

## Appendix F

### Wildlife-Salmonid Relationships

**Table F1.** Wildlife species in the Yakima subbasin, Washington that eat salmonids (IBIS 2003).

Common Name	Scientific Name	Relationship Type	Salmonid Stage
<b>Amphibians</b>			
Cope's Giant Salamander	<i>Dicamptodon copei</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Incubation - eggs and alevin
Pacific Giant Salamander	<i>Dicamptodon tenebrosus</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Incubation - eggs and alevin
<b>Birds</b>			
Common Loon	<i>Gavia immer</i>	Rare	Carcasses
		Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Pied-billed Grebe	<i>Podilymbus podiceps</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
Western Grebe	<i>Aechmophorus occidentalis</i>	Rare	Carcasses
		Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Saltwater - smolts, immature adults, and adults
Clark's Grebe	<i>Aechmophorus clarkii</i>	Recurrent	Saltwater - smolts, immature adults, and adults
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Great Blue Heron	<i>Ardea herodias</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Saltwater - smolts, immature adults, and adults
Great Egret	<i>Ardea alba</i>	Rare	Saltwater - smolts, immature adults, and adults

Common Name	Scientific Name	Relationship Type	Salmonid Stage
		Rare	Freshwater rearing - fry, fingerling, and parr
Green Heron	<i>Butorides virescens</i>	Rare	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Saltwater - smolts, immature adults, and adults
Black-crowned Night-heron	<i>Nycticorax nycticorax</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Saltwater - smolts, immature adults, and adults
Turkey Vulture	<i>Cathartes aura</i>	Recurrent	Carcasses
Mallard	<i>Anas platyrhynchos</i>	Rare	Incubation - eggs and alevin
		Rare	Carcasses
Green-winged Teal	<i>Anas crecca</i>	Rare	Incubation - eggs and alevin
Canvasback	<i>Aythya valisineria</i>	Rare	Carcasses
Greater Scaup	<i>Aythya marila</i>	Rare	Incubation - eggs and alevin
		Rare	Carcasses
Harlequin Duck	<i>Histrionicus histrionicus</i>	Indirect	Carcasses
		Strong, consistent	Saltwater - smolts, immature adults, and adults
		Strong, consistent	Incubation - eggs and alevin
Barrow's Goldeneye	<i>Bucephala islandica</i>	Recurrent	Incubation - eggs and alevin
		Recurrent	Carcasses
		Recurrent	Freshwater rearing - fry, fingerling, and parr
		Rare	Saltwater - smolts, immature adults, and adults
Hooded Merganser	<i>Lophodytes cucullatus</i>	Rare	Freshwater rearing - fry, fingerling, and parr
		Rare	Carcasses
		Rare	Incubation - eggs and alevin
Common Merganser	<i>Mergus merganser</i>	Strong, consistent	Saltwater - smolts, immature adults, and adults
		Strong, consistent	Incubation - eggs and alevin
		Recurrent	Carcasses
		Strong, consistent	Freshwater rearing - fry, fingerling, and parr

Common Name	Scientific Name	Relationship Type	Salmonid Stage
Osprey	<i>Pandion haliaetus</i>	Strong, consistent	Saltwater - smolts, immature adults, and adults
		Strong, consistent	Spawning - freshwater
		Strong, consistent	Freshwater rearing - fry, fingerling, and parr
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Indirect	Carcasses
		Indirect	Freshwater rearing - fry, fingerling, and parr
		Strong, consistent	Spawning - freshwater
		Indirect	Saltwater - smolts, immature adults, and adults
		Strong, consistent	Carcasses
		Strong, consistent	Saltwater - smolts, immature adults, and adults
		Indirect	Incubation - eggs and alevin
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Rare	Carcasses
Golden Eagle	<i>Aquila chrysaetos</i>	Recurrent	Spawning - freshwater
		Recurrent	Carcasses
Gyrfalcon	<i>Falco rusticolus</i>	Indirect	Saltwater - smolts, immature adults, and adults
		Indirect	Carcasses
		Indirect	Freshwater rearing - fry, fingerling, and parr
Killdeer	<i>Charadrius vociferus</i>	Indirect	Carcasses
Greater Yellowlegs	<i>Tringa melanoleuca</i>	Rare	Incubation - eggs and alevin
Spotted Sandpiper	<i>Actitis macularia</i>	Indirect	Carcasses
Bonaparte's Gull	<i>Larus philadelphia</i>	Recurrent	Carcasses
		Recurrent	Incubation - eggs and alevin
		Recurrent	Saltwater - smolts, immature adults, and adults
Heermann's Gull	<i>Larus heermanni</i>	Recurrent	Saltwater - smolts, immature adults, and adults
Ring-billed Gull	<i>Larus delawarensis</i>	Recurrent	Carcasses
		Recurrent	Freshwater rearing - fry, fingerling, and parr

Common Name	Scientific Name	Relationship Type	Salmonid Stage
		Recurrent	Saltwater - smolts, immature adults, and adults
California Gull	<i>Larus californicus</i>	Recurrent	Carcasses
		Recurrent	Saltwater - smolts, immature adults, and adults
Herring Gull	<i>Larus argentatus</i>	Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Carcasses
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Thayer's Gull	<i>Larus thayeri</i>	Recurrent	Saltwater - smolts, immature adults, and adults
Glaucous-winged Gull	<i>Larus glaucescens</i>	Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Incubation - eggs and alevin
		Recurrent	Carcasses
		Recurrent	Spawning - freshwater
Glaucous Gull	<i>Larus hyperboreus</i>	Recurrent	Carcasses
		Recurrent	Saltwater - smolts, immature adults, and adults
Caspian Tern	<i>Sterna caspia</i>	Strong, consistent	Saltwater - smolts, immature adults, and adults
		Strong, consistent	Freshwater rearing - fry, fingerling, and parr
Forster's Tern	<i>Sterna forsteri</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Saltwater - smolts, immature adults, and adults
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Belted Kingfisher	<i>Ceryle alcyon</i>	Recurrent	Saltwater - smolts, immature adults, and adults
		Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Spawning - freshwater
Willow Flycatcher	<i>Empidonax traillii</i>	Indirect	Carcasses
Gray Jay	<i>Perisoreus canadensis</i>	Rare	Carcasses
Steller's Jay	<i>Cyanocitta stelleri</i>	Recurrent	Carcasses

Common Name	Scientific Name	Relationship Type	Salmonid Stage
Black-billed Magpie	<i>Pica pica</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Carcasses
American Crow	<i>Corvus brachyrhynchos</i>	Recurrent	Carcasses
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Common Raven	<i>Corvus corax</i>	Recurrent	Spawning - freshwater
		Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Carcasses
Tree Swallow	<i>Tachycineta bicolor</i>	Indirect	Carcasses
Violet-green Swallow	<i>Tachycineta thalassina</i>	Indirect	Carcasses
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Indirect	Carcasses
Bank Swallow	<i>Riparia riparia</i>	Indirect	Carcasses
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	Indirect	Carcasses
Barn Swallow	<i>Hirundo rustica</i>	Indirect	Carcasses
Winter Wren	<i>Troglodytes troglodytes</i>	Rare	Carcasses
American Dipper	<i>Cinclus mexicanus</i>	Indirect	Carcasses
		Recurrent	Incubation - eggs and alevin
		Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Carcasses
American Robin	<i>Turdus migratorius</i>	Rare	Incubation - eggs and alevin
Varied Thrush	<i>Ixoreus naevius</i>	Rare	Incubation - eggs and alevin
		Rare	Carcasses
Spotted Towhee	<i>Pipilo maculatus</i>	Rare	Carcasses
Song Sparrow	<i>Melospiza melodia</i>	Rare	Carcasses
<b>Mammals</b>			
Virginia Opossum	<i>Didelphis virginiana</i>	Recurrent	Carcasses
Masked Shrew	<i>Sorex cinereus</i>	Indirect	Carcasses
		Rare	Carcasses

Common Name	Scientific Name	Relationship Type	Salmonid Stage
Vagrant Shrew	<i>Sorex vagrans</i>	Indirect	Carcasses
		Rare	Carcasses
Montane Shrew	<i>Sorex monticolus</i>	Indirect	Carcasses
		Rare	Carcasses
Water Shrew	<i>Sorex palustris</i>	Recurrent	Carcasses
		Indirect	Carcasses
		Recurrent	Incubation - eggs and alevin
		Recurrent	Freshwater rearing - fry, fingerling, and parr
Pacific Water Shrew	<i>Sorex bendirii</i>	Rare	Carcasses
		Indirect	Carcasses
Trowbridge's Shrew	<i>Sorex trowbridgii</i>	Indirect	Carcasses
		Rare	Carcasses
Douglas' Squirrel	<i>Tamiasciurus douglasii</i>	Rare	Carcasses
Northern Flying Squirrel	<i>Glaucomys sabrinus</i>	Rare	Carcasses
Deer Mouse	<i>Peromyscus maniculatus</i>	Rare	Carcasses
American Beaver	<i>Castor canadensis</i>		Various Stages
		Strong, consistent	
Coyote	<i>Canis latrans</i>	Recurrent	Carcasses
Gray Wolf	<i>Canis lupus</i>	Recurrent	Carcasses
		Recurrent	Spawning - freshwater
Red Fox	<i>Vulpes vulpes</i>	Rare	Carcasses
Gray Fox	<i>Urocyon cinereoargenteus</i>	Rare	Carcasses
Black Bear	<i>Ursus americanus</i>	Strong, consistent	Spawning - freshwater
		Strong, consistent	Carcasses
Grizzly Bear	<i>Ursus arctos</i>	Strong, consistent	Spawning - freshwater
		Strong, consistent	Carcasses
Raccoon	<i>Procyon lotor</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Carcasses
American Marten	<i>Martes americana</i>	Rare	Carcasses

<b>Common Name</b>	<b>Scientific Name</b>	<b>Relationship Type</b>	<b>Salmonid Stage</b>
Fisher	<i>Martes pennanti</i>	Rare	Carcasses
Long-tailed Weasel	<i>Mustela frenata</i>	Rare	Carcasses
Mink	<i>Mustela vison</i>	Recurrent	Freshwater rearing - fry, fingerling, and parr
		Recurrent	Carcasses
		Recurrent	Spawning - freshwater
Wolverine	<i>Gulo gulo</i>	Rare	Carcasses
Striped Skunk	<i>Mephitis mephitis</i>	Rare	Carcasses
Northern River Otter	<i>Lutra canadensis</i>	Strong, consistent	Spawning - freshwater
		Strong, consistent	Carcasses
		Strong, consistent	Freshwater rearing - fry, fingerling, and parr
Mountain Lion	<i>Puma concolor</i>	Rare	Spawning - freshwater
Bobcat	<i>Lynx rufus</i>	Recurrent	Spawning - freshwater
		Recurrent	Carcasses
<b>Reptiles</b>			
Western Pond Turtle	<i>Clemmys marmorata</i>	Rare	Carcasses
		Rare	Freshwater rearing - fry, fingerling, and parr
Common Garter Snake	<i>Thamnophis sirtalis</i>	Rare	Freshwater rearing - fry, fingerling, and parr