Wildlife-Habitat Short Class Descriptions

These short definitions were created only to help GIS data users to more quickly begin using the Northwest Habitat Institute's Wildlife-Habitat data. For more detailed class descriptions, please see the book and/or CD-ROM, *Wildlife-Habitat Relationships in Oregon and Washington* (Johnson, D. H. and T. A. O'Neil. Oregon State University Press. 2001). Information on how to obtain these resources is available on the Northwest Habitat Institute's web site (http://www.nwhi.org) by selecting "WHROW" from the menu. Complete wildlife-habitat definitions and pictures are also available on the Northwest Habitat Institute's Interactive Biodiversity Information System (IBIS) at http://www.nwhi.org/ibis.

1 - WESTSIDE LOWLAND CONIFER-HARDWOOD FOREST
This is the most extensive habitat in the lowlands on the westside of the Cascades, except in southwestern Oregon, and forms the matrix within which other habitats occur as patches, especially Westside Riparian-Wetlands and less commonly Herbaceous Wetlands or Open Water. It also occurs adjacent to or in a mosaic with Urban or Agriculture habitats. In the driest areas, it occurs adjacent to or in a mosaic with Westside Oak and Dry Douglas-fir Forest and Woodlands. Bordering this habitat at upper elevations is Montane Mixed Conifer Forest. Along the coastline, it often occurs adjacent to Coastal Dunes and Beaches. In southwestern Oregon, it may border Southwest Oregon Mixed Conifer-Hardwood Forest. The primary land use for this habitat is forestry.

2 - WESTSIDE OAK AND DRY DOUGLAS-FIR FOREST AND WOODLANDS
This habitat is found in a mosaic with, or adjacent to, Westside Grasslands, Westside Lowlands Conifer-Hardwood Forest, Westside Riparian-Wetlands, Urban, and Agriculture. Inclusions of Open Water or Herbaceous Wetlands sometimes occur. In the Puget Lowland, this habitat is sometimes found adjacent to Puget Sound (Nearshore Marine). Land use of this habitat includes forestry (generally small scale), livestock grazing, and low-density rural residential.

3 - SOUTHWEST OREGON MIXED CONIFER-HARDWOOD FOREST
This habitat is typically bounded at its upper elevation limits by Montane Mixed Conifer Forest and at its lower limits, along the coast, by Westside Lowlands Conifer-Hardwood Forest. At lower elevations in the Rogue and Umpqua valleys it can be found in a mosaic with Westside Oak and Dry Douglas-fir Forest and Woodland, Ceanothus-Manzanita Shrublands, Urban, and Agriculture. Small inclusions of Open Water, Herbaceous Wetlands, Westside Riparian-Wetlands, and Ceanothus-Manzanita Shrublands occur scattered throughout this habitat. The predominant land use is forestry. Low-density residential is prominent in the Rogue and Umpqua valleys. Grazing occurs on some areas, especially at lower elevations.

4 - MONTANE MIXED CONIFER FOREST
This habitat is found adjacent to Westside Lowlands Conifer-Hardwood Forest, Eastside Mixed Conifer Forests, or Southwest Oregon Mixed Conifer-Hardwood Forest at its lower elevation limits and to Subalpine Parkland at its upper elevation limits. Inclusions of Montane Forested Wetlands, Westside Riparian/Wetlands, and less commonly Open Water or Herbaceous Wetlands occur within the matrix of montane forest habitat. The typical land use is forestry or recreation. Most of this type is found on public lands managed for timber values and much of it has been harvested in a dispersed-patch pattern.

5 - EASTSIDE (INTERIOR) MIXED CONIFER FOREST
This habitat makes up most of the continuous montane forests of the inland Pacific Northwest. It is located between the subalpine portions of the Montane Mixed Conifer Forest habitat in eastern Oregon and Washington and lower tree line ponderosa pine and Eastside Oak Forests and Woodlands.

6 - LODGEPOLE PINE FOREST AND WOODLANDS
This habitat appears within Montane Mixed Conifer Forest east of the Cascade crest and the cooler Eastside Mixed Conifer Forest habitats. Most pumice soil lodgepole pine habitat is intermixed with Ponderosa Pine Woodland and Forest Habitats and is located between Eastside Mixed Conifer Forest habitat and either Western Juniper Woodland or Shrubsteppe habitat.

7 - PONDEROSA PINE AND EASTSIDE WHITE OAK FOREST AND WOODLANDS
This woodland habitat typifies the lower treeline zone forming transitions with Eastside Mixed Conifer Forest and Western Juniper and Mountain Mahogany Woodland, Shrubsteppe, Eastside Grassland, or Agriculture habitats. Douglas-fir-ponderosa pine woodlands are found near or within the Eastside Mixed Conifer Forest habitat. Oregon oak woodlands appear in the driest most restricted landscapes in transition to Eastside Grassland or Shrubsteppe.

8 - UPLAND ASPEN FOREST
Aspen forms a "subalpine belt" above the Western Juniper and Mountain Mahogany Woodland habitat and below Montane Shrubsteppe Habitat on Steens Mountain in southern Oregon. It can occur in seral stands in the lower Eastside Mixed Conifer Forest and Ponderosa Pine-White Oak Woodland habitats. Primary land use is livestock grazing.

9 - SUBALPINE PARKLANDS
The Subalpine Parkland habitat lies above the Mixed Montane Conifer Forest or Lodgepole Pine Forest habitat and below the Alpine Grassland and Shrubland habitat. Associated wetlands in subalpine parklands extend up a short distance into the alpine zone. Primary land use is recreation, watershed protection, and grazing.

10 - ALPINE GRASSLANDS AND SHRUBLANDS
This habitat always occurs above upper treeline in the mountains or a short distance below it (grasslands in the subalpine parkland zone). Typically, it occurs adjacent to, or in a mosaic with, Subalpine Parkland. Occasionally, it may grade quickly from this habitat down into Montane Mixed Conifer Forest without intervening Subalpine Parkland. In southeastern Oregon, this habitat occurs adjacent to and above Upland Aspen Forest and Shrubsteppe habitats. Small areas of Open Water, Herbaceous Wetlands, and Subalpine Parkland habitats sometimes occur within a matrix of this habitat. Cliffs, talus, and other barren areas are common features within or adjacent to this habitat. Land use is primarily recreation, but in some areas east of the Cascade Crest, it is grazing, especially by sheep.

11 - WESTSIDE GRASSLANDS
This habitat occurs adjacent to or in a mosaic with Westside Riparian-Wetlands, Westside Oak and Dry Douglas-fir Forests and Woodlands, Agriculture, or Urban habitats. Westside grassland habitat rarely occurs in a matrix of Westside Lowland Conifer-Hardwood Forest. In the San Juan Islands, the habitat sometimes occurs on bluffs or slopes adjacent to marine habitats. Currently this habitat is used for grazing, recreation, and, in the southern Puget Sound area, for military training.

12 - CEANOTHUS-MANZANITA SHRUBLANDS
This habitat occurs adjacent to or in a mosaic with Southwest Oregon Mixed Conifer-Hardwood Forest, Westside Oak and Dry Douglas-fir Forest and Woodlands, Agriculture, and rarely, Westside Grassland. Urban is also adjacent in few areas. Westside Riparian-Wetlands habitat occurs as small inclusions within this habitat. This habitat covers large areas only in lower elevation valleys or on extensive areas of serpentine bedrock. At moderate to high elevations it is mainly small patches within a forest mosaic. Major land use of this habitat is grazing and low-density residential development.

13 - WESTERN JUNIPER AND MOUNTAIN MAHOGANY WOODLANDS
This habitat reflects a transition between Ponderosa Pine and Eastside Oak Forest and Woodland and Shrubsteppe, Eastside Grassland, and rarely Desert Playa and Salt Desert Scrub habitats. Western juniper generally occurs on higher topography, whereas the shrub communities are more common in depressions or steep slopes with bunchgrass undergrowth. In the Great Basin, mountain mahogany may form a distinct belt on mountain slopes and ridgetops above pinyon-juniper woodland. Mountain-mahogany can occur in isolated, pure patches that are often very dense. The primary land use is livestock grazing.

14 - EASTSIDE (INTERIOR) CANYON SHRUBLANDS
This habitat is generally found in steep canyons surrounded by the Eastside Grassland Habitat and below or in a mosaic with the Ponderosa Pine and Eastside Oak Woodland habitat. This habitat can develop near talus slopes, at the heads of dry drainages, and toe slopes in moist shrubsteppe and steppe zones. At lower elevation sites, these are more often in a mix with bluebunch wheatgrass, dry rocky grasslands, and low-elevation riparian habitats. The primary surrounding land use is livestock grazing.

15 - EASTSIDE (INTERIOR) GRASSLANDS
Eastside grassland habitats appear well below and in a matrix with lower treeline ponderosa pine and eastside oak forests and woodlands or western juniper and mountain mahogany woodlands. It can also be part of the lower elevation forest matrix. Most grassland habitat occurs in 2 distinct large landscapes: plateau and canyon grasslands. Several rivers flow through narrow basalt canyons below plateaus supporting prairies or shrubsteppe. The canyons can be some 2,132 ft (650 m) deep below the plateau. The plateau above is composed of gentle slopes with deep silty loess soils in an expansive rolling dune-like landscape. Grasslands may occur in a patchwork with shallow soil scablands or within biscuit scablands or mounded topography. Naturally occurring grasslands are beyond the range of bitterbrush and sagebrush species. This habitat exists today in the shrubsteppe landscape where grasslands are created by brush removal, chaining or spraying, or by fire. Agricultural uses and introduced perennial on abandoned or planted fields are common throughout the current distribution of eastside grassland habitats.

16 - SHRUB-STEPPE
Shrubsteppe habitat defines a biogeographic region and is the major vegetation on average sites in the Columbia Plateau, usually below Ponderosa Pine and Oregon White Oak Woodland, and Western Juniper and Mountain Mahogany Woodland habitats. It forms mosaic landscapes with these woodland habitats and Eastside Grassland, Dwarf-shrub Shrubsteppe, and Desert Playa and Salt Scrub habitats. Mountain sagebrush shrubsteppe occurs at high elevations occasionally within the dry Eastside Mixed Conifer and Montane Mixed Forest habitats. Shrubsteppe habitat can appear in large landscape patches. Livestock grazing is the primary land use in the shrubsteppe although much has been converted to irrigation or dry land agriculture. Large areas occur in military training areas and wildlife refuges.

17 - DWARF SHRUB-STEPPE
These scabland habitats form a mosaic with Shrubsteppe habitat, Eastside Grassland habitat, and with Western Juniper and Mountain Mahogany Woodland or Ponderosa pine and Eastside Oak Forest and Woodland habitats. Low sagebrush stands are often extensive and occasionally occur in a mosaic with big sagebrush, stiff sagebrush, or black sagebrush steppe or within lower treeline woodlands. Stiff sagebrush stands may also be extensive, but usually occur in a mosaic with grassland, big sagebrush or occasionally in juniper (*Juniperus occidentalis*) or Ponderosa pine (*Pinus ponderosa*) woodlands. Black sagebrush stands are extensive and may occur in a mosaic with low sagebrush or mountain or Wyoming big sagebrush.

18 - DESERT PLAYA AND SALT SCRUB
This habitat is typically surrounded by shrubsteppe habitat. It forms a habitat mosaic of playas, salt grass meadows, salt desert shrublands and sagebrush shrublands. This habitat may be associated with Herbaceous Wetland habitat. Local land use can result in juxtaposition with Agriculture or Eastside Grassland habitat. Most of this habitat provides rangeland for livestock, particularly as winter range. Portions of this habitat associated with water are most attractive to livestock. Other portions of this type are designated wildlife refuges.

19 - AGRICULTURE, PASTURE, AND MIXED ENVIRONS
Agricultural habitat occurs within a matrix of other habitat types at low to mid-elevations, including Eastside grasslands, Shrubsteppe, Westside Lowlands Conifer-Deciduous Forest and other low to mid-elevation forest and woodland habitats. This habitat often dominates the landscape in flat or gently rolling terrain, on well-developed soils, broad river valleys, and areas with access to abundant irrigation water. Unlike other habitat types, agricultural habitat is often characterized by regular landscape patterns (squares, rectangles, and circles) and straight borders because of ownership boundaries and multiple crops within a region. Edges can be abrupt along the habitat borders within agricultural habitat and with other adjacent habitats.

20 - URBAN AND MIXED ENVIORNS
Urban development occurs within or adjacent to nearly every habitat type in Oregon and Washington, and often replaces habitats that are valuable for wildlife. The highest urban densities normally occur in lower elevations along natural or human-made transportation corridors, such as rivers, railroad lines, coastlines, or interstate highways. These areas often contain good soils with little or no slope and lush vegetation. Once level areas become crowded, growth continues along rivers or shores of lakes or oceans, and eventually up elevated sites with steep slopes or rocky outcrops. Because early settlers often modified the original landscape for agricultural purposes, many of our urban areas are surrounded by agricultural and grazing lands.

21 - LAKES, RIVERS, PONDS, AND RESERVOIRS
This habitat occurs throughout Washington and Oregon. Ponds, lakes, and reservoirs are adjacent to Herbaceous Wetlands, while rivers and streams adjoin the Westside Riparian, Eastside Riparian and Bays and Estuaries.

22 - HERBACEOUS WETLANDS
Herbaceous wetlands are found in all terrestrial habitats except Subalpine Parkland, Alpine Grassland, and Shrubland habitats. Herbaceous wetlands commonly form a pattern with Westside and Eastside Riparian/Wetland and Montane Coniferous Wetlands habitats along stream corridors. These marshes and wetlands also occur in closed basins in a mosaic with open water by lakeshores or ponds. Extensive deflation plain wetlands have developed between Coastal Duns and Beaches habitat and the Pacific Ocean. Herbaceous wetlands are found in a mosaic with alkali grasslands in the Desert Playa and Salt Scrub habitat.

23 - WESTSIDE RIPARIAN - WETLANDS
This habitat typically occupies patches or linear strips within a matrix of forest or regrowing forest. The most frequent matrix habitat is Westside Lowlands Conifer-Hardwood Forest. If not forest, the matrix can be Agriculture, Urban, or Coastal Dunes and Beaches habitats, or rarely Westside Grasslands or Ceanothus-Manzanita Shrublands. This habitat also forms mosaics with or includes small patches of Herbaceous Wetlands. Open Water habitat is often adjacent to Westside Riparian-Wetlands. The major land use of the forested portions of this habitat is timber harvest. Grazing occurs in some areas. Peat mining occurs in some bogs.

24 - MONTANE CONIFEROUS WETLANDS
This habitat occurs along stream courses or as patches, typically small, within a matrix of Montane Mixed Conifer Forest, or less commonly, Eastside Mixed Conifer Forest or Lodgepole Pine Forest and Woodlands. It also can occur adjacent to other wetland habitats: Eastside Riparian-Wetlands, Westside Riparian-Wetlands, or Herbaceous Wetlands. The primary land uses are forestry and watershed protection.

25 - EASTSIDE (INTERIOR) RIPARIAN WETLANDS
Eastside riparian habitats occur along streams, seeps, and lakes within the Eastside Mixed Conifer Forest, Ponderosa Pine and Oregon White Oak Forest and Woodland, Western Juniper and Mountain Mahogany Woodland, and part of the Shrubsteppe habitat. This habitat may be described as occupying warm, montane and adjacent valley and plain riparian environments.

26 - COASTAL DUNES AND BEACHES
This habitat occurs in a natural mosaic with Westside Lowland Conifer-Hardwood Forest, Westside Riparian-Wetlands, and Herbaceous Wetlands. Forests adjacent to this habitat are found on stabilized dunes and are dominated by shore pine and Sitka spruce. Wooded, shrubby, and herbaceous wetlands occur in seasonally flooded deflation plains or dune troughs. Hooker's willow (*Salix hookeriana*) and slough sedge (*Carex obnupta*) are the 2 most characteristic species in these wetlands. This habitat is in a mosaic with the Urban habitat, as coastal areas have been developed extensively for tourism and low-density residential uses. Recreation is a major land use and includes the use of off-road vehicles. In southern Washington and northern Oregon, the wetlands are often converted to agriculture for cranberries.

27 - COASTAL HEADLANDS AND ISLETS
This habitat is always located adjacent to, or in the case of the rock islets ("sea stacks"), within the Marine Nearshore habitat. It is found mainly along the outer coastline where it typically occupies small areas between the Marine Nearshore and Westside Lowland Conifer-Hardwood Forest or on small islands. Cliffs are a common feature. In far southern Oregon (Curry County), it occupies continuous ocean-facing slopes for many miles. Land use is recreation or low-density residential.

28 - BAYS AND ESTUARIES
This habitat is adjacent to Westside Riparian, Coastal Dunes and Beaches, Westside Lowland Coniferous-Hardwood Forest, Coastal Headland and Islet, Marine Nearshore, and Inland Marine Deeper Waters habitats. Major uses of bays and estuaries are recreation, tourism, the shellfish industry, and navigation. The terrestrial interface portions of this habitat have been extensively converted for agricultural crop production, livestock grazing, and residential and commercial development. Water channels of many areas have been dredged for ship navigation.

29 - INLAND MARINE DEEPER WATERS
This habitat is commonly adjacent to Bays and Estuaries, Coastal Headland and Islets, and Marine Nearshore habitats and merges with the Marine Shelf habitat in the Strait of Juan de Fuca. Inland marine waters are used extensively for navigation, commercial transport of goods, recreation, tourism, and fishery operations.

30 - MARINE NEARSHORE
This habitat is adjacent to the Marine Shelf, Inland Marine Deeper Waters, Bays and Estuaries, and a number of terrestrial-based habitats (e.g., Coastal Dunes and Beaches, Westside Lowland Conifer-Hardwood Forest, and Urban). It occurs in a mosaic with Coastal Headlands and Islets.

31 - MARINE SHELF
This habitat is located between the Nearshore Marine and Oceanic habitats; at about one third of the way into the Strait of Juan de Fuca, this habitat adjoins the Inland Marine Deeper Water habitat.

32 - OCEANIC
The Oceanic habitat adjoins the shallower marine waters of the Marine Shelf habitat. Structure.