Background Resources and References for “The Oregon Coast before the Arrival of Europeans”
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Contents:
1. Using archaeological materials to learn about the coastal environment and its fauna in the Holocene
2. Oregon sites providing faunal data
3. Bibliography: Selected reports about Oregon native resources and sites
4. Four tables: Sea Mammals, Invertebrates, Birds, and Fish
5. Map of Oregon coast showing selected sites

1. Using archaeological materials to learn about the coastal environment and its fauna in the Holocene

Archaeological and ethnographic evidence confirms that estuaries during the Holocene provided a rich and relatively stable resource base for native populations. Observations made by the first outsiders to contact native people and ethnographic interviews with native people in the nineteenth and twentieth centuries provide a description of a people and a culture that was opportunistic in use of resources. All available animals and plants were used for some purpose: food, tools, housing, clothes, ornaments, and trade. Shellfish, a mainstay for people living along the coast, together with other refuse items, comprised shell middens. Because shell tends to change acidic coastal soils to slightly alkaline, they foster the preservation of bones and make shell middens excellent places to look for material with which to reconstruct the environment of the past as well as the lifestyle. (Plant material, unfortunately, does not preserve well in middens.)
Published faunal analyses exist for many coastal sites but, as excavations and sites vary greatly, some are detailed and others skimpy. Most sites have been dated using radiocarbon techniques, and a large majority date within the last 1,000 years; a few date to the Late Pleistocene but the lowest levels lack shell since the coast line at that time was later submerged. Finding faunal remains in coastal sites almost always implies the existence of a shell midden that makes acidic soils moderately alkaline.

Following are names and designations of many of the coastal sites that have provided information about fauna listed in this report but the list is NOT exhaustive of all the research that has been done. Sites are listed by county from Clatsop in the north to Curry in the south. Site numbering systems consist of a number of the state alphabetically (OR is 35, WA is 45, CA is 4, etc.); next is an abbreviation of the county in letters. Sites are numbered from the first to the most recent registered with the State Historic Preservation Office, irrespective of geographic location within the county.

This report also lists sources providing detailed information on these sites and other aspects of native lifeways, and four tables listing common fauna in each of four categories: sea mammals, invertebrates, birds, and fish.

2. Sites providing faunal data

Clatsop: 35CLT : 12 (A and B, in Ecola State Park), 13 (Avenue Q Site, on Highway 101), 16 (Young’s Bay, Astoria), 20 (Par-tee–on Seaside golf course; located on the east bank of the Necanicum River), 21 (A and B, Ecola State Park), 22 (Young’s Bay, Astoria), 33 (Eddy Point, ~5 km east of Astoria), 47 (Palmrose site, at confluence of Shangri-La Creek and Hw. 26/101), 66 (on Highway 101, Clatsop County, Camp Rilea to Dellmoor Loop Road)

Tillamook: 35TI: 1 (and TI1a; Netarts Spit sites), 47 (Oceanside)

Lincoln: 35LNC: 14 (Seal Rock), 43 (Whale Cove-Otter Crest Loop Section of Hw.101), 45 (Boiler Bay St. Pk.), 48 (Yachats Ocean Road), 49 and 50 (Yaquina Head), 55 and 56 (near Good Fortune Cove in the Cape Perpetua Scenic Area), 57 (Cape Creek Shell Midden, Cape Perpetua Scenic Area), 60
(Whale Cove), 62 (Yaquina Head), 63 (Yachats Ocean Road), 68 (Whale Cove-Otter Crest Loop Section of Hw.101), 92 (Whale Cove-Otter Crest Loop Section of Highway 101), 100 and 101 (Boiler Bay St. Pk.)

Lane: 35LA: 3 (Neptune St. Pk.); 10 and 16 (both Bob’s Creek Wayside), 25 (Siuslaw Dune)

Douglas: 35DO: 83 (Umpqua Eden), 130 and 175 (both Tahkenitch Landing)

Coos: 35CS: 1 (Philpott site), 2 and 3 (Bullards Pk., near-river sites), 5 (the Sandspit Site in Bullards Pk., studied as it was being eroded away by river action), CS17 (Cape Arago Slide), 24 (McCullough/Coos Bay Bridge site), 30 (Indian Bay on South Slough), 43 (Bandon village site), 62 (Whiskey Run), 136 (Coquille Point), 142 (Graveyard Pt. site), 173 (Cape Arago slide)

Curry: 35CU: 2 (Cape Blanco), 9 (Port Orford St. Pk.), 35 (Port Orford; note: the state park is large and contains other sites, many as yet not designated), 37 (Lone Ranch), 47 (Strain site, 17 mi. N. of Port Orford), 59 (Tlegetlinten site), 61 (Pistol River), 62 (Myers Creek), 67 (Indian Sands, Boardman St. Pk.), 75 (Blacklock Point), 106 (Blundon site), 160 (Goat Island)

3. Bibliography: Selected reports about Oregon native resources and sites


University Corvallis.


Vancouver.


Harrington, John P. (1942) *Notes of Interviews with Alsea, Siuslaw, and Coos Informants*. John Peabody Harrington Papers, Alaska/Northwest Coast, Microfilm Reel 021-024; Interviews with Southwest Oregon Athapaskan Informants; Microfilm Reel 025-027; National Anthropological Archives, Smithsonian Institution, Washington, D.C.


(1996) Applied Zooarchaeology: the Relevance of Faunal Analysis to


Minor, Rick, Kathryn Anne Toepel, Ruth L. Greenspan, and Debra C. Barner
(1985)


Roth, Barbara, and Roberta Hall (1995) Archaeological Testing at Site 35CS3. Report to the Coquille Indian Tribe; also on file at the Department of Anthropology, Oregon State University, Corvallis.


Results of Archaeological Excavations at 35-CS-136, Coquille Point, Bandon, Oregon. Report to U.S. Fish and Wildlife Service; on file at University of Oregon, Eugene.


4. Four tables: Sea Mammals, Invertebrates, Birds, and Fish

Table 1. Sea Mammal Species Found in Many Archaeological Sites on the Oregon Coast

**Common name** - **Formal name or category**
- California sea lion - *Zalophus californianus*
- Harbor porpoise - *Phocoena phocoena*
- Harbor seal - *Phoca vitulina*
- Northern fur seal - *Callorhinus ursinus*
- Northern elephant seal - *Mirounga angustirostris*
- Sea otter - *Enhydra lutris*
- Steller sea lion - *Eumetopias jubatus*
- Whale *Cetacea* sp.

**Most common:** The Steller’s sea lion, the sea otter, and the harbor seal are the most common sea mammals identified in Oregon coastal sites. Most of these sea mammals have declined in numbers or in locations and two, the sea otter and Northern fur seal, no longer pup on the Oregon coast. Sea mammals were used for their skins, oil and meat, and some internal organs were used to store oil and blubber; teeth were made into ornaments.

Table 2. Invertebrates Found in Many Oregon Coast Archaeological Sites

<table>
<thead>
<tr>
<th>Category</th>
<th>Formal name</th>
<th>Common name – varies in time and space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molluscs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Mytilus californianus</em></td>
<td>California or sea mussel</td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Mytilus edulis</em></td>
<td>Bay mussel</td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Protothaca staminea</em></td>
<td>Pacific little-necked clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Saxidomus giganteus</em></td>
<td>Butter clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Tresus capax</em></td>
<td>Northern gaper clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td><em>Tresus nuttallii</em></td>
<td>Pacific gaper</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Clinocardium nuttallii</td>
<td>Basket cockle or Heart cockle</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Macoma nasuta</td>
<td>Bent-nosed clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Macoma secta</td>
<td>Sand clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Volsella rectus</td>
<td>Horse mussel</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Siliqua patula</td>
<td>Razor clam</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Mya arenaria</td>
<td>Soft-shelled clam; Eastern species, introduced in the 19th century</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Haliotis refescens.</td>
<td>Red abalone</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Penitella or Zirfarea sp.</td>
<td>Piddock</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Ostrea lurida</td>
<td>Native oyster</td>
</tr>
<tr>
<td>Bivalve</td>
<td>Hinnites multirugosus</td>
<td>Giant rock scallop</td>
</tr>
<tr>
<td>Chiton</td>
<td>Malopalia muscova</td>
<td>Hairy chiton</td>
</tr>
<tr>
<td>Chiton</td>
<td>Katharina tunicata</td>
<td>Black katy chiton</td>
</tr>
<tr>
<td>Chiton</td>
<td>Cryptochiton stelleri</td>
<td>Gumboot chiton</td>
</tr>
<tr>
<td>Univalve</td>
<td>Notoacmaea sp.</td>
<td>owl’s eye limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Diadora aspera</td>
<td>Keyhole limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Acmaea mitra</td>
<td>Whitecap limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Acmaea pelta</td>
<td>Shield limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Collisella digitalis</td>
<td>Fingered limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Acmaea testudinalis</td>
<td>Plate limpet</td>
</tr>
<tr>
<td>Univalve</td>
<td>Notoacmaea sp.</td>
<td>Limpets:mask seaweed, plate</td>
</tr>
<tr>
<td>Univalve</td>
<td>Ocenebra lurida</td>
<td>Lurid rock shell</td>
</tr>
<tr>
<td>Univalve</td>
<td>Kellia laperousii</td>
<td>Kelly shell</td>
</tr>
<tr>
<td>Univalve</td>
<td>Tegula funebralis</td>
<td>Black turban or top snail</td>
</tr>
<tr>
<td>Univalve</td>
<td>Amphissa columbiana</td>
<td>Wrinkled amphissa</td>
</tr>
<tr>
<td>Univalve</td>
<td>Fusitriton oregonensis</td>
<td>Frilled dogwinkle/ Oregon</td>
</tr>
</tbody>
</table>
Univalve  *Nucella canaliculata*  Channeled dogwinkle or whelk
Univalve  *Nucella emarginata*  Emarginate dogwinkle
Univalve  *Nucella lamellosa*  Frilled/wrinkled dogwinkle/whelk
Univalve  *Olivella biplicata*  Purple olive snail
Univalve  *Searlesia dira*  Dire whelk
Univalve  *Nassarius fossatus*  Western nassar
Univalve  *Nassarius perpinguis*  Western fat nassar

**Arthropods**

Barnacle  *Balanus crenlatus*  Crenulated barnacle
Barnacle  *Balanus glandula*  Acorn barnacle
Barnacle  *Balanus nubilus*  Giant (acorn) barnacle
Barnacle  (Semi)balanus cariosus  Horse barnacle
Barnacle  *Mitella polymerus*  Goose barnacle
Barnacle  *Policipes polymerus*  Leaf barnacle
Crab  *Cancer magister*  Dungenness crab
Crab  *Cancer productus*  Red-rock crab

**Echinoderms**

Urchin  *Stryoglycentrotus franciscanus*  Red sea urchin
Urchin  *Stryoglycentrotus purpuratus*  Purple sea urchin
Sand dollar  *Dentraster excentricus*  Western sand dollar

**Scaphopoda**

Tusk  *Dentalius pretiosum*  Indian currency traded item

**Most common:** The sea mussel, various clams, and barnacles are most common, the types of clams and barnacles depending on whether the site borders an estuary or is on the rocky coast. Although some invertebrates found in middens are considered “hitch-hikers” on food items, native people
made jewelry out of shellfish such as snails and abalone, which also could have been traded; dentalium does not grow locally but served coastal natives as currency in some purchases. Some (e.g., sea mussel) preserve well because of a thick shell in contrast, e.g., to crabs and sea urchins, which do not preserve well.

Table 3. Bird Species Found in Many Oregon Coast/Estuary Archaeological Sites

<table>
<thead>
<tr>
<th>Common name</th>
<th>Formal Name or Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albatross</td>
<td>Diomedea sp.</td>
</tr>
<tr>
<td>American coot</td>
<td>Fulica americana</td>
</tr>
<tr>
<td>Bald eagle</td>
<td>Haliaeetus leucocephalus</td>
</tr>
<tr>
<td>Band tailed pigeon</td>
<td>Columba fasciata</td>
</tr>
<tr>
<td>Barrow’s goldeneye</td>
<td>Bucephala islandica</td>
</tr>
<tr>
<td>Belted kingfisher</td>
<td>Ceryle alcyon</td>
</tr>
<tr>
<td>Blue grouse</td>
<td>Dendragapus obscurus</td>
</tr>
<tr>
<td>Brant goose</td>
<td>Branta bernicla</td>
</tr>
<tr>
<td>Brown pelican</td>
<td>Pelecanus occidentalis</td>
</tr>
<tr>
<td>Bufflehead</td>
<td>Bucephala albeola</td>
</tr>
<tr>
<td>Canadian goose</td>
<td>Branta canadensis</td>
</tr>
<tr>
<td>Cassin’s auklet</td>
<td>Ptychoramphus aleuticus</td>
</tr>
<tr>
<td>Common murre</td>
<td>Uria aalge</td>
</tr>
<tr>
<td>Cormorant</td>
<td>Phalacrocorax sp.</td>
</tr>
<tr>
<td>Crow</td>
<td>Corvus brachyrhunchos</td>
</tr>
<tr>
<td>Dabbling ducks</td>
<td>Anas sp. (gadwall-strepera, green-winged teal-crecca, mallard-platyrhynchos, Northern pintail-acuta, wigeon-Americana)</td>
</tr>
<tr>
<td>Great blue heron</td>
<td>Ardea herodias</td>
</tr>
<tr>
<td>Great Horned Owl</td>
<td>Bubo virginianus</td>
</tr>
<tr>
<td>Grebe</td>
<td>Aechmophorus occidentalis (western), Podiceps auritus (horned), Podilymbus sp.</td>
</tr>
<tr>
<td>Gull</td>
<td>Larus sp.</td>
</tr>
<tr>
<td>Hawk</td>
<td>Buteo sp.</td>
</tr>
<tr>
<td>Killdeer</td>
<td>Charadrius vociferus</td>
</tr>
<tr>
<td>Loon</td>
<td>Gavia immer (common), pacifica (Pacific), stellata (red-throated)</td>
</tr>
<tr>
<td>Marbled murrelet</td>
<td>Brachyramphus marmoratus</td>
</tr>
<tr>
<td>Merganser</td>
<td>Mergus sp. or Lophodytes cucullatus</td>
</tr>
<tr>
<td>Northern shoveler</td>
<td>Spatula clypeata</td>
</tr>
<tr>
<td>Osprey</td>
<td>Pandion haliaetus</td>
</tr>
</tbody>
</table>

15
Owl - family Strigidae
Pacific fulmar - *Fulmarus glacialis*
Pigeon guillemot - *Cepphus columba*
Phalarope - *Phalaropus* sp.
Plover - *Charadrius* sp. and/or *Pluvialis* sp.
Pochard - *Aythya* sp.
Quail - *Callipepla* sp.
Rail - *Rallus* or *Gallinula*
Raven - *Corvus corax*
Rhinoceros auklet - *Ptychoramphus aleuticus*
Ruddy duck - *Oxyuru jamaicensis*
Ruffled grouse - *Bonasa umbellus*
Sanderling - *Crocenthia alba*
Sandpiper - Scolopacidae; *Calidris*
Scaup - *Aythya* sp.
Scoter - *Melanitta* sp., including surf scoter *Melanitta perspicillata*
Skua - *Cataracta skua*
Sooty shearwater - *Puffinus griseus*
Storm petrel - *Oceanodroma* sp.
Tundra swan - *Cygnus columbianus*
Tufted puffin - *Frateroula corniculata*
Western screech owl - *Megascops kennecki*
Wood duck - *Aix sponsa*
Woodpecker - family Picidae; Pileated woodpecker - *Dryocopus pileatus*

Most common: dabbling duck species, cormorants, scaups (bay ducks), scoters (sea ducks), gulls, and the common murre. Native people gathered eggs from bird nests and harvested the birds for food, decoration, raw materials for tools and whistles/pan pipes and bird-callers, ritual material or wealth for exchange (e.g., pileated woodpecker scalps), and they made clothing – capes – out of at least one species, cormorants. Because natives put almost all available resources to use, the middens can be considered to represent the available resource base.

Table 4. Fish Species Found in Many Oregon Coast Archaeological Sites

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Formal Name or Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo sculpin</td>
<td><em>Enophrys bison</em></td>
</tr>
<tr>
<td>Cabezon</td>
<td><em>Scorpaenichthys marmoratus</em></td>
</tr>
</tbody>
</table>
English sole - *Parophrys vetulus* or *Pleuronichthys vetulus*
Kelp greenling - *Hexagrammos decagrammus*
Lingcod - *Ophiodon elongatus*
Longfin smelt - *Spirinchus thaleichthys*
Northern anchovy - *Engraulis mordax*
Pacific hake - *Merlucius productus*
Pacific halibut - *Hippoglossus stenolepis*
Pacific herring - *Clupea palasi*
Pacific lamprey - *Lampetra tridentata*
Pacific sand-dab - *Citharichthys soridus*
Pacific sardine - *Sardinops sagax*
Pacific staghorn sculpin - *Leptocottus armatus*
Pacific tomcod - *Microgadus proximus*
Petrale sole - *Eopsetta jordani*
Prickleback - *Stichaeidae*
Ratfish - *Hydrolagus coliei*
Red Irish lord - *Hemilepidotus hemilepidotus*
Redtail surfperch - *Amphistichus rhodoterus*
Rockfish
  - *Sebastes miniatus* (vermillion), *melanops* (black), *paucispinis* (boccacio), *flavidus* (yellowtail), *ruberrimus* (turkey-red)
Salmonidae
  - *Oncorhynchus tshawytscha* (chinook); *kisutch* (coho); *clarki* (cutthroat trout); *mykiss* (steelhead trout)
Shiner perch - *Cymatogaster aggregata*
Skate - *Rajidae*
Soupfin shark - *Galeorhinus zyopterus* or *galeus*
Spiny dogfish - *Squatus acanthias*
Starry flounder - *Platichthys stellatus*
Striped seaperch - *Embiotoca lateralis*
Sturgeon
  - *Acipenser medirostris* (green), *transmontanus* (white or Pacific)
Smelt - *Osmeridae*
Surf perch - *Embiotocidae*; *Amphistichus* sp.; pile surf perch - *Damalichthys vacca*
Surf smelt - *Hypomesus pretiosus*
Threespine stickleback - *Gasterosteus aculeatus*
Topsmelt - *Atherinops affinis*

**Most common:** Salmon, herring, and rockfish are common in Oregon’s coastal middens. Lamprey have few hard parts that preserve but are known
from ethnographic studies and oral histories to have been plentiful along the coast. For an excellent discussion of prehistoric and contact-era fish that uses extensive ethnographic and archival documents, and for detailed information and references concerning historic-era observations (1800s, early 1900s) of habitat change and species losses, see Byram 2002: 65-82. He also shows that native communities, like today’s coastal towns and cities, were highly dependent on available fish, although they also used many land-based resources.

5. Map of Oregon coast showing selected sites

60 SITES PROVIDED INFORMATION ON FAUNA

Seaside and Tahkenitch Landing, in addition to providing data on species present, illustrate geological changes over time; a site at Boardman State Park illustrates antiquity of coastal settlement; Whale Cove, Seal Rock, Neptune, Bullards and Old Town Bandon sites provide data on species in several time periods.