

CWU Comparative Osteology Collection, List of Specimens

List updated May 2025

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Specimens collected primarily from North American mid-continent and coastal Alaska for zooarchaeological research and teaching purposes. Curated at the Zooarchaeology Laboratory, Department of Anthropology, Central Washington University, under the direction of Dr. Pat Lubinski, Pat.Lubinski@cwu.edu. Facility is located in Dean Hall Room 222 at CWU's campus in Ellensburg, Washington.

Numbers on right margin provide a count of complete or near-complete specimens in the collection. Specimens on loan from other institutions are not listed. There may also be a listing of *mount* (commercially mounted articulated skeletons), *part* (partial skeletons), *skull* (skulls), or * (in freezer but not yet processed).

Note that there are additional specimens not listed here on loan from other institutions (University of Washington Burke Museum, University of Michigan Museum of Zoology).

Vertebrate specimens in taxonomic order, then invertebrates. Taxonomy follows the Integrated Taxonomic Information System online (www.itis.gov) as of May 2024. (Update by Debra Dunning and Kariann Jimenez).

VERTEBRATES:

Phylum Chordata, Class Petromyzontida (lampreys)

Order Petromyzontiformes

Family Petromyzontidae:

Pacific lamprey *Entosphenus tridentatus* 1

Phylum Chordata, Class Chondrichthyes (cartilaginous fishes)

unidentified shark teeth 3

Order Squaliformes

Family Squalidae

Spiny dogfish *Squalus acanthias* 1

Order Rajiformes

Family Rajidae

Aleutian skate *Bathyrhaja aleutica* 1

Alaska skate *Bathyrhaja parmifera* 1

Phylum Chordata, Class Actinopterygii (ray-finned fishes)

Order Acipenseriformes:

Family Acipenseridae:

White sturgeon *Acipenser transmontanus* 1

Order Clupeiformes:

Family Clupeidae

Pacific herring *Clupea pallasii* 1

Order Cypriniformes:

Family Cyprinidae

Common carp *Cyprinus carpio* 1

Family Leuciscidae

cf. Eurasian dace *c.f. Leuciscus leuciscus* 1

Peamouth *Mylocheilus caurinus* 2

Northern pikeminnow *Ptychocheilus oregonensis* 3

Umpqua pikeminnow *Ptychocheilus umpquae* 1

Tui chub *Siphateles bicolor* part

Family Catostomidae	
Utah sucker.....	<i>Catostomus ardens</i> 2
Bridgelip sucker.....	<i>Catostomus columbianus</i> 5
White sucker.....	<i>Catostomus commersoni</i> 2
Flannelmouth sucker.....	<i>Catostomus latipinnis</i> 2
Largescale sucker.....	<i>Catostomus macrocheilus</i> 2
Mountain sucker.....	<i>Pantosteus platyrhynchus</i> 1
Unidentified sucker.....	<i>Catostomus</i> sp. 1
Bigmouth buffalo.....	<i>Ictiobus cyprinellus</i> 1
Order Siluriformes:	
Family Ictaluridae	
cf. Channel catfish.....	<i>cf. Ictalurus punctatus</i> 2
Order Osmeriformes:	
Family Osmeridae:	
Rainbow smelt.....	<i>Osmerus mordax</i> 1
Order Salmoniformes:	
Family Salmonidae	
Unidentified cisco.....	<i>cf. Coregonus artedii</i> 1
Lake whitefish.....	<i>Coregonus clupeaformis</i> 1
Cutthroat trout.....	<i>Oncorhynchus clarkii</i> 1
Pink/Humpback salmon.....	<i>Oncorhynchus gorbuscha</i> 1
Chum/Dog salmon.....	<i>Oncorhynchus keta</i> 1
Steelhead/rainbow trout.....	<i>Oncorhynchus mykiss</i> 1+
Silver/Coho salmon.....	<i>Oncorhynchus kisutch</i> 3
Chinook/King salmon.....	<i>Oncorhynchus tshawytscha</i> 4
Bear Lake/Bonneville whitefish.....	<i>Prosopium abyssicola/spilanotus</i> 1
Bonneville cisco.....	<i>Prosopium gemmifer</i> 1
Mountain whitefish.....	<i>Prosopium williamsoni</i> 4
Bull trout.....	<i>Salvelinus confluentus</i> 1
Dolly Varden.....	<i>Salvelinus malma</i> 1
Lake trout.....	<i>Salvelinus namaycush</i> 1
Order Gadiformes:	
Family Merlucciidae	
Pacific hake.....	<i>Merluccius productus</i> 2
Family Gadidae	
Saffron cod.....	<i>Eleginus gracilis</i> 5
Pacific cod.....	<i>Gadus macrocephalus</i> 3
Walleye pollock.....	<i>Gadus chalcogrammus</i> 4
Order Gasterosteiformes:	
Family Gasterosteidae	
Three-spine stickleback.....	<i>Gasterosteus aculeatus</i> 1
Order Scorpaeniformes:	
Family Scorpaenidae	
Rougeye rockfish.....	<i>Sebastes aleutianus</i> 1
Pacific Ocean perch.....	<i>Sebastes alutus</i> 1+
Redbanded rockfish.....	<i>Sebastes babcocki</i> 1
Copper rockfish.....	<i>Sebastes caurinus</i> 1
Northern rockfish.....	<i>Sebastes polyspinis</i> 1
Harlequin rockfish.....	<i>Sebastes variegatus</i> 1
Shortspine thornyhead.....	<i>Sebastolobus alascanus</i> 1
Family Anoplopomatidae:	
Sablefish (black cod).....	<i>Anoplopoma fimbria</i> 3

Family Hexagrammidae:		
Kelp greenling	<i>Hexagrammos decagrammus</i>	2
Whitespotted greenling	<i>Hexagrammos stelleri</i>	2
Lingcod	<i>Ophiodon elongatus</i>	1
Atka mackerel	<i>Pleurogrammus monopterygius</i>	3
Family Cottidae		
Unidentified marine sculpin		1
Unidentified freshwater sculpin	<i>Cottus</i> sp.	1
Red Irish Lord	<i>Hemilepidotus hemilepidotus</i>	1
Yellow Irish Lord	<i>Hemilepidotus jordani</i>	2
Longfin Irish Lord	<i>Hemilepidotus zapus</i>	1
Great sculpin	<i>Myoxocephalus polyacanthocephalus</i>	1
Cabezon	<i>Scorpaenichthys marmoratus</i>	2
Family Psychrolutidae		
Darkfin sculpin	<i>Malacocottus zonurus</i>	2
Family Liparidae		
Variegated snailfish	<i>Liparis gibbus</i>	1
Peachskin snailfish	<i>Careproctus scottae</i>	1
Order Perciformes:		
Family Moronidae		
Striped bass	<i>Morone saxatilis</i>	1
Family Percidae		
Yellow perch	<i>Perca flavescens</i>	1 mount
Family Carangidae		
Blue runner	<i>Caranx crysos</i>	1
Family Sciaenidae		
Freshwater drum	<i>Aplodinotus grunniens</i>	1
Family Trichodontidae		
Pacific sandfish	<i>Trichodon trichodon</i>	2
Family Ammodytidae		
Pacific Sandlance	<i>Ammodytes personatus</i>	1
Family Scombridae		
Pacific Chub mackerel	<i>Scomber japonicus</i>	*
Order Pleuronectiformes:		
Family Paralichthyidae		
Pacific sanddab	<i>Citharichthys sordidus</i>	3
Family Pleuronectidae		
Arrowtooth flounder	<i>Atheresthes stomias</i>	1
Petrale sole	<i>Eopsetta jordani</i>	1
Rex sole	<i>Glyptocephalus zachirus</i>	1
Flathead sole	<i>Hippoglossoides elassodon</i>	1
Bering flounder	<i>Hippoglossoides robustus</i>	2
Pacific halibut	<i>Hippoglossus stenolepis</i>	2
Rock sole	<i>Lepidopsetta bilineata</i>	2
Starry flounder	<i>Platichthys stellatus</i>	1
Alaska plaice	<i>Pleuronectes quadrituberculatus</i>	2
Greenland halibut (turbot)	<i>Reinhardtius hippoglossoides</i>	1

Phylum Chordata, Class Amphibia (amphibians)

Order Caudata:

Family Proteidae

Mudpuppy	<i>Necturus maculosus</i>	1 mount
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Family Ambystomatidae	
Eastern Tiger salamander.....	<i>Ambystoma tigrinum</i> 1
Family Rhyacotritonidae	
Cascade torrent salamander	<i>Rhyacotriton cascadae</i> part
Order Anura:	
Family Scaphiopodidae: (spadefoot toads)	
Great Basin spadefoot	<i>Spea intermontana</i> 1
Family Ranidae	
American Bullfrog.....	<i>Lithobates catesbeianus</i> 1 mount
American Bullfrog.....	<i>Lithobates catesbeianus</i> 2
Family Bufonidae	
Western toad.....	<i>Anaxyrus boreas</i> 3
Family Hylidae	
Pacific treefrog	<i>Pseudacris regilla</i> 1

Phylum Chordata, Class Reptilia (reptiles)

Order Testudines:	
Family Chelydridae	
Common snapping turtle.....	<i>Chelydra serpentina</i> 1 shell
Family Emydidae	
Painted turtle.....	<i>Chrysemys picta</i> part
Eastern box turtle.....	<i>Terrapene carolina</i> 3 shells
Pond Slider	<i>Trachemys scripta</i> 1+
cf. River cooter	<i>cf. Pseudemys concinna</i> 2
Order Squamata:	
Family Iguanidae	
Western fence lizard.....	<i>Sceloporus occidentalis</i> 2
Common Side-blotched lizard	<i>Uta stansburiana</i> part
Family Anguidae	
Southern alligator lizard	<i>Elgaria multicarinata</i> 1
Family Charinidae	
Northern Rubber boa.....	<i>Charina bottae</i> 1
Family Colubridae	
North American Racer	<i>Coluber constrictor</i> 1
Pine-gopher snake/gophersnake.....	<i>Pituophis catenifer</i> 3
Wandering/western/terrestrial gartersnake	<i>Thamnophis elegans</i> 1
Common gartersnake.....	<i>Thamnophis sirtalis</i> 2
Family Viperidae	
Copperhead.....	<i>Agkistrodon contortrix</i> 1 mount
Western/Northern Pacific rattlesnake	<i>Crotalus oreganus</i> 2
Western/Prairie rattlesnake	<i>Crotalus viridis</i> 1

Phylum Chordata, Class Aves (birds)

Order Procellariiforms	
Family Procellariidae	
Northern Fulmar	<i>Fulmarus glacialis</i> 1
Order Pelecaniformes:	
Family Pelicanidae	
American White pelican.....	<i>Pelecanus erythrorhynchos</i> part
Family Ardeidae	
Great blue heron	<i>Ardea herodias</i> 1

Order Anseriformes:

Family Anatidae

Green-winged teal	<i>Anas crecca</i>	1
Mallard (duck)	<i>Anas platyrhynchos</i>	3
Gadwall	<i>Anas strepera</i>	1
Redhead	<i>Aythya americana</i>	1
Lesser scaup	<i>Aythya affinis</i>	1
Canada goose	<i>Branta canadensis</i>	2
Bufflehead duck	<i>Bucephala albeola</i>	2
Goldeneye	<i>Bucephala</i> sp.	1
Muscovy duck	<i>Cairina moschata</i>	1
Old squaw/Long-tailed duck	<i>Clangula hyemalis</i>	1
Hooded merganser	<i>Lophodytes cucullatus</i>	1
Common merganser	<i>Mergus merganser</i>	1

Order Accipitriformes:

Family Accipitridae

Sharp-shinned hawk	<i>Accipiter striatus</i>	1
Red-tailed hawk	<i>Buteo jamaicensis</i>	2
Northern harrier	<i>Circus cyaneus</i>	1

Family Pandionidae

Osprey	<i>Pandion haliaetus</i>	1
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Order Falconiformes:

Family Falconidae

American kestrel	<i>Falco sparverius</i>	1
Merlin	<i>Falco columbarius</i>	1

Order Galliformes:

Family Phasianidae

Ruffed Grouse	<i>Bonasa umbellus</i>	3
Sage grouse	<i>Centrocercus urophasianus</i>	2+
Dusky or Sooty grouse	<i>Dendragapus obscurus or fuliginosus</i>	1
Chicken (domestic)	<i>Gallus gallus</i>	1 mount
Chicken (domestic)	<i>Gallus gallus</i>	2
Rock ptarmigan	<i>Lagopus muta</i>	1
Turkey (domestic)	<i>Meleagris gallopavo</i>	1+
Ring-necked Pheasant (introduced)	<i>Phasianus colchicus</i>	1

Family Odontophoridae

California quail	<i>Callipepla californica</i>	3
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Order Charadriiformes:

Family Laridae

Herring gull	<i>Larus argentatus</i>	1
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Family Alcidae

Common murre	<i>Uria aalge</i>	1
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Order Columbiformes:

Family Columbidae

Rock dove (domestic pigeon)	<i>Columba livia</i>	part
Passenger pigeon	<i>Ectopistes migratorius</i>	part
Mourning dove	<i>Zenaida macroura</i>	3

Order Strigiformes:

Family Strigidae

Great horned owl	<i>Bubo virginianus</i>	3
Western screech owl	<i>Megascops kennicottii</i>	1
Barred owl	<i>Strix varia</i>	1

Family Tytonidae	
Barn owl	<i>Tyto alba</i> 2
Order Coraciiformes:	
Family Alcedinidae	
Belted kingfisher	<i>Megaceryle alcyon</i> 1
Order Piciformes:	
Family Picidae:	
Northern flicker	<i>Colaptes auratus</i> 2
Hairy woodpecker	<i>Picoides villosus</i> 1
Red-breasted sapsucker	<i>Sphyrapicus ruber</i> 1
Order Passeriformes:	
Family Corvidae	
Crow/raven	<i>Corvus</i> sp..... 2
Black-billed magpie	<i>Pica hudsonia</i> 2
Family Alaudidae	
Horned lark	<i>Eremophila alpestris</i> 1
Family Turdidae	
Varied thrush	<i>Ixoreus naevius</i> 1
American robin.....	<i>Turdus migratorius</i> 2
Family Sturnidae	
European starling.....	<i>Sturnus vulgaris</i> 1
Family Cardinalidae	
Western tanager.....	<i>Piranga ludoviciana</i> 1
Family Icteridae	
Red-winged blackbird	<i>Agelaius phoeniceus</i> 1
Western meadowlark.....	<i>Sturnella neglecta</i> 1
Family Fringillidae	
House finch.....	<i>Haemorhous mexicanus</i> 1
Evening grosbeak	<i>Hesperiphona vespertina</i> 1

Phylum Chordata, Class Mammalia (mammals)

Order Didelphimorphia:	
Family Didelphidae:	
Virginia Opossum	<i>Didelphis virginiana</i> 2
Order Rodentia:	
Family Sciuridae	
White-tailed prairie dog	<i>Cynomys leucurus</i> 1+
Northern flying squirrel.....	<i>Glaucomys sabrinus</i> 2
Yellowbellied marmot.....	<i>Marmota flaviventris</i> 4
Rock squirrel	<i>Otospermophilus variegatus</i> 1
California ground squirrel	<i>Otospermophilus beecheyi</i> 3
Eastern gray squirrel.....	<i>Sciurus carolinensis</i> 1
Fox squirrel.....	<i>Sciurus niger</i> skull
Least chipmunk	<i>Tamias minimus</i> 3
Red squirrel	<i>Tamiasciurus hudsonicus</i> 1
Townsend's ground squirrel	<i>Urocitellus townsendii</i> 2+
Washington ground squirrel.....	<i>Urocitellus washingtoni</i> 1
Unidentified ground squirrel.....	<i>cf. Urocitellus elegans</i> 1
Family Castoridae	
American beaver	<i>Castor canadensis</i> 3
Family Heteromomyidae	
Ord's kangaroo rat.....	<i>Dipodomys ordii</i> 2

Family Geomyidae		
Northern pocket gopher.....	<i>Thomomys talpoides</i>	6
Family Dipodidae		
Western jumping mouse.....	<i>Zapus princeps</i>	2
Family Cricetidae		
Sagebrush vole	<i>Lemmys curtatus</i>	1
Long-tailed vole	<i>Microtus longicaudus</i>	1
Meadow vole.....	<i>Microtus pennsylvanicus</i>	1
Southern red-backed vole.....	<i>Myodes gapperi</i>	1
Bushytailed woodrat.....	<i>Neotoma cinerea</i>	2
Muskrat.....	<i>Ondatra zibethicus</i>	4
Deer mouse.....	<i>Peromyscus maniculatus</i>	1
Family Muridae		
House mouse	<i>Mus musculus</i>	1
Norway rat	<i>Rattus norvegicus</i>	2
Black rat.....	<i>Rattus rattus</i>	1+
Family Erethizontidae		
North American Porcupine	<i>Erethizon dorsatus</i>	2+
Family Echimyidae		
Nutria (introduced).....	<i>Myocastor coypus</i>	2 skulls
Order Lagomorpha		
Family Ochotonidae		
American Pika	<i>Ochotona princeps</i>	1
Family Leporidae		
Snowshoe hare.....	<i>Lepus americanus</i>	2
Blacktailed jackrabbit.....	<i>Lepus californicus</i>	1
Domestic rabbit (Flemish giant)	<i>Oryctolagus cuniculus</i>	1
Desert cottontail	<i>Sylvilagus audubonii</i>	1+
Eastern cottontail.....	<i>Sylvilagus floridanus</i>	1
Mountain cottontail	<i>Sylvilagus nuttallii</i>	1+
Order Soricimorpha		
Family Soricidae		
unidentified shrew	<i>Sorex sp.</i>	1
Family Talpidae		
Coast mole	<i>Scapanus orarius</i>	1
Townsend's mole	<i>Scapanus townsendii</i>	1+
Order Chiroptera:		
Family Vespertilionidae:		
Myotis cf. little brown bat.....	<i>Myotis sp.</i>	1
Western smallfooted myotis.....	<i>Myotis ciliolabrum</i>	1
Japanese house bat	<i>Pipistrellus abramus</i>	mount
Order Carnivora:		
Family Felidae		
Domestic cat	<i>Felis catus</i>	2
Bobcat.....	<i>Lynx rufus</i>	3
Lion or tiger.....	<i>Panthera sp.</i>	skull
Mountain Lion.....	<i>Puma concolor</i>	3+
Family Canidae		
Coyote.....	<i>Canis latrans</i>	3+
Wolf.....	<i>Canis lupus</i>	skull
Domestic dog.....	<i>Canis lupus familiaris</i>	3+
Cf. Red fox	<i>c.f Vulpes vulpes</i>	part

Family Ursidae		
Black bear	<i>Ursus americanus</i>	1+
Grizzly bear	<i>Ursus arctos</i>	skull
Family Mustelidae		
North American river otter	<i>Lontra canadensis</i>	1
American marten	<i>Martes americana</i>	2
Domestic ferret/European Polecat	<i>Mustela putorius</i>	1
Long-tailed weasel	<i>Mustela frenata</i>	1
American Mink	<i>Mustela vison</i>	4+
American Badger	<i>Taxidea taxus</i>	1+
Family Mephitidae		
Striped skunk	<i>Mephitis mephitis</i>	2+
Family Procyonidae		
Raccoon	<i>Procyon lotor</i>	4
Order Cingulata		
Family Dasypodidae		
Nine-banded Armadillo	<i>Dasypus novemcinctus</i>	part
Order Perissodactyla		
Family Equidae		
Horse	<i>Equus caballus</i>	1+
Order Artiodactyla:		
Family Suidae		
Pig (domestic)	<i>Sus scrofa</i>	2+
Family Tayassuidae		
Collared peccary	<i>Pecari tajacu</i>	1 skull
Family Cervidae		
Moose	<i>Alces americanus</i>	part
Elk	<i>Cervus elaphus</i>	3
Mule deer	<i>Odocoileus hemionus</i>	3+
White-tailed deer	<i>Odocoileus virginianus</i>	2
Family Antilocapridae		
Pronghorn	<i>Antilocapra americana</i>	1+
Family Bovidae		
Bison	<i>Bison bison</i>	2
Domestic cattle	<i>Bos taurus</i>	1+
Domestic goat	<i>Capra hircus</i>	2 (neo)
Domestic sheep	<i>Ovis aries</i>	4+
Bighorn sheep	<i>Ovis canadensis</i>	skull

INVERTEBRATES:

Phylum Mollusca, Class Polyplacophora (chitons)

Order Chitonida		
Family Mopaliidae		
Black Katy (chiton)	<i>Katharina tunicata</i>	1
Hairy Mopalia (chiton)	<i>Mopalia ciliata</i>	1

Phylum Mollusca, Class Gastropoda (single-shelled Molluscs)

Order Fissurellida		
Family Fissurellidae		
Rough Keyhole Limpet	<i>Diodora aspera</i>	1

Order Trochida	
Family Callistomatidae	
Blue topsnail (formerly Western ribbed topshell) <i>Calliostoma ligatum</i>	1
Order Tonnida	
Family Ranellidae	
Oregon/Hairy Triton..... <i>Fusitriton oregonensis</i>	1
Order Littorinida	
Family Littorinidae	
Unidentified periwinkle	<i>Littorina</i> sp..... 1
Order Neogastropoda	
Family Muricidae	
unidentified dogwinkle.....	<i>Nucella</i> sp..... 1
Order Nacellida	
Family Acmaeidae	
Unidentified limpet	unknown sp..... 1
Whitecap limpet	<i>Acmaea mitra</i> 1
(Pacific) Plate limpet.....	<i>Notoacmea scutum</i> 1

Phylum Mollusca, Class Bivalvia (bivalves)

Order Mytilida	
Family Mytilidae	
Blue Mussel.....	<i>Mytilus edulis</i> 2
Order Myoida	
Family Myidae	
Unidentified gaper clam.....	unknown sp..... 1
Order Veneroida	
Family Veneridae	
Butter clam	<i>Saxidomus giganteus</i> 1
Pacific littleneck	<i>Protothaca staminea</i> 2
Family Mactridae	
Horse clam/fat gaper	<i>Tresus capax</i> 2
Alaska surf clam.....	<i>Mactromeris polynyma</i> 2
Order Cardiida	
Family Cardiidae	
Unidentified cockle	<i>Clinocardium</i> sp..... 2
Order Solenida	
Family Pharidae	
Unidentified razor clam.....	<i>Siliqua</i> sp..... 2
Order Arcida	
Family Anomiidae	
Alaska jingle.....	<i>Pododesmus macrochisma</i> 1

Phylum Echinodermata, Class Echinoidea (sea urchins & sand dollars)

Order Echinoida	
Family Strongylocentrotidae	
Sea urchin	<i>Strongylocentrotus</i> sp part
Order Clypeasteroida	
Family Dendrasteridae	
Eccentric sand dollar	<i>Dendraster excentricus</i> 1