82) Maps, charts, tables. https://ir.library.oregonstate.edu/concern/technical_reports/h702q722c


Commission  This report is a preliminary look at coastal streams, except for the Umpqua River, which was itself the subject of a major study in 1947. This report, which covers statistics and brief overviews of coho and Chinook runs on each stream, was followed by A Report of Fisheries Investigations in Oregon Coastal Streams South of the Columbia River and Exclusive of the Umpqua River, which is a more thorough exploration of the causes of the declines in Oregon coastal salmon runs. Charts give runs for each river from 1928 through 1945.

https://ir.library.oregonstate.edu/concern/technical_reports/3484zh70c

Oregon. State Game Commission. 1947. A Report of Fisheries Investigations in Oregon Coastal Streams South of the Columbia and Exclusive of the Umpqua River. 79 p. ([Portland, Or.]) P.31-79 cover "coastal streams other than the Rogue and Umpqua." Reports on 1941 reconnaissance survey, 1942 steelhead studies in the Tillamook Bay area, 1946 steelhead follow-up (Sand Creek, Kilchis River tributaries). Gathered basic biological and environmental data. Lists stream barriers and needed improvements. From summary: "The cutthroat trout populations are on the decline in all coastal streams with the exception of the Necanicum and Siuslaw rivers." "Steelhead seem to be holding their own ... south of Tillamook Bay but are continuing to decline north of that area." "Silver salmon have been greatly reduced in all coastal streams but are making a come-back in the Necanicum, Dee, and Siuslaw rivers. " "The spring chinook has all but been exterminated..." (p.31). Charts.

https://ir.library.oregonstate.edu/concern/defaults/r494vq85g

Anonymous. 1948. "High wind, big waves hit coast: Bay Ocean area cut off; beach homes battered." Oregonian, 4 Nov 1948, p.1. This article describes the marooning of the Bay Ocean community as the Tillamook Spit was severed. Other coastal damage is enumerated. “Gigantic combers off shore pushed water into the estuaries of coast mountain streams, increasing the size of the bay at the mouth of the Siletz river to six times its normal extent. Waves 10 to 12 feet high swept into the bay at Taft and up the river. A high tide of 9.1 feet was augmented by onshore winds...At Nelscott, considerable damage was reported from logs thrown into yards of beach front houses, while windows were smashed by flying debris...At Delake, the waves pounded away a section of the seawall and threw gigantic logs into bay front buildings... A dock at Depoe Bay was torn out...”.

Darr, Allen L., and Port of Newport (Or.). 1948. Re: Improvement of Siletz River Bar and Entrance and Drift Creek, Oregon. 23 p. Port of Newport (Newport, Or.) After World War II, the pace of logging in Oregon picked up. Several timber companies were logging in the Siletz watershed and wanted to be able to ship their logs out of Siletz Bay. Siletz Bay was still in the Port of Newport’s district, so the request to dredge and maintain an 18-foot channel came from the Port of Newport. Once again, the request went nowhere.

Includes sketches of bay clams. Includes statistics for Yaquina Bay for a week of low tides in July of 1947. The complete report also includes two short reports, "Drag Boat Damage on Crabs" and "Herring Spawning," which reports on herring spawning in Tillamook and Yaquina bays. [link]

Snaveley, Parke D. Jr., and Ewart M. Baldwin. 1948. "Siletz River Volcanic series, northwestern Oregon." *Bulletin of the American Association of Petroleum Geologists*. 32, no. 5: p.805-812. This is the first article about the volcanic rocks in the Siletz area, in which the name 'Siletz River Volcanics' was given to the formation. Includes map, b+w photographs.

Talbot, Theodore, and Lincoln County Historical Society. 1948. Lincoln County lore, from the Journal of Lieut. Theodore Talbot, U.S.A., on his journey through Lincoln County and along the Oregon coast in 1849. no.1. *Publication (Lincoln County Historical Society (Lincoln County, Or.))*. Newport, OR. Lincoln County Historical Society. Journal of Lt. Theodore Talbot, describing a journey to Lincoln County to examine the "Alcea River and the country adjacent" in the summer of 1849. [link]


Anonymous. 1949. "The ghost shrimp fishery." *Research Briefs - Fish Commission of Oregon*. 2, no. 1: p.24. Describes development of a bait fishery for bay ghost shrimp. "An excellent bait for flounders, perch, kelp, etc., it is much in demand by sportsmen...To meet increasing demands a shrimp pump was developed and first used in the Alsea Bay in 1936... Two bays, the Alsea and Siletz, showed the seasonal yield of ghost shrimp to be 400 gallons..." [link]


Oregon. Fish Commission. Research Division. 1950. The Ocean Crab Fishery, its Regulation and Management: with Special Reference to the Siletz, Yaquina, and Alsea Bays. 4 p. Should fishing by crab pots instead of crab rings be allowed in some Oregon bays? An error caused the crab pot ban to be deleted from the statutes. This 1950 paper asks if the ban on crab pots should be reinstated in Siletz, Yaquina and Alsea Bays. This is an Oregon Fish Commission internal discussion paper. [link]

Lockwood, C.A. 1951. "1950 in review." *Oregon State Game Commission Bulletin*. 6, no. 1: p.4. Photograph of fishway constructed over falls on Cedar Creek, Siletz tributary, on p.4. https://ir.library.oregonstate.edu/concern/technical_reports/4t64gp34b


Gerlach, Arthur. 1952. "North Coast - Lincoln District." *Oregon State Game Commission, Fishery Division. Annual Report - Fishery Division*. 231-239. Data for Tenmile Lake is included in the Umpqua report. "Mill dams obstructing fish migration continue to be a great problem, but considerable success has been had in getting owners to construct suitable fish ladders. Some dams which no longer serve a useful purpose have been removed. Satisfactory solutions have not been reached in a few cases, but progress is being made." (p.5) https://ir.library.oregonstate.edu/concern/technical_reports/xw42nd137


Gharrett, J.T. (compiler). 1953. Summary, Coastal River Regulations, 1878-1950. Gives the details of fishing regulations from 1878-1950, with a 1974 addendum by Robert E. Mullen for some streams. We learn, for example, that in 1891-1892 "No fixed gear to extend more than one-third distance across streams," or that Beaver Creek was "closed to commercial fishing following 1916."


McCauley, James E., Lowell D. Marriage, and Oregon. Fish Commission. 1955. "The intertidal mussel, piddock, and abalone resources of Oregon's outer coast." *Research Briefs – Fish Commission of Oregon*. 6, no. 1: p.4-13. This 1955 survey told where to go to find some kinds of shellfish. Works like this should not be used without considering health issues such as bacteria counts, red tides, etc. “At Yachats there are mussels on the rocks on both sides of Yachats River. At Yachts Rock State Park one can easily gather mussels from the rocks where they are large and numerous…”
https://ir.library.oregonstate.edu/concern/technical_reports/vd66w0709

https://ir.library.oregonstate.edu/concern/technical_reports/vm40xs83p

https://ir.library.oregonstate.edu/concern/technical_reports/th83m3608

https://ir.library.oregonstate.edu/concern/technical_reports/05741x26h

https://ir.library.oregonstate.edu/concern/technical_reports/t722hb284

https://ir.library.oregonstate.edu/concern/technical_reports/db78tc76p

https://ir.library.oregonstate.edu/concern/technical_reports/12579x43k

https://ir.library.oregonstate.edu/concern/defaults/hx11xm506
Bali, John Merton. 1959. "Scale Analyses of Steelhead Trout: *Salmo gairdnerii gairdnerii* Richardson, from Various Coastal Watersheds of Oregon." M.S., Dept. of Fish and Game, Oregon State College Thesis (M.S.). Scales from steelhead trout from 14 different Oregon coastal streams were examined. Differences in life histories between northern and southern populations were noted. The Coquille River population was considered "transitional" between the northern and southern groups.

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/3j333548n


https://ir.library.oregonstate.edu/concern/technical_reports/p2676w188


https://ir.library.oregonstate.edu/concern/technical_reports/0r967823f

Jewett, Stanley Gordon, Jr. 1959. The stoneflies (Plecoptera) of the Pacific Northwest. 95 p. *Oregon State Monographs. Studies in Entomology no.3*. Corvallis, Or.: Oregon State University. Stoneflies are aquatic insects living in cool, well-oxygenated streams. Sensitive to the presence of pollutants, their presence indicates good water quality. They are important food sources for fish, particularly trout. This classic guide includes a dichotomous key and illustrations to help identify species. Note: species names may have changed since this publication was written.

https://ir.library.oregonstate.edu/concern/technical_reports/sf268986j

Morgan, A. W. 1959. Fifty Years in Siletz timber.82 p. Highly anecdotal account of logging and lumbermen in the Siletz Valley from the early 20th Century up to the 1950s.

https://ir.library.oregonstate.edu/concern/defaults/m326m314x

U.S. Department of the Interior. National Park Service. 1959. Pacific Coast Recreation Area Survey. (Washington, D.C.) This report was important. Written decades before the Oregon Dunes became a National Recreation Area, it placed the dunes and the Sea Lion Caves areas in its top category ("of possible national status") for conservation. Other sites were listed for their state, local, recreational or biological importance. Black-and-white photographs of sites and brief site descriptions are included.

https://www.nps.gov/parkhistory/online_books/rec_area_survey/pacific/contents.htm


Morgan, Alfred R. 1961. "Siletz Bay surf perch tagging." *Research Briefs - Fish Commission of Oregon.* 8, no. 1: p.5-13. A 1954 salmon tagging program in Siletz Bay incidentally collected numerous viviparous perch. Since little was known of these fish, some were tagged in order to learn more about their movements and abundance in Siletz Bay and the surrounding area. Gives estimates of the 1954 populations of three perch species in Siletz Bay. [https://ir.library.oregonstate.edu/concern/technical_reports/cn69m4837](https://ir.library.oregonstate.edu/concern/technical_reports/cn69m4837)

Stumbaugh, Thomas Ralph. 1961. "Resource Development of North Lincoln County, Oregon." M.S., Dept. of Natural Resources, Oregon State College. Original bw photographs of area around 1960. Maps. Good overview of North Lincoln County. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/rr172165q](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/rr172165q)

Rousseau, Rollie F., and Richard G. Herrig. 1962. "Lincoln District." *Oregon State Game Commission, Fishery Division. Annual Report - Fishery Division.* p.301-316. Numerous statistics, from creel censuses to catch-and-effort statistics. "Salmon fishing in streams of the district was good to excellent. A large run of silver salmon which entered the rivers during a freshet in early October permitted anglers an opportunity to take bright fish in popular upstream fishing areas." (p.304) [https://ir.library.oregonstate.edu/concern/technical_reports/pn89dc32p](https://ir.library.oregonstate.edu/concern/technical_reports/pn89dc32p)

Amend, Donald F., and John L. Fryer. 1963. "Production trials utilizing sulfonamide drugs for the control of cold water disease in juvenile coho salmon." *Northwest Fish Culture Conference : [proceedings], Tumwater, WA., v. 14th.* p.114-118. Describes trial of Sulfisoxazole and Sulfathoxypridazine compared with Sulmet, conducted at the Siletz hatchery. "The Siletz Hatchery was chosen for the production trials because it has had a high incidence of cold water disease in past years." Charts.


Snow, C. Dale, and Oregon. Fish Commission. 1963. Crab Fishermen Interviews. 10 p. "As requested, crab fishermen, processing plants, boat moorages, and chambers of commerce along the Oregon coast were interviewed to obtain their thinking on crab seasons and regulations." Interviews were conducted from Astoria to Brookings. [https://ir.library.oregonstate.edu/concern/technical_reports/08612p411](https://ir.library.oregonstate.edu/concern/technical_reports/08612p411)

Wallis, Joe. 1963. An Evaluation of the Siletz River Salmon Hatchery. Oregon Fish Commission Research Laboratory (Clackamas, Or.) This report sums up the work done by the Siletz River Fish Hatchery from 1937 to the early 1960s. Includes maps, b+w photographs. Recommends that the hatchery “continue in operation along the general lines at present,” with a final evaluation to follow in a few years. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/xw42n996c](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/xw42n996c)

Morgan, Alfred R., and Oregon. State Game Commission. 1964. "Oregon coastal salmon and steelhead tagging programs. Part II. Siletz River, 1954." *Contribution / Oregon Fish Commission.* no.28,p.43-62. Reports on a 1954 salmon and steelhead tagging study. At that time, commercial fishing was allowed on the Siletz, so that fishery was studied, along with the Native American and recreational fisheries. [https://ir.library.oregonstate.edu/concern/defaults/3f462b493](https://ir.library.oregonstate.edu/concern/defaults/3f462b493)

North, William Benjamin. 1964. "Coastal Landslides in Northern Oregon." M.S., Dept. of Oceanography, Oregon State University. Covers the North Coast from the Columbia River to Heceta Head. Photographs & maps. Masters thesis. Mostly concerned with erosion on the outer coast. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/xw42n996c](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/xw42n996c)

water resources. The information needed for its study includes: (1) the kind and location of desirable water resource developments; (2) the amounts of water required; (3) the physical opportunities for developments to meet water needs; and (4) the broad economic aspects of possible development.” (from the Introduction) Includes b+w photographs, colored maps, tables. Nice overview of soils data.  
https://ir.library.oregonstate.edu/concern/defaults/1z40kk71v

https://ir.library.oregonstate.edu/concern/technical_reports/8c97kv710


Anonymous. 1965. "Slides, washouts plague Lincoln County residents." Oregonian, 30 Jan 1965, p.6. This article describes heavy flooding in Lincoln County, Oregon in the winter of 1964/1965. “The Siletz River early Friday reached a crest more than six feet higher than the Christmas week flood crest... Taft, Nelscott, DeLake and Toledo faced critical water shortages because of flooded pumping stations and broken water mains... Scores of docks and boats and several homes, barns and trailer houses were swept to sea in the rampaging Siletz floodwater.” Highways 20 and 101 were closed due to landslides, and Highway 18 was the only link between Lincoln County and the Willamette Valley.

Hutchinson, James M. 1965. Fish and Wildlife Resources of the Middle Coast Basin, Oregon, and Their Water Use Requirements. Oregon. State Game Commission Basin Investigations Section, (Portland, Or.) "April, 1965." Assesses fish and wildlife resources (primarily fish) of the Mid-Coast Basin. Makes recommendations on minimum stream flows needed to sustain fish. Includes reports on the stream cleanup / log jam removal program of the mid-1960s. Includes list of dams and waterfalls. Two folded maps show known salmonid spawning areas.  
https://ir.library.oregonstate.edu/concern/defaults/s7526d23w

https://ir.library.oregonstate.edu/concern/defaults/2801ph191

https://ir.library.oregonstate.edu/concern/technical_reports/br86b802f

527, Oregon Laws, 1961. 46 p. Fish Commission of Oregon (Portland, Or.) Describing stream improvement efforts in coastal streams in the early 1960s, this work was written in the heyday of the “stream clearance” policy, in which woody debris, mostly in logjams, was removed from streams. Other projects were fishways, rearing ponds, culverts. Includes photographs of coastal stream projects. https://ir.library.oregonstate.edu/concern/technical_reports/1831cq190


Gebhardt, Gary Alan. 1966. "Studies on the Molluscan and Fish Hosts of the "Salmon Poisoning" Fluke, Nanophyetus salmincola (Chapin)." M.S., Dept. of Fisheries and Wildlife, Oregon State University. "This study was undertaken: (1) to obtain information on the distribution of the snail, Oxytrema silicula, in three coastal rivers in Oregon, and the seasonal incidence of infection in these snails and in snails from an inland stream, with the cercariae of the trematode, Nanophyetus salmincola; (2) to follow cercarial development in the snail under natural and experimental conditions; (3) to determine the species of animals naturally infected with the metacercariae and those susceptible to experimental infection; and (4) to follow development of the metacercariae in the fish hosts... The fishes Cottus perplexus, Lampetra richardsoni, L. tridentata, and Richardsonius balteatus, and the Pacific giant salamander, Dicamptodon ensatus, all from western Oregon streams, were found naturally infected with the metacercariae of N. salmincola. This is the first report of natural infections in an animal other than a fish and in nonsalmonid fishes. .." (from the Abstract) Major professor was Raymond Milleman. https://ir.library.oregonstate.edu/concern/graduatethesisor_dissertations/g158bm45z

Oregon State Sanitary Authority. 1967. Implementation and Enforcement Plan for the Public Waters of the State of Oregon. 98 p. Oregon State Sanitary Authority (Portland, Or.) This is a look at the sad state of Oregon's waters in the mid-1960s and shows a beginning plan to monitor water quality. At the top of the list was municipal sewage treatment. Locations for sampling stations for various waterways are given.


Anonymous. 1968. "Siletz summer steelhead trapped." Oregon State Game Commission Bulletin. 23, no. 8: p.2. Brief news item about the Game Commission's harvest of Siletz River summer steelhead for its hatchery program. Eggs were taken for the Nestucca, Wilson and McKenzie Rivers, as well as for the Siletz. https://ir.library.oregonstate.edu/concern/technical_reports/h989r429s

---. 1968. "Winter steelhead returns appear good." Oregon State Game Commission Bulletin. 23, no. 7: p.7. Brief news item about the 1968 steelhead run. “Hot spot of Lincoln County was the Salmon River, with angling intensity up considerably over previous years...” https://ir.library.oregonstate.edu/concern/technical_reports/wp988k86s

Fish Commission of Oregon. Research Division. 1968. Studies on Increasing the Production of Anadromous Salmonids in Oregon Coastal Lakes and Streams. Fish Commission of Oregon ([Portland, Or.]) Interesting information on miscellaneous activities https://ir.library.oregonstate.edu/concern/technical_reports/qv33rx529


Oglesby, Larry C. 1968. "Responses of an estuarine population of the polychaete Nereis limnicola to osmotic stress." Biological Bulletin. 134, no. 1: p.118-138. The author studied responses of worms to osmotic stress. The worms were collected from Schooner Creek, and there is a good discussion of the site where they were found, as well as a general discussion of salinity in Siletz Bay.

Porter, Sook Hee. 1968. "A Taxonomic Study on Myxobacteria Isolated from Fish." Dept. of Microbiology, Oregon State University Thesis (M.S.). Several of the cultures (9, 18-21) were of coho salmon from the Siletz Fish Hatchery. Includes key to Cytophaga species. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/hd76s381p


United States. Army. Corps of Engineers. Portland District. 1968. Transcript of Public Hearing Held at Gleneden Beach, Oregon, on Improvement of Siletz River, Bar, and Entrance, Oregon, for Navigation, 29 July 1968. U.S. Army Corps of Engineers. Portland District (Portland, Or.) In 1968, the Port of Newport succeeded in bringing its plan to improve the port at Siletz Bay to the attention of Federal authorities. The Port prepared a proposal for development of Siletz Bay to enable shipping out of the Bay. The project included jetties, a dredged channel, a dredged turning basin and constructed breakwaters to protect moored vessels. This is a transcript of a hearing about the Port’s plan, which was not implemented. This document includes the plan and supporting documents, exhibits from interested parties (not all of whom favored the plan), maps, and a list of participants.


Skeesick, Delbert G., and Oregon. Fish Commission. Coastal Rivers Investigations. 1969. Spawning Fish Surveys in Coastal Watersheds, 1968. 24 p. Oregon Fish Commission A new fish ladder at Sunshine Creek on the Siletz allowed fish to move further upstream to spawn, and out of the survey area. This caused a 50% drop in apparent spawning for that area, and a 25% seeming drop for the whole Siletz. Rock Creek Hatchery fish moved into the Rock Creek Chinook spawning area. "[L]arge masses of fish in each pool make it impossible to count all the live chinook present..." (p.5) https://ir.library.oregonstate.edu/concern/technical_reports/rn3012017
Snavely, Parke D. Jr., Norman S. MacLeod, and Weldon W. Rau. 1969. "Geology of the Newport area, Oregon: Part I - geologic sketch of the Newport Area, Oregon." *The Ore Bin*. 31, no. 2: 25-71. Part 1 of a field trip guide to the Newport area, "Geologic Sketch of the Newport Area, Oregon." Part II is the road trip guide. Includes maps, charts, black-and-white photographs. This part of the guide is focused on the geologic history and geologic formations in the area.

https://ir.library.oregonstate.edu/concern/administrative_report_or_publications/6969z5023

---. 1969. "Geology of the Newport area, Oregon: Part II. geologic field trip guide, Newport area, Oregon." *The Ore Bin*. 31, no. 3: p.49-71. “The field trip consists of two geologic tours. On Tour 1, the Tertiary sedimentary rocks exposed along the Yaquina River between Newport and Toledo, Oregon, will be examined. .. Tour 2 is primarily concerned with volcanic rocks of early Eocene, late Eocene, and middle Miocene age that form important stratigraphic units in the Oregon Coast Range.” (p.49) Tour 1 runs west-to-east from Newport to Toledo; Tour 2 runs south-to-north from Cape Foulweather to Siletz Bay, then east along the Siletz River, ending at a private quarry. Maps, colored geologic maps and black-and-white photographs are included.

https://ir.library.oregonstate.edu/concern/administrative_report_or_publications/3t945w39p


https://tinyurl.com/y34j9gu4

"Annual report July 1, 1969, to June 30, 1970." Describes study to stock adult coho salmon above barriers in streams without coho runs, then studied resulting juvenile coho. Compared stocked fish in the North Fork of Schooner Creek and Euchre Creek with natural runs in Erickson Creek and Little Euchre Creek.


Campbell, John C. 1971. Prediction of seasonal-low streamflow quantities. WRRI (Series). no.10, 16 p. (Corvallis, Or.) “The study was conducted in order to obtain some understanding of the hydrologic characteristics of streamflow under dry weather conditions, and from this knowledge develop some means for prediction of seasonal-low streamflow quantities.” (from the Abstract) The author developed a “Probability Graph” for predicting low-water yield and gives methods for applying his model to other streams. Table 2 gives “the minimum [predicted] water yield that may be expected for any reasonable-selected frequency. For example, on the Alsea River at Tidewater, Oregon, one may predict a water yield as low as 67.5 cubic feet per second once every five years.” (p.6) https://ir.library.oregonstate.edu/concern/defaults/jh343x511

United States. Army Corps of Engineers Portland District. 1971. Special Flood Plain Information: Siletz River, Lincoln County, Oregon. Siletz River, Lincoln County, Oregon. 10 p. The District (Portland, Or.) This report shows 100-year-flood information for river miles 0-10 on the Siletz River. A set of 5 fold-out charts show inundation areas for 100-year-floods. Flood zones are superimposed on aerial photographs taken in January, 1971. The ten
greatest floods as of 1970 (at river mile 10) are given. “Siletz River overtops its banks nearly every year and sometimes several times during the same year. Floods near the mouth are accentuated when high water in the river combines with high tides... [I]n the past ten years, the flood plain has been the object of considerable subdivision activity.” (p.3)

Emmer, Rod E., and Keith W. Muckleston. 1971. A compilation of flood abatement projects in Oregon WRRI (Series) no. 11, 122 p. Oregon State University. Water Resources Research Institute (Corvallis, Or.) This is a broad-brush look at flooding issues in Oregon. The entire state is covered. A table lists flood damages from 1955-1969. Existing flood control projects for each region are listed. Maps show flood-prone areas. https://ir.library.oregonstate.edu/concern/defaults/fj2366569


Goodwin, Clinton John. 1972. "Stratigraphy and Sedimentation of the Yaquina Formation, Lincoln County, Oregon." M.S., Dept. of Geology, Oregon State University. Master's thesis. Major professor was Alan R. Niem. While other formations in the Newport area (e.g., Alsea Formation, Nye Mudstone) indicate that the region was in the deeper ocean, the Oligocene Yaquina Formation was deposited on land or in shallow seas. Several layers were deposited in river deltas. This thesis describes the regional geology, stratigraphy, lithology, petrology, depositional ecology and economic potential of the formation. It includes color photographs and microscopic photographs of thin sections of rocks. 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/m326m632g

Hamilton, Stanley F., and Advisory Committee to the State Land Board. 1972. An Inventory of Filled Lands in the Siletz River Oregon. Division of State Lands Includes maps of identified fill sites and an overview map showing locations of fill sites in Siletz Bay. 
https://ir.library.oregonstate.edu/concern/defaults/qr46r532k

Holt, Richard Allen. 1972. "Characterization and Control of Cytophaga psychrophila (Borg) the Causative Agent of Low Temperature Disease in Young Coho Salmon (Oncorhynchus kisutch)." M. S., Dept. of Microbiology, Oregon State University. "Low temperature disease (LTD) is an acute septicemic infection of young coho salmon (Oncorhynchus kisutch) caused by the myxobacterium Cytophaga psychrophila (Borg). Fish infected with this bacterium usually develop an open lesion or dark discoloration in their peduncle region. . . C. psychrophila has been found to be responsible for severe losses in coho and other salmonids at fish hatcheries throughout the Pacific Northwest.” (from the Abstract) This study isolated and compared different strains of C. psychrophila from different Oregon hatcheries. A possible treatment was tested at the Siletz River Salmon Hatchery, “which experiences an annual predictable LTD epizootic in their fingerling coho.” (p.53) 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/q524jq91c


https://ir.library.oregonstate.edu/concern/technical_reports/1g05fc341

Zinn, Jeffrey A. 1972. "Analysis of Resident Property Owner Perception of Resources and the Management System of Siletz Bay Estuary, Oregon." Ph. D., Dept. of Geography, Oregon State University. At the beginning of the 1970s, the author surveyed 146 households from four communities surrounding Siletz Bay about their knowledge of the estuary and how it was managed. Local residents tended to over-estimate their knowledge about the estuary, and knew the least about the agencies responsible for managing it. “The local public would benefit from increased interaction with agencies at all levels, not only to learn more about the rules of those agencies, but also to acquire additional information about the estuary to improve the accuracy of their perception.” (from the Abstract) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/gm80hz28m


Grosswiller, Ed. 1973. "No public aid seen for saving spit: $2 million job." The Oregonian, 10 Feb 1973, p.15. The State of Oregon had no money to help the private landowners whose property was being ripped away by the sea. Riprapping became essential.

Karna, Duane William. 1973. "Epizootiology of Margaritifera margaritifera (L.) (Mullusca: Margaritanidae) Infection in Salmonid Fishes." M.S., Dept. of Fisheries and Wildlife, Oregon State University. At some point in their free-living period, the larvae of most freshwater mussels must attach to the fins, skin or gills of a fish host in order to undergo metamorphosis to the adult mussel stage. The larvae encyst on the host for several weeks, then at maturity break out of the cyst and settle on the streambed. This thesis deals with larval mussel infections of salmonids on the Siletz River. Chinook salmon were the most vulnerable to this parasitism, while coho salmon seemed to have some sort of resistance. Parasitism in the gills can affect the respiratory capacity of the fish. Includes original color photomicrographs.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/jm214s423


https://digital.osl.state.or.us/islandora/object/osl%3A26975

Moffatt, Nichol & Bonney, Inc.,. 1973. Shore Protection Salishan Properties Oregon : Prepared for Salishan Leaseholders. 27 p. Moffatt, Nichol & Bonney (Portland, Or) In 1967, the Salishan Properties, a residential development project, was initiated on the Siletz sandspit. Severe erosion in the winters of 1970/71 and 1971/72 led to this study, in which possible methods for property protection are outlined. Foldout maps and charts.


Orwig, Charles Edwin. 1973. "Prediction of Monthly Streamflows for Oregon Coastal Basins Using Physiographic and Meteorological Parameters." M.S., Dept. of Civil Engineering, Oregon State University. Major professor was Dr. Peter C. Klingeman. Masters thesis. "Prediction equations were developed for estimating the flow regime at ungauged stream locations in the Oregon coastal range." (from the Abstract) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/7s75dg37v

Pacific Northwest Laboratory. 1973. An Inventory and Evaluation of Areas of Environmental Concern in Oregon, for the State of Oregon, Executive Department and Natural Resources Agencies. 104 p. Estuaries and wetlands were areas of critical concern in this publication. Recommends legislation, protected status, etc. Photograph of accelerated erosion on Siletz Spit, p.12.


Richmond, Henry R, and Oregon Student Public Interest Research Group. 1973. The Oregon Coast and the Oregon Coastal Conservation and Development Commission: the Fox Guarding the Chickens? OSPIRG reports. 96 p. Oregon Student Public Interest Research Group (Portland, Or.) This scathing critique of the early efforts of the Oregon Coastal Conservation and Development Commission shows development activities on the Oregon Coast in the early 1970s, and the pressures on planning agencies and the environment at that time. It describes a fragmented government overly represented by development interests struggling to come to grips with complex issues and failing to use appropriate resources. Individual anecdotes are fascinating. This report does have a point of view. https://www.govinfo.gov/content/pkg/CZIC-tc224-o7-r53-1973/pdf/CZIC-tc224-o7-r53-1973.pdf


define physical parameters controlling the propagation of tidal waves into estuaries, and
to provide a predictive algorithm for tides. "To achieve this objective, a quasi one-
dimensional has been built to generate the data on which a predictive method could be
based." The model was verified for the Siletz, Yaquina and Alsea Rivers.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/1g05ff29k

Basalts." M.S., Dept. of Chemistry, Oregon State University. Discusses the chemical
similarity of coastal basalts to inland formations and speculates on their origins. "The
three groups of Miocene basalts from the coast have been shown to be nearly identical
chemically to three chemical types defined in the Columbia River Plateau basalts as
follows: Depoe Bay Basalt ≡ Lower Yakima Basalt (high and low Mg types), Cape
Foulweather Basalt ≡ Frenchman Springs Basalt, and the Basalt of Pack Sack Lookout ≡
Pomona Basalt. Possible models for the origin of these basalts erupted from vents over
500 km apart are also discussed. The Eocene basalts from the Oregon coast are found to
be most similar to the basalts from the Hawaiian Islands, whereas the Metchosin
Formation basalts on southern Vancouver Island are found to be more similar to ocean
ridge tholeites." (from the Abstract) M.S. thesis in Chemistry.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/b8515r77k

Algorithm." Ph. D., Dept. of Botany and Plant Pathology, Oregon State University Major
Professor: William W. Chilcote
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/2v23vx42t

Lund, Ernest H. 1974. "Rock units and coastal landforms between Newport and Lincoln City,
Oregon." Ore Bin. 36, no. 5: p.69-90. Although our understanding of vulcanism on the
Oregon Coast has evolved since this article was written, it is still a useful guide for the
interested layperson. Includes bw photographs and geological maps.
https://ir.library.oregonstate.edu/concern/administrative_report_or_publications

Natural Resource Inventory Report to the Oregon Coastal Conservation & Development
General reference. Discusses available water supplies and potential resource use conflicts.
https://ir.library.oregonstate.edu/concern/defaults/7w62fd16j

Sediments in the Siletz Estuary." M.S., Dept. of Mechanical and Metallurgical Engineering,
Oregon State University. This is a good look at the physical condition of Siletz Bay in the
mid-1970s. One interesting aspect involved tidal predictions: the author found that
changes in the bay led to predicted times of high and low tide to be in error and suggested
that either increased sedimentation or the diking of Millport Slough might be the cause.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/v405sf331
Rea, Campbell Cary. 1974. "The Erosion of Siletz Spit, Oregon." M.S., School of Oceanography, Oregon State University. Good overview of Siletz Bay with a concentration on Siletz Spit. Includes historic maps and aerial photographs. The Salishan Resort development on the sandspit had experienced erosion during 1971-1973. “The purposes of this study are: (1) to examine the history of erosion on Siletz Spit; (2) to determine whether the erosion is part of a long term trend or is cyclical; and (3) to suggest probable causes and possible remedies for the erosion.” (from the Introduction)
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/4x51hn43z


https://ir.library.oregonstate.edu/concern/technical_reports/v692t6898

https://ir.library.oregonstate.edu/concern/technical_reports/3n203z661


https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/6d570035m


Choi, Byungho. 1975. "Pollution and Tidal Flushing Predictions for Oregon's Estuaries." M. Oc. E., Dept. of Civil Engineering, Ocean Engineering, Oregon State University. "The overriding goal of this study was to provide first order estimates of dilution and tidal flushing of waste discharges released hypothetically into various Oregon estuaries during critical low flows and tides." (from the Abstract) Masters of Ocean Engineering thesis. Major professor was Larry S. Slotta. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/db78t26w

Howard, Needles, Tammen & Bergendoff,. 1975. Wetlands Review of Siletz Bay, Oregon 81 p. This preliminary draft is an early version of the “Siletz Wetlands Review." Although the Siletz Bay “is one of the most altered estuaries of the entire coast,” in the early 1970s intense local interest in conservation, along with county and state interest in the area, led to a review of the area by the Army Corps of Engineers (p.1.) Maps and b+w photographs.


Weber, Walter G., John D. Fortune, Jr, and Oregon. Wildlife Commission. 1975. Siletz River Summer Steelhead Study. 121 p. Oregon Wildlife Commission (Portland, Or.) "The Siletz River ... is the only short coastal stream in Oregon inhabited by a run of what are generally thought to be native summer steelhead. Hatchery-reared progeny from Siletz River stock have been released into and have become established in two other Oregon coastal streams, the Nestucca and Wilson rivers. In 1968 a study on the Siletz River summer steelhead was undertaken. The study continued for five years and terminated June 30, 1973." (From the Introduction)
https://ir.library.oregonstate.edu/concern/technical_reports/dn39x6137

Wilsey & Ham, and Oregon Coastal Conservation and Development Commission. 1975. Estuarine Resources of the Oregon Coast: a Natural Resource Inventory Report to the Oregon Coastal Conservation & Development Commission. Oregon Coastal Conservation and Development Commission (Florence, Or.) This report is one of ten natural resource inventories prepared by the OCC&DC in developing a natural resources management plan for the Oregon coast. The inventory is designed to provide a coastwide identification of the location, extent and characteristics, values and management problems of estuarine resources. (Introduction.) Yaquina Bay section p.134-140.
https://ir.library.oregonstate.edu/concern/defaults/ns064b38r

Cummings, Ed, and Oregon Department of Fish and Wildlife. Fish Management Section. 1976. Spawning Fish Surveys in Coastal Watersheds, 1975. Oregon Department of Fish and Wildlife  https://ir.library.oregonstate.edu/concern/technical_reports/v692t6919

Gaumer, Thomas F., Gerald T. Lukas, Bruce G. Halstead, Oregon. Fish Commission. Division of Management and Research. 1976. Methods of Supplementing Clam and Abalone Production: Completion Report: July 1, 1973 to June 30, 1976. 1973/1976. Oregon Fish Commission of Oregon, Division of Management and Research (Oregon) "Clam surveys have been conducted in Oregon's estuaries since 1973. During this project period primary objectives were (1) to locate suitable intertidal and subtidal clam planting sites and to determine the feasibility of planting laboratory spawned clams; (2) to determine the potential for a subtidal clam fishery in Oregon; (3) to develop techniques for spawning and rearing clams, (4) to refine techniques for aging clams, (5) to develop appropriate subtidal clam management schemes applicable on a coastwide basis, and (6) to determine the feasibility of purchasing and planting juvenile red abalone along the Oregon coast." (Introduction). Includes maps of subtidal clam beds in Tillamook, Yaquina and Coos bays.

https://ir.library.oregonstate.edu/concern/technical_reports/6395w758c

Komar, Paul D., and Rea. C. Cary. 1976. "Beach erosion on Siletz Spit, Oregon." The Ore Bin 38, no. 3: p.119-134. This article, which comprises a whole issue of the Ore Bin, deals with the 1972-1973 severe erosion of the Salishan development on the Siletz Spit. “The purposes of this report are to document the erosion to Siletz Spit and to explain its causes.” (p.119) The report is accompanied by numerous maps and (rather amazing) black-and-white photographs documenting the erosion and the forces driving it.

https://ir.library.oregonstate.edu/concern/administrative_report_or_publications/zw12z959h

Krantz, G.W. 1976. "Arenicolous Halacaridae from the intertidal zone of Schooner Creek, Oregon (Acari : Prostigmata)." Acarologia. 18, no. 2: p.241-258. This article describes marine mites found in the intertidal zone of Schooner Creek. Collection sites were 50 and 75 meters from its junction with the Siletz River. "The coarse-grained, gravelly sand deposits so common in west coast estuaries parallel those of many sheltered open coast temperate zone beaches where intertidal interstitial life often is well developed. Unlike the open beach habitat, estuarine sands have the advantage of protection from wave action during tidal episodes." (p.241)

McKinney, Barbara Ann. 1976. "The Spring 1976 Erosion of Siletz Spit, Oregon, with an Analysis of the Causative Wave and Tide Conditions." M. S., School of Oceanography, Oregon State University. "During the period 1970-76, Siletz Spit on the mid-Oregon coast has suffered foredune erosion. This erosion is associated with high wave conditions along the coast, produced by intense storms in the North Pacific. During the winter of 1972-73 and during January through March 1976 the erosion was particularly severe. The pre-1975 erosion of the spit has been documented in a previous study. One of the main purposes of the
present study is to document the 1976 erosion and to contrast it with the earlier episodes..." (from the Abstract). Master of Science thesis in Oceanography.

Niem, Wendy A. 1976. "Drainage Basin Morphology in the Central Coast Range of Oregon." M.S., Dept. of Geography, Oregon State University. This is a fascinating look back at the origins of the ancestral Siletz-Luckiamute and Yaquina-Mary’s Rivers. “The wind gaps, barbed drainages, valley sizes, and scale of the large meanders suggest that each pair of streams in the central Coast Range (one pair consists of one westward-flowing stream and one eastward-flowing stream) represents a single ancient stream system which was severed during uplift of the Coast Range.” (from the Abstract) Maps, color photographs.


Pfister, Robert E., and Oregon. State Marine Board. 1976. Pleasure boating in Oregon : a report to the Oregon State Marine Board. WRRI (Series). no.42, 73 p. Oregon State University. Water Resources Research Institute (Corvallis, Or.) This report summarizes the status of recreational boating in Oregon circa 1975. The Willamette and Columbia Rivers were the most heavily used waterways in the state. Most pleasure boats were used for recreational fishing, with waterskiing and cruising as other major activities. The size of pleasure boats was increasing. Problems included overcrowding at boating facilities, a lack of law enforcement, and a need for more public restrooms.

Ray, Clayton E. . 1976. "Fossil marine mammals of Oregon." Systematic Zoology. 25, no. 4 p. 420-436. This interesting article gives a history of the discovery of marine mammal fossils in Oregon. Most of the article is concerned with a remarkable and extensive collection of fossils amassed by Douglas Emlong, of Lincoln City, Oregon, “who has already secured a special place in the history of vertebrate paleontology by collecting more marine mammal fossils of more kinds and more ages than anyone,” (p.433) and who gave his collection to the Smithsonian.

United States. Army. Engineer District  Portland. 1976. Siletz Wetlands Review. 349 p. U.S. Army Corps of Engineers. Portland District (Portland, Or.) “One of the purposes of this document is to provide the permit applicant with the standards that the Department of the Army would use to evaluate a permit.” (p.xii) Although the Siletz Bay “is one of the most altered estuaries of the entire coast,” in the early 1970s intense local interest in conservation, along with county and state interest in the area, led to a review of the area
by the Army Corps of Engineers. (p.1) Numerous fold-out maps and b+w photographs are included. Very informative about the area in the mid-1970s.

Bayer, Range D., and Yaquina Birders. 1977. Birds of Lincoln County, Oregon. Sea Grant Marine Advisory Program (Newport, OR) "Range Bayer, Editor; Sally Booth, Illustrator." Gives directions to local birding areas, a checklist of Lincoln County birds, lists accidental and offshore species, and gives arrival and departure dates. https://ir.library.oregonstate.edu/concern/technical_reports/gt54kn398


Kent, William Eugene. 1977. The Siletz Indian Reservation, 1855-1900.56 p. Newport, Or.: Lincoln County Historical Society. This is a Master’s thesis from Portland State University that has been expanded into a book. It tells a sad story, one that needed telling. Includes b+w photographs.

Komar, Paul D., and Barbara Ann McKinney. 1977. The spring 1976 erosion of Siletz Spit, Oregon: with an analysis of the causative wave and tide conditions. ORESU-T. no.77-004, 23 p. Oregon State University, School of Oceanography, (Corvallis, Or.) "The purpose of this study is to document erosion during spring 1976, the second episode of severe erosion, and to contrast it with earlier winter erosion periods. As will be seen, a severe winter storm on Feb. 18, 1976 caused water to wash over the spit..." (from the Introduction) https://repository.library.noaa.gov/view/noaa/35037

Oregon. Dept. of Fish and Wildlife. Marine Region. 1977. The Dungeness Crab Fishery in Oregon Estuaries. 13 p. "Oregon's estuaries are focal points in an important recreational and commercial fishery for Dungeness crab. This report describes crabbing in Oregon's estuaries and includes brief notes on crab biology, catch statistics, major fishing areas, fishing regulations, problems, and proposed solutions." (Introduction) Internal discussion paper. https://ir.library.oregonstate.edu/concern/technical_reports/4f16c371f


Gentile, John Richard. 1978. "The Delineation of Landslides in the Lincoln County, Oregon Coastal Zone." M.S., Dept. of Geography, Oregon State University. "A study conducted along the Lincoln County, Oregon coast delineated the exact location of 153 landslides. The landslides were found through the interpretation of aerial photographs.” The slides were mapped, analyzed and classified as ancient, historic or recent. “It was found that most landslides occur in conjunction with silt stone materials of Tertiary age. Areas with similar morphology but of sandstone materials are less likely to have landslides. Structurally, landslides occur in areas with steeply dipping Tertiary bedding planes or in areas with steep slopes such as river valleys. A large portion of the landslides in the study area occur at contact zones between Tertiary and Quaternary materials. Most of these slides are ancient, stable slides and are larger than other slides in the study area. The only active ancient landslides in the coastal zone take place in the Nye mudstones near Beverly Beach State Park.” (from the Abstract) Appendices list slides, summarize their characteristics and show them on a map of the county. This is a research paper taking the place of a thesis, “in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE.” https://ir.library.oregonstate.edu/concern/graduate_projects/x633f166m

Karna, Duane W., and Raymond E. Millemann. 1978. "Glouchidiosis of salmonid fishes. 3. Comparative susceptibility to natural infection with Margaritifera margaritifera (L.) (Pelecypoda: Margaritanae) and associated histopathology." Journal of Parasitology. 64, no. 3: p.528-537. Freshwater mussel larvae (glochida) can feed by attaching themselves to the gills or skin of passing fish. Such a parasitic infection may severely stress fish. In this article, the author reports on the relative susceptibility of salmonid fishes to natural infection. Fish were put in cages in a section of the Siletz River (mile 21) where there were “approximately 100,000” adult freshwater mussels. “Densities that exceeded 400 mussels” per square meter were common. (p.528). He found that Chinook salmon were most susceptible, while coho salmon had the greatest resistance.


Oregon. Water Policy Review Board, and Oregon. Water Resources Dept. 1978. "Mid-Coast Basin." In State of Oregon water use programs 31 p. [Salem, Or.]. Gives an overview of the entire basin, then more detailed notes about sub-basins. The Siletz Bay drainage discussion (p.5-7) focus on water allocations (industrial and municipal). "The future water demands from the Siletz River will have to be met from storage of winter flows during the low flow period if established minimum perennial streamflows are to be maintained."

Scarnecchia, Dennis Leslie. 1978. "Factors Affecting Coho Salmon Production in Oregon." M. S., Dept. of Fisheries and Wildlife, Fisheries Science, Oregon State University. The author investigated whether it was possible to use scale analysis to tell if a coho salmon was of wild or hatchery origin. It was. “Eighty-two percent of the hatchery and 89% of the wild fish were correctly identified.” (from the Abstract). The ratio of wild to hatchery salmon and proper scale analysis techniques were discussed. The author also examined the
relationship between streamflow and coho salmon abundance. “I found that for catch in the Siletz River and Tillamook Bay, and for the troll fishery, total flows in the stream during the period of residency of the juveniles correlated significantly with number of adults resulting from these smolts; annual flows also correlated significantly. There was no indication that summer flows determined production of adult fish 2 years later, except for a significant relationship for the Siletz River.” (p.68) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/fq977x13n

Smith, Elaine C. 1978. Determination of Coastal Changes in Lincoln County, Oregon Using Aerial Photographic Interpretation. (Corvallis, Or.) A research paper submitted to the Department of Geography in partial fulfillment of the requirements for the degree of Master of Science https://ir.library.oregonstate.edu/concern/graduate_projects/8910jv30n

Sweet, Diane Ruth. 1978. "Myxosporidians of Rainbow and Cutthroat Trout Broodstocks from Oregon Hatcheries." M.S., Dept. of Fisheries and Wildlife, Oregon State University. Master’s thesis. This is a thorough look at various myxosporidian parasites of Oregon trout. Includes recommendations to prevent the spread of infections. Includes photographs of microscopic slides of the parasites and maps of their distribution in the late 1970s. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/3n204196b


Hjort, Randy Carl. 1979. "Phenotypic Comparison of Hatchery and Wild Coho Salmon (Oncorhynchus kisutch) in Oregon, Washington, and California." M. S., Dept. of Fisheries and Wildlife, Oregon State University. "Phenotypic similarities of coho salmon (Oncorhynchus kisutch) stocks from Oregon, Washington, and California were compared using agglomerative and divisive cluster analyses. The phenotypic characters evaluated included the following: 1) the isozyme gene frequencies of transferrin and phosphoglucose isomerase; 2) the life history characters time of peak spawning and proportion of females in the population; and 3) the morphological characters scales in the lateral series, scales above the lateral line, anal rays, gill rakers, branchiostegal rays and vertebrae." (from the Abstract) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/tm70mx49x
https://ir.library.oregonstate.edu/concern/defaults/m900nz718

https://ir.library.oregonstate.edu/concern/defaults/gq67jx31v


Oregon. Dept. of Fish and Wildlife. 1980. Pounds and Value of Commercially Caught Fish and Shellfish Landed in Oregon. Oregon Department of Fish and Wildlife (Portland, Or.) Although this has not been printed since the 2000 issue, ODFW has the data. Commercial landing statistics in recent years are available on the Internet.

characterization of the Pacific Northwest coastal region. Volume 4: characterization atlas - watershed unit descriptions. FWS/ OBS-. no.79/14 United States Fish and Wildlife Service, Biological Services Program (Washington, D.C.)
https://catalog.hathitrust.org/Record/007407840


Snow, C. Dale. 1980. "Oregon freshwater mussels." Oregon Wildlife. 35, no. 11: p.10-11. Overview of freshwater mussels in Oregon, including the introduced Corbicula. Native freshwater mussel larvae can attach to the gills or fins of fish and become parasitic, causing the fish to be undernourished. "Serious infections of wild fish in the Siletz River were reported by Duane Karna . . . in 1973."
https://ir.library.oregonstate.edu/concern/technical_reports/9593tw29g

Society, Lincoln County Historical. 1980. Lincoln County Lore: a Reprinting of Five Early Publications of the Lincoln County Historical Society. Newport, Or.: Lincoln County Historical Society. Includes an account of Theodore Talbot's 1849 trip through the area. This account is digitized at https://ir.library.oregonstate.edu/concern/defaults/bz60cx72m


Farnell, James E., and [Oregon] Division of State Lands. 1981. Lincoln County Rivers Navigability Study. 40 p. An 1859 law makes navigational waterways in Oregon the property of the State. The 1973 state legislature required the Division of State Lands to study state waterways with an emphasis on navigational waterways. "This report deals with those rivers in Lincoln County which had significant navigation: the Alsea, Yaquina and Siletz" (from the Introduction). Color photographs, historical b/w photographs. Excellent source of historical information on use of rivers.
https://digital.osl.state.or.us/islandora/object/osl%3A14178

Gladson, Jim. 1981. "Estuaries." *Oregon Wildlife*. 36, no. 12: p.3-8. Popular overview of the state of Oregon's estuaries in the early 1980s. Uses Tillamook Bay as an example of "estuary evolution accelerated by man," documents filling in of the bay due to logging, forest fires. Paragraph descriptions of each of the major estuaries. "Siletz Bay (1,160 acres): This estuary has its problems. The ocean breeching of its protective sand spit in the early 1970's, siltation from the logged watershed and shoreline development all pose environmental threats. The bay still supports heavy winter populations of waterfowl. The Siletz River is well known for its runs of cutthroat trout and salmon."


United States. Dept. of the Interior. Water and Power Resource Service. 1981. Siletz River Basin, Oregon : Appraisal Report. 130 p. Dept. of the Interior, Water and Power Resources Service, (Washington, D.C.) Water. The Siletz River had it, and somebody wanted part of it. This document, a U.S. Dept. of the Interior Appraisal Report, provides support for a proposed dam on Big Rock Creek in Polk County. There was less worry about native salmon runs in the early 1980s, and more reliance on hatcheries. The report stresses the benefits of more water for the hatchery as well as the benefits of streamflow regulation, while failing to consider potential impacts to native salmonid species. It does list proposed picnic tables and campgrounds. The dam was not built.


Duncan, Robert A. 1982. "A captured island chain in the Coast Range of Oregon and Washington." *Journal of Geophysical Research*. 87, no. B13: p.10,827-10,837. Published in Journal of Geophysical Research. Section B: Solid Earth. This article proposes a model to explain basaltic basement rocks in the Coast Range of Oregon and Washington, and relates this evidence of volcanism to the Yellowstone hot spot. [https://ir.library.oregonstate.edu/concern/articles/hd76s156x](https://ir.library.oregonstate.edu/concern/articles/hd76s156x)


Buchanan, D. V., J. E. Sanders, J. L. Zinn, and J. L. Fryer. 1983. "Relative susceptibility of four strains of summer steelhead to Infection by Ceratomyxa shasta." Transactions of the American Fisheries Society. 122, no. 4: p.541-543. This article illustrates the lack of disease resistance in Siletz River steelhead trout to a disease caused by a protozoan parasite. “All the summer steelheads Salmo gairdneri from the Siletz, an Oregon coastal river in which Ceratomyxa shasta does not occur, died when they were exposed to waters containing the infectious Stage of C. shasta. In contrast, three strains of summer steelhead from tributaries of the Columbia River where C. Shasta is endemic were resistant to ceratomyxosis.” (from the Abstract)


Johnson, Karen. 1983. A history of coho fisheries and management in Oregon through 1982. Information Reports / Fish Division, Oregon Department of Fish and Wildlife. no.84-12, 78 p. Fish Division, Oregon Dept. of Fish and Wildlife (Corvallis, Or.) Good overview of the history of the Oregon coho salmon fisheries, their management, and attempts to improve returns. Many charts and tables.

https://library.state.or.us/repository/2011/201108101438393/


Paul Rudy, Jr., Paul, Rudy. Lynn Hay, and Jay F. Watson. 1983. Oregon estuarine invertebrates : an illustrated guide to the common and important invertebrate animals. FWS-OBS. no.83/16, 224 p. A classic. Excellent line drawings of animals. Section on what species might be confused with is quite useful. A bit old now, and many of the species names have changed, but still a useful resource.

https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/1070/estuarine_invertebrates.pdf?sequence=3

Peterson, Curt D. 1983. "Sedimentation in Small Active-Margin Estuaries of the Northwestern United States." Ph. D., School of Oceanography, Oregon State University. The author finds that the sediment composition of northwest coast estuaries can be "correlated with a hydrographic parameter HR (mean tidal-prism volume: mean fluvial discharge rate x 6 hours) computed for each bay." Sedimentation is contrasted in Alsea, Salmon River, Siletz, Siuslaw, and Tillamook bays and Grays Harbor. An overview of the history of sedimentation in Alsea Bay over the last 10,000 years is given.

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/vm40xw091


Beckham, Stephen Dow, Kathryn Ann Toepel, and Rick Minor. 1984. Native American religious practices and uses in western Oregon. . Vol. 31. 144 p. *University of Oregon Anthropological Papers*. Eugene, Or. This publication examines traditional religious practices of Native Americans in Western Oregon. It moves on to address contemporary beliefs and concludes with a survey of religious sites. Formerly available online, a .pdf of this out-of-print publication is available by writing the University of Oregon Museum of Natural and Cultural History. https://mnch.uoregon.edu/uo-antropnological-papers

Garrow, Holly C. 1984. "Quantification of shoreline rhythmicity." *Proceedings of the International Conference / ... Coastal Engineering Conference*, Houston, Tx., v. 2. p.2165-2180. This study of beach morphology was conducted during ten months covering the winter of 1982/1983. This was a period of overall deposition at the Spit. Factors affecting shoreline position included the longshore position of rhythmic features of the beach, the amplitude of the rhythmic topography and wave heights. The study period included an El Nino event.

----. 1984. "Shoreline Rhythmicity on a Natural Beach." M. S., College of Oceanography, Oregon State University. This Master's thesis details a nine-month field study of the shoreline morphology between Government Point and the entrance to Siletz Bay. A location on Siletz Spit was a special field study site. The author was particularly interested in cuspate forms and rhythms in the environment that would cause these features to appear with rhythmic regularity. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/qr46r294z


States." *Journal of Sedimentary Petrology* 54, no. 1: p.86-97. Found correlation between the ratio of mean tidal prism volume to mean fluvial discharge rate x 6 hours and sediment composition in six PNW estuaries. Discusses unusual sedimentation in some estuaries and speculates as to causes.


Bottom, D. L., P. J. Howell, and J. D. Rodgers. 1985. The Effects of StreamAlterations on Salmon and Trout Habitat in Oregon. Portland, Or.: Oregon Department of Fish and Wildlife. Photocopy in ESA files, West Coast coho. [https://ir.library.oregonstate.edu/concern/technical_reports/r494vk98q](https://ir.library.oregonstate.edu/concern/technical_reports/r494vk98q)


Wade, Mark. 1986. "The Relative Effects of *Ceratomyxa shasta* on Crosses of Resistant and Susceptible Stocks of Summer Steelhead." M.S., Dept. of Fisheries and Wildlife, Oregon State University. In 1971, after a new fishway was built at Willamette Falls, ODFW introduced summer steelhead into the Upper Willamette River, from stocks from the Siletz and Skamania rivers. The Skamania fish returned, but the steelhead that originated from Siletz River stock did not, due to infection by a myxosporean parasite, Ceratomyxa shasta. Subsequent testing for resistance to infection showed that the Siletz and Umpqua River stocks are susceptible to this infection. This thesis shows that even disease-resistant stocks can have their resistance weakened by interbreeding with less-resistant strains, a
potentially dangerous side-effect of hatcheries.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/zp38wf73f


https://ir.library.oregonstate.edu/concern/defaults/6q182q07g

https://ir.library.oregonstate.edu/concern/defaults/f1881r340

Holt, Richard Allen. 1987. "Cytophaga psychrophila, the Causative Agent of Bacterial Cold-Water Disease in Salmonid Fish." Ph. D., Dept. of Microbiology, Oregon State University. This work is an important exploration of an issue for Oregon fish hatcheries. “Bacterial cold-water disease ... is a serious septicemic infection of hatchery-reared salmonids especially young coho salmon... in the Pacific Northwest.” (p.1) Includes b+w photographs, including micrographs and scanning electron micrographs. Major professor was J. L. Fryer.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/z029p826n

Oregon Trout Inc. 1987. Survey of Physical Condition of Oregon Fish Hatcheries. 18 p. Oregon Trout surveyed Oregon fish hatcheries in 1986. Found significant need of repairs and improvements. "Not a single one of these 18 hatcheries is without substantial deferred maintenance /replacement items which can be shown to affect quantity and /or quality of product in Oregon estuaries and rivers."

Oregon. Dept. of Fish and Wildlife. Shellfish Program. 1987. Shellfish Program Annual Report. This report was an internal document for Shellfish Program staff. In 1987, 120,000 gallons of sewage were spilled into Siletz Bay, thus prompting a closure for the harvest of shellfish.
Ward, Beverly H. 1987. Early Days on the Siletz. 62 p. [Cottage Grove, Or.]. Reminiscences of an early settler on the Siletz River, mostly from a child’s point of view. Includes b+w photographs. “They used small meshed nets, and set them in the evening. Some stretched their nets across the river and tied them at both ends. A lead line held the net down on the bottom, and a cork line held one edge on top of the water. They were like a wall, and the salmon couldn’t get through to their spawning grounds.” (p.31)


Kenaston, Ken R. 1989. Estimated run size of winter steelhead in Oregon coastal streams, 1980-
85. Information Reports / Fish Division, Oregon Department of Fish and Wildlife. no.89-1. Portland, Or.: Oregon Dept. of Fish and Wildlife, Research and Development Section. 
https://digital.osl.state.or.us/islandora/object/osl%3A18408

Lindsay, Lee W. 1989. Native American Resource Usage on the Oregon Coast: a Report to the Oregon Coast Aquarium. 71 p. This is a very interesting look at the materials indigenous people used in the past. Lots of fascinating details. The author's 1990 thesis deals specifically with bone tools. This work is more general.


https://digital.osl.state.or.us/islandora/object/osl%3A14095

Harrison, Ben, and United States. Fish and Wildlife Service. Region 1. 1990. Siletz Bay National Fish and Wildlife Refuge: environmental assessment. 41 p. "The Service is proposing to establish the Siletz Bay National Fish and Wildlife Refuge by initially accepting a donation of 46 acres of salt marsh, acquiring up to 793 acres of land, and cooperatively managing 1,060 acres of tidelands with the State of Oregon... The primary need for the Service acquisition is to preserve diverse coastal wetland habitats and upland buffers for a variety of waterfowl, shorebirds, marine mammals, endangered species, raptors, songbirds, anadromous and resident fish, and other wildlife." (p.2) The report describes the area and discusses potential issues. It includes maps, an aerial photograph, and a species list. 
https://ir.library.oregonstate.edu/concern/technical_reports/mk61rh82x


Hatch, Keith Martin. 1990. "A Phenotypic Comparison of Thirty-Eight Steelhead (Oncorhynchus mvlkiss) Populations from Coastal Oregon." M.S., Dept. of Fisheries and Wildlife, Oregon State University. Master's thesis. Shifts in fish genetics can show how fish interact with their environment. Here, the author looks at coastal steelhead and finds some differences, both in terms of basin size and geographical area. The author notes that, "Steelhead allelic frequencies for several isozymes gradually change in a north to south
pattern in populations along the Oregon coast. Small basin populations were shown to have some distinct differences from the large basin populations. While the cause of the differences is not known, the effects of genetic drift on these small, relatively isolated populations is suggested." (p.42)


Lindsay, Lee W. 1990. "Development of a Bone Artifact Typology for the Oregon Coast." M.A.I.S., Depts. of Anthropology, General Science and Geography (Interdisciplinary Studies), Oregon State University "This thesis was to develop a bone artifact typology for the Oregon coast. This typology was used to test the hypothesis that different geographical regions of the Oregon coast would have different artifact assemblages associated with them." (from the Abstract) Many fascinating details about the way Native peoples lived.


Darienzo, Mark Edward. 1991. "Late Holocene Paleoseismicity along the Northern Oregon Coast." Ph. D., Environmental Sciences and Resources: Geology, Portland State University. Maps, drawings of core samples. Describes studies on the Necanicum, Nestucca, Siletz
and Yaquina bays, which were correlated with earlier work he did on Netarts and Alsea Bays. Found up to six paleoseismic events in the last 2600 years, most of which could be correlated from bay to bay. This work suggests that the magnitude of prehistoric earthquakes in the region was around 8.1.
https://pdxscholar.library.pdx.edu/open_access_etds/1147/

United States. Bureau of Reclamation. 1991. Willamette River Basin Water Optimization Study, Oregon. Siletz River Basin information update. This report is part of a study conducted by the Bureau of Reclamation along with Lincoln, Polk and Yamhill Counties, looking at possible water storage (dams) on the Siletz River for “domestic, municipal and industrial water supply” in the area. The plan presented four alternatives, the most expensive of which would involve damming the Siletz at Sunshine Creek and Big Rock Creek and pumping the water from the proposed Big Rock Creek Reservoir into the Luckiamute River, and building a hydropower power plant along Big Rock Creek. The project was not developed.

Wray, Pat. 1991. "Cause and effect, the hard way." Oregon Wildlife. 47, no. 3: p.14. News item about a possible closure of a logging road onto privately owned land that would have limited the public’s access to fishing sites along the Siletz River. Trash dumping, belligerent drivers and recreational fisheries waste were creating problems for the private land owner. A community meeting was held. The land owner heard the public and agreed to keep the road open; the public agreed to take licenses and report bad behavior.
https://ir.library.oregonstate.edu/concern/technical_reports/js956h015


Fultz, Lester E. 1992. Subject: Proposed Bay & Beach Development Project. 36 p. This is a record of a proposal by Lester E. Fultz, a professional engineer and surveyor, who was concerned about sedimentation in Siletz Bay as well as erosion along the beach in Lincoln City. His response was to propose dredging the Bay, then using the fill as part of a seawall to armor the beach and protect it against future erosion. The proposal includes correspondence with government agencies, a newspaper clipping, maps and schematic drawings.

Good, James W. 1992. "Ocean Shore Protection Policy and Practices in Oregon: An Evaluation of Implementation Success." Ph. D., Dept. of Geosciences, Geography, Oregon State University. Erosion is a constant hazard on the Oregon Coast. The typical response of a property owner threatened with erosion is to install shoreline protection structures to harden the property’s interface with water. There are problems associated with this response: unarmored neighboring property will experience even more erosion, the structure may block beach access, and the beach’s sand budget is diminished, since less
sand will feed into the beach. This dissertation examines shorelines in the Siletz littoral cell, which extends from Cascade Head to Government Point, in order to see how Oregon’s shore protection policies are implemented. At the time the dissertation was written, 49% of shoreline properties in the Siletz littoral cell were armored. “Given expected future erosion and relative sea level rise along the central Oregon coast, some beaches may gradually disappear” (from the Abstract). The author suggests an overhaul of Oregon’s land use planning process, focusing on the littoral cell rather than the individual piece of property, and stressing hazard avoidance rather than hazard mitigation. This is an important work. B/w photographs, colored maps, structural drawings. 

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/ft848t21k

Monaco, Mark E., Tony A. Lowery, and Robert L. Emmett. 1992. "Assemblages of U.S. west coast estuaries based on the distribution of fishes." *Journal of Biogeography*. 19,p.251-267. The authors analyzed twenty-eight West Coast estuaries regarding whether any of 360 possible fish species were present in those estuaries. Using these results, they grouped the 28 estuaries into six possible classifications. This estuary falls into the Northern Riverine Group. Important species are given.

Nickelson, Thomas E., Jay W. Nicholas, Alan M. McGie, Robert B. Lindsay, Daniel L. Bottom, Rodney J. Kaiser, and Steven E. Jacobs. 1992. Status of Anadromous Salmonids in Oregon Coastal Basins. 83 p. Oregon Dept. of Fish and Wildlife. At the time of this publication, the Siletz's population of wild coho salmon was considered "Depressed." The wild fall Chinook population was deemed "Healthy." "Special Concern" was noted for the status of chum salmon. The status of the wild steelhead population on the Siletz River was felt to be of "Depressed." 

https://digital.osl.state.or.us/islandora/object/osl%3A1013854


Shih, Shyuer-ming. 1992. "Processes of Sea-Cliff Erosion on the Oregon Coast: from Neotectonics to Wave Run-Up." Ph. D., College of Oceanography, Oregon State University. The rate of sea-cliff erosion in Oregon is determined by the interplay between tectonic uplift and sea level rise. The Lincoln City area on the central Oregon coast is undergoing relatively little uplift, and therefore experiences a higher rate of erosion than areas to the north and south. This doctoral dissertation examines the rate of erosion and examines the transport and distribution of eroded sand. Although most of the work is concerned with ocean erosion, the author does examine the Siletz Spit and the dunes at the entrance of
the Salmon River.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/r781wh97w

Moe, Ray T., and Lincoln County Centennial Committee. 1993. The First One Hundred Years in Lincoln County, Oregon --1893-1993. Lincoln County Centennial Committee, Lincoln County Historical Society (Newport, Or.) Historical photographs, illustrations, maps.


Oregon. State Marine Board. 1993. Statewide Boating Survey, 1993. This is part of a longstanding series of publications (Pleasure boating in Oregon, Statewide boating survey, Oregon recreational boating survey) surveying recreational boating in Oregon and published every three years. It examines the type, extent and locality of recreational boating and identifies issues faced by boaters, from poor infrastructure to illegal practices (or, “jerks on the water”). The Colombia and Willamette Rivers were the most heavily used waterways, followed by the Pacific Ocean. Tillamook Bay was the most heavily-used estuary, followed by Alsea Bay.

https://library.state.or.us/repository/2010/201009071430032/1993-05.pdf


Bayer, Range D. 1994. "Harlequin duck records mostly from Lincoln County, Oregon." Journal of
Oregon Ornithology. 3, p.243-260. “612 Harlequin Duck records are given for Lincoln County, and another 74 records are listed for other coastal counties. In Lincoln County, Harlequins are found mostly in winter, there were often more males than females, the most ever counted was 14, and there is no indication that they nested.” (from the abstract)
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/dj52w9646

Bayer, Range D., and Phil Pickering. 1994. Bird Records for Some Sites in the Lincoln City Area: a Report Submitted to the Lincoln City Citizen’s Advisory Committee for Local Wetlands Inventory 45 p. (Newport, Or.) This report is a compilation of bird observations made by various individuals at different locations in the Lincoln City area in the early 1990s. It includes bird counts, species lists, notes about human disturbances at different sites, and observations about bird behavior.


Darienzo, Mark E., Curt D. Peterson, and Charles Clough. 1994. "Stratigraphic evidence for great subduction earthquakes at four estuaries in Northern Oregon, U.S.A." Journal of Coastal Research. 10, no. 4: p.850-876. The authors describe in detail marsh sediments indicating major deposition from tsunamis from the Necanicum, Nestucca, Siletz and Yaquina Rivers, and correlate them with sediments from Netarts Bay, Alsea Bay and Coos Bay. This evidence supports the view that there have been "six great subduction zone earthquakes on the north Oregon coast in the last 2,800 years."

Good, James W. 1994. "Shore protection policy and practices in Oregon: An evaluation of implementation success." Coastal Management: an International Journal of Marine Environment, Resources, Law, and Society. 20, no. 4: p.325-352. This article uses the Siletz littoral cell, which runs from Government Point to Cascade Head, and includes the Siletz Spit, Siletz Bay, and the Lower Siletz River, as a test site to see how Oregon’s shore protection policies are working. The author concludes that, “Put simply, in the Siletz littoral cell outcomes are inconsistent with policy goals. Policies give preference to hazard
avoidance and nonstructural means of erosion control, yet in practice, seawalls and 
revetments are the preferred hazard reduction strategy... Cumulative effects of current 
practices, which may result in significant beach loss over the long term, are given little 
consideration.” (p.348)

County that are not given elsewhere." Journal of Oregon Ornithology no. 2: p.163-207. This article covers ten years of bird observations for areas not covered elsewhere in the 
bird records of the Siletz/Logsden area. Includes hand-drawn map. 
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/pc289p704

----. 1994. "Two incidental observations of waterbirds at Valsetz Lake, Polk County." Journal of 
Oregon Ornithology. no. 2: p.162. Valsetz Lake was drained in the summer of 1988, and is no more. This brief paper gives details of observations of waterbirds at the defunct lake. 
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/wn999c10w

----. 1994. "Waterbird records for the Siletz River and some creeks in the Siletz/Logsden area of 
Lincoln County." Journal of Oregon Ornithology no. 2: p.139-161. “This article is based on 
a total of 204 observations, many of which were censuses. Between Siletz River Mile (RM) 
50.0 and 50.6, Llewellyn made 151 observations of waterbirds during 1981-1993. He 
noticed a total of 12 species; most were seen during several years. Hooded and Common 
mergansers and American Dippers nested or were seen with young. Llewellyn and other 
observers also made 37 other Siletz River observations in the Siletz/Logsden area. Most of 
the same species were seen as between RM 50.0 and 50.6, but one Bald Eagle was also 
noticed feeding on a salmon carcass. Llewellyn and other observers made 16 observations 
of creeks in the Siletz/Logsden area. American Dippers were the most common and 
widespread species, and they also nested. For all sites, the individual observations are 
given.” (from the Abstract) 
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/f7623j08v

Llewellyn, Bob, Floyd Schrock, Darrel Faxon, and Range D. Bayer. 1994. "Waterbirds at ponds 
and fields in the Siletz/Logsden area of Lincoln County." Journal of Oregon Ornithology no. 
2: p.101-138. “This article is based on a total of 353 observations, many of which were 
systematic censuses." (from the Abstract) Observing times ranged from 1981 through 
June, 1993. Includes hand-drawn map and bw photographs. 
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/f7623j08v

Oregon. Dept. of Fish and Wildlife. 1994. Oregon Coho Salmon Biological Status Assessment: 
Draft for Public Review. Oregon Department of Fish and Wildlife

Steelhead Management Workshop, edited by Tom Murtaugh, Portland, Or.: Oregon 
Dept. of Fish and Wildlife. This report summarizes the results of a 1993-1994 study in
which hatchery and wild steelhead trout were radio-tagged in order to study their life history. The study found that hatchery and wild fish spawned in the same areas and that run timing between hatchery and wild fish could overlap.  
https://ir.library.oregonstate.edu/concern/technical_reports/02870w697

Schrock, Floyd, and Range D. Bayer. 1994. "Schrock's bird records for the Siletz/Logsden area of Lincoln County." *Journal of Oregon Ornithology* no. 2: p.208-225.  “ABSTRACT.--There were 5,776 records during 1981-1986 observations, with 99% of these observations during Schrock's systematic 1982-1985 observations. He found 32 waterbird and 99 landbird species. 16% of the waterbird species were noted each year during 1982-1985, and 58% of the landbirds were recorded each year. Semimonthly summaries of the observations are given for each species, along with arrival and departure dates.”  
https://ir.library.oregonstate.edu/concern/conference_proceedings_or_journals/gt54ks46h

Schroeder, Kirk. 1994. "Evaluation of straying by coastal stocks of hatchery winter steelhead." In *Proceedings of the Steelhead Management Workshop*, edited by Tom Murtaugh, p.10-12. Portland, Or.: Oregon Dept. of Fish and Wildlife. This study was based on creel surveys from 1992-1994. The authors looked for salmon bred in a hatchery that strayed to spawn in a different stream than their natal stream. The Alsea was the stream that had the most spawning salmon hatched in different streams, however, most of these fish were raised from stock that originated in the Alsea River.  
https://ir.library.oregonstate.edu/concern/technical_reports/02870w697


U.S. Department of Agriculture. Economic Research Service. 1994. United States Department of Agriculture Aerial Photographs of Linn, Benton, and Lincoln Counties, Oregon, 1972-1994 (bulk 1994). These are aerial photographs assembled and used by the USDA field office in Tangent, Oregon for soil conservation and other purposes. The photographs were made by the National Aerial Photography Program. For 1994, the collection includes detailed index maps, large prints and smaller proofs. Index maps are available for 1990 and 1985 photographs. The 1985 images are of Lincoln County only. There are no indices for other years, and all of the images are photo proofs. However, a small subset of the 1972 images have descriptions of the locations depicted in the photographs and the collection includes one 24x24 inch print of the 1972 flights. The OSU Libraries has an historical aerial photograph collection with images primarily of the Willamette Valley and western Oregon taken in the mid-1930s through 1970s. Current aerial photographs are available through the University of Oregon Libraries Aerial Photography Collection and Research Service and the Oregon Imagery Explorer  
http://oregonexplorer.info/imagery

Coastal barriers are landforms protecting mainlands and aquatic habitats against the worst effects of coastal storms. Coastal barriers include estuaries, inlets, marshes, wetlands and nearshore waters and can include islands, sandspits, sandbars and broad beaches. The protective value of these landforms can be degraded by development. In 1994, a proposal was made to expand the Coastal Barrier Resources System to include the West Coast of the United States. These maps were drafted to show areas that should be protected. The proposed expansion, however, did not take place. Nevertheless, the maps have value in showing what should not be developed. 

Baptista, Antonio M., Ming Qi, and Edward P. Myers III. 1995. "Explanation of mapping methods and use of the tsunami hazard map of the Siletz Bay area, Lincoln County, Oregon." In Open-File Report / State of Oregon, Department of Geology and Mineral Industries, no.95-05. p.21-44. “In the present pilot study, we attempt to conciliate scientific uncertainty with practical needs of Oregon communities…” Unfortunately, in our copy maps that should be in color are black-and-white, which limits the usefulness of the maps. Includes “Appendix 2.1 – Formulation of the Regional Propagation Model.”

Coontz, Julie, Oregon Coastal Zone Management Association, and Oregon State University. Sea Grant College Program. 1995. Legislative Fellowship Final Report, 1995. 59 p. Oregon Coastal Zone Management Association. (Salem, Or.) This document details the work done by the 1995 Oregon Sea Grant / Oregon Coastal Zone Management Association Legislative Fellow. “The Oregon Sea Grant/OCZMA Legislative Fellowship Program began in 1987 primarily to provide students from the Oregon State University Marine Resource Management Program (MRM) with a means with which to apply academic knowledge gained in science or public policy to the real-world arena of legislative politics.” (p.1) The author was assigned to State Senator Stan Bunn’s office, and worked for him, Sea Grant and for OCZMA. The document includes summaries of legislation important to coastal communities, and brief interviews with Oregon legislators.


Weitcamp, Laurie A., Thomas C. Wainwright, Gregory J. Bryant, George B. Milner, David J. Teel, Robert G. Kope, and Robin S. Waples. 1995. Status review of coho salmon from Washington, Oregon, and California. NOAA Technical Memorandum NMFS-NWFS no.24, U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northwest Fisheries Science Center (Seattle, Wash.) The Biological Review Team concluded that "coho salmon in this ESU are not at immediate risk of extinction but are likely to become endangered in the future if present trends continue." The Team noted that "spawning escapements have declined substantially during this century and may now be at less than 5% of their abundance in the early 1900s." (p.128) https://repository.library.noaa.gov/view/noaa/6218

Busby, Peggy J., Thomas C. Wainwright, Gregory J. Bryant, Lisa J. Lierheimer, Robin S. Waples, F. William Waknitz, Irma Lagomarsino, United States. National Marine Fisheries Service. Northwest Fisheries Science Center, and United States. National Marine Fisheries Service. Southwest Region. Protected Species Management Division. 1996. Status review of West Coast steelhead from Washington, Idaho, Oregon, and California. NOAA Technical Memorandum NMFS-NWFS. no.27, Siletz River winter and summer steelhead run trends were downward (-7.6-12.4%/year). Authors estimated that from 57-58% (winter) to 90% (summer) of spawning steelhead were of hatchery origin. Hatchery practices (past and present) have been identified as major threat to genetic integrity for steelhead in this area. https://repository.library.noaa.gov/view/noaa/2986

"Populations of coastal cutthroat trout, *Oncorhynchus clarki clarki*, were sampled in 16 headwater streams from logged (20-30 and 40-60 years ago) and unlogged (stand age 125-150 years) basins. Basins logged 20-30 years ago supported the widest range of mean biomass of age 1+ or older cutthroat trout (g/m²) and the widest range in frequency of large woody debris (number of pieces/100 m) and pools (number/100 m), including the lowest and highest levels of these variables encountered in the study." (From the abstract.)

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/2j62s791x

Downey, Tom, Darin Rilatos, Annette Sundenaa, and Bob Zybach. 1996. Skwakol : the Decline of the Siletz Lamprey Eel Population During the 20th Century. Corvallis, Or.: Oregon State University. “Prepared for Judith Vergun and Jefferson Gonor, OSU College of Oceanographic & Atmospheric Sciences, Native Americans in Marine Science (NAMS) Program.” This volume is an example of the serious concern felt by Siletz Tribe members over the decline of the lamprey eel, a valued traditional food source, in the Siletz River. Includes maps of traditional fishing sites, and oral histories from tribal elders. A valuable resource.

Interagency Hazard Mitigation Team (Or.). 1996. February 1996 Flooding, Landslides, and Stream Erosion in the State of Oregon: Report. ([Salem, Or.] [Oregon Emergency Management Division) "Disaster declaration on February 9, 1996." Bw photographs. Feb. 1996 flood stage, crest and date of crest are shown. County damage is correlated with county budget. A series of recommendations are given. For the Siletz River at Siletz, flood stage was 16 feet, and the flood crest on Feb.8, 1996 was 24.5 feet.

Nelson, Alan R., and Stephen F. Personius. 1996. "Great-earthquake potential in Oregon and Washington – an overview of recent coastal geologic studies and their bearing on segmentation of Holocene ruptures, Central Cascadia Subduction Zone." In *Assessing Earthquake Hazards and Reducing Risk in the Pacific Northwest*, v.1. no.1560 v.1. edited by A.M. Rogers, Timothy J. Walsh, William J. Kockelman and George R. Priest, In *U.S. Geological Survey Professional Paper*. p. 91-114. Washington, D.C.: U.S. G.P.O. This article reviews the discovery of the Pacific Northwest’s past earthquake history and what was known about this history. Unfortunately, at the time this article was written, while studies were being done on 27 estuaries in the region, only half of the work had been completed. There is good information about Netarts, Salmon River, Siletz and Alsea Bays. https://pubs.usgs.gov/pp/1560vol1/report.pdf

Riemer, Susan D., and Robin F. Brown. 1996. Pinniped Food Habits in Oregon. 21 p. Oregon Dept. of Fish and Wildlife. Marine Mammal Project (Newport, Or.) “The purpose of this investigation was to determine if pinniped feeding patterns have significant negative impacts on depressed salmonid stocks. Knowledge about prey selection by pinnipeds is key to assessing their potential impact on salmonid stocks. The four major work elements reported are: 1) the reanalysis of Columbia River area scat samples collected in the early 1980’s; 2) examination of California sea lion (Zalophus californianus), Pacific harbor seal
(Phoca vitulina), and Steller sea lion (Eumetopias jubatus) scat; 3) determination of salmonid size from recently collected gastrointestinal tract samples from the Columbia River; and 4) examination of previously collected pinniped scat samples from the southern Oregon coast. In addition, pinniped prey items were identified from previous scat collections made in Siletz Bay, Alsea Bay, and the Umpqua River, along with a comparison of lavage, enema and scat samples collected in the Columbia River” (from the Abstract).

https://ir.library.oregonstate.edu/concern/technical_reports/xs55mk409


https://www.blm.gov/or/districts/salem/plans/files/watershed_analyses/sdo_uswa/sdo_upsiletzwa.pdf


Angel, Tiah, Zasha Basset, Brian Chipman, Kimberly Cleveland, Tamisha Cronick, Janette Ehlig, Dan Frerich, Chris Hunt, Todd Ison, Angela McGuire, Jennifer Oliver, Anja Schmelter, and Jennifer Whitset. 1997. The European Green Crab (Carcinus maenas) in Oregon: A Preliminary Survey of Yaquina, Coos, Winchester and Siletz Bays. Oregon State University (Corvallis, Or.) Accessed by opening a .zip file. “During the summer and fall of 1997, the students and instructors of an Oregon State University Zoology class (Zoology 401/Research) searched for the presence of the European Green Crab (Carcinus maenas) in Coos, Winchester, Yaquina and Siletz Bays, Oregon and also took inventories of common intertidal species... We trapped one adult male green crab at Pony Point in Coos Bay on October 26, 1997. This crab measured 86.5 mm in carapace width and represents the largest specimen so far collected in Oregon. All the green crabs retrieved in Coos Bay have been large adults between 58 and 86 mm. We searched gravel substrates below boulders and algal blades, but never recovered any young-of-the-year-green crabs in Coos, Winchester, Yaquina or Siletz Bays. These findings suggest that one year class (perhaps 1995) established itself in Coos Bay, but at present is not abundant enough to perpetuate itself.” (from the Abstract)

https://ir.library.oregonstate.edu/concern/defaults/xg94hv61v

Hodgson, Brett L., and Steven E. Jacobs. 1997. Inventory of Spawning Habitat Used by Oregon Coastal Fall Chinook Salmon. 203 p. Oregon Dept. of Fish and Wildlife. Ocean Salmon Management Program,. This study was performed in response to doubts about the reliability of the database in place at ODFW. It consisted of surveys to verify if Chinook
salmon were using the habitats previously identified and looks for discrepancies between summer habitat inventory and fall Chinook spawners. The study covered the Nehalem, Wilson, Siletz and Siuslaw rivers. Many detailed maps of watersheds.  
https://ir.library.oregonstate.edu/concern/technical_reports/mp48sd56t

https://digital.osl.state.or.us/islandora/object/osl%3A18470

Johnson, Orlay W., W. Stewart Grant, Robert G. Kope, Kathleen Neely, F. William Waknitz, and Robin S. Waples. 1997. Status review of chum salmon from Washington, Oregon, and California. NOAA Technical Memorandum NMFS-NWFC. no.32, 280 p. U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (Seattle, Wash.) While the Oregon Coast population of chum salmon was severely depressed, Washington stocks were doing well enough for the "Pacific Coast Evolutionarily Significant Unit" to not be considered endangered. "The primary cause of the depressed status of Oregon coastal populations appears to be habitat degradation." (p.212)  
https://repository.library.noaa.gov/view/noaa/3029

Macnaughtan, Don. 1997. Bibliography of the Siuslaw and Kuitsh Indians: The Native Americans of the Siuslaw and Lower Umpqua Valleys, Central Oregon Coast. Ethnographic Bibliographies no.8. This bibliography on the Siuslaw and Lower Umpqua Native Americans is a good place to start when studying these peoples.  
https://waikowhai2.wordpress.com/siuslaw-and-kuitsh-indians

Midcoast Watersheds Council, and Lana Brodziak. 1997. Mid-Coast Watersheds Council: Covering the Area from Cascade Head to the North to the Siuslaw in the South. Newport, Or.: Mid-Coast Watersheds Council.

Northwest Area Committees. 1997. North Coast Oregon Geographic Response Plan (GRP). Northwest Area Committees (Portland, Or.) This planning document is aimed at coping with an oil spill, but could be applied to other types of toxic spills. It gives shoreline types, protection/collection strategies, wildlife and logistical information for sensitive North Coast areas. Tillamook and Yaquina Bays have separate geographic response plans. This document has been superseded by a 2004 edition.  
https://www.oregon.gov/deq/FilterDocs/NOregonCoastGeoResponsePlan.pdf


Oregon Dept. of Fish and Wildlife  This plan emphasizes management of salmonid species. “All salmonid species in the Siletz River Basin are at depressed levels with the exception of fall chinook and resident cutthroat trout.” (p.5)

https://nrnimp.dfw.state.or.us/nrmp/information/docs/fishreports/Siletz%20River%20Basin%20November%201997.pdf

Priest, George R. 1997. Coastal shoreline change study, northern and central Lincoln County, Oregon. Open-File Report no.O-97-11, 19 p. Oregon. Dept. of Geology and Mineral Industries, (Portland, Or. ) This report is related to a series of erosion and flood control maps, Open-file reports no.97-12 – 97-30. It is related to an earlier series of erosion maps, Open-file reports no.94-11 – 94-30, the Chronic geologic hazard maps of coastal Lincoln County, Oregon, and covers the same territory. Readers of this report may be interested in Open-file report no.93-10, the Pilot Erosion Rate Data Study of the Central Oregon Coast, Lincoln County, which is a much longer study of erosion issues in this area. This report maps erosion reference features on a 31-mile stretch of the Oregon coast in Lincoln County, and includes a 100-year flood zone reference. It touches on erosion at the Siletz Spit, Gleneden Beach, Agate Beach, and Jump-off Joe. Aerial photographs and b+w photographs. https://www.oregongeology.org/pubs/ofr/O-97-11.pdf


Or.) This publication covers 14 years of analysis of pinniped feces to determine what the seals and sea lions were eating. 44 species of fish and cephalopod were identified out of over 1,000 samples. “…[P]innipeds preyed heavily on schooling fishes, such as Pacific whiting and Pacific mackerel for sea lions, and on smelt and herring for harbor seals. Other species such as rockfish, lamprey, salmonids and flatfish were also commonly taken by pinnipeds. The variability in prey selection appears to be related to the availability (seasonality) and abundance of prey species at a given location” (from the Abstract).


Chilcote, Mark W. 1998. Conservation status of steelhead in Oregon. Information Reports (Oregon. Fish Division). no.98-3. The Oregon Coast ESU was given a "Sensitive" status. The Coast showed good resistance to stress and long-term survival, but many streams had over 50% hatchery spawners. Predicts proportion of hatchery fish to native spawners on the Siletz will drop to 20%. Hatchery releases on Drift Creek terminated in 1995; estimated percentage of hatchery spawners there believed to drop to 10%. Criticizes the methodology of the Busby, et al. (1996) study. Charts. https://digital.osl.state.or.us/islandora/object/osl%3A35569


Reckendorf, Frank. 1998. "Geologic hazards of development on sand dunes along the Oregon
Coast." In Environmental, Groundwater and Engineering Geology: Applications from Oregon, no.11. edited by Scott Burns, In Special Publication / Association of Engineering Geologists, p.429-438. Belmont, Cal. “There are many geologic hazards associated with development on sand dunes. These include wind erosion and deposition, water erosion and flooding from storm waves and rip currents, water erosion and flooding from tsunamis, and contamination of freshwater aquifers with associated pollution of beaches and rivers.” (p.436) Lists areas vulnerable to coastal hazards due to unwise development in dune areas.

Wigington, P. J., Jr., M. R. Church, T. C. Strickland, K. N. Eshleman, and J. Van Sickle. 1998. "Autumn chemistry of Oregon Coast Range streams." Journal of the American Water Resources Association. 34, no. 5: p.1035-1049. Studied chemistry of 48 streams in forested watersheds in the Oregon Coast Range during an autumn runoff event. Sea salt significant near the ocean, not inland. Nitrates were most variable. Acid neutralizing capacities and pH favorable to salmonids.

Zybach, Bob, and Erik Badzinski. 1998. "Siletz River, 1939: Farms, Clearcuts, Old-Growth, and Indian Prairies." "The focus of this report is a series of aerial photographs of the Siletz River basin taken in July, 1939 as part of the USGS 'Newport Project.' Original photo prints have been digitally scanned, arranged by sub-basin, codified, titled, and connected by hyperlinks to a table of contents and to Siletz sub-basin web pages." Includes aerial photographs of Depoe Bay. Click on "Table of Contents" link http://www.orww.org/Reports/R/SZ/AP-1939-Contents.html to access photographs. http://www.orww.org/Reports/R/SZ/AP-INTRO.html


Conway, Flaxen D. L., Sheila Cordray, Lori Cramer, Carmel Finley, Jennifer Gilden, Ginny Goblirsch, Court Smith, and Oregon State University. Sea Grant College Program. 1999. Oregon’s changing coastal fishing communities. ORESU-O. no.ORESU-O-99-001, 73 p. Oregon State University. Oregon Sea Grant (Corvallis, Or.) This publication looks at Oregon fishing communities in the late 1990s, a period of stress and rapid change. It gives an overview of applicable legislation, explores the concept of sustainability, and reviews community resources. Appendices compare trolling and trawling, profile fishing towns,
and present an extensive bibliography of fishing community studies.
https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/sgpubs/onlinepubs/o99001.pdf

Garono, Ralph, Laura Brophy, MidCoast Watersheds Council. Siletz Watershed Group, and Earth Design Consultants Inc. 1999. Rock Creek (Siletz) Watershed Assessment Final Report. 89 p. “Rock Creek is a tributary of the Siletz River; its watershed occupies about 43 square miles and ranges in elevation from 160 ft to 2880 ft, with about 36% of the land area lying above 1000 ft elevation... Rock Creek flows into the Siletz River between river miles 48 and 49 and Logsden, Oregon, about 13 miles inland from the Pacific Ocean. The watershed provides habitat for three threatened species (the marbled murrelet, the Northern spotted owl, and the coho salmon) and two candidate species, which may be listed under the Endangered Species Act (searun cutthroat trout and steelhead trout)... The residents of Rock Creek are interested in developing a science-based management and monitoring plan to conserve the resources of the watershed. The purpose of this report is to summarize and synthesize existing information so that such plans can be developed.” (Executive Summary) Maps and figures are not accessible online.
https://www.blm.gov/or/districts/salem/plans/files/watershed_analyses/sdo_rcwa/sdo_rcwa.pdf


Oregon Governor's Watershed Enhancement Board, and Oregon Plan for Salmon and Watersheds. 1999. Oregon Aquatic Habitat: Restoration and Enhancement Guide. 103 p. Oregon Plan for Salmon and Watersheds ([Corvallis, Or.]) This guide includes many activities intended to improve the health of watersheds. “Some measures are directly targeted at restoring stream channels by upgrading culverts to expand the amount of stream miles that can support fish. Other measures reintroduce structure to stream channels that have been simplified due to past management practices and/or disturbance events. Measures are also included that address riparian and upland restoration needs” (from the Introduction)
https://digital.osl.state.or.us/islandora/object/osl:16552/datastream/OBJ/view


Finley, Carmel. 2000. "Fish Tales: Salmon Stories, 1945-1980." M.A.I.S., Interdisciplinary Studies, Oregon State University. A needed look at the forces that influenced fisheries management on the West Coast in the postwar period. Among the author's findings are, "that science was vastly too optimistic in its assessment of how much food could be wrung from the ocean on a sustainable basis," and "that salmon policy tended to be grounded in political, social, economic considerations, not what was known about the biology of the fish." (p.168) [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/wp988q02k](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/wp988q02k)


Palacios, Kelly C. 2000. "The Potential of Dynamic Segmentation for Aquatic Ecosystem Management: Pacific Lamprey Decline in the Native Lands of the Confederated Tribes of Siletz Indians (Oregon, USA)." M.S., College of Atmospheric and Oceanic Sciences, Marine Resource Management, Oregon State University. This thesis describes work done in conjunction with the Lamprey Eel Decline project, an initiative of the Confederated Tribes of the Siletz Indians. It shows how GIS tools can be used to analyze stream segments, providing an important tool for resource managers. Excessive sediment was a particular problem for Rock Creek, and riparian vegetation needed to be restored. Major professor was Dawn Wright. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/w37638897](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/w37638897)

Peterson, Curt D., Debra L. Doyle, and Elson T. Barnett. 2000. "Coastal flooding and beach
retreat from coseismic subsidence in the Central Cascadia Margin, USA." *Bulletin - Association of Engineering Geologists*. 6, no. 3: p.255-269. Attempts to estimate potential flooding and beach retreat following subsidence from a great earthquake. Uses geological record of paleoearthquakes. "The larger bays of southern Washington and northwest Oregon demonstrate the greatest potential hazard for regional post-seismic flooding of coastal lowlands. Specifically, dikes constructed to 100-year flood levels could be overtopped annually, following coseismic subsidence of 1-2 m." (p.266)

University of Oregon. Dept. of Planning, Public Policy, and Management. Community Planning Workshop,, 2000. Lower Siletz Basin Flood Mitigation Action Plan. 47 p. (Eugene, Or.) “The lower Siletz River basin sustained major damage as a result of flooding in 1996, 1998, and 1999.” None of these floods were 100-year-flood events, thus raising the possibility that the area could suffer more damage in the near future. “This plan should be viewed as the first step in the direction of comprehensive risk reduction in the lower Siletz region.” (p.i) Includes local residents’ priorities and summaries of comments. On title page: Lower Siletz Basin Flood Mitigation Action Plan: Submitted to Lincoln County Planning Department, Prepared by: Community Planning Workshop/Oregon Natural Hazards Workshop, Department of Planning, Public Policy, and Management, University of Oregon." [https://scholarsbank.uoregon.edu/xmlui/handle/1794/17839](https://scholarsbank.uoregon.edu/xmlui/handle/1794/17839)

Van Laere, M. Susan. 2000. "The Grizzly Bear and the Deer: the History of Federal Indian Policy and its Impact on the Coast Reservation Tribes of Oregon, 1856-1877." M.A., Dept. of Anthropology, Oregon State University. While this thesis is not directly concerned with the Siletz River Estuary, the sad and often sordid history of the Oregon Coast Indian Reservation cannot be excluded from historical background for the area. The original reservation included Alsea and Yaquina Bays, but greed quickly changed the situation. Olympia oysters discovered at Yaquina Bay (p.104-107) and the desire for a good port quickly fueled the first partition. The Alsea River area followed (p.135-139), and the reservation continued to be whittled away until the tribe was terminated in 1954. The 1977 restoration and subsequent developments are another story. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/v692t979n](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/v692t979n)

Zhou, Shijie, Ron Williams, and Oregon. Fish Division. 2000. Escapement goals for Siletz River and Siuslaw River fall chinook based on stock and recruitment analysis. *Information Reports / Fish Division, Oregon Department of Fish and Wildlife* no.2000-04, 30 p. “The Siletz stock appeared to be more productive than the Nehalem or Siuslaw stocks. . . As a result, the Siletz stock could sustain a higher exploitation rate.” (p.16) [https://digital.osl.state.or.us/islandora/object/osl%3A18484](https://digital.osl.state.or.us/islandora/object/osl%3A18484)

Lindsay, Robert B., Ken R. Kenaston, and R. Kirk Schroeder. 2001. Reducing Impacts of Hatchery Steelhead Programs. *Information Reports / Fish Division, Oregon Department of Fish and Wildlife*. no.2001-01, Oregon Dept. of Fish and Wildlife, Fish Division (Portland, Or.) Attempts to determine how many hatchery steelhead were straying into other rivers to spawn, also if the timing of their spawning increased the risk of hatchery steelhead
interbreeding with wild fish. Investigated the use of local broodstock in hatcheries, and some methods of reducing interbreeding between hatchery and wild steelhead.  

[https://digital.osl.state.or.us/islandora/object/osl%3A18493](https://digital.osl.state.or.us/islandora/object/osl%3A18493)


[https://digital.osl.state.or.us/islandora/object/osl%3A44866](https://digital.osl.state.or.us/islandora/object/osl%3A44866)

Yamada, Sylvia Behrens, Office of Sea Grant and Extramural Programs, and Oregon State University Sea Grant College Program. 2001. Global invader: the European green crab. no.01-001. 123 p. ORESU-B. Corvallis, Or.: Oregon Sea Grant, Oregon State University. An excellent look at what was known about the European green crab early in its invasion of Oregon waters. Includes color photographs of Oregon crabs to aid in identification.  

[https://repository.library.noaa.gov/view/noaa/44992](https://repository.library.noaa.gov/view/noaa/44992)


[https://digital.osl.state.or.us/islandora/object/osl%3A16543](https://digital.osl.state.or.us/islandora/object/osl%3A16543)

Kostow, Kathryn Eileen. 2002. Oregon lampreys : natural history, status and analysis of management issues. Information Reports (Oregon. Fish Division). no. 2002-01. [Portland, Or.]. Oregon Dept. of Fish and Wildlife. Lampreys have been declining in Oregon. This report looks at what is known about the species and possible causes for the decline. Colored maps, charts and photographs. "This paper concludes with a Problem Analysis for Oregon lampreys. Our biggest problem is poor information, ranging from not knowing basic species identity to having inefficient or no systematic monitoring of lamprey abundance and distribution." (Executive Summary, p.2)  

[https://digital.osl.state.or.us/islandora/object/osl%3A18613](https://digital.osl.state.or.us/islandora/object/osl%3A18613)


Benedict, Rae T. 2003. "Evaluating Oregon's Beach Sites and Assessing Twenty-Six Coastal Beach Areas for Recreational Water Quality Standards." M.S., Dept. of Public Health, Environmental Health Management, Oregon State University. 26 Oregon beaches were monitored for E. coli and Enterococci bacteria. This thesis discusses the monitoring results. Proximity to sewage treatment plant outfalls was frequently related to bacterial contamination. “Within a five mile radius, seven of the nine (78%) Oregon beach sites with bacterial water quality exceedances have a STP [sewage treatment plant] effluent pipe. Cannon Beach, Siletz Bay, and D-River have one STP within a five mile radius. Two STPs are located within five miles of Harris, Rockaway, Nelscott, and Otter Rock at South Cove. The Cannon Beach STP releases wastewater into Ecola Creek, so it was not a surprise that a sample at the mouth of this creek exceeded both bacterial standards.” https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/5x21tj71s

Magnusson, A., and R. Hilborn. 2003. "Estuarine influence on survival rates of coho (Oncorhynchus kisutch) and Chinook salmon (Oncorhynchus tshawytscha) released from hatcheries on the U.S. Pacific Coast." Estuaries. 26, no. 4B: 1094-1103. From the PNCERS Study, a seven-year program that focused on four estuaries in Washington and Oregon: Gray's Harbor, Willapa Bay, Yaquina Bay and Coos Bay. This paper compared 20 estuaries in Oregon and Washington. "This study demonstrates for the first time a direct link between estuarine condition and survival of salmon..." Pristine (less developed) estuaries have better fall chinook salmon survival rates.

Nickelson, Thomas. 2003. "The influence of hatchery coho salmon (Oncorhynchus kisutch) on the productivity of wild coho salmon populations in Oregon coastal basins." Canadian Journal of Fisheries and Aquatic Sciences. 60, no. 9: p.1050-1056. Found strong negative correlation between Oregon coastal stream productivity for wild coho salmon and the
number of hatchery coho released. Urged that hatcheries be sited where "the potential to produce wild salmonids is low," or that amount of hatchery coho in streams with relatively healthy wild runs be decreased. Gives habitat quality indices for coastal streams.


Strong, Craig S. 2003. "Decline of the marbled murrelet population on the central Oregon Coast during the 1990s." Northwestern Naturalist. 84, no. 1: p.31-37. This article gives the results of surveys of marbled murrelets on the central Oregon Coast from 1992 to 1999. “Population estimates of roughly 9,750 birds ... in 1992-93 decreased to 4,100 ... in 1997-99... Removal of nesting habitat during the 1980s, low overwinter survival and poor productivity associated with decreased marine productivity are possible factors contributing to the decline.” (from the Abstract)


Fleck, William K. 2004. "Economic Costs of Long-Term Sea Level Rise on the Oregon Coast: A Case Study of the Siletz Littoral Cell." M.S., College of Oceanic and Atmospheric Sciences. Marine Resources Management Program, Oregon State University. This is a project report submitted “in partial fulfillment of the requirements for the degree of Master of Science.” “The typical response to coastal erosion along the Oregon coast has been to install hard shore protection structures (SPSs). The Siletz littoral cell, the case study, is one such case. It is one of the most developed portions of the Oregon coast and is already more than half protected by SPSs. The trend for this area has closely mimicked episodic climatic events in that after such events there are bursts of SPS construction. The risk with such an approach is that there will, over the long-term, be a narrowing and eventual loss of oceanfront beaches. Because the Oregon coast is highly dependent on tourism and travel for its economic base, the loss or decrease in the beach resource would have a substantial effect on the region's economy. More than 2 million visitors recreate annually just within our case study area—the Siletz cell beaches...” (from the Abstract)  https://ir.library.oregonstate.edu/concern/graduate_projects/h702qb42g

Ford, Michael J., David Teel, Donald M. Van Doornik, David Kuligowski, and Peter W. Lawson.
2004. "Genetic population structure of central Oregon Coast coho salmon (Oncorhynchus kisutch)." Conservation Genetics. 5, no. 6: p. 797-812. The "Alsea complex" includes the Alsea, Siletz and Yaquina Rivers, along with Devil Creek and Beaver Creek. These coho populations are closely related.

Kagan, James S., John A. Christy, Michael P. Murray, Jonathan A. Titus, Oregon Natural Heritage Information Center, and Institute for Natural Resources. 2004. Classification of Native Vegetation of Oregon. 52 p. Oregon Natural Heritage Program (Portland, Or.) “This classification lists the native plant associations known to occur in Oregon, and includes both successional and climax vegetation types that were an important part of the presettlement landscape of Oregon. It serves as an index to the diversity, distribution and relative rarity of the state's native plant associations, and as a guide to their literature. Plant associations are listed by scientific name, followed by common name and acronym. Listings include the global and state rank of each association, the ecoregion in which it occurs, its status as wetland or upland, and references describing the association.” (from the introduction) https://ir.library.oregonstate.edu/concern/defaults/kw52jd11x


"This document describes the development and technical basis for the hydrogeomorphic (HGM) method for assessing tidal wetlands of the Oregon coast... Drawing from approximately 500 published sources and databases, this document reviews scientific literature on tidal wetland functions, especially as it pertains to the presented HGM method and the Pacific Northwest. Data are summarized on dozens of variables that were measured or estimated in 120 tidal wetlands during summer 2003." (From Summary, p.i.) Includes details about the method and scoring. Has bibliography for all three volumes.


Giannico, Guillermo R., Jon A. Souder, and Oregon State University Sea Grant College Program. 2005. Tide gates in the Pacific Northwest: operation, types, and environmental effects. ORESU-T. no.05-001, 28 p. Sea Grant Oregon, Oregon State University (Corvallis, Or.) Like all Sea Grant publications, this is a very helpful document, guiding landowners and interested parties in understanding how tide gates work, how to upgrade them, and whether to remove them. This well illustrated report includes information about environmental effects of tide gates, design types, manufacturers and relevant legislation.
https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/sgpubs/onlinepubs/t05001.pdf

https://repository.library.noaa.gov/view/noaa/3413
Meengs, Chad C. 2005. "The Size of the Oregon Coastal Salmon Runs in the Mid-1800s " M. S., Environmental Sciences Program, Oregon State University. "Presented July 12, 2004. Commencement June 2005." Attempts to reconstruct data regarding salmon populations circa 1850 and contrast that data with contemporary statistics. Tables give estimated run sizes and loss of lands in estuaries. Suggests that ocean conditions are the most significant factor affecting salmon runs, and that improving habitats in estuaries and lowlands would be a way to improve salmon runs. Includes historical photographs. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/3r074x21m

Oregon. Dept. of Fish and Wildlife. Fish Division. 2005. 2005 Oregon Native Fish Status Report. Volume I: Species Management Unit Summaries. (Salem, Or.) Chum salmon: The Siletz fails ODFW abundance/productivity criteria for chum salmon, "because abundance levels in these populations have been chronically low." Winter steelhead: Over 10% of spawning fish are of hatchery origin, compromising wild runs. Summer steelhead: low productivity of wild run, low independence of wild and hatchery steelhead. "high numbers of hatchery spawners pushed abundance levels beyond the average wild abundance ... raising the possibility of density dependence." "Beginning in 2000, wild fish were selectively passed at Siletz Falls [to go on to spawn], and hatchery fish were either recycled downstream into the recreational fishery, or were removed from the system." https://www.dfw.state.or.us/fish/onfsr/docs/volume-1-final.pdf


State of Oregon, Jay Nicholas, Bruce McIntosh, Ed Bowles, Oregon Watershed Enhancement Board, and Oregon. Dept. of Fish and Wildlife. 2005. Oregon Coastal Coho Assessment: Part 1: Synthesis of the Coastal Coho ESU Assessment – Including: 1. Viability Analysis; 2. Population Bottlenecks; 3. Evaluation of Conservation Efforts; 4. Monitoring; 5. Current Threats to ESU Viability; 6. Adaptive Management Commitments. 69 p. This report is important because it identifies winter habitat for coho ("stream complexity") as the most important limiting factor for the Oregon Coast Evolutionary Significant Unit coho recovery and production. Other limiting factors include hatchery impacts, water quantity, water quality, and exotic fish species. Identifies viable populations. Distinguishes between populations that can persist when marine and freshwater conditions are unfavorable and populations dependent on reproductive contributions from strays from other basins. Preliminary analysis "suggests that winter habitat (i.e. stream complexity) is a higher priority for restoring coho populations across the ESU than water quality." (p.20) https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/reference/SynthesisFinalReport.pdf


Buckley, Anna. 2006. Estuarine Habitat Mitigation in Oregon: Policy Review, Analysis, and Recommended Improvements. Master of Environmental Management Project Reports. no.5, 200 p. [https://doi.org/10.15760/mem.33](https://doi.org/10.15760/mem.33) Portland State University. Dept. of Environmental Science and Management (Portland, Or.) This work is a Master’s Degree graduate project written for the Oregon Department of State Lands. In this excellent overview of Oregon’s estuarine mitigation policy, the author summarizes the current state of knowledge about estuarine ecology and the process of estuarine mitigation or restoration; describes Oregon’s current (2006) policy; lists recently permitted projects and their related estuarine resource replacements; discusses assessment tools and mitigation options; examines compensatory mitigation in the watershed setting; and concludes with recommendations. [https://pdxscholar.library.pdx.edu/mem_gradprojects/5/](https://pdxscholar.library.pdx.edu/mem_gradprojects/5/)

Courter, Ian I. 2006. "Salmon Recovery in the Pacific Northwest: Defining What Constitutes a Wild Salmon." M.S., Dept. of Fisheries and Wildlife, Fisheries Science, Oregon State University. Attempts to define the concept of "wild" salmon as a continuum including hatchery fish. Asserts that criticism of the effects of hatcheries on wild salmonids is influenced by values, not science. Includes statistics on hatcheries, wetland loss and runs. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/2227ms50f](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/2227ms50f)

Meengs, Chad C., and Robert T. Lackey. 2006. "Estimating the size of historical Oregon salmon runs." Reviews in Fisheries Science. 13, no. 1: p.51-66. "Compared to our estimates of mid-1800s coho salmon levels, early 2000 runs (during favorable ocean conditions), were 11-19% of the historical level. During poor ocean conditions (1990s), current coho salmon runs were 3-6% of the historical size." (from the Abstract) [https://coastcoho.org/estimating-the-size-of-historical-oregon-salmon-runs/](https://coastcoho.org/estimating-the-size-of-historical-oregon-salmon-runs/)


Vander Schaaf, Dick, George Wilhere, Zack Ferdana, Ken Popper, Michael Schindel, Peter
Skidmore, Dave Rolph, Pierre Lachetti, Gwen Kittel, Rex Crawford, Debbie Pickering, and John A. Christy. 2006. Pacific Northwest Coast Ecoregional Assessment. 129 p. The Nature Conservancy (Portland, Or.) “Prepared by The Nature Conservancy, the Nature Conservancy of Canada, and the Washington Department of Fish and Wildlife.” This is a very broad ecological assessment for the Pacific Northwest: British Columbia, Washington and Oregon. “The purpose of the Pacific Northwest Coast ecoregional conservation assessment was to identify an efficient suite of conservation sites that will contribute toward the long-term survival of all viable native plant and animal species and natural communities in the ecoregion.” (p.ix) This document is accompanied by appendices indicating sites of interest. https://ir.library.oregonstate.edu/concern/defaults/sb397d851

Flitcroft, Rebecca L. 2007. "Regions to Streams: Spatial and Temporal Variation in Stream Occupancy Patterns of Coho Salmon (Oncorhynchus kisutch) on the Oregon Coast." Ph.D., Dept. of Fisheries and Wildlife, Fisheries, Oregon State University. “The research described in this dissertation started as an investigation of the implications of stream network structure on the abundance and distribution of juvenile coho salmon (Oncorhynchus kisutch) and evolved into the development of variables and theory that include stream network relationships. The dissertation is primarily focused on three key goals: the development and application of a theoretical base for analyzing aquatic obligate species that incorporates the underlying structure of the stream network; exploring the importance of stream network variables using multiple spatial scales in an assessment of juvenile coho salmon density; incorporating multiple spatial scales into hierarchical Bayesian models for the adult and juvenile life history stage of coho salmon.” (p.169) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/bc386m254


photographs. https://ir.library.oregonstate.edu/concern/technical_reports/6108vb99d


Hoffert-Hay, Denise, and Oregon Watershed Enhancement Board. 2008. Small Dam Removal in Oregon: A Guide for Project Managers. 70 p. Oregon Watershed Enhancement Board (Salem, Or.) “As a result of changing technology and values, many small dams in Oregon have out-lived their original purpose due to changes in Oregon’s economic and resource landscape. These relic dams that have out-lived their useful lives are good candidates for removal. The financial burden of maintaining an aging structure can far outweigh the benefits of keeping it” (p.1). Color illustrations. https://digital.osl.state.or.us/islandora/object/osl%3A16500/datastream/OBJ/view

Hubler, Shannon, Oregon. Dept. of Environmental Quality. Laboratory and Environmental Assessment Division, and Oregon Watershed Enhancement Board. 2008. Macroinvertebrate Report: Oregon Coast Coho Evolutionarily Significant Unit (2006-2007): Final Report. 34 p. Oregon. Dept. of Environmental Quality. Laboratory and Environmental Assessment Division, (Hillsboro, Or.) One way to measure a stream’s health is to count the aquatic insects in it. “This report summarizes macroinvertebrate data collected in cooperation with the ODFW in the twenty-one independent coho populations units from 2006-2007. These data were collected by ODFW crews and analyzed by ODEQ staff. Biological integrity, temperature stress and fine sediment stress were evaluated for each of the twenty-one population units.” (p.4) There are good data here. https://digital.osl.state.or.us/islandora/object/osl%3A20551


Pakenham, Anna M., R. A. Wheatcroft, and M. A. Goni. 2008. "Source-to-sink sedimentation in


Wilson, Derek, and Oregon Dept. of Fish and Wildlife. 2008. Siletz Basin Steelhead Trapping and Management Activities. 9 p. Oregon Dept. of Fish and Wildlife, ([Salem, Or.]) “The Siletz River basin is unique in the fact that it contains viable runs of seven species of anadromous fish (spring and fall Chinook salmon, coho salmon, chum salmon, summer and winter steelhead, and sea-run cutthroat trout). The Siletz is the only Coast Range basin in Oregon with a native run of summer steelhead.” (p.1) https://library.state.or.us/repository/2008/200805091147105//

Brophy, Laura, Rebecca Tully, John A. Christy, and Craig Cornu. 2009. "Oregon Tidal Wetland Reference Sites Pilot Project: Soils Data." This file includes tidal wetland soils data for 14 sampling areas at 5 sites on the Oregon coast. The sites are Blind Slough (tidal swamp) in the lower Columbia River estuary, Coal Creek (tidal swamp) in the Nehalem estuary, Millport Slough (high marsh) and Siletz Keys (low marsh) in the Siletz estuary, and Hidden Creek Marsh (high marsh and low marsh) in the South Slough estuary (Coos Bay). Data is presented for the year 2007 for soil pH, percent organic matter, electrical conductivity, salinity, percent sand, silt and clay and texture class. These data for 2007 may be updated with additional samples. https://ir.library.oregonstate.edu/concern/datasets/ks65hj656

Davis, Loren G., Steven A. Jenevein, Michele L. Punke, Jay S. Noller, Julia A. Jones, and Samuel C.
Willis. 2009. "Geoarchaeological themes in a dynamic coastal environment, Lincoln and Lane Counties, Oregon." In Volcanoes to vineyards: geologic field trips through the dynamic landscape of the Pacific Northwest, 15. edited by Jim E. O'Connor, Rebecca J. Dorsey and Ian Madin, In Field Guide (Geological Society of America), p.319-336. Boulder, Colo.: Geological Society of America. "In many ways, the modern Oregon coastline bears little resemblance to that associated with prehistoric coastal peoples prior to 3000 years ago..." (from the abstract). Examines how geological forces (earthquakes, sea level rise) have changed the landscape and obscured early peoples' occupations of the area. First stop on the tour is at the main HMSC parking lot, and the second stop is at Yaquina Head. Mentions Siletz, Yaquina, Alsea, Yachats and Siuslaw paleorivers. 
https://www.researchgate.net/publication/290241966_Geoarchaeological_themes_in_a_dynamic_coastal_environment_Lincoln_and_Lane_County_Oregon

Hatfield, Samantha Chisholm. 2009. "Traditional Ecological Knowledge of Siletz Tribal Members." Ph. D., Dept. of Environmental Science, Oregon State University. The interviews with tribal elders are valuable. There are a few brief descriptions of traditional uses of the estuary. 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/jq085n53x

Johnson, Marc Aaron. 2009. "Patterns of Natural Selection and Demography in Coastal Oregon Coho Salmon (Oncorhynchus kisutch) Populations: Evidence from Neutral and Olfactory Receptor Gene-Linked Markers " Ph. D., Dept. of Fisheries and Wildlife, Oregon State University. "For Pacific salmon, the evolution of local adaptations depends upon the species’ propensity to return, or “home”, to natal streams at time of reproduction. Pacific salmon use olfactory cues to guide homing behavior, yet little is known about the genetics of olfaction in salmon. In this study, I use putatively neutral microsatellite markers to estimate demographic parameters and describe the population genetic structure of Oregon Coastal coho salmon (Oncorhynchus kisutch). . . I then used genomic sequence data from nine species of salmon and trout to infer the evolutionary history for eight olfactory receptor genes. . . Finally, I used molecular markers linked to olfactory receptor genes to test for a signal of selection among coho salmon populations from different rivers" (from the Abstract.) Coos Bay salmon were the major source of straying in the south coast, while Nehalem River salmon did most of the straying on the north coast. 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/gh93h230k

Lee II, Henry , Cheryl A. Brown, and National Health and Environmental Effects Research Laboratory (U.S.). Western Ecology Division. 2009. Classification of Regional Patterns of Environmental Drivers and Benthic Habitats in Pacific Northwest Estuaries. EPA 600/R-09/140, "This report describes a pilot effort at classifying PNW estuaries with regards to landscape attributes and their susceptibility to nutrient enrichment." Much data is presented. Although the report focuses on seven estuaries (Alsea, Coos Bay, Nestucca, Salmon River, Tillamook Bay, Umpqua and Yaquina), many other estuaries are mentioned, and basic statistical data is given for all PNW estuaries. 
https://tinyurl.com/3rd376k

Lincoln County (Or.). Dept. of Planning and Development, University of Oregon. Community
Nedeau, Ethan Jay, Allan K. Smith, Jen Stone, and Sarina Jepsen. 2009. Freshwater Mussels of the Pacific Northwest. 2nd ed. 51 p. Portland, Or. Xerxes Society for Invertebrate Conservation. 2nd edition. Freshwater mussels are among the most endangered animals on earth. Over 70% of all freshwater mussel species in North America are considered threatened or endangered, and 35 species are believed to be extinct. Freshwater mussels serve as important bioindicators, being sensitive to stream temperatures, dissolved oxygen, sedimentation and pollution. This valuable guide will aid in awareness of the value of these species, as well as in identification.

Pakenham, Anna. 2009. "Patterns of Sediment Accumulation in the Siletz River Estuary, Oregon." M.S., College of Oceanic and Atmospheric Science, Marine Resource Management Program, Oregon State University. "This study illuminates the complexity of the forces that influence sediment flux from a watershed and retention within an estuary. Sediment flux from the watershed was evaluated based on river discharge, hydroclimatic patterns, and harvest records in the basin. While previously logging has been assumed to have a great impact on sediment accumulation, and while there has been a change in the amount of harvest in the watershed, it appears that logging impacts are buffered within the watershed, minimizing their effect..." (p.38)
https://ir.library.oregonstate.edu/concern/graduate_theses_or_dissertations/ff365777d


Andersen, Helle B., Richard S. Caldwell, John Toll, Thai Do, and Lisa Saban. 2010. "Sensitivity of lamprey ammocoetes to six chemicals." Archives of Environmental Contamination and Toxicology. 59, no. 4: p.622-631. Gives results of a study conducted to see risks of chemicals to lamprey larvae. Discussion section concludes that the Siletz is home to Pacific lamprey.

environmental change on aquatic ecosystem processes. "Bioscience. 60, no. 8: p.590-601. 
http://dx.doi.org/10.1525/bio.2010.60.8.5 This interesting article discusses terrestrial 
vegetation shifts in different ecosystems. One change discussed is in the distribution of 
red alder in Pacific Northwest forests as a result of timber harvesting, and the effects that 
changes in the Douglas fir-red alder balance have on streams. Includes a photograph of a 
hillside in the Siletz basin showing growth of alder after logging.

Dauble, Alison D. 2010. "Young-of-the-Year Rockfish (Sebastes spp.) Settlement Dynamics in 
Oregon Estuaries." M.S., Fisheries and Wildlife, Oregon State University. Established that 
larval and young black rockfish (Sebastes melanops) use estuaries as nursery grounds in 
"multiple estuaries on the Oregon coast from spring through late fall, and may be present 
in highly developed estuaries through their first winter before moving to deeper habitats."
More developed estuaries seem to have structures that provide protection for the young 
fish. Studied rockfish in the Nehalem, Siletz, Yaquina, Alsea, Coos and Coquille estuaries. 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/qf85nd73d

Ferguson, Jayde A. 2010. "Impacts of Multispecies Parasitism on Coho Salmon (Oncorhynchus 
kisutch) in Oregon." Ph.D., Dept. of Microbiology, Oregon State University. This study 
examines the impacts of multispecies parasitism on coho salmon. The author found 21 
different parasites infecting coho salmon in 10 different coastal rivers. The West Fork of 
the Smith River in the Umpqua River Basin received detailed study. 
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/w3763965v

area and displacement of past Cascadia great earthquakes from coastal coseismic 

Oregon Agricultural Statistics Service, United States. National Agricultural Statistics Service, and 
Broad summary. Does not give landings by port, but does give oyster production on State 
lands by bay for Coos, Netarts, Tillamook, Umpqua and Yaquina Bays.

Oregon State University. Oregon Climate Change Research Institute. 2010. Oregon Climate 
Sciences. Oregon Climate Change Research Institute, (Corvallis, Or.) An eye-opening look 
ahead. https://digital.osl.state.or.us/islandora/object/osl%3A637577

includes: an assessment database with information on water quality for waters in Oregon 
(includes water quality limited waters and 303(d) list waters), the assessment 
methodology used to evaluate data, and a schedule to develop TMDLs for waters 
identified in the Section 303(d) list. 
https://www.deq.state.or.us/wq/assessment/rpt2010/search.asp

Ruggiero, Peter, Cheryl A. Brown, Paul D. Komar, Jonathan C. Allan, Deborah A. Reusser, and
Henry Lee II. 2010. "Impacts of climate change on Oregon’s coasts and estuaries." In Oregon Climate Assessment Report, edited by Kathie Dello and Philip W. Mote, p.211-268. Corvallis, Or.: Oregon State University. College of Oceanic and Atmospheric Sciences. Oregon Climate Change Research Institute. This is Chapter 6 of the Oregon Climate Assessment Report. Predicts “Potential breaching of barrier dunes at mouth of estuaries without jetties (e.g., Alsea, Siletz) and episodic input of sediment to estuaries.” (p.212) [https://digital.osl.state.or.us/islandora/object/osl%3A637577

Wilkinson, Charles. 2010. The People Are Dancing Again: the History of the Siletz Tribe of Western Oregon. 582 p. Seattle, Wa.: University of Washington Pr. The story of the Confederated Tribes of Siletz Indians moves from tragedy to triumph, from Oregon’s own Trail of Tears to the diminution and dissolution of the Coast Indian Reservation, to the eventual reinstatement of the Siletz Tribe. This work tells that story. It contains an excellent account of the economic and political forces that whittled away the Oregon Coast Indian Reservation and the seizing of its land.

Bohaboy, Spencer, and Oregon. Dept. of Environmental Quality. 2011. Oregon Bacteria Rule: Bacteria Criteria for Marine and Estuarine Waters. 19 p. Oregon Department of Environmental Quality ([Portland, Or.]) This document describes state water quality standards for bacteria in marine and estuarine waters and compares and reconciles Oregon’s standards with U.S. EPA standards. Finally, it describes how the reconciled standards may be applied to various permit scenarios. It includes maps of major estuaries showing the dividing line where the freshwater estuary yields to marine influences. [https://www.oregon.gov/deq/Filtered%20Library/IMDBacteria.pdf

Boon-intra, Sutaporn. 2011. "Development of a Guideline for Estimating Tsunami Forces on Bridge Superstructures." M.S., Dept. of Civil Engineering, Oregon State University. Numerical models were developed to run tests of tsunami impacts on bridge superstructures. The author also developed guidelines to estimate tsunami forces on bridge superstructures. The study focused on the Spencer Creek Bridge on the Oregon Coast, and three bridges on Siletz Bay, at Schooner Creek, Millport Slough and Drift Creek. “The time-history of the numerical results show that, given identical tsunami conditions, box section bridges have to resist significantly larger forces (both horizontal and vertical forces) than the deck-girder section bridges. Therefore, it would be more appropriate to select deck-girder section bridges in the tsunami run-up zone instead of a box section. Furthermore, an effect of bridge rails to tsunami forces was examined in this research. The results showed that rigid rails on the superstructure could increase horizontal and vertical tsunami forces up to 20% and 15%, respectively.” (p.37) Includes drawings of the bridges studied. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/8k71nn53j

Method for Detecting Tidal Inundation in Least-disturbed Tidal Wetlands of Oregon, USA. Amended Final Report. 199 p. Between 2007 and 2009, researchers from Green Point Consulting, Oregon State University, and the South Slough National Estuarine Research Reserve collected data on ecological and physical characteristics at five high-quality “least disturbed” tidal wetland sites in four Oregon estuaries. The reference sites included in this project are (1) Blind Slough (tidally-influenced palustrine swamp, lower Columbia estuary), Coal Creek (estuarine tidal swamp, Nehalem estuary), Millport Slough and Siletz Keys (high and low marsh, Siletz estuary), and Hidden Creek Marsh (high and low marsh, South Slough, Coos estuary). The data are compiled in the CICEET final report and are also presented in separate PDF files for quick access. Also included is information about the use of a temperature sensor method for measuring tidal inundation regime in tidal wetlands and a report characterizing the carbon content of Oregon tidal wetland soils. (from the Abstract) https://ir.library.oregonstate.edu/concern/datasets/s1784r68k

Cheung, Kwok Fai, Yong Wei, Yoshiki Yamazaki, and Solomon C.S. Yim. 2011. "Modeling of 500-year tsunamis for probabilistic design of coastal infrastructure in the Pacific Northwest." Coastal Engineering. 58, no. 10: p.970-985. This paper provides possible tsunami inundation scenarios for a 500-year 9.0 Pacific Coast earthquake in order to develop infrastructure design, specifically bridge designs, for the Siletz Bay region.

Eardley, Christopher S., and Flaxen D. L. Conway. 2011. Oregon’s Non-Consumptive Recreational Ocean User Community: Understanding an Ocean Stakeholder. ORESU-S. no.11-001, 38 p. Oregon Sea Grant (Corvallis, Or.) This is a study of “the non-consumptive recreational ocean user NROU) community. The NROU group includes surfers, kayakers, boaters, divers, and many others...” Who are marine recreationists who are not hunters or fishers? Where do they go? What factors motivate their recreational choices? How do they contribute to local economies? How do they relate to marine renewable energy such as wind or tidal power generation? https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/sgpubs/onlinepubs/s11001.pdf

Gleason, Mary G., Sarah Newkirk, Matthew S. Merrifield, Jeanette Howard, Robin Cox, Megan Webb, Jennifer Koepcke, Brian Stranko, Bethany Taylor, Michael W. Beck, Roger Fuller, Paul Dye, Dick Vander Schaaf, and Jena Carter. 2011. A Conservation Assessment of West Coast (USA) Estuaries. 65 p. The Nature Conservancy (Arlington, Va.) “Funded by: The David and Lucile Packard Foundation” “This assessment outlines an enhanced planning approach for West Coast estuaries that incorporates an evaluation of the regional context for estuarine conservation and recommends an approach to site-scale planning with more focus on ecological processes and functions.” (p.1) “A hierarchical classification system was developed for West Coast estuaries that identified three regions (based on climate, latitude, and oceanography) and four estuary types distinguished by the relative degree of influence of the hydrodynamic forcing mechanisms of waves, tides, and rivers.” (p.2) https://ir.library.oregonstate.edu/concern/defaults/1r66j546d
Chapman, John W., Brett R. Dumbauld, Gyo Itani, and John C. Markham. 2012. "An introduced Asian parasite threatens northeastern Pacific estuarine ecosystems." *Biological Invasions*. 14,p.1221-1236. 10.1007/s10530-011-0151-3 The non-indigenous isopod Orthione griffenis effectively castrates the mud shrimp Upogebia. The spread of the invasive parasite has dramatically depleted mud shrimp populations along the northwestern coast of North America. "All previously known abundant Upogebia populations were either absent or at greatly reduced abundances in all California, Oregon and Washington estuaries examined." (p.1225) "[U]rgent, immediate responses, including captive breeding programs for the most impacted Upogebia populations and species are warranted." (p.1234) [https://ir.library.oregonstate.edu/concern/articles/nc580n174](https://ir.library.oregonstate.edu/concern/articles/nc580n174)

Dauble, Alison D., Scott A. Heppell, and Mattias L. Johansson. 2012. "Settlement patterns of young-of-the-year rockfish among six Oregon estuaries experiencing different levels of human development." *Marine Ecology Progress Series*. 448,p.143-154. 10.3354/meps09504 "The goal of this study was to investigate natural and anthropogenic influences on the estuarine settlement process of rockfishes, with a focus on black rockfish S. melanops. Trap surveys conducted in 6 Oregon estuaries indicate that young-of-the-year (YOY; age 0) rockfish utilize ...multiple Oregon estuaries from spring through late fall... Catches were higher in the more developed estuaries, suggesting that the continued development of Oregon estuaries may not adversely affect the rockfish settlement process." (from the Abstract) This study is the first documentation of juvenile rockfish in the Nehalem, Siletz, Alsea and Coquille estuaries. [https://ir.library.oregonstate.edu/concern/articles/1n79h9011](https://ir.library.oregonstate.edu/concern/articles/1n79h9011)

Defenders of Wildlife. 2012. Floodplain Habitat Metric: User’s Guide. 38 p. Defenders of Wildlife The metric is encompassed in two documents, this Floodplain Habitat Metric User’s Guide and a Floodplain Habitat Calculator (in Excel). The evaluation procedure is meant for or inland wetlands, not for tidal wetlands. “This assessment can be used to evaluate areas that are flooded seasonally by overbank surface water from a non-tidal water body (river, stream, lake, etc.) at least once a century.” (p.10) The metric may be found at [https://ir.library.oregonstate.edu/concern/defaultsrn3015245](https://ir.library.oregonstate.edu/concern/defaultsrn3015245) (Excel file) or a calculator version at [https://ir.library.oregonstate.edu/concern/defaultss8336h5830](https://ir.library.oregonstate.edu/concern/defaultss8336h5830) [https://ir.library.oregonstate.edu/concern/defaultskd17cx49d](https://ir.library.oregonstate.edu/concern/defaultskd17cx49d)

Flitcroft, Rebecca L., Kelly M. Burnett, Gordon H. Reeves, and Lisa M. Ganio. 2012. "Do network relationships matter? Comparing network and instream habitat variables to explain densities of juvenile coho salmon (*Oncorhynchus kisutch*) in mid-coastal Oregon, USA." *Aquatic Conservation: Marine and Freshwater Ecosystems*. 22, no. 3: p.288-302. Juvenile coho salmon were counted in seven sub-basins in the Alsea and Siletz watersheds for a five-year period (1998-2002). The study indicates the importance of stream networks – connectivity between different habitat types, rather than just the abundance of different habitats. How easy is it for juvenile fish to move from spawning beds to summer rearing pools? This work suggests that habitat connectivity is an important variable that should be considered in habitat restoration plans.
Hall, Roberta L., Thomas A. Ebert, Jennifer S. Gilden, David R. Hatch, Karina Lorenz Mrakovicich, and Courtland L. Smith. 2012. Ecological Baselines for Oregon’s Coast: a Report for Agencies That Manage Oregon’s Coastal Habitats for Ecological and Economic Sustainability, and for All Who Are Interested in the Welfare of Wildlife That Inhabit Our Coast and Its Estuaries. 79 p. Oregon State University (Corvallis, Or.) "We begin this report with a chapter reviewing archaeological, ethnographic, and historic materials to provide a picture of Oregon’s coastal resources before 1750. Subsequent chapters consider salmon, sea otters, and sub-tidal sea urchins." (p.7)

Johnson, Orlay W., Anna Elz, Jeffrey J. Hard, and David Stewart. 2012. "Why did the chum cross the road? Genetics and life history of chum salmon in the southern portion of their range." International Workshop on Explanations for the High Abundance of Pink and Chum Salmon and Future Trends, Nanaimo, B.C., no.8. p.135-137. 2011. Technical Report (North Pacific Anadromous Fish Commission) This paper reports on the genetics of chum salmon populations south of the Columbia River. "Preliminary analysis indicates there are few unique or private alleles in the coastal populations, and this suggests there are not ‘unique populations’ from further south migrating into northern regions, but that these coastal fish are natural, indigenous populations." (p.136)


Kostow, Kathryn Eileen. 2012. "Strategies for reducing the ecological risks of hatchery programs: Case studies from the Pacific Northwest." Environmental Biology of Fishes 94, no. 1: p.285-310. doi:10.1007/s10641-011-9868-1 This article summarizes strategies for minimizing the impacts of hatchery salmonid production on wild salmonids. Five case studies are presented, including a study on the summer steelhead run on the Siletz River. The author gives an excellent summary on the history of fish management on the Siletz, and recounts the successful strategy for restoring this small native run.

of native and invaded ecoregions for all the reported marine/estuarine nonindigenous species (NIS) in the North Pacific, exclusive of marsh plants. Additionally, environmental and habitat information for each species is summarized in two-page species profiles, along with analyses of the extent of invasion at the ecoregion and regional scales across the six North Pacific Marine Science Organization (PICES) member countries (United States, Canada, Russia, Japan, Korea, and China). The information in the NIS Atlas is from the PICES Nonindigenous Species Information System.” (from publisher’s website) “With Contributions by Katie Marko, Emily Saarinen, Tad Larsen, Caroline Emch-Wei, Meredith Payne, and PICES WG21 members” (from title page)

https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100FXIS.txt

Miller, Aileen Kilpatrick. 2012. "Site Selection by Migratory Shorebirds in Oregon Estuaries Over Broad and Fine Spatial Scales." M.S., Environmental Science and Management, Portland State University. “My goal in this research was to identify environmental features or habitat characteristics that predict shorebird abundance in Oregon estuaries.” The author found differences in preferred habitat between spring and fall migrations. In the spring, shorebirds have a relatively narrow window in which to make it to their Arctic breeding grounds. In this intensely social time, the birds preferred larger estuaries. On the other hand, in the fall, shorebird preference was more strongly influenced by habitats. Marsh habitats and grasslands for roosting sites were good fall density predictors. Estuarine channels were preferred feeding sites. In Oregon, the Coquille River estuary, Coos Bay and Siletz Bay were the preferred fall sites. This most interesting and enlightening work can help wildlife managers better understand the relative importance of various habitats. https://pdxscholar.library.pdx.edu/open_access_etds/443/

Oregon. Dept. of Environmental Quality. 2012. "Oregon's 2012 Integrated Report." Website includes: an assessment database with information on water quality for waters in Oregon (includes water quality limited waters and 303(d) list waters), the assessment methodology used to evaluate data, and a schedule to develop TMDLs for waters identified in the Section 303(d) list. https://www.deq.state.or.us/wq/assessment/rpt2012/search.asp

U.S. Federal Geographic Data Committee. Marine and Coastal Spatial Data Subcommittee.
(Washington, D.C.) This document represents an effort to transform many different ecological descriptions into one standard. It employs two settings (Aquatic and Biogeographic) and four components (Water Column, Geoform, Substrate and Biotic). Combinations of these can describe any setting. The State of Oregon is adopting it to replace the standard in the Oregon Estuary Plan Book (1987). It is the definitive national standard for describing coastal and marine sites.

Azadbakht, Mohsen. 2013. "Tsunami and Hurricane Wave Loads on Bridge Superstructures." Ph. D., School of Civil and Construction Engineering, Dept. of Civil Engineering, Oregon State University. “The first part of this study examines the tsunami loads on five California and three Oregon coastal bridges. . . . The second part of this study examines the influence of trapped air on resultant wave forces under different wave conditions for a variety of bridge geometries. . . . Numerical results indicate that the uplift wave forces acting on the bridge superstructures can be reduced by about 56% on the average using air vents.” (from the Abstract) The author discusses three bridges In the Siletz Bay area and makes recommendations for bridge design.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/pg15bh86v

Engelhart, Simon E., Benjamin P. Horton, Christopher H. Vane, Alan R. Nelson, Robert C. Witter, Sarah R. Brody, and Andrea D. Hawkes. 2013. "Modern foraminifera, δ\(^{13}\)C, and bulk geochemistry of central Oregon tidal marshes and their application in paleoseismology." Palaeogeography, Palaeoclimatology, Palaeoecology. 377, p.13-27. 10.1016/j.palaeo.2013.02.032 Most of this paper is concerned with a technical discussion of a method for making estimates of coastal subsidence following great earthquakes by using bulk geochemistry, delta-13-Carbon and correlations of foraminifera found in sediments with sediment elevations. There is a brief discussion of the physical characteristics of Siletz Bay and a good review of distributions of present-day foraminifera, as well as what could be learned about the great earthquake of 1700.

Hansen, Gayle I. 2013. "Some Marine Algae on Tsunami Debris [poster]." Oregon State University. Dept. of Botany and Plant Pathology. On March 11, 2011, the great Tōhoku earthquake shook Japan. The subsequent tsunami swept approximately 5 million tons of debris into the Pacific Ocean, some of which made its way across the Pacific and washed up on the North American West Coast. The debris carried hundreds of species, a surprising number of which survived the trip. In order to understand the potential for biological invasions, it was necessary to document these species. This poster documents some of the first algae identified. It is beautifully photographed.
https://ir.library.oregonstate.edu/concern/defaults/ns064b84v

Kershner, B. B. Roper, D. Nagel, D. Horan, G. Chandler, S. Parkes, S. Wollrab, and Water & Aquatic Environments Program U.S. Rocky Mountain Research Station. Air. 2013. "NorWeST Stream Temp: Regional Database and Modeled Stream Temperatures [web page]." U.S. Rocky Mountain Research Station. Air, Water & Aquatic Environments Program. This website gives water temperature data coupled with climate scenarios for western U.S. streams. Hundreds of biologists and hydrologists contributed to the temperature database. The data were used to develop 36 historical and future climate scenarios at 1-kilometer resolution for over 1,000,000 stream kilometers. The website includes an interactive stream temperature viewer.
https://www.fs.usda.gov/rm/boise/AWAE/projects/NorWeST.htm

Johnson, Courtney B., and Steven R. Schell. 2013. "Adapting to climate change on the Oregon coast: lines in the sand and rolling easements." Journal of Environmental Law and Legislation. 28, p.447-514. In this important article, the authors argue that Oregon should be working to strengthen its laws now in order to have the flexibility and legal framework to enable it to adapt to a changing climate and sea level rise. “Processes are needed to decide what infrastructure will be replaced and what will not before these inevitable events occur. . . . Planning can ensure that shoreline armoring does not eliminate public access along the shore or total loss of sand on Oregon’s beaches. Planning tools can make clear that the public access boundary does migrate inland, even if the shoreline migrates onto an inland parcel across which the public does not currently have access.” (p.514) https://scholarsbank.uoregon.edu/xmlui/handle/1794/17378

Lim, Youngah. 2013. "Cost-Efficient Management of Aquatic Invasive Species: Application to New Zealand Mudsnails in the Pacific Northwest." Ph. D., Dept. of Applied Economics, Oregon State University. The New Zealand mud snail, a destructive invasive species, has been found in the Wilson, Trask, Nestucca, Siletz, Yaquina, Alsea, Siuslaw, Umpqua and Coos Rivers. Based on the animal’s biology, Siltcoos Lake is threatened. The snail is a biofouling organism that blocks water intake pipes, and threatens aquatic industries and tools from boat motors to hydroelectric plants. In this dissertation, the author assesses possible ways of managing this invasion, and assesses the costs of different management strategies.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/fb494c75t

Oregon. Dept. of Geology and Mineral Industries, and National Tsunami Hazard Mitigation Program (U.S.). 2013. Tsunami Inundation Maps for Gleneden Beach - Siletz River, Lincoln County, Oregon Tsunami inundation map Oregon. Dept. of Geology and Mineral Industries Portland, Or. No. TIM-Linc-03. 2 maps : col. ; 84 x 133 cm., on sheet 86 x 135 cm. Plate 1. Local source (Cascadia Subduction Zone) tsunami inundation map Gleneden Beach-Siletz River, Oregon -- Plate 2. Distance source (Alaska-Aleutian Subduction Zone) tsunami inundation map Gleneden Beach-Siletz River, Oregon.
https://pubs.oregon.gov/dogami/tim/p-TIM-Linc-03.htm

---. 2013. Tsunami inundation maps for Lincoln City North, Lincoln County, Oregon. Tsunami
Inundation Map. no.TIM-Linc-01, Oregon. Dept. of Geology and Mineral Industries (Portland, Or.) 2 maps : col. ; 84 x 133 cm., on sheet 86 x 135 cm. Plate 1. Local source (Cascadia Subduction Zone) tsunami inundation map Lincoln City North, Oregon -- Plate 2. Distance source (Alaska-Aleutian Subduction Zone) tsunami inundation map Lincoln City North, Oregon. May be viewed online at the NANOOS website (click on DOGAMI to access). https://nvs.nanoos.org/TsunamiEvac
https://pubs.oregon.gov/dogami/tim/Linc01_LincolnCityNorth_Plate1_print.pdf
https://pubs.oregon.gov/dogami/tim/Linc01_LincolnCityNorth_Plate2_print.pdf

---. 2013. Tsunami inundation maps for Lincoln City South, Lincoln County, Oregon [cartographic material]. Tsunami Inundation Map. no.TIM-Linc-02. , Oregon. Dept. of Geology and Mineral Industries (Portland, Or.) 2 maps : col. ; 84 x 133 cm., on sheet 86 x 135 cm. Plate 1. Local source (Cascadia Subduction Zone) tsunami inundation map Lincoln City South, Oregon -- Plate 2. Distance source (Alaska-Aleutian Subduction Zone) tsunami inundation map Lincoln City South, Oregon. May be viewed online at the NANOOS website (click on DOGAMI to access). https://nvs.nanoos.org/TsunamiEvac
https://nvs.nanoos.org/TsunamiEvac


Peterson, Curt D. 2013. Impacts of Predicted Global Sea-Level Rise on Oregon Beaches and Tidelands. Geology Faculty Publications and Presentations. Paper 45, 19 p. Portland State University. Dept. of Geology, This report consists of two sections, one on the impact of climate change and its associated sea level rise on Oregon’s beaches, and another on the impact on Oregon tidelands and estuaries. “Two background sections on the expected impacts from predicted sea level rise on the Oregon coast were prepared for Oregon Shores Conservation Coalition’s ‘Coastal Climate Change Adaptation Project . . . . The two sections are developed for broad distribution to coastal residents, community leaders, government agencies, and other interested parties. The two non-technical sections use geometric or gradient change approaches to illustrate potential impacts of shoreline retreat and tideland submergence under conditions of accelerated global sea level rise, as predicted for the next century or two.” (from the Introduction) https://pdxscholar.library.pdx.edu/geology_fac/45/

Priest, George R. , Robert C. Witter, Y. Joseph Zhang, Kelin Wang, Chris Goldfinger, Laura L.


Coastal & Estuarine Research Federation. 2014. "CERF-Lit." Coastal & Estuarine Research Federation. "CERF-Lit is the web-based Coastal and Estuarine Science Reference Series. The site provides reference lists of summary papers, classic papers, and contributions prepared by experts to help direct students, teachers and new researchers to the quintessential literature on important estuarine and coastal ocean science topics." Information about estuaries around the world, with some emphasis on U.S. Atlantic Coast estuaries. Topica range from algae to hypoxia to zooplankton. Lots of good links. https://www.cerf.science/cerf-lit

Flitcroft, Rebecca L., K. Burnett, J. Snyder, G. Reeves, and L. Ganio. 2014. "Riverscape patterns
among years of juvenile coho salmon in midcoastal Oregon: implications for conservation." *Transactions of the American Fisheries Society.* 143, no. 1: p.26-38. The authors studied juvenile coho salmon distribution in streams in the Alsea and Siletz watersheds in 1998, 1999, 2001 and 2002. “We focused on three specific research questions: (1) are there differences in the extent of juvenile Coho Salmon distribution among 4 years within river systems in midcoastal Oregon; (2) are juvenile Coho Salmon patterns of interannual distribution throughout stream networks centered on consistently used sections of stream, or core areas; and (3) does the intrinsic potential of a stream to support Coho Salmon inform interannual patterns of juvenile distribution.” (p.27) The authors found core areas, to which fish returned year after year, and areas into which fish would expand under certain conditions. This knowledge has important implications for managing stream health. [https://ir.library.oregonstate.edu/concern/articles/kp78gj375](https://ir.library.oregonstate.edu/concern/articles/kp78gj375)

Greathouse, Effie A., Jana E. Compton, and John Van Sickle. 2014. "Linking landscape characteristics and high stream nitrogen in the Oregon Coast Range: red alder complicates use of nutrient criteria." *Journal of the American Water Resources Association.* 50 no. 6 p.1383-1400. Red alder fixes nitrogen, and in the fall when it sheds its leaves, it sheds nitrogen into coastal streams. The result is that many coastal streams have at certain times of the year more nitrogen than is unacceptably high, according to conventional environmental standards. Current nutrient models for Oregon coast streams fail to adequately account for this natural process. “Our results provide evidence, at a regional scale, that background sources and processes cause many Coast Range streams to exceed proposed nutrient criteria, and that the prevalence of a single tree species (N-fixing red alder) exerts a dominant control over stream N concentrations across this region.” (from the Abstract) [https://ir.library.oregonstate.edu/concern/articles/1n79h6293](https://ir.library.oregonstate.edu/concern/articles/1n79h6293)

Heady, Walter N., Kevin O’Connor, Jennifer Kassakian, Kate Doiron, Charles Endris, Daniel Hudgens, Ross P. Clark, Jena Carter, and Mary G. Gleason. 2014. An Inventory and Classification of U.S. West Coast Estuaries. 81 p. The Nature Conservancy (Arlington, Va.) “To support restoration, enhancement and conservation of the ecosystem values of U.S. West Coast estuaries, we need first to inventory and classify those estuarine systems using a common scheme. Previous efforts have noted this need and responded with inventories, assessments and classifications of estuaries along the West Coast, but generally only for a subset, and often focused on larger estuaries.” This document provides classification data for 691 estuaries in Washington, Oregon and California. [https://www.scienceforconservation.org/assets/downloads/West-Coast-Estuary-Inventory-2014.pdf](https://www.scienceforconservation.org/assets/downloads/West-Coast-Estuary-Inventory-2014.pdf)

Hughes, Brent B., Matthew D. Levey, Jennifer A. Brown, Monique C. Fountain, Aaron B. Carlisle, Steven Y. Litvin, Correigh M. Greene, Walter N. Heady, and Mary G. Gleason. 2014. Nursery Functions of U.S. West Coast Estuaries: The State of Knowledge for Juveniles of Focal Invertebrate and Fish Species. 168 p. The Nature Conservancy (Arlington, Va.) The authors inventoried 303 West Coast estuaries and categorized each by class (lagoonal, riverine, embayment and sound) and subclass (estuarine coastal subtidal, tidal
They examined 15 different species that used estuaries and noted what is known and not known about their life cycles and use of estuaries. “Together with the estuary inventory and the geodatabase, this report represents the first stage in a larger effort to better understand the nursery functions of West Coast estuaries for fish and invertebrates.” (p.3)

Leibowitz, S. G, R. L. Comeleo, P. L. Wigington Jr., C. P. Weaver, P. E. Morefield, E Sproles, A,, and J. L. Ebersole. 2014. "Hydrologic landscape classification evaluates streamflow vulnerability to climate change in Oregon, USA." *Hydrology and Earth System Sciences*. 18,p.3367-3392. 10.5194/hess-18-3367-2014 In this paper, the authors examined three river basins in areas of Oregon with different rainfall/snowfall regimes. They used a hydrologic landscape model to evaluate the effects of climate change on the basins. The model used five factors: climate, seasonality, aquifer permeability, terrain, and soil permeability. “We evaluate changes when the 1971–2000 HL climate indices are recalculated using 2041–2070 simulation results from the ECHAM (European Centre HAMburg) and PCM (Parallel Climate Model) climate models with the A2, A1b, and B1 emission scenarios. . . At the basin scale, simulated changes for the Siletz Basin, in Oregon’s Coast Range, include a small switch from very wet to wet climate, with no change in seasonality. However, there is a modest increase in fall and winter water due to increased precipitation.” (from the Abstract) Note: this does not mean that fish and wildlife dependent upon the stream would be unaffected.

Lutz, Andrew P. 2014. "Recovery of Oregon Coast Coho Salmon (*Onchorhynchus kitsutch*) through Restoration of Freshwater Habitats." M.S., Dept. of Environmental Management, University of San Francisco. Millions of dollars have been spent in enhancing habitats to aid recovering populations of salmon on the Oregon Coast. How well have enhancement projects done? Does there seem to be a relationship between restoration projects and salmon recovery? The author addresses these questions. “My analysis showed that from 1994 to 2012 only 3 of the 21 independent populations from the ESU, the Alsea, Salmon, and Tillamook had statistically significant recovery. To evaluate the relationship between habitat restoration and coho recovery, I ran a correlation between the rate of recovery and the amount spent on restoration for each ESU population. The rate of recovery increased as total dollars spent on restoration increased, but it was a very weak relationship...” (from the Abstract) The author concludes by suggesting ways to improve restoration efforts.

O’Malley, Kathleen, Curtis Roegner, Oregon. Wave Energy Trust, and Oregon. Dungeness Crab Commission. 2014. Evaluating the Population Genetic Structure of Dungeness Crab (*Cancer magister*) off the Oregon Coast. 20 p. Oregon Wave Energy Trust, (Portland, Or.) “The goal of this study was to evaluate the genetic diversity and population genetic structure of Dungeness crab off the Oregon coast and provide baseline data that could be
used to help inform decisions on marine spatial planning. From a conservation and management standpoint, it is critical to determine the population genetic structure and genetic diversity within subpopulations to ensure the long term viability of a species.” (p.4-5) There are clear and helpful explanations of the concepts and issues involved in this study. Nicely done.

https://ir.library.oregonstate.edu/concern/technical_reports/w0892g295

Oregon Department of Fish and Wildlife. 2014. Oregon Coast Coho Conservation Plan Annual Report. 7 p. [Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) In 2014, the amount of naturally-produced coho salmon significantly increased on the Oregon Coast. “Wild spawner abundance in 2014 was the highest for the OC coho salmon ESU since random surveys were implemented in 1990” (p.1). North Coast and Mid-Coast basins showed the best habitat quality, while the Umpqua Basin had the lowest habitat quality.

https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/economic_reports/OCCCP_Annual_Report-2014.pdf


Priest, George R., Yinglong Zhang, Robert C. Witter, Kelin Wang, Chris Goldfinger, and Laura L. Stimely. 2014. "Tsunami impact to Washington and northern Oregon from segment ruptures on the southern Cascadia subduction zone." Natural Hazards. 72, no. 2: p.849-870. 10.1007/s11069-014-1041-7 All who live on the West Coast of the United States should be aware of the possibility of a major earthquake occurring. But what if only a part of the subduction zone ruptures? This article examines a possible rupture in the southern half of the Cascadia Subduction Zone (south of Alsea Bay, Oregon). How quickly does tsunami wave height decline north of the southern rupture areas? How much time do communities north of the southern rupture areas have to evacuate before the first and the largest inundation occur? 3. How far north of the southern rupture areas will felt shaking likely trigger evacuation of a populace trained to evacuate for a local earthquake? Using a 10,000-year record of offshore turbidite deposits and a ~4,600-year record of tsunami deposits at Bradley Lake, the authors tackle these questions.


https://library.state.or.us/repository/2012/201210151135331/2013.pdf

Thompson, Neil F. 2014. "Rearing Density as a Driver of Adaptation to Captivity and Traits under
Selection by Domestication in Hatchery Reared Steelhead (Oncorhynchus mykiss)." Ph. D., Dept. of Integrative Biology, Oregon State University. Raising fish in captivity causes them to adapt to the hatchery setting. Indeed, the traits that help them succeed in the hatchery environment, often work against their ability to spawn successfully in the wild. This doctoral dissertation is a look at some of the environmental factors, particularly rearing density, that drive steelhead adaptations to hatcheries. This is a well written and engaging look at some of the problems around hatchery salmonids.

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/44558h224

Wild Salmon Center. 2014. Economic Implications of the Coastal Multi-Species Conservation and Management Plan. 94 p. Wild Salmon Center, (Portland, Or.) This is a good source of recent statistics on the economic contributions of commercial and recreational fisheries, as well as hatcheries. https://www.wildsalmoncenter.org/wp-content/uploads/2016/03/WSC-CMCMP-study-report-Ver-1.10-FINAL.pdf

Allan, Jonathan C., Peter Ruggiero, Nick Cohn, Gabriel Garcia, Fletcher E. O’Brien, Laura L. Stimely, and Jed T. Roberts. 2015. Coastal Flood Hazard Study, Lincoln County, Oregon. Open-File Report (Oregon. Department of Geology and Mineral Industries) no. O-15-06, 351 p. This is a technical document giving the factors and assumptions behind the flood hazard study. There are some colored maps and discussions of some sites, but it does not give the final maps. “The objective of the Lincoln County coastal flood hazard project is to develop a digital flood insurance rate map (DFIRM) and flood insurance study (FIS) report for Lincoln County, Oregon. . . DOGAMI has been contracted to perform detailed coastal flood hazard studies for the entire length of the Lincoln County shoreline of the Pacific Ocean....” (p.1) https://www.oregongeology.org/pubs/ofr/O-15-06_Lincoln.pdf

Crozier, Lisa, and U.S. National Marine Fisheries Service. Northwest Fisheries Science Center. Fish Ecology Division. 2015. Impacts of Climate Change on Salmon of the Pacific Northwest: A Review of the Scientific Literature Published in 2014 39 p. U.S. National Marine Fisheries Service. Northwest Fisheries Science Center. Fish Ecology Division, (Seattle, Wa.) This is a review on impacts of climate change on Pacific Northwest salmonids. 2014 was the warmest year on record, both on land and in the ocean. This paper is an excellent summary of the literature, the issues and educated projections of a warmer future.


Engelhart, Simon E., Matteo Vacchi, Benjamin P. Horton, Alan R. Nelson, and Robert E. Kopp. 2015. "A sea-level database for the Pacific coast of central North America." Quaternary Science Reviews. 113,p.78-92. 10.1016/j.quascirev.2014.12.001 When the glaciers melted at the end of the last ice age, sea levels along the Pacific Coast of North America did not rise uniformly. Areas where the earth had been pressed down by the weight of glaciers saw relatively little sea level rise, as the land rebounded when the weight was removed. Sites further away from the great glaciers saw higher sea levels. In this paper,
the authors describe a database of sea levels and reference points for the last 16,000 years in our area. Appendices give reference points, descriptions, and referenced publications. Interestingly, Alsea Bay in Appendix 1 is spelled “Alsey Bay.”

Hiller, Tim L. 2015. Feasibility Assessment for the Reintroduction of Fishers in Western Oregon, USA. 86 p. U.S. Fish and Wildlife Service (Portland, Or.) This report examines the history of native fisher populations in Oregon and conditions necessary to reintroduce them to western Oregon. Currently, there are two resident populations, one in the Kalmiopsis, and another reintroduced population in the southern Oregon Cascades. This report indicates that there is habitat in the northern Coast Range and in the northern Cascades that could provide good sites for reintroduction. https://tinyurl.com/ynsts4vw

McCormick, J. L., and M. R. Falcy. 2015. "Evaluation of non-traditional modelling techniques for forecasting salmon returns." Fisheries Management and Ecology. 22 no. 4: p.269–348. 10.1111/fme.12122 Natural resource managers need to be able to forecast salmon runs, but this can be difficult without enough data to compensate for “potential explanatory variables.” This paper compares three traditional modeling techniques with five non-traditional methods. The authors used data from 1997 to 2012 for 18 coho salmon and seven fall-run Chinook salmon populations to predict run sizes. Positive aspects and potential dangers of non-traditional modeling techniques are discussed.

Oregon Department of Fish and Wildlife. 2015. Oregon Coast Coho Conservation Plan Annual Report. 7 p. [Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) “Abnormally warm ocean conditions persisting since 2014 contributed to a significant decrease in OC coho ESU abundance, resulting in the lowest level recorded since 1999. . . Wild OC coho spawner abundance decreased between 2014 and 2015, from the highest to the eighth lowest observed during 26 years of monitoring” (p.1). https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/economic_reports/OCCCP%20Annual%20Report-2015.pdf

Roon, Sean R., Julie D. Alexander, Kym C. Jacobson, and Jerri L. Bartholomew. 2015. "Effect of Nanophyetus salmincola and bacterial co-infection on mortality of juvenile Chinook salmon." Journal of Aquatic Animal Health. 27, no. 4: p.209-216. doi: 10.1080/08997659.2015.1094150 In the freshwater phase of their life cycle, young salmon can become infected with parasites and pathogens. The authors investigate whether juvenile salmon carrying a parasite, the salmon fever fluke Nanophyetus salmincola, are more likely to die when exposed to freshwater bacteria. While no synergistic effect was observed when infected fish were exposed to furunculosis bacteria, significant mortality occurred when the infected fish were exposed to columnaris bacteria. “Understanding how macro- and microparasite co-infections might affect disease in wild salmonids is critical, given that disease might contribute to declining populations, . . . and that these fish are commonly infected by multiple macro- or microparasites or both” (p.210). https://ir.library.oregonstate.edu/concern/articles/ms35tb194

Southein, Briana, Eric Brown, Mark Lewis, and Matt Weeber. 2015. Status of Oregon Stocks of


Weilhoefer, Christine L., Walter G. Nelson, and Patrick Clinton. 2015. "Tidal channel diatom assemblages reflect within wetland environmental conditions and land use at multiple scales." *Estuaries and Coasts* 38, no. 2: p.534-545. 10.1007/s12237-014-9826-1 The authors examined diatom assemblages collected from surface sediment in tidal channels of 47 tidal wetlands on the Oregon coast during the summer of 2007. They found some interesting and enlightening differences between the different groups of diatom species collected. “The tidal channel benthic diatom community was most strongly correlated with variables related to human disturbance at all scales surrounding the wetland and not with any tidal channel water quality parameter, including salinity. . . . The sensitivity of the tidal creek benthic diatom assemblage to both wetland and landscape level factors indicates that it might be a useful bioindicator of human disturbance to tidal wetland ecosystems.” (from the Abstract)

Wood, Nathan J., Jeanne Jones, Seth Spielman, and Matthew C. Schmidtlein. 2015. "Community clusters of tsunami vulnerability in the US Pacific Northwest." *Proceedings of the National Academy of Sciences of the United States of America.* 112, no. 17: p.5354-55359. “We present an analytical framework for understanding community-level vulnerability to tsunamis that integrates population exposure, demographic sensitivity, and evacuation potential. We identify three types of communities along the US Pacific Northwest coast that are directly threatened by tsunamis associated with a Cascadia subduction zone earthquake: (i) demographically diverse with low numbers of exposed people, (ii) high numbers of exposed populations but sufficient time to evacuate, and (iii) moderate numbers of exposed populations but insufficient time to evacuate.” (p.5354) The authors identified Seaside as the most vulnerable community on the Oregon Coast. https://www.pnas.org/doi/10.1073/pnas.1420309112

Bair, Russell. 2016. "Modeling Large Wood Impacts on Stream Hydrodynamics and Juvenile
Buffington, Kevin J., Bruce D. Dugger, Karen M. Thorne, and John Y. Takekawa. 2016. "Statistical correction of lidar-derived digital elevation models with multispectral airborne imagery in tidal marshes." Remote Sensing of Environment. 186, p.616-625. doi:10.1016/j.rse.2016.09.020. A changing climate means changing sea levels. Rising sea levels threaten coastal marshes. In order to better plan for this change, airborne light detection and ranging (lidar) is commonly used to determine a base measurement, the digital elevation model, for coastal marshes. Unfortunately, marsh vegetation can prevent this tool from accurately measuring marsh elevation. This is a technical article about correcting lidar measurements by adjusting for distortions caused by vegetation. The marsh at Millport Slough on Siletz Bay is among the marshes studied. Physical parameters of the marsh and dominant vegetation are given.

Falcy, Matthew R., Joshua L. McCormick, and Shelly A. Miller. 2016. "Proxies in practice: calibration and validation of multiple indices of animal abundance." Journal of Fish and Wildlife Management. 7, no. 1: p.117-128. doi: 10.3996/092015-JFWM-090 How do you find the size of a population when that population’s density varies over time, when precise sampling methods are too expensive, and when that population is concealed by water? This is the issue facing fisheries biologists. In this technical paper, the authors look at proxy methods for calculating abundance, and discuss methods for calibrating and validating proxies. “The calibration and validation of proxies is a pre-requisite for responsible ecological applications . . . and the techniques described here provide empirical measures with which to judge the usefulness of proxy information” (p.126.) Includes links to supplemental material. https://meridian.allenpress.com/jfwm/issue/7/1

Fullerton, Aimee Heather. 2016. "Conservation of Freshwater Thermal Habitats for Pacific Salmon in a Changing Climate." Ph. D., School of Environmental and Forest Sciences, University of Washington. Pacific salmonids spend part of their life cycles in freshwater streams. They evolved to need cool water to grow and survive. In this dissertation, the author uses remote sensing of water temperatures in dozens of streams in the Pacific Northwest to characterize the thermal profiles of the streams. Cool-water patches are noted as essential refugia for salmonids. “My research focused on filling key gaps in our understanding about spatial patterns in water temperature and potential fish response to altered thermal regimes associated with climate change.”
https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/36695/Fullerton_washington_0250E_15733.pdf

Janousek, Christopher N., Kevin J. Buffington, Karen M. Thorne, Glenn R. Guntenspergen, John
Y. Takekawa, and Bruce D. Dugger. 2016. "Potential effects of sea-level rise on plant productivity: species-specific responses in northeast Pacific tidal marshes." *Marine Ecology Progress Series.* 548, p.111-125. doi: 10.3354/meps11683 This paper addresses the question of the effect of rising sea levels on marsh vegetation. The study contrasts two marshes, one at Petaluma, California, the other at Millport Slough in the Siletz River estuary. PVC tubes arranged in a conventional “marsh organ” design at six elevations in Millport Slough and 7 elevations at Petaluma Marsh. The authors saw species-specific responses to rising sea levels, with high salt marsh species most sensitive and vulnerable. We can expect to see changes in marsh composition, with more flooding-tolerant species predominating. This is an Open-Access publication. [https://www.int-res.com/articles/meps_oa/m548p111.pdf](https://www.int-res.com/articles/meps_oa/m548p111.pdf)

Lee, Kessina. 2016. "Stranding Mortality Patterns in California Sea Lions and Steller Sea Lions in Oregon and Southern Washington, 2006 to 2014." M.S., College of Liberal Arts and Sciences. Department of Biology, Portland State University. This thesis examines marine mammals found dead on the Oregon Coast from 2006-2014: where they were found, when they were found, and how did they die. The author correlates animal deaths with climate conditions and human activities. Human beings were shown to cause far more deaths than disease or other causes. “Spatial analysis shows that stranding hot spots occur near major coastal estuaries: the mouth of the Columbia River, Siletz Bay, Yaquina Bay, and Coos Bay (p.60).” [https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=4011&context=open_access_etds](https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=4011&context=open_access_etds)

Oregon Department of Fish and Wildlife. 2016. Oregon Coast Coho Conservation Plan Annual Report. 7 p. [Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) “Following abnormally warm ocean temperatures that started in 2014 and encompassed a large portion of the Pacific West Coast, referred to as ‘the Blob”, and a strong El Niño pattern in 2015, poor marine survival for OC Coho Salmon resulted in 2016 having the third lowest wild spawner abundance estimate recorded for OC Coho Salmon since the peak in 2002” (p.1). [https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/economic_reports/OCCCP%20Annual%20Report-2016.pdf](https://www.dfw.state.or.us/fish/CRP/docs/coastal_coho/economic_reports/OCCCP%20Annual%20Report-2016.pdf)

Oregon Department of Fish and Wildlife. Shellfish and Estuarine Assessment of Coastal Oregon (SEACOR). 2016. "SEACOR Findings – Siletz Bay [web page]." Oregon. Department of Fish and Wildlife. This excellent guide to what clams are where in Siletz Bay is based on a 2015 survey. Maps based on aerial photographs show public access points on the bay, and the number of clams by species and by volume. Includes links to printable clamming maps. [https://www.dfw.state.or.us//mrp/shellfish/seacor/findings_siletz.asp](https://www.dfw.state.or.us//mrp/shellfish/seacor/findings_siletz.asp)

Steelquist, Robert. 2016. The Northwest Coastal Explorer: Your Guide to the Places, Plants, and Animals of the Pacific Coast. 283 p. Portland, Or.: Timber Pr. Here’s a guidebook with a difference. Although suggested Pacific Northwest trips are included, this book is less about destinations and much more about the journey and what will be found along the way. Packed with beautiful photographs and page-long descriptions of the plants and animals of the Northwest Coast, this book will inform and delight. For succinct descriptions of the life of the region, from the sea palm to the brown pelican, from the mole crab to the Roosevelt elk, this is the place to go for succinct species descriptions at a popular level.

U.S. National Marine Fisheries Service. 2016. Recovery Plan for Oregon Coast Coho Salmon Evolutionarily Significant Unit. National Marine Fisheries Service, West Coast Region, Portland, Oregon 230 p. (Portland, Or.) This document is NOAA’s plan for threatened coho salmon on the Oregon coast. The goal is clear. “NMFS estimates that if the strategies and actions identified in this Plan are implemented in a timely manner, and marine survival is not too low, we will be able to delist Oregon Coast coho salmon within the next 10 years.” (p.S-10) Current limiting factors include poor water quality in streams and estuaries, lack of stream complexity (loss of wetlands, side channels and floodplains), loss of vegetation, and invasive species. The plan involves continuing work on habitat improvement, monitoring, and a new policy encouraging public-private partnerships in individual watersheds (Chapter 8).

Wise, Daniel R., Jim O’Connor, and U.S. Geological Survey. 2016. A Spatially Explicit Suspended-Sediment Load Model for Western Oregon. U.S. Geological Survey Scientific Investigations Report no.2016-5079, 25 p. https://doi.org/10.3133/sir20165079 In this report, a mathematical model is used to estimate suspended sediment loads for watersheds in western Oregon and northern California. Contemporary data is contrasted with historical data. There is good coverage of historical sediment data. Interestingly, the model shows less erosion today than in the recent past. Possible biases in the model as well as changes in forest management practices may explain this and are discussed. The authors recommend “intensive local analyses” in watersheds to overcome limitations of this study. A companion Excel file gives calibrated sediment data for Federal, California and Oregon stations. Interesting maps. https://pubs.er.usgs.gov/publication/sir20165079

and longer-lasting droughts. This report reviews the record-setting 2015 drought in Oregon. Subjects covered include a review of literature on drought monitoring and reporting, a description of the 2015 drought, a summary of the drought’s effects, and conclusions and recommendations. “Coastal hatcheries were predominantly impacted, with Rock Creek Hatchery being the most severely affected. . . Shallow and warm waters from the North Umpqua River fed Rock Creek, which led to disease and the loss of nearly all of the hatchery’s summer steelhead” (p.36).

Brophy, Laura S., and Michael J. Ewald. 2017. Modeling Sea Level Rise Impacts to Oregon’s Tidal Wetlands: Siletz Bay Estuary [cartographic material]. Institute for Applied Ecology, Corvallis, Or. This map is associated with the report, “Modeling Sea Level Rise Impacts to Oregon's Tidal Wetlands: Maps and Prioritization Tools to Help Plan for Habitat Conservation into the Future.” It depicts a possible sea-level rise scenario based on the West Coast Sea Level Rise Study (National Research Council, 2012). This map shows a possible rise in sea level of 4.7 feet by the year 2100. It shows what could happen to tidal wetlands: where they could expand, where they could be inundated. Prepared for: MidCoast Watersheds Council, Newport, Oregon.” “With assistance from: Fran Recht, Pacific States Marine Fisheries Commission.”
https://ir.library.oregonstate.edu/concern/technical_reports/bk128h061

---. 2017. Siletz Bay Estuary Current vs. 4.7ft SLR Map [cartographic material]. Institute for Applied Ecology Corvallis, Or. This map is associated with the report, “Modeling Sea Level Rise Impacts to Oregon's Tidal Wetlands: Maps and Prioritization Tools to Help Plan for Habitat Conservation into the Future.” It depicts the upper end of a possible sea-level rise scenario based on the West Coast Sea Level Rise Study (National Research Council, 2012) contrasted with the current extent of tidal wetlands in the Siletz River estuary. Areas projected to become open water or tidal mudflat are shown, as well as areas projected to become new tidal wetlands. “With assistance from: Fran Recht, Pacific States Marine Fisheries Commission.” “Prepared for: MidCoast Watersheds Council, Newport, Oregon.”
https://ir.library.oregonstate.edu/concern/technical_reports/p26771234

---. 2017. Tidal Wetland Landward Migration Zones (LMZs) for 4.7 Ft Sea Level Rise for the Siletz Bay Estuary [cartographic material]. Institute for Applied Ecology, Corvallis, Or. This map is associated with the report, “Modeling Sea Level Rise Impacts to Oregon's Tidal Wetlands: Maps and Prioritization Tools to Help Plan for Habitat Conservation into the Future.” It depicts the upper end of a possible sea-level rise scenario based on the West Coast Sea Level Rise Study (National Research Council, 2012). This map shows a possible rise in sea level of 4.7 feet by the year 2100. It depicts possible migrations of wetland plants from inundated areas to new wetlands based on factors such as land use, zoning and built structures. “Prepared for: MidCoast Watersheds Council, Newport, Oregon.” “With assistance from: Fran Recht, Pacific States Marine Fisheries Commission.”
https://ir.library.oregonstate.edu/concern/technical_reports/bk128h079
Buffington, Kevin J. 2017. "Improving Projections of Tidal Marsh Persistence under Climate Change with Remote Sensing and Site-Specific Data." Ph. D., Dept. of Fisheries and Wildlife, Wildlife Science, Oregon State University. Climate change poses real threats to tidal marshes. In this doctoral dissertation, 17 different West Coast marshes were examined. “Marsh elevation response models can be calibrated with site-specific data to determine the vulnerability of a marsh to sea-level rise and help guide management decisions. Elevation models are sensitive to initial elevation, the rate of accretion, and aboveground biomass. The overarching goal of this dissertation was to develop techniques to improve these important model inputs and evaluate the range of spatial and temporal variation.” (from the Abstract) Techniques for improving working with LIDAR (light detection and ranging) and the heavy vegetation of the marshes are discussed, as is the phenology of plant biomass in Pacific Coast marshes. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/08612r09p

Burke, William D., and Darren L. Ficklin. 2017. "Future projections of streamflow magnitude and timing differ across coastal watersheds of the western United States." International Journal of Climatology. 37,p.4493-4508. 10.1002/joc.5099 Climate change already affects the timing and amount of streamflow around the world. In this study, the authors used General Circulation Models (GCMs) coupled with the Soil and Water Assessment Tool (SWAT) to examine the futures of five West Coast watersheds. The Siletz River Basin was the watershed selected for Oregon. Water temperatures were projected to rise for all basins. The Siletz was projected to have heavier winter streamflow, increasing the risk of flooding and more sedimentation.

Davis, Chante D., John Carlos Garza, and Michael A. Banks. 2017. "Identification of multiple genetically distinct populations of Chinook salmon (Oncorhynchus tshawytscha) in a small coastal watershed." Environmental Biology of Fishes. 100,p.923-933. doi:10.1007/s10641-017-0616-z While local residents are aware of the spring run of Chinook salmon on the Siletz River, this run is not extensively noted in the literature. In this article, researchers examined Chinook salmon from the Siletz River Basin. Using three different kinds of genetic markers, they identified two distinctly different populations, “early returning fish that spawn above a waterfall, a spring-run population, and later returning fish spawning below the waterfall, a fall-run population” (from the Abstract). The authors point out that even small basins like the Siletz can host different fish populations, and more attention should be paid to smaller watersheds in order to improve conservation. This is an open-access publication. https://link.springer.com/content/pdf/10.1007%2Fs10641-017-0616-z.pdf

Fuller, Emma C., Jameal F. Sambouri, Joshua S. Stoll, Simon A. Levin, and James R. Watson. 2017. "Characterizing fisheries connectivity in marine social-ecological systems." ICES Journal of Marine Science. 74, no. 8: p.2087-2096. doi:10.1093/icesjms/fsx128 How do fishers adapt to changes in ecosystems and/or fisheries management? They can change the area where they fish. They can find other income sources or leave fishing. Or they can change the areas into which they put their energy by diversifying and working
multiple fisheries. West Coast fishers tend to be resilient generalists, able to switch from one fishery to another as the need arises, and cope with different management regimes. Interlinked networks of potential fisheries constitute “fisheries connectivity,” and are the subject of this article. The authors analyze networks of multiple fisheries in the California Current Large Marine Ecosystem in 2009-2010. They calculate the relative importance of particular fisheries, and model fisheries networks and vulnerability to change in different communities. On the West Coast, either the Dungeness crab or the spiny lobster fisheries were the most important. The authors point out that species unconnected by food webs may be linked due to fisheries connectivity, and that understanding these relationships will be an important part of future resource management.

Hansen, Gayle I., Takeaki Hanyuda, and Hiroshi Kawai. 2017. Benthic Marine Algae on Japanese Tsunami Marine Debris – a Morphological Documentation of the Species. Part 1 – The Tsunami Event, the Project Overview, and the Red Algae. 50 p. http://dx.doi.org/10.5399/osu/1110 Oregon State University Libraries. The Scholars Archive, (Corvallis, Or.) On March 11, 2011, the great Tōhoku earthquake shook Japan. The subsequent tsunami swept approximately 5 million tons of debris into the Pacific Ocean, some of which made its way across the Pacific and washed up on the North American West Coast. The debris carried hundreds of species, a surprising number of which survived the trip. In order to understand the potential for biological invasions, it was necessary to document these species. This report describes sampling and genetic sequencing of marine algae found on 42 items that washed up between June, 2012 and July, 2016. It is in three parts. Part 1 gives an overview of the project and describes the red algae, Part 2 covers the brown algae and Part 3 gives the green algae and cyanobacteria. Beautifully illustrated with photographs, microphotographs and drawings. https://ir.library.oregonstate.edu/concern/articles/cr56n576w

---. 2017. Benthic Marine Algae on Japanese Tsunami Marine Debris – a Morphological Documentation of the Species. Part 2 – The Brown Algae. 61 p. http://dx.doi.org/10.5399/osu/1111 Oregon State University Libraries. The Scholars Archive, (Corvallis, Or.) On March 11, 2011, the great Tōhoku earthquake shook Japan. The subsequent tsunami swept approximately 5 million tons of debris into the Pacific Ocean, some of which made its way across the Pacific and washed up on the North American West Coast. The debris carried hundreds of species, a surprising number of which survived the trip. In order to understand the potential for biological invasions, it was necessary to document these species. This report describes sampling and genetic sequencing of marine algae found on 42 items that washed up between June, 2012 and July, 2016. It is in three parts. Part 1 gives an overview of the project and describes the red algae, Part 2 covers the brown algae and Part 3 gives the green algae and cyanobacteria. Beautifully illustrated with photographs, microphotographs and drawings. https://ir.library.oregonstate.edu/concern/articles/8049g9979

On March 11, 2011, the great Tōhoku earthquake shook Japan. The subsequent tsunami swept approximately 5 million tons of debris into the Pacific Ocean, some of which made its way across the Pacific and washed up on the North American West Coast. The debris carried hundreds of species, a surprising number of which survived the trip. In order to understand the potential for biological invasions, it was necessary to document these species. This report describes sampling and genetic sequencing of marine algae found on 42 items that washed up between June, 2012 and July, 2016. It is in three parts. Part 1 gives an overview of the project and describes the red algae, Part 2 covers the brown algae and Part 3 gives the green algae and cyanobacteria. Beautifully illustrated with photographs, microphotographs and drawings.

Hiebert, Terra C., Barbara Butler, Alan L. Shanks, and Paul Rudy. 2017. Oregon Estuarine Invertebrates: Rudy's Illustrated Guide to Common Species. 3rd ed. ed. Vol. 1-3. 865 p. [Charleston, Oregon] University of Oregon Libraries, Oregon Institute of Marine Biology. "Original edition by Paul and Lynn Rudy." volume 1. Cnidaria, Nemertea, Annelida, Sipuncula --, volume 2. Arthropoda --, volume 3. Mollusca, Phoronida, Echinodermata, Chordata, appendices. Advances in genetics have revolutionized the classification of aquatic invertebrates. Many animals have been given new names that more accurately reflect their relationships with other species. For this reason, it was necessary to create a new edition of Paul and Lynn Rudy’s classic “Oregon Estuarine Invertebrates.” This third edition is a vast, three-volume expansion of the original work. Rudy’s original line drawings have been retained. There is a new section on taxonomy, and most descriptive sections have been expanded. The bibliography section has been brought up-to-date with contemporary references. The invaluable “Possible Misidentifications” section has been expanded. A few species not yet updated will follow in subsequent editions. This magnum opus is available on the internet and should be referenced by anyone wanting to learn more about these familiar and fascinating animals.

Hoelting, Kristin, and Nina Burkardt. 2017. Human Dimensions of Climate Change in Coastal Oregon. OCS Study BOEM no. 2017-052 216 p. U. S. Dept. of the Interior. Bureau of Ocean Energy Management, (Washington, D. C.) An attractive climate relative to the rest of the State and nation draws more people to the Oregon Coast. Longer, drier summers bring more tourists, more forest fires and less available freshwater. Heavier winter rains bring more flooding and erosion events. Higher water temperatures cause the ranges of animals (terrestrial and aquatic) to change, increase toxic algae blooms, kill salmon and stress Dungeness crabs. Increasing ocean acidity stresses shellfish. More intense winter storms and higher sea levels threaten infrastructure. These are some of the consequences of climate change outlined in this excellent report. One of the more valuable aspects of this comprehensive look at climate change in our area is extensive quotations from local residents. Good information on the Coos Bay and Newport areas.
This report is highly recommended.  


10.1007/s10021-017-0111-6 Tidal wetlands efficiently store a significant amount of the world’s carbon. Rising sea levels will change this process. This article investigates the nature of carbon storage in wetlands as sea levels rise. The authors conducted inundation experiments and studied vegetation variation in Pacific Coast marshes. “Our data suggest that elevation gradients and vegetation structure in tidal marshes both affect rates of litter decay, potentially leading to complex spatial patterns in sediment carbon dynamics. Climate change may thus have direct effects on rates of decomposition through increased inundation from sea-level rise and indirect effects through changing plant community dynamics” (from the Abstract). There is a dataset associated with this article, "Decomposition of plant litter in Pacific coast tidal marshes, 2014-2015." It may be found at: [http://doi.org/10.5066/F70P0X6C](http://doi.org/10.5066/F70P0X6C).


[Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) “Still recovering from poor ocean conditions that created adverse effects on the OC Coho Salmon prey sources, survival, and fisheries, OC Coho spawner abundance estimates for the ESU decreased from 2016 estimates, resulting in the second lowest wild OC Coho Salmon spawner abundance estimate recorded since 1999” (p.1)  


Before 2017, this publication was called, Status of Oregon stocks of coho salmon.  


[http://dx.doi.org/10.1016/j.ocecoaman.2017.02.010](http://dx.doi.org/10.1016/j.ocecoaman.2017.02.010) This article explores concerns relating to climate change of coastal resource managers at six different National Wildlife Refuges in estuaries on the U.S. West Coast. The authors conducted six workshops in 2014 in order to evaluate what managers understood about climate change, where they got information, how they used information, and how prepared they were to incorporate their understanding of climate change into their planning process. “We found that most
resource managers understood the types of climate change impacts likely to occur in their estuaries, but often lacked the scientific information to make decisions and plan effectively” (from the Abstract). In general, more urban estuaries had more resources and felt better prepared to address the effects of climate change than rural estuaries.

Bartleson, Bert. 2018. "Manifest destiny – clam style." *The Dredgings (Pacific Northwest Shell Club)*. 58 no. 4: p.5. This article summarizes the history of the spread of the introduced purple varnish clam in the Pacific Northwest. [https://www.bily.com/pnWSC/web-content/Articles/Manifest-Destiny-Clam-Style.pdf](https://www.bily.com/pnWSC/web-content/Articles/Manifest-Destiny-Clam-Style.pdf)

Brickley, Alan K., Steven R. Schell, and Edward J. Sullivan. 2018. "Climate change and Oregon law: What is to be done?" *Journal of Environmental Law & Litigation*. 33, no. [12] p.235-323. The legal system often seems to change more slowly than the social and environmental milieu in which it functions. It is encouraging to find good minds looking at the problems caused by climate change and their repercussions on the legal system. In this article, the authors offer some practical advice Oregonians can use to adjust their laws to climate change. “We examine two aspects of that response. The first concerns planning and regulation of land, and the second concerns the effects of climate change on property law. We suggest that traditional property law doctrines, such as reliction, avulsion, property boundaries, and public easements should be reexamined in the light of this crisis” (p.239). If we are to adapt to climate change, our institutions must adapt, and forward-looking publications like this will help. [https://scholarsbank.uoregon.edu/xmlui/handle/1794/23295](https://scholarsbank.uoregon.edu/xmlui/handle/1794/23295)

Carlton, James T., John W. Chapman, Jonathan B. Geller, Jessica A. Miller, Gregory M. Ruiz, Deborah A. Carlton, Megan I. McCuller, Nancy C. Treneman, Brian P. Steves, Ralph A. Breitenstein, Russell Lewis, David Bilderback, Diane Bilderback, Takuma Haga, and Leslie H. Harris. 2018. "Ecological and biological studies of ocean rafting: Japanese tsunami marine debris in North America and the Hawaiian Islands." *Aquatic Invasions*. 13, no. 1: p.1-9. [https://doi.org/10.3391/ai.2018.13.1.01](https://doi.org/10.3391/ai.2018.13.1.01) “This is one of the papers from the special issue of Aquatic Invasions on ‘Transoceanic Dispersal of Marine Life from Japan to North America and the Hawaiian Islands as a Result of the Japanese Earthquake and Tsunami of 2011.’” (Co-Editors’ Note). This article is an introduction to the special issue of Aquatic Invasions. It summarizes the largest examples of tsunami debris found on the American Pacific coast and recounts the discovery of many new Japanese species identified as a result of research. Includes color photographs. This is an open-access article. [http://www.aquaticinvasions.net/2018/Al_2018_JTMD_Carlton_etal.pdf](http://www.aquaticinvasions.net/2018/Al_2018_JTMD_Carlton_etal.pdf)

Choudhury, Anindo, and Steven A. Nadler. 2018. "Phylogenetic relationships of spiruromorph nematodes (Spirurina: Spiruromorpha) in North American freshwater fishes." *Journal of Parasitology*. 104, no. 5: p.496-504. [https://doi.org/10.1645/17-195](https://doi.org/10.1645/17-195) Advances in DNA sequencing and genetics have revolutionized biology, showing unsuspected relationships between species and causing many species to be re-named. This paper describes DNA data from nematodes that are parasites of North American freshwater fish to explore
their phylogenetic relationships.

Falcy, Matthew R., and Erik Suring. 2018. "Detecting the effects of management regime shifts in dynamic environments using multi-population state-space models." *Biological Conservation*. 221, p.34-43. [https://doi.org/10.1016/j.biocon.2018.02.026](https://doi.org/10.1016/j.biocon.2018.02.026) Oregon populations of wild coho salmon were in decline until they were listed by the Federal Government as threatened populations in 1998. Subsequent efforts to restore coho included reducing hatchery production, restoring habitats and cutting allowable harvests. At the same time, ocean conditions improved, favoring adult salmon survival. In this paper, the authors’ objective “was to assess change in the freshwater production of juvenile production of juveniles (smolts) through time in order to determine if recent increases in adult abundance could be related to management affecting the freshwater juvenile production” (from the Abstract). Interestingly, the authors did not find any improvement in the survival of juvenile fish per spawning salmon. Instead, they attribute the rebound in coho population to improved ocean conditions. Various aspects of this complex fishery management issue are discussed.

Fullerton, A. H., C. E. Torgersen, J. J. Lawler, E. A. Steel, J. L. Ebersole, and S. Y. Lee. 2018. "Longitudinal thermal heterogeneity in rivers and refugia for coldwater species: effects of scale and climate change." *Aquatic Sciences*. 80, no. 1: Article 3, 15 p. [https://doi.org/10.1007/s00027-017-0557-9](https://doi.org/10.1007/s00027-017-0557-9) Cool patches in rivers serve as refuges for cold-water species such as trout and salmon. What happens to cool patches in a warming climate? In this article studying multiple streams across the Pacific Northwest, the authors find that small cool patches may disappear, creating one long warm patch, which could be a barrier to migration. Large cool patches could be broken into smaller patches. In the case of the Siletz River, cool patches tended to move further upstream. “Our model predicted little change in future thermal heterogeneity among rivers, but within-river patterns sometimes changed markedly compared to contemporary patterns” (from the Abstract).

Goddard, Amanda L. 2018. "Effects of Secondary Salinization on Three Coastal Breeding Amphibians in Oregon: *Taricha granulosa*, *Hyliola regilla*, and *Rana aurora*." M.S., Environmental Sciences Program, Oregon State University. Amphibian populations around the world are stressed, and many species show population declines. One stressor of amphibians is secondary salinization. Salts may intrude on freshwater through pollution, road salting, or rising sea levels. On the Oregon Coast, sea level rise is the greatest threat to native amphibians. In this Master’s thesis, the author tests the salt tolerance of three native species of amphibians through laboratory work and field studies. Color photographs, color maps and aerial photographs. “These results suggest that all study species may experience population declines in the future associated with secondary salinization” (from the Abstract).

[https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/p8418t28t](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/p8418t28t)

Hemstrong, William, Stan van de Wetering, and Michael A. Banks. 2018. "Fish ladder
installation across a historical barrier asymmetrically increased conspecific introgressive hybridization between wild winter and summer run steelhead salmon in the Siletz River, Oregon." Canadian Journal of Fisheries and Aquatic Sciences. 75, no. 9: p.1383-1392. https://doi.org/10.1139/cjfas-2016-0411. For eons, a waterfall on the Siletz River effectively separated the summer and winter steelhead runs, allowing each group of steelhead trout to evolve for maximum fitness in different environmental conditions. Then, in the early 1950s a fish ladder was constructed, which allowed for the two groups to hybridize. The ladder was maintained until 1994. The resulting progeny would be more genetically diverse, but might not be the most fit to succeed in their environment. This article examines the extent of hybridization in the summer and winter steelhead runs on the Siletz, as well as their interactions with hatchery populations. “These trends suggest that the risks of outbreeding and inbreeding depression need to be carefully balanced to successfully manage this and other similar populations” (p.1384).

Kemp, Andrew C., Niamh Cahill, Simon E. Engelhart, Andrea D. Hawkes, and Kelin Wang. 2018. "Revising estimates of spatially variable subsidence during the A.D. 1700 Cascadia Earthquake using a Bayesian foraminiferal transfer function " Bulletin of the Seismological Society of America 108 no. 2: p.654-673. https://doi.org/10.1785/0120170269. This article is about subsidence following the 1700 C.E. earthquake on the western coast of the United States. “We developed four transfer functions of increasing complexity to explore how and why the composition of the modern dataset and the choice of transfer-function type affects subsidence reconstructions. . . Our reconstructions support a heterogeneous rupture model for the A.D. 1700 earthquake, but indicate that slip estimates in patches from Alsea Bay to Netarts Bay (Oregon) and from Netarts Bay to Vancouver Island should be increased.” (from the Abstract)

Korte, David M. 2018. "Landslide Distribution and Susceptibility, Material Properties, and Soil Loss Estimates for the Drift Creek Watershed (Siletz River), Lincoln County, Oregon." Ph. D., Dept. of Geology, Kent State University. “The Drift Creek watershed is a source of drinking water for the Confederated Tribes of Siletz Indians (CTSI) and Lincoln City and is a reproductive habitat for endangered salmon and trout species. The watershed has been designated as ‘Impaired by Unknown Stressors’ by the MidCoast Watersheds Council Biological Monitoring Results Survey (2013). The Oregon Department of Geology and Mineral Industries (DOGAMI), the Oregon Department of Environmental Quality (DEQ), and the CTSI suspect that landslides may be causing water quality deterioration. This study maps landslide distribution and landslide susceptibility; determines physical properties of landslide-prone soil and rock; and estimates soil loss resulting from landslide-derived sediment within 30 m of Strahler 3rd order or higher streams . . . Five hundred and seventy landslides were mapped. . . “ (from the Abstract). The upper parts of the watershed were more susceptible to landslides. Unfortunately, this was the area undergoing logging, which exacerbated sedimentation problems. The author developed a landslide susceptibility model and a soil loss model. These tools should be useful for future researchers.
https://doi.org/10.1016/j.ympev.2018.04.041  
In this article, the evolution, distribution and taxonomy of the freshwater pearl mussel family, Margaritiferidae, is explored. Fossils as well as genetic data were used to model the diversification of this family. Maps, charts.

Nesbitt, Elizabeth A.  . 2018. "Cenozoic marine formations of Washington and Oregon: an annotated catalogue." *PaleoBios*. 35 p.1-20. Most of the geologic formations visible on the Oregon Coast date from the Cenozoic Era (66 million years ago – present). This article is a valuable guide to current knowledge and nomenclature about these formations. The author provides an annotated list of 70 fossiliferous formations. The history of name changes and time assignments for various formations is given. If you want to be sure you are using the currently accepted name for a formation, this is a great reference. This is an open-access article.  
https://escholarship.org/uc/item/04q5f9cr

Oregon Department of Fish and Wildlife. 2018. Oregon Coast Coho Conservation Plan Annual Report. 7 p.  [Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) “In 2018, OC Coho abundance was still recovering from poor ocean conditions brought on by the marine heatwave termed “the blob” that created adverse effects on OC Coho Salmon prey sources, survival, and fisheries. With a slight increase from 2017 estimates, OC Coho wild spawner abundance for the ESU was 58% of the previous 28-year average” (p.1).  
https://www.dfw.state.or.us/fish/crp/docs/coastal_coho/economic_reports/OCCCP%20Annual%20Report%202018.pdf

Souder, Jon A. , Londi M. Tomaro, Guillermo R. Giannico, Jeff R. Behan, and Oregon. Watershed Enhancement Board. 2018. Ecological Effects of Tide Gate Upgrade or Removal: A Literature Review and Knowledge Synthesis. 136 p.  Institute for Natural Resources, Oregon State University (Corvallis, Or.) “This document reports on findings, conclusions and recommendations derived from scientific literature and knowledge regarding the effectiveness of tide gate removal or upgrade in improving conditions for Oregon’s native migratory fish species, particularly salmonids, and other plant and animal species that utilize estuarine ecosystems. The project was commissioned by the Oregon Watershed Enhancement Board (OWEB) to foster better understanding of the effectiveness of their past investments in estuary habitat restoration involving tide gates, and to aid in targeting future investments. This will be especially important because many less-complicated projects (e.g. those on public land, smaller, single-action projects, those with consensus on land use) have already been completed, and restoration efforts are becoming
increasingly complex and resource intensive” (from the Executive Summary).


Strickland, Mat J., Kara Anlauf-Dunn, Kim Jones, and Charles Stein. 2018. Winter habitat condition of Oregon coast coho salmon populations, 2007-2014. Information Reports (Oregon. Fish Division.). no.2018-01, 30 p. ODFW Aquatic Inventories Project (Salem, Or.) Winter habitat turns out to be an important, indeed, a limiting factor in coho salmon survival. Nicely complex habitat offers refuges that enable juvenile coho to survive winter freshets as well as providing “a large freshwater survival buffer that may help coho persist though extended periods of poor ocean survival” (p.2). It is troubling to note that agricultural land, private forest land and urban lands had the greatest lack of complexity, highlighting the need for more education and other efforts in these areas.

Sullivan, Edward J. 2018. "Protecting Oregon’s estuaries." Ocean and Coastal Law Journal. 23, no. 2: p.373-429. This paper reviews the history of the development and implementation of the statewide land use planning Goal 16: Estuarine Resources. Although the plan did not live up to all of the hopes for it, the author points out that, “Not only does it staunch the loss of productive habitat, act as natural filtration of sediment and pollutants, and provide for storage of floodwaters, but estuaries are an indicator of our commitment to the planet. Moreover, the Oregon Estuary program provides for land use benefits to estuary users” (p.428).

Thorne, Karen, Glen MacDonald, Glenn Guntenspergen, Richard Ambrose, Kevin Buffington, Bruce Dugger, Chase Freeman, Christopher Janousek, Lauren Brown, Jordan Rosencranz, James Holmquist, John Smol, Kathryn Hargan, and John Y. Takekawa. 2018. "U.S. Pacific coastal wetland resilience and vulnerability to sea-level rise." Science Advances 4, no. 2: eaao3270, 10 p. 10.1126/sciadv.aao3270 This article describes the results of a comprehensive study of the response of wetlands in 14 Pacific Coast estuaries to projected sea level rise. By the end of the century, the authors note that all the wetlands studied in Oregon will have disappeared, with relatively small opportunities for migration due to development. If this comes to pass, there are serious implications for waterbirds and fish that are dependent on wetland vegetation for protection in early life stages. “Throughout the U.S. Pacific region, we found that tidal wetlands are highly vulnerable to end-of-century submergence, with resulting extensive loss of habitat.” (from the Abstract)

Toft, Jason D., Stuart H. Munsch, Jeffery R. Cordell, Kiira Siitari, Van C. Hare, Brett M. Holycross,
Lisa A. DeBruyckere, Correigh M. Greene, and Brent B. Hughes. 2018. "Impact of multiple stressors on juvenile fish in estuaries of the northeast Pacific." *Global Change Biology*. 24, no. 5, p.2008-2020. [https://doi.org/10.1111/gcb.14055](https://doi.org/10.1111/gcb.14055) “Here we provide one of the first studies for coastal ecosystems examining multiple stressor effects across broad scales, focused on the nursery function of 20 estuaries spanning 1,600 miles of coastline, 25 years of monitoring, and seven fish and invertebrate species along the northeast Pacific coast.” (from the Abstract) Chinook salmon were found to be most susceptible to pollution, and English sole was most vulnerable to the loss of land cover.

Yeager, Amelia. 2018. "Salmon Habitat Restoration using Large Wood: Linking Stream Geomorphic Change and Restoration Effectiveness." M.S., Water Resources Engineering, Oregon State University. Large woody debris in streams helps provide habitat for salmonids. In an attempt to improve habitat in the Mill Creek basin, the Oregon Dept. of Fish and Wildlife placed large woody debris in 35 sites. The goal of this effort was to restore 20 km. of salmonid habitat. The author of this Master’s thesis selected 7 sites out of this group for detailed study. The author found that, “Larger sites respond more quickly to LW addition, but changes in smaller sites may be more enduring due to relatively lower wood mobility at these sites. The formation of secondary channels observed in these smaller sites will also likely provide valuable juvenile salmon habitat” (from the Abstract). This is a detailed examination of short-term effects of a popular technique for stream rehabilitation. [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/cj82kd396](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/cj82kd396)

Bair, Russell T., Catalina Segura, and Christopher M. Lorion. 2019. "Quantifying the restoration success of wood introductions to increase coho salmon winter habitat." *Earth Surface Dynamics*. 7, no. 3: p.841–857. [https://doi.org/10.5194/esurf-7-841-2019](https://doi.org/10.5194/esurf-7-841-2019) In August 2015, 39 pieces of large woody debris were added to three reaches in the Mill Creek drainage in the Siletz River basin in order to improve fish habitat. In this paper, the authors examine winter habitat for salmonids. They discuss using a calibrated flow model “to quantify the change in survivable habitat for juvenile coho salmon after the addition of [large woody debris] by examining changes in water velocity and substrate stability during a bankfull event in three gravel-bed reaches” (p.842) Schematic diagrams of the selected reaches are included. This is an open-access article. [https://www.earth-surf-dynam.net/7/841/2019/](https://www.earth-surf-dynam.net/7/841/2019/)

Boisjolie, Brett A., Rebecca L. Flitcroft, and Mary V. Santelmann. 2019. "Patterns of riparian policy standards in riverscapes of the Oregon Coast Range." *Ecology and Society* 24, no. 1: article 22, 19 p. [https://doi.org/10.5751/ES-10676-240122](https://doi.org/10.5751/ES-10676-240122) This article examines fisheries management in the Oregon Coast Range from the point of view of the entire riverscape, in order to identify critical fish-bearing streams and regulatory gaps that have impacts on the fisheries. Portions of streams that fall under fisheries management plans, as well as those that are unregulated, are identified. There are gaps in protection for riparian areas in private forest lands, and particularly in agricultural lands. An appendix identifies streams studied and percentages of stream length that fall under major fisheries management
plans. This is an open-access publication.
https://www.ecologyandsociety.org/vol24/iss1/art22/

Brophy, Laura S., Correigh M. Greene, Van C. Hare, Brett Holycross, Andy Lanier, Walter N. Heady, Kevin O’Connor, Hiroo Imaki, Tanya Haddad, and Randy Dana. 2019. "Insights into estuary habitat loss in the western United States using a new method for mapping maximum extent of tidal wetlands." *PLoS One*. 14, no. 8: https://doi.org/10.1371/journal.pone.0218558 This article recounts the techniques that led to the production of the 2017 maps to model the effects of sea level rise. The authors used lidar digital elevation models and other elevation models to develop new maps of current and historical wetlands on the United States West Coast. Their work shows that about 85% of historical wetlands have been lost, with most losses near major river deltas. “The new maps will help interested groups improve action plans for estuarine wetland habitat restoration and conservation, and will also provide a better baseline for understanding and predicting future changes with projected sea level rise” (from the Abstract). https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0218558

Cargill, Samantha K. 2019. "The Influence of Lithology on Stream Metabolism in Mountain Systems " M.S., Water Resources Science, Oregon State University. This study contrasts two 160-meter reaches in the Oregon Coast Range. One reach is on the South Fork of Mill Creek, in the Siletz Basin, and is underlain by sandstone. The other reach is on Oak Creek, and has a basalt substrate. The author endeavored to understand how environmental disturbances affected primary production and respiration in streams with different underlying rocks. “The goals of this study were to explore the limiting effects of suspended sediment and increased flow on metabolic rates in two basins with contrasting lithologies (sandstone- and basalt-dominated), compare metabolic rates before and after storms, and compare patterns of metabolism between the two streams” (p.3). https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/5712md14z

Colvin, Susan A. R., S. Sullivan, Mazeika P., Patrick D. Shirey, Randall W. Colvin, Kirk O. Winemiller, Robert M. Hughes, Kurt D. Fausch, Dana M. Infante, Julian D. Olden, Kevin R. Bestgen, Robert J. Danehy, and Lisa Eby. 2019. "Headwater streams and wetlands are critical for sustaining fish, fisheries, and ecosystem services." *Fisheries* 44, no. 2: p.73-91. https://doi.org/10.1002/fsh.10229 In 2019, the Trump Administration proposed amending the Waters of the United States (WOTUS) Act to narrow the definition of wetlands, and to remove millions of acres from protection. In response, the American Fisheries Society published this article, an “AFS Special Report” on the value of headwaters and wetlands, particularly of streams that are dry part of the year. The Biden subsequently reversed the Trump amendment, but the U.S. Supreme Court, in Sackett vs. the Environmental Protection Agency, ruled in favor of narrowing the definition in 2023. Many aspects of this slow-moving environmental disaster are still in litigation. The article includes a photograph of Crowley Creek on Cascade Head. https://ir.library.oregonstate.edu/concern/articles/n583z1008

Crozier, Lisa G., Michelle M. McClure, Tim Beechie, Steven J. Bograd, David A. Boughton, Mark
Carr, Thomas D. Cooney, Jason B. Dunham, Correigh M. Greene, Melissa A. Haltuch, Elliott L. Hazen, Damon M. Holzer, David O. Huff, Rachel C. Johnson, Chris E. Jordan, Isaac C. Kaplan, Steven T. Lindley, Nathan J. Mantua, Peter B. Moyle, James M. Myers, Mark W. Nelson, Brian C. Spence, Laurie A. Weitkamp, Thomas H. Williams, and Ellen Willis-Norton. 2019. "Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem." *PLoS One.* 14, no. 7: e0217711. [https://doi.org/10.1371/journal.pone.0217711](https://doi.org/10.1371/journal.pone.0217711) This article is a major scientific overview of the vulnerability of Pacific Coast anadromous salmonids to climate change. “Nearly all listing units faced high exposures to projected increases in stream temperature, sea surface temperature, and ocean acidification. . . Anthropogenic factors, especially migration barriers, habitat degradation, and hatchery influence, have reduced the adaptive capacity of most steelhead and salmon populations. Enhancing adaptive capacity is essential to mitigate for the increasing threat of climate change. Collectively, these results provide a framework to support recovery planning that considers climate impacts on the majority of West Coast anadromous salmonids” (from the Abstract). Projections were made about Oregon coast coho salmon. [https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0217711](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0217711)

Currey, Mark C., Susan L. Bassham, and William A. Cresko. 2019. "Genetic divergence outpaces phenotypic evolution among threespine stickleback populations in old freshwater habitats." *Biological Journal of the Linnean Society.* 128, no. 2: p.415–434. [https://doi.org/10.1093/biolinnean/blz106](https://doi.org/10.1093/biolinnean/blz106) The three-spined stickleback is a highly adaptive species, capable of thriving in oceanic, estuarine and freshwater environments. Its abundance and differing life histories make it a good subject for studying the interplay between environment and genetics. In this paper, the authors exhaustively examine the genetic and physiological characteristics of this species. “To address the degree of congruence between genetic and phenotypic divergence, we directly compared Oregon stickleback to much younger (post-glacial) Alaskan populations. We found phenotypic variation in Oregon Stickleback to be primarily partitioned between oceanic and freshwater habitats . . . However, the main axis of genetic divergence was between coastal and inland regions regardless of habitat type” (from the Abstract). Interestingly, scattered populations of inland fish retain physical characteristics typical of the oceanic residents.

Jacobsen, Ryan, Jonathan Not, Eric Brown, Mat Weeber, Mark Lewis, and Oregon. Dept. of Fish and Wildlife. 2019. Western Oregon adult winter steelhead and lamprey, 2018 redd survey data report *Monitoring Program Report OPSW-ODFW* no. 2018-09 23 p. Oregon Department of Fish and Wildlife (Salem, Or.) “This report provides a summary of results from winter steelhead spawning ground surveys conducted in Lower Columbia (Oregon side only) and Oregon Coast basins in 2018. Also included is a brief summary of lamprey data collected from the same monitoring efforts. . . Total winter steelhead redd estimates were approximately 98% of both the 5- and 10-year averages for the Oregon Coast (OC) Distinct Population Segment
Regional patterns are apparent for winter steelhead redd density, proportion of hatchery origin spawners and spawn timing. Indices for Pacific Lamprey were lower in 2018 in the Lower Columbia compared to recent years, but above average in the Oregon Coast. (p.1) Statistics are not given for Individual sites on the Oregon Coast other than the Umpqua River and the Nestucca River.

Janousek, Christopher N., Karen M. Thorne, and John Y. Takekawa. 2019. "Vertical zonation and niche breadth of tidal marsh plants along the northeast Pacific coast." Estuaries and Coasts. 42, no. 1: p.85-98. https://doi.org/10.1007/s12237-018-0420-9 One of the most important factors in determining which plant species will be found in a marsh is its relative elevation above sea level. Salt marsh plants tend to be distributed in zones, according to the marsh’s elevation. This phenomenon is called vertical zonation. Rising sea levels in a changing climate threat marsh vegetation, due to sensitivity to inundation and salinity. In this paper, the authors report on studies of twelve salt marshes along the West Coast, and take a closer look at vertical zonation. They found “that many common Pacific coast species occurred across a broad range of elevations” (p.96) and noted that this factor might allow these species to persist under moderate sea level rise. They identify more sensitive species. While their work reinforces the importance of elevation, they also note site-specific variations, suggest areas for more study and advocate potential tactics to counter vegetation loss in the face of rising seas.

Kagan, James S., Rachel L. Brunner, and John A. Christy. 2019. Classification of Native Vegetation of Oregon - 2019 109 p. Oregon Biodiversity Information Center (Portland, Or.) “This classification is an update of the 2004 classification of native vegetation of Oregon by Kagan, Christy, Murray and Titus. As before, this classification lists the native plant associations known to occur in Oregon, and includes both successional and climax vegetation types that were part of the presettlement landscape of Oregon and can still be found in the state. It serves as an index to the diversity, distribution and relative rarity of the state's native plant associations, and as a guide to their literature.” (from the introduction) https://ir.library.oregonstate.edu/concern/technical_reports/2r36v492k

Koeberle, Alexander L. 2019. "Otolith Morphometrics as a Tool for Conservation and Management of Chinook Salmon (Oncorhynchus tshawytscha)." M. S., Dept. of Fisheries and Wildlife, Fisheries Science, Oregon State University. The otolith is a small calcium carbonate structure found in the inner ear of vertebrates. In fisheries, otoliths have been used to age fish. This interesting Master’s Thesis describes a technique to use otolith shapes and morphology to identify different stocks of Chinook salmon. The author notes that, “fishery managers are concerned with successful identification of mixed origin Chinook salmon stocks, as well as the health and condition of hatchery-origin fish and their impacts on wild populations. Therefore, this thesis examines ways to improve stock discrimination to provide a more useful tool for fishery managers.” Color photographs. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/d504rs278
Kone, Dominique V. 2019. "An Ecological Assessment of a Potential Sea Otter (Enhydra lutris) Reintroduction to the Oregon Coast." M.S., College of Earth, Ocean and Atmospheric Sciences. Marine Resource Management Program, Oregon State University. This Master’s thesis was written to address the concerns of groups working to bring sea otters back to Oregon. “Managers seek improved understanding of the potential for coastal habitats to support sea otter populations, factors likely to affect reintroduction success, and how sea otters may change nearshore ecosystems if brought back. These uncertainties were addressed by adapting and applying a recently developed model of habitat-specific carrying capacity for southern sea otters to estimate spatial variation in potential sea otter abundance (at equilibrium) in Oregon. These predictions were spatially related to human activities to investigate potential human interactions” (from the Abstract) https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/bv73c622c

Markle, Douglas F. 2019. "Drainage evolu­tion and freshwater fish zoogeography in coastal Oregon and Washington " Northwestern Naturalist 100 no. 2 p.71-89 https://doi.org/10.1898/NWN-18-18 Some of the major events that have affected the evolution of fishes on the Pacific Northwest Coast include Miocene basalt flows, the rise of the Coast Range, glaciation and geographic isolation. This most interesting article examines the evolutionary history and species richness (or lack of it) in freshwater fishes in the region. “My purpose is to describe discrete geographic areas based on geological features, habitat, and distribution discontinuities in coastal freshwater fishes in Oregon and Washington” (p.73).


Oregon Department of Fish and Wildlife. 2019. Oregon Coast Coho Conservation Plan Annual Report. 6 p. [Oregon Dept. of Fish and Wildlife] ([Salem, Or.]) “Wild OC Coho Salmon spawner abundance estimates for the ESU increased from 74,060 fish in 2018 to 95,138 in 2019. Fishing harvest was less than the allowable harvest approved by the Pacific Fishery Management Council (PFMC) under Amendment 13 (A-13). Overall, overwinter rearing habitat likely continues to limit freshwater productivity” (p.1). https://www.dfw.state.or.us/fish/crp/coastal_coho_conservation_plan.asp

Oregon. Department of Forestry. 2019. "[Forest] Laws and Rules." This website provides current
laws on all aspects forest practice in Oregon, including general administrative rules, rules on water protection, reforestation, and using chemicals on forest lands. As they are periodically updated, it is best to refer to the web site rather than the print version previously published. [https://www.oregon.gov/odf/pages/lawsrules.aspx](https://www.oregon.gov/odf/pages/lawsrules.aspx)

Oregon. Dept. of Fish and Wildlife. 2019. "Where to Crab & Clam in Siletz Bay ". This brief guide to recreational shellfish gathering in Siletz Bay includes a map of popular clamming and crabbing areas. “The purpose of this map is to provide the user with information and locations of recreational shellfish areas where the most likelihood of success may be found by species.” [https://myodfw.com/articles/where-crab-clam-siletz-bay](https://myodfw.com/articles/where-crab-clam-siletz-bay)

Portland State University. Oregon Biodiversity Information Center. Institute for Natural Resources. 2019. Rare, Threatened and Endangered Species of Oregon. 133 p. Oregon Biodiversity Information Center (Portland, Or.) This document is more than a list of threatened, sensitive and endangered species. The authors discuss the regulatory environment, provide access to resources for learning more about listed species, and give the bioregions where the species are found. A valuable resource. [https://inr.oregonstate.edu/sites/inr.oregonstate.edu/files/2019-rte-book.pdf](https://inr.oregonstate.edu/sites/inr.oregonstate.edu/files/2019-rte-book.pdf)

Priest, George R., and Jonathan C. Allan. 2019. Comparison of Oregon tsunami hazard scenarios to a probabilistic tsunami hazard analysis (PTHA). Open-File Report (Oregon. Department of Geology and Mineral Industries). no. O-19-04, 94 p. Oregon Department of Geology and Mineral Industries. (Portland, Or.) In this paper, two different scenarios for tsunamis generated after earthquakes are contrasted. Five different sizes of earthquakes are compared. “The immediate objective of this project is to determine how closely tsunami forces at typical coastal bridges compare between the DOGAMI and AECOM. (Thio, 2019) tsunami simulations. The long-term objective is to determine the best and most cost-effective approach for estimating the current forces of a 1,000-yr exceedance tsunami for bridge design.” Estimated tsunamis and their effects on coastal bridges are explored, in order to help future bridges be designed to withstand these forces. [https://www.oregongeology.org/pubs/ofr/O-19-04_report.pdf](https://www.oregongeology.org/pubs/ofr/O-19-04_report.pdf)

Segui, Leah Mupas. 2019. "State-Structured Species Interactions and Their Consequences Across Levels of Biological Organization." Ph. D., Dept. of Integrative Biology, Oregon State University. Animal diets vary at different stages in life. In fact, as the author of this intriguing doctoral dissertation notes, the food consumption differences between members of one species at different life stages may be greater than diet differences between separate species. How does ecological theory account for this? In this work, the author uses the native signal crayfish as a lens for exploring the role of stage structure in species interactions and the broader food web. “Overall, my work has demonstrated the importance of incorporating stage structure in ecological studies and that this information advances both ecological theory and applied efforts” (from the Abstract). [https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/9g54xq08j](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/9g54xq08j)

Souhein, Briana, Mark Lewis, and Matt Weeber. 2019. Western Oregon adult coho salmon
spawning survey data report. *Monitoring Program Report (Oregon Plan for Salmon and Watersheds)* no. OPSW-ODFW-2020-3, 34 p. Oregon Adult Salmonid Inventory & Sampling Project, ODFW (Corvallis, Or.) Good statistics on wild salmon runs. The Oregon Coast saw lower than average runs, with wild salmon spawning at 76% of the 29-year average.


Stern, Robert J., and Trevor A. Dumitru. 2019. "Eocene initiation of the Cascadia subduction zone: A second example of plume-induced subduction initiation?" *Geosphere*. 15 no. 3: p.659–681. https://doi.org/10.1130/GES02050.1 In this article, the authors postulate a fascinating scenario to explain the development of the Cascadia Subduction Zone. The authors theorize that the Yellowstone mantle plume head “destroyed the existing Cordilleran subduction zone and allowed the new Cascadia subduction zone to form by collapse of thermally weakened oceanic lithosphere over the hot western margin of the plume head.” (from the Abstract) This is an elegant approach that solves problems and answers questions. Nicely illustrated.


Ciborowski, T. Jake R., Bethan A. Phillips, Andrew C. Kerr, Dan N. Barfod, and Darren F. Mark. 2020. "Petrogenesis of Siletzia: The world's youngest oceanic plateau." *Results in Geochemistry*. 1 no. 100004: 22 p. https://doi.org/10.1016/j.ringeo.2020.100004 This article presents an interesting look at the underlying volcanic formations of the Northwest Pacific Coast, from Vancouver Island to central western Oregon. The Siletzia Large Igneous Province was probably formed by a mantle plume, probably the Yellowstone mantle plume. The authors present new geochronological data setting the formation of Siletzia in the early Eocene.

Clemens, Benjamin J., Kara Janaye Anlauf, Matt Weeber, Tom Stahl, and Oregon. Dept. of Fish
and Wildlife. 2020. Final Coastal, Columbia, and Snake Conservation Plan for Lampreys in Oregon. 192 p. Oregon Dept. of Fish and Wildlife (Salem, Or.) The conservation plan described in this document is intended to “identify, acknowledge, and support actions needed to conserve lampreys in the service of the mission of the Oregon Department of Fish and Wildlife” (p.3) It gives management strategies and identifies areas needing monitoring, research and evaluation. ODFW acknowledges that it lacks the resources to fully address factors limiting lamprey populations, and will need to coordinate with other groups working on natural resource issues.

https://www.dfw.state.or.us/fish/CRP/docs/coastal_columbia_snake_lamprey/CPL%20-%20Final%20202-14-20.pdf

Cramer, Steven P., and Lucius K. Caldwell. 2020. "Bias and consequences in attempts to estimate historical salmon abundance " Canadian Journal of Fisheries and Aquatic Sciences 77 no. 1: p.132-145. https://doi.org/10.1139/cjfas-2018-0467  Were salmon more abundant in the “good old days,” or have fisheries scientists over-estimated their abundance in the past? This article is a critique of previous methods of estimating the abundance of coho salmon before the environmental stresses of recent years. The authors claim that, “the revised simulations indicate that Oregon Coast coho abundance during 1892-1956 probably varied within a range similar to recent decades” (from the abstract). This work was primarily funded by the Oregon Forest Industries Council and the American Forest Resource Council.

Dalton, Meghan M. 2020. Future Climate Projections. Lincoln County. 60 p. Oregon State University. Oregon Climate Change Research Institute (Corvallis, Or.) This is a report for the Oregon Department of Land Conservation and Development. In a complex environment, multiple factors influence the effects of climate change. Nevertheless, “Climate change is expected to increase the occurrence of most climate---related risks considered in this report. The risks of heat waves are projected to increase with very high confidence due to strong evidence in published literature, model consensus, and robust theoretical principles for continued increasing temperatures.” (from the Abstract) Those who care about these issues will find this report of great interest. We learn, for example, that the Yaquina River Estuary will probably lose wetlands, while the Yachats River Estuary will gain wetlands due to climate change.

https://ir.library.oregonstate.edu/concern/technical_reports/z603r6081

Gabel, Laura L. S. , Fletcher O'Brien, and Jonathan C. Allan. 2020. GIS data and method for determining maximum-considered local and distant tsunami wave arrival data for the Oregon coast Open-File Report (Oregon. Department of Geology and Mineral Industries). no.O-20-09, 23 p. Oregon Department of Geology and Mineral Industries (Portland, Or.) This is a technical report showing the methodology used to develop maps giving arrival times for local and distant earthquake-generated tsunamis. The report discusses issues leading to misleading or untrue wave arrival times and the techniques used to correct these problems. https://www.oregongeology.org/pubs/ofr/O-20-09/O-20-09_report.pdf

Koeberle, Alexander L., Ivan Arismendi, Whitney Crittenden, Cecilia Di Prinzio, Daniel Gomez-
Uchida, David L.G. Noakes, and Shannon Richardson. 2020. "Otolith shape as a classification tool for Chinook salmon (Oncorhynchus tshawytscha) discrimination in native and introduced systems." Canadian Journal of Fisheries and Aquatic Sciences 77, no. 7 p.1172-1188 https://doi.org/10.1139/cjfas-2019-0280. The otolith is a small calcium carbonate structure found in the inner ear of vertebrates. In fisheries, otoliths have been used to age fish. This article describes a technique to use otolith shapes and morphology to identify different stocks of Chinook salmon. “We found best performance of the model occurring between hemispheres, followed by Oregon basins, within-watershed Elk River, Oregon, and lastly among South American basins. Otolith shape analysis is a promising tool for stock discrimination if used in conjunction with other methods to better understand plasticity of anadromous species that use pan-environmental systems” (from the Abstract).

Lee, Se-Yeon, Aimee H. Fullerton, Ning Sun, and Christian E. Torgersen. 2020. "Projecting spatiotemporally explicit effects of climate change on stream temperature: A model comparison and implications for coldwater fishes." Journal of Hydrology. 588, no. 125066: 16 p. https://doi.org/10.1016/j.jhydrol.2020.125066. Cold water in streams is essential habitat for some species, particularly Pacific salmonids. In this article, the authors compare the rain-and-snow Snoqualmie watershed with the rain-based Siletz watershed to assess the impacts of climate change in their process-based model. “Results suggest that salmonids may have fewer cold-water habitats in both watersheds . . . Our comparison of models highlights the importance of considering what might be gained by using a process-based model for evaluating and prioritizing management actions that mitigate climate impacts on cold-water habitats for stream fishes” (from the Abstract).

Magel, Caitlin L. 2020. "Ecosystem Functions of Pacific Northwest Estuaries: The Role of Ocean and Watershed Drivers in Eelgrass and Coho Salmon Dynamics." Ph. D., Dept. of Integrative Biology, Oregon State University. This wide-ranging doctoral dissertation aims to “investigate ocean and watershed dynamics to better understand the key drivers and consequences of ecosystem change in Pacific Northwest (PNW) estuaries” (from the Abstract). Topics explored include eelgrass and macroalgae, coho salmon and the Dungeness crab catch. https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/gt54kv37z

Oregon. Dept. of Environmental Quality. 2020. Oregon's 2018/2020 Integrated Report. Oregon Dept. of Environmental Quality (Portland, Or.) This website gives information about water quality in Oregon and lists those waters considered to be impaired. Four points of access are provided: an interactive story map, an interactive web map, a searchable database, and a GIS geodatabase. https://www.oregon.gov/deq/wq/Pages/epaApprovedIR.aspx

Souder, Jon A., and Guillermo R. Giannico. 2020. Tide gates: operation, fish passage and recommendations for their upgrade or removal. ORESU-T. no.20-001, 15 p. Oregon Sea Grant (Corvallis, Or.) This publication is intended to help natural resource managers decide how to treat existing tide gates in order to help migratory fishes and other estuary residents. Should the tide gates be removed, or can they be upgraded to better allow fish passage? The report has two main sections. “The first includes an overview of the technical aspects of tide gates, including non-traditional ones. The second contains findings from a review of scientific literature about upgrading or removing tide gates as well as conclusions from a review of estuary restoration projects involving tide gates. Based on those findings, we’re also including recommendations to guide future investments in, and monitoring of, restoration projects associated with tide gates” (p.3).

Souhein, Briana, Mark Lewis, and Matt Weeber. 2020. Western Oregon adult coho salmon spawning survey data report. Monitoring Program Report (Oregon Plan for Salmon and Watersheds) no. OPSW-ODFW-2021-3, 34 p. Oregon Adult Salmonid Inventory & Sampling Project, ODFW (Corvallis, Or.) The COVID-19 epidemic reduced the number of spawning surveys. Available data showed a strong skew based on geography: the Lower Columbia wild salmon runs were larger than normal, the Oregon Coast region had 88% of the 30-year average, while wild salmon runs in southern Oregon were greatly reduced.

Williams, Matt C., Christina A. Appleby, Lowell H. Anthony, and Fletcher E. O'Brien. 2020. Natural hazard risk report for Lincoln County, Oregon, including the Cities of Lincoln City, Depoe Bay, Siletz, Newport, Toledo, Waldport, and Yachats, and the Confederated Tribes of Siletz Indians, and the unincorporated communities of Otis-Rose Lodge, Salishan-Lincoln Beach, Otter Rock, Seal Rock-Bayshore, and Wakonda Beach. Open-File Report (Oregon. Department of Geology and Mineral Industries) no. O-20-11, 99p. Oregon. Department of Geology and Mineral Industries (Portland, Or.) This report describes the methods and results of a natural hazard risk assessment performed by the Department of Geology and Mineral Industries for Lincoln County communities.” The purpose of this project is to provide communities within the study area a detailed risk assessment of the natural hazards that affect them to enable them to compare hazards and act to reduce their risk. The risk assessment contained in this project quantifies the impacts of natural hazards to these communities and enhances the decision-making process in planning for disaster. We arrived at our findings and conclusions by completing three main tasks: compiling an asset database, identifying and using best available hazard data, and performing natural hazard risk assessment” (Executive Summary). Detailed reports on each community’s response to a major earthquake and tsunami.

coastal Lincoln County, Oregon. *Open-File Report (Oregon. Department of Geology and Mineral Industries)* no. O-21-02, 117p. Oregon. Department of Geology and Mineral Industries (Portland, Or.) This FEMA-funded report describes the methods and results of a natural hazard risk assessment performed by the Department of Geology and Mineral Industries for Lincoln County communities.” The purpose of this project is to provide communities within the study area a detailed risk assessment of the natural hazards that affect them to enable them to compare hazards and act to reduce their risk. The risk assessment contained in this project quantifies the impacts of natural hazards to these communities and enhances the decision-making process in planning for disaster. We arrived at our findings and conclusions by completing three main tasks: compiling an asset database, identifying and using best available hazard data, and performing natural hazard risk assessment” (from the Executive Summary). Detailed reports on each community's response to a major earthquake and tsunami.


Clemens, Benjamin J., Hiroaki Arakawa, Cindy Baker, Stephen Coghian, Aleksandr Kucheryavyy, Ralph Lampman, Maria João Lança, Catarina Sofia Mateus, Allison Miller, Hassan Nazari, Germán Pequeño, Trent M. Sutton, and Seiji Yanai. 2021. "Management of anadromous lampreys: Common threats, different approaches." *Journal of Great Lakes Research. Supplement.* 47 no. Sup.1 S129-S146. Supplement on Sea Lamprey International Symposium III (SLIS III) https://doi.org/10.1016/j.jglr.2020.09.005 This review article summarizes what is known about the statuses of many lamprey species around the world. The usual suspects, primarily human activity and climate change, get the blame for most population declines. Management of the Pacific lamprey is a bright spot, largely due to the efforts and advocacy of Native Americans. The Western river lamprey, on the other hand, suffers from inadequate research, which is needed in order to support conservation.

Dalton, Meghan M., Erica Fleishman, and Oregon Climate Change Research Institute. 2021. Fifth Oregon Climate Assessment. 93 p. Oregon State University. Oregon Climate Change Research Institute (Corvallis, Or.) “Consistent with its charge under Oregon House Bill 3543, the Oregon Climate Change Research Institute (OCCRI) conducts a biennial assessment of the state of climate change science, including biological, physical, and social science, as it relates to Oregon and the likely effects of climate change on Oregon. . . This Assessment is structured with the goal of serving as a resource for the state’s mitigation planning for natural hazards and implementation of the 2021 Oregon Climate Change Adaptation Framework.” (from the Abstract) https://ir.library.oregonstate.edu/concern/technical_reports/pz50h457p

with stream and water table restoration. The authors review the history of trapping and translocations of beavers in the Oregon Coast Range. “Management requires a better understanding of the ability of beaver to disperse and colonize empty habitat, and the distances or landscapes over which a beaver, if translocated, is unlikely to return. We evaluated genetic structure and applied a landscape genetic approach to characterize landscape features that influence genetic flow for beaver in the Coast Range of Oregon.” (p.1464)

Fox, Haley K., and Thomas C. Swearingen. 2021. "Using a difference-in-difference and synthetic control approach to investigate the socioeconomic impacts of Oregon’s marine reserves." *Ocean and Coastal Management*. 215, no. 105965: 10 p. [https://doi.org/10.1016/j.ocecoaman.2021.105965](https://doi.org/10.1016/j.ocecoaman.2021.105965) In this article, the authors used two different methods to measure the impacts of Oregon’s marine reserve system. “We compared treatment and control units before and after marine reserve implementation using both difference-in-differences (DID) and synthetic control approaches. Each approach yielded different results, potentially providing a more complete picture of marine reserve impacts and long-term trends while also highlighting the need to consider the variability of ACS [American Community Survey] data collected from small communities.” (from the Abstract)

Gosselin, Jennifer L., Lisa G. Crozier, and Brian J Burke. 2021. "Shifting signals: Correlations among freshwater, marine and climatic indices often investigated in Pacific salmon studies." *Ecological Indicators*. 121, no. Article 10716: 18 p. [https://doi.org/10.1016/j.ecolind.2020.107167](https://doi.org/10.1016/j.ecolind.2020.107167) This article is about correlations and cross-connections between different environmental indices, and how they can be used to understand environmental conditions in a changing climate. The authors used 43 freshwater, marine and climate indices to examine 72 river sites in Oregon, Washington, California and Idaho. “As the climate continues to change, it becomes more evident that maintaining a mindset encompassing static processes limits our abilities to explain patterns among environmental indices. This recognition in the context of multiple climatic tele-connections will help foster the development and utility of more resilient methodological approaches that account for changing correlations” (p.17). This is an open-access article. [https://www.sciencedirect.com/science/article/pii/S1470160X20311067?via%3Dihub](https://www.sciencedirect.com/science/article/pii/S1470160X20311067?via%3Dihub)

Pazdral, Rosemary. 2021. "Factors Influencing Streamflow Generation Processes in Rain-dominated, Coastal Watersheds in Oregon." Ph. D., Water Resources Science Program, Oregon State University. The water in Oregon coastal streams comes from rainfall. As climate change shifts the timing and quantity of rainfall, already threatened species will be further stressed. This impressive doctoral dissertation examines how factors such as slope, lithology and land cover affect streamflow in watersheds stressed by climate change. Many coastal watersheds were examined. Mary Santelmann and Rebecca Flitcroft were co-major professors.  
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/f7623k880

Peterson, Curt D. , and Kara E.P. Kingen. 2021. "Pacific Northwest Littoral Data." “This document contains five data tables in PDF file formats, that are used to characterize littoral subcell (beach, river mouth, and inner-shelf) conditions in the Pacific Northwest (PNW) region . . . These data have been compiled from pre-existing data sets . . . for the purposes of predicting possible beach erosion from potential future sea level rise (SLR) . . . The five data tables include Heavy-mineral tracers (Table 1), Heavy-mineral data (normalized) (Table 2), Subcell beach profile settings (Table 3), Subcell beach profile parameters (Table 4), and Subcell shelf profile parameters (Table 5)” (p.1). The data supports the manuscript Peterson, C. D., Doyle, D. L., Rosenfeld, C. L., Kingen, K., (2020). Predicted Responses of Beaches, Bays, and Inner-Shelf Sand Supplies to Potential Sea Level Rise (0.5-1.0 m) in Three Small Littoral Subcells in the High-Wave-Energy Northern Oregon Coast, USA. Journal of Geography and Geology. v.12:.2.  
( https://pdxscholar.library.pdx.edu/geology_fac/189/ )
https://pdxscholar.library.pdx.edu/geology_data/1/

Scully-Engelmeyer, Kaegan, Elise F. Granek, Max Nielsen-Pincus, Andy Lanier, Steven S. Rumrill, Patrick Moran, Elena Nilsen, Michelle L. Hladik, and Lori Pillsbury. 2021. "Exploring biophysical linkages between coastal forestry management practices and aquatic bivalve contaminant exposure." Toxics 9, no. 3: article 46, 25 p. . https://doi.org/10.3390/toxics9030046  Current forestry management practices are not doing very well at keeping herbicides and pesticides within the boundaries of the forest. In this important article, the authors describe a study of bivalves to look for contamination from pesticides and other chemicals used in forestry. They found pesticides in 38% of bivalves sampled, with some watersheds more contaminated than others, and with seasonal variations. The authors mildly note, “Details about types and levels of exposure provide insight into effectiveness of current forest management practices in controlling transport of forest-use pesticides” (from the Abstract). Good data visualization. This is an Open-Access article.  https://www.mdpi.com/2305-6304/9/3/46

organization of river basins varies over geologic time. Tectonic forces, uplift and erosion can cause a stream to be “captured” by a neighboring river basin. Stream captures are relatively common in the Oregon Coast Range. In this most interesting article, the authors describe a process of modeling stream networks at different geographic scales. “Integration of these ‘synthetic’ drainage networks into a margin-parallel river system, similar to the modern Willamette Valley, supports field observations of stream capture and river network reorganization. We propose that these methods are useful for predicting future drainage configurations and isolating the relevant tectonic processes responsible for changing river networks” (from the Abstract).

Johnson, Kelsey K. 2022. "Empirical Analyses of Forestry Interactions with Climate Uncertainty and Threatened Species." Ph. D., Dept. of Applied Economics, Oregon State University. In this doctoral dissertation, the author addresses two questions about climate change and forestry. In a changing climate, when you replant after harvesting timber, do you re-plant the same species as before, or do you plant a species you believe will do better in a changing climate? This question takes up the first half of the work, and is concerned with forests in the Eastern United States. The second question is concerned with the ideal widths of no-cut riparian zones in Oregon coastal forests. These are important questions with important answers.

https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/37720m42t

Kiffney, Peter, Jamie Thompson, Brianna Blaud, and Laura Hoberecht. 2022. Nonfishing impacts on essential fish habitat NOAA White Paper NMFS-NWFSC-WP-.. no.2022-01, 258 p. https://doi.org/10.25923/zzz1-m712 National Marine Fisheries Service (Seattle, Wash.) Many human activities not directly related to fishing can harm essential fish habitat. This publication looks at 19 different human activities that can damage essential fish habitat, from climate change to forest management to noise pollution, and more. The authors describe for each activity what is known to affect essential fish habitat, potential impacts, “and provide proactive conservation measures designed to minimize or avoid them” (from the Plain Language Summary).

https://repository.library.noaa.gov/view/noaa/48083/noaa_48083_DS1.pdf

Lewis, David J., David M. Kling, Steven J. Dundas, and Daniel K. Lew. 2022. "Estimating the value of threatened species abundance dynamics." Journal of Environmental Economics and Management. 113, no. 102639: 15 p. https://doi.org/10.1016/j.jeem.2022.102639 How much are people willing to pay for marginal increases in abundance of threatened species? This paper looks at the value the public places on Coho salmon. “Results provide direct evidence that conservation activities that achieve immediate abundance gains for a threatened species (or prevent immediate losses) produce significantly higher benefits than activities that gradually achieve the same abundance gains.” (from the Abstract)

This most interesting article addresses the effects of different riparian borders on fish and amphibians in streams after a second thinning. The consideration of amphibians as indicators of ecosystem health is appreciated. While different widths of riparian borders favored different species, in general the broadest border (~70 m.) benefited the most species.

https://www.oregon.gov/deq/wq/Pages/WQI.aspx

Pacific States Marine Fisheries Commission. 2022. "Western Aquatic Invasive Species Resource Center: A Collaboration to Prevent the Introduction and Spread of Aquatic Invasive Species." Pacific States Marine Fisheries Commission. This collaboration is among the Bonneville Power Administration, contracted with the Pacific States Marine Fisheries Commission, and supported by the U.S. Fish and Wildlife Service and NOAA Fisheries. It began as a database of invasive species and has evolved into a collection of policy and research documents, with a focus on education. The site is reasonably current and has good information on problem species in our area, such as the European green crab.
https://www.westernais.org/

Springtime in coastal Oregon brings many things, including high runoff of herbicides from coastal forests. In this article, the authors describe a study of herbicide runoff at 3 different scales of sub-basin size. While several important variables were identified, steep slopes combined with clear-cuts and herbicide use combined to bring the highest concentrations of pollutants in runoff.

Shinn, Hope. 2022. Salmonid egg-to-fry survival and capture methods: Bibliography. NCRL Subject Guide no.2023-02, 126 p. https://doi.org/10.25923/wp1n-xt62 "Fish biologists at NMFS’ California Central Valley Division are interested in the variety of methods used to examine the survival of fish eggs in a rivers where salmonids dig nests in gravel. They are also interested in how salmonid egg-to-fry survival is calculated. To that end, the NOAA Central Library conducted a literature search and [now] present their findings in this bibliography." (Background & Scope)
https://repository.library.noaa.gov/view/noaa/48004/

Considine, Megan E., Gway Kirchner, Jena Carter, and Tiffany Waters. 2023. Situation Analysis for Oregon’s Emergent Seaweed Aquaculture Industry. 35 p. The Nature Conservancy (Portland, Or.) At present, seaweed aquaculture is an underdeveloped industry in Oregon. Pacific dulse is the only species cultivated today in the state. The industry has, however, great potential, and can provide significant ecological services by cleaning seawater and
providing habitat for marine animals. There is potential for mitigating climate change by buffering acidic ocean water and sequestering carbon. It would be worthwhile to investigate possible products such as biofuels, fertilizer and animal feed. Possible negative impacts such as overharvesting of wild stock, lack of genetic diversity, and competition for nutrients should be explored, and a stronger regulatory environment is needed. This is a most interesting introduction to what could be a beneficial and profitable industry.

https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/orseaweedsituatio nanalysis_final.pdf

Davis, Melanie J., James Anthony, Eric J. Ward, Julie Firman, and Christopher Lorion. 2023. "Coherence among Oregon Coast coho salmon populations highlights increasing relative importance of marine conditions for productivity." *Fisheries Oceanography*. 32, no. 3: p.293-310. https://doi.org/10.1111/fog.12630 Anadromous fish like salmon have to live in two worlds: freshwater and the ocean. The scales of these two worlds are quite different: the freshwater environment works at the scale of a single stream, and environmental changes or stressors at the stream level affect a single population of fishes. On the other hand, oceanic changes or stressors can affect broad regions or entire evolutionary significant units. By analyzing stock recruitment data for about sixty years along the Oregon Coast, some patterns become clear. Over this period, there have been significant changes in how fisheries are managed, from riparian buffers in forested lands to adding large woody debris to denuded streams. Despite these changes, it seems that oceanic conditions, especially the North Pacific Gyre Oscillation, which has dominated the marine environment since 1990, are determining population levels, rather than conservation efforts at the stream level. “If Oregon Coast coho salmon populations become more synchronous, managers can expect to face new challenges driven by reductions in the population portfolio effect and increasingly variable marine conditions due to climate change” (from the Abstract).

Fleishman, Erica, and Oregon Climate Change Research Institute. 2023. Sixth Oregon Climate Assessment. 249 p. Oregon State University. Oregon Climate Change Research Institute (Corvallis, Or.) “This sixth Oregon Climate Assessment builds on the previous assessments by continuing to evaluate past and projected future changes in Oregon’s climate and water supply. Like the fifth assessment, it is structured with the goal of supporting the state’s mitigation planning for natural hazards and implementation of the 2021 Oregon Climate Change Adaptation Framework.” (from the Abstract) https://ir.library.oregonstate.edu/concern/technical_reports/gt54kw197

Hall, Jason, Phil Roni, Kai Ross, Meghan J. Camp, Jason Nuckols, and Claire Ruffing. 2023. "Estimating juvenile salmon estuarine carrying capacities to support restoration planning and evaluation." *Estuaries and Coasts* 46, p.1046–1066. https://doi.org/10.1007/s12237-023-01185-y What is the carrying capacity of salmon habitat in a time of global warming and rising sea levels? To answer this question, the authors of this paper took a hard dive into the literature, involving over 4,500 printed estimates of densities of juvenile salmonids in estuaries and floodplains. This data was then used in a habitat expansion
approach to estimate historic, current potential and predicted population densities after sea level rise. “We demonstrate the habitat expansion approach by applying the quantiles of observed juvenile Chinook salmon (Oncorhynchus tshawytscha) and coho salmon (O. kisutch) densities (fish/ha) to spatial data describing current, historical or potential, and predicted (based on sea level rise) habitat extents for 16 coastal Oregon estuaries to estimate carrying capacities” (from the Abstract). This information will be important in the design and evaluation of restoration projects. This is an open-access article.  


https://doi.org/10.1007/s10750-022-05127-w Freshwater mussels provide several valuable ecosystem services, including biofiltration, which removes nutrients, sediments, algae, harmful bacteria and heavy metals from the environment. Despite their value, freshwater mussel life cycles are not well understood, and their populations are declining throughout the west. This article concerns the dominant freshwater mussel in Oregon, the western pearl mussel, Margaritifera falcata. “To understand M. falcata population ecology in Oregon’s coastal watersheds, we analyzed stream survey data on presence/absence of mussels collected over a recent eleven-year period, explored co-varying habitat characteristics, and summarized mussel distribution and host fish co-occurrence. We also collected M. falcata and compared condition indices among eight locations” (from the Abstract). This is an open-access article. Additional data is included in a supplementary file. https://link.springer.com/article/10.1007/s10750-022-05127-w