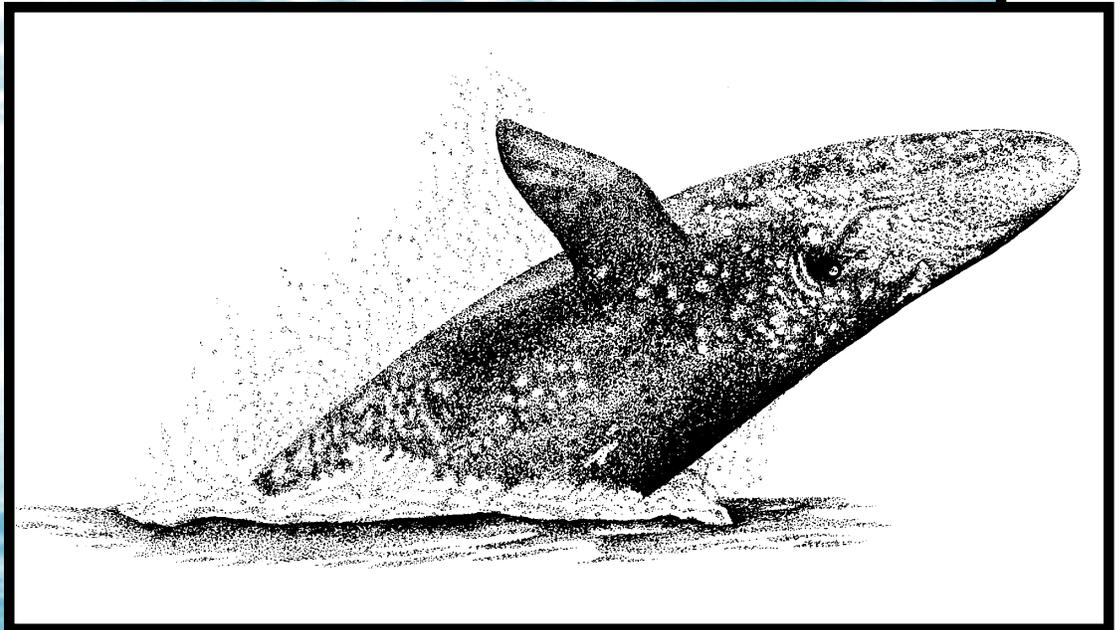


Gray Whale



by Scott Richardson



Washington Department of
FISH AND WILDLIFE
Wildlife Management Program

The Washington Department of Fish and Wildlife maintains a list of endangered, threatened and sensitive species (Washington Administrative Codes 232-12-014 and 232-12-011, Appendix). In 1990, the Washington Fish and Wildlife Commission adopted listing procedures developed by a group of citizens, interest groups, and state and federal agencies (Washington Administrative Code 232-12-297, Appendix). The procedures include how species listing will be initiated, criteria for listing and delisting, public review and recovery and management of listed species.

The first step in the process is to develop a preliminary species status report. The report includes a review of information relevant to the species' status in Washington and addresses factors affecting its status including, but not limited to: historic, current, and future species population trends, natural history including ecological relationships, historic and current habitat trends, population demographics and their relationship to long term sustainability, and historic and current species management activities.

The procedures then provide for a 90-day public review opportunity for interested parties to submit new scientific data relevant to the status report, classification recommendation, and any State Environmental Policy Act findings. During the 90-day review period, the Department holds one public meeting in each of its administrative regions. At the close of the comment period, the Department completes the Final Status Report and Listing Recommendation for presentation to the Washington Fish and Wildlife Commission. The Final Report and Recommendation are then released 30 days prior to the Commission presentation for public review.

This is a Final Status Report for the gray whale. **Submit written comments on this report by August 3, 1997 to: Endangered Species Program Manager, Washington Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091.** The Department will present the results of this status review to the Fish and Wildlife Commission for action at the August 8-9 meeting in Richland, Washington.

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Washington State Status Report
for the
Gray Whale

Washington Department of Fish and Wildlife
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Olympia, Washington 98501

Prepared by Scott Richardson

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Comments on the draft status report from several reviewers helped to refine this report.

The Department appreciates the contributions of all who assisted with the completion of this status report.

EXECUTIVE SUMMARY

The eastern Pacific population of the gray whale migrates through Washington waters when traveling between its Alaskan feeding waters and its Mexican breeding waters. A few gray whales reside in the state's nearshore waters during portions of the summer; these "summer residents" are known to move among Washington localities and into British Columbia.

The abundance of gray whales in the eastern Pacific is estimated to be as great or greater now than it was prior to the onset of commercial exploitation around 1850. The population of approximately 23,000 whales is no longer in danger of extinction. The U.S. Fish and Wildlife Service delisted the species in 1994, based on the recommendation of the National Marine Fisheries Service (the western Pacific population remains endangered).

The federal delisting of the eastern Pacific population was contentious. The Marine Mammal Commission and environmental organizations recommended downlisting to a threatened designation or maintaining the endangered status. These entities expressed concern over potential impacts of proposed salt mining at a major calving area (Laguna San Ignacio, Mexico), an increase in the frequency of "take" by recreational boaters and professional whale-watching operators, increased development along migratory corridors, impacts of oil and gas development, and possible influences of sonic experiments (e.g., acoustic thermometry) on gray whales.

Public commenters on the draft status report raised these same issues. They also addressed uncertainty about effects of contaminants on whales foraging in inland marine waters of Washington and the need to manage migratory and summering gray whales distinctly.

State Endangered status of the gray whale is no longer warranted, because the species is not "seriously threatened with extinction." State Threatened status is not warranted, because the species is not "likely to become an endangered species within the foreseeable future."

Gray whales present in inland marine waters of Washington during summer may constitute a "significant portion of [the species'] range within the state." Although certain threats to Washington's summering whales may be greater than to migrating individuals, no available evidence indicates the foreseeable extirpation of the summer resident subpopulation.

However, whale watching has increased, whales may eventually be subject to low-quota harvest by Washington tribes, and there are uncertainties about the status of and risks to gray whales summering in Washington. For these reasons, State Sensitive status is warranted, because the gray whale is "vulnerable" and requires "cooperative management or removal of threats" to avoid becoming threatened or endangered. If the gray whale is designated State Sensitive, the Department will be required to prepare a management plan within three years.

The Department recommends the gray whale be downlisted to State Sensitive status.

TAXONOMY

The gray whale (*Eschrichtius robustus*) is the sole member of the family Eschrichtiidae. The species is represented by two extant stocks, eastern Pacific and western Pacific, and two Atlantic stocks now extinct. The western North Pacific, or Korean, population is nearly extinct. The eastern North Pacific, or California, population is the one found in Washington. “Gray whale” in this review refers to the eastern North Pacific stock, unless otherwise specified.

Because the western North Pacific population is physically larger and has more baleen plates and throat grooves than the eastern North Pacific population, Yablokov and Bogoslovskaya (1984) believed the two stocks may merit subspecific distinction.

DESCRIPTION

Physically mature gray whales measure about 14 m in length. They are baleen whales, mottled gray in color. Pigmentation, mottling, scarring, and barnacles create patterns on the skin of gray whales; researchers use the patterns to identify individual animals. Gray whales have no dorsal fin, but flukes are frequently visible when the whales dive.

GEOGRAPHIC DISTRIBUTION

North America

In summer, California gray whales forage in the Bering, Chukchi, and Beaufort seas. They migrate along the North American coast and winter primarily in waters adjacent to Baja California and the Mexican coast. Important calving areas include Laguna Ojo de Liebre (Scammon’s Lagoon), Estero Soledad, Laguna San Ignacio, and Laguna Guerrero Negro (Rice et al. 1984).

Washington

Northbound gray whales pass through Washington waters from March through May. The southward migration is concentrated in December and January. Some whales enter Willapa Bay, Grays Harbor, the Strait of Juan de Fuca, and Puget Sound during migration and a few whales summer in these areas.

NATURAL HISTORY

Reproduction

Female gray whales reach sexual maturity between ages 6 and 12. Their sexual cycle lasts about 2 years, and includes copulation, lactation, pregnancy, and a resting period. Males are sexually mature at a somewhat younger age.

Swartz (1986:223) offered this description of gray whale activity in breeding lagoons:

Courting whales engage in high speed chases where group members (presumably males) appear to pursue a lead animal (presumably a female). These groups lunge through the water creating spectacular bow-waves, and sometimes travel 3-4 km before beginning a mating bout.

Courting bouts last two or more hours, with several adults and immatures involved. Females are receptive to males for about 2 months.

Gestation lasts about 418 days (Reilly 1992). Calves are born from early January to mid February. Females lactate for about 7 months and young wean when about 7 m in length. Some lactating females may also be pregnant.

Reilly (1992) reported a steep decline in pregnancy rates between 1987/88 and 1990, compared to a stable rate for the 20 previous years.

Mortality

The only known gray whale predators are killer whales (*Orcinus orca*) and people. Orcas attack more gray whales than they kill; they appear to kill relatively few. Human take of gray whales is permitted by the International Whaling Commission under exceptions (e.g., 316 for scientific research between 1959 and 1970, and an average of 177 annually by subsistence hunters in Russia between 1966 and 1991).

Mortality rates are 0.055 for adult females, 0.046 for adult males, and 0.112 for juveniles (Braham and Donovan 1992, cited in Reilly 1992).

Movements

Gray whales migrate further than any other mammal; the distance from their breeding sites along Baja California to their summering sites in northern seas is about 6000 km. They arrive in the Bering Strait at the end of May, then depart the Bering and Chukchi seas at the end of October.

At Southeast Farallon Island, west of San Francisco, northward migration lasts from 15 February to 15 May, with a mean date of 20 March (S.D.= 18.6 days); southward migration extends from 1 November to 15 February, with a mean date of 13 January (S.D.= 13.1 days) (Pyle and Gilbert 1996). Spring migration is somewhat protracted, as females with calves migrate later than other individuals.

Off Washington, gray whales migrate further offshore when southbound (mean 14.3 km) than when northbound (mean 8.0 km) (Green et al. 1995). They also migrate further from shore in Washington than in Oregon, probably because such a migratory path is more direct. Because at least a portion of gray whales migrate a relatively great distance from shore, effective shore-based surveys are probably precluded in Washington.

Travel rates are highly variable, but are on the order of 70 to 100 km per day, with a more rapid rate on the southward migration than the northward. Swimming north, whales may travel more rapidly and consistently once beyond Mexico and southern California.

Foraging and Food

Gray whales use three techniques to forage: benthic suction, engulfing, and skimming. They typically use the first of these methods, making them the only baleen whales to regularly consume benthic prey (Nerini 1984). They take in mouthfuls of water, mud, and invertebrates, then force the water and mud past filtering baleen plates, which capture prey to be swallowed. Surface skimming and engulfing may be more common in pelagic settings, where gray whales may exploit schooling fish. In Washington, and elsewhere on migratory routes, benthic suction is probably used almost exclusively.

Favored foraging areas support dense infaunal communities. Relatively large amphipods dominate a varied diet, the breadth of which is likely due to the nonselective foraging technique used on the benthos. In Puget Sound, ghost shrimp appear to be targeted (Weitkamp et al. 1992).

Other Behaviors

Dive times average about 2 min, but half of dives last less than 1 min. In Laguna San Ignacio, 99% of all dives are shorter than 6 min, with the longest being almost 26 min (Harvey and Mate 1984). On average, gray whales spend 4.4 sec at the surface and make about 36 surfacings per hour.

Gray whales create a variety sounds, sorted into seven categories, that may have communicative or echolocative functions (Dahlheim et al. 1984). Most gray whale signals occupy a different acoustical range than ambient biological noise, but they overlap nonbiological noises such as outboard engines. In fact, gray whales seem to seek out and approach slow-moving skiffs (2 to 4 knots) or boats at idle, probably in response to motor noise.

HABITAT REQUIREMENTS

Gray whales generally forage on mud, sand, silt, or gravel bottoms in areas with an abundance of potential prey. They range seasonally from the edge of permanent ice in the Bering and Chukchi seas to Mexican tropical lagoons.

POPULATION STATUS AND TREND

Eastern Pacific Ocean

Prior to large-scale harvest.—Most whaling historians and biologists believe that the gray whale population numbered between 15,000 and 24,000 animals in the early 19th century (Jones et al. 1984).

Aboriginal harvest.—Aboriginal peoples from present-day Russia, Alaska, portions of British Columbia, and Washington harvested gray whales for hundreds or thousands of years prior to the arrival of commercial whalers. Their harvest is estimated to have been typically less than 200 each year, which is unlikely to have had a detrimental effect on the eastern North Pacific population.

In Washington, the Makah, Quileute, Quinault, Hoh, and Klallam tribes harvested and used gray whales (O’Leary 1984, National Marine Fisheries Service 1993). The harvested whales’ importance extended to ritualistic, prestigious, economic, and subsistence purposes. Whale hunts may have been restricted to the springtime (northward) migration, as the winter movement southward would have occurred at a more dangerous time to hunt whales at sea (O’Leary 1984).

The Makah were the most prolific whale hunters among Washington tribes. The Treaty of Neah Bay (1855) attests to the critical position of gray whales in Makah society; it is the only treaty with a North American tribe that specifically provides for harvest of gray whales. Bancroft (1890, cited in O’Leary 1984) claimed the Makah sold \$8000 worth of whale oil in 1856.

Impacts of commercial harvest.—The “first gray whaling by western man on record” began off Baja California in the winter of 1845/46 (Henderson 1984). After three winters, harvest activities ceased, probably in large part due to the danger involved in capturing the “devil fish.” Harvest resumed in 1854/55 and peaked during the subsequent decade. During this period, whalers captured more than 7000 whales and probably killed another 1000 without recovering them (Henderson 1984). Most of the harvest occurred from sailing ships, but shore whaling was also important. Most whales were taken during winter, although a few were harvested in northern waters during summer.

In California, harvested whales in the mid 19th century typically were 35 to 45 feet in length and yielded 25 to 35 barrels of oil (at 31.5 gallons per barrel); in exceptional cases, up to 60 barrels or more could be derived from a single gray whale (Scammon 1874). Gray whale baleen was too short to be of commercial value (Sayers 1984).

The total commercial harvest of gray whales between 1910 and 1946 was less than 1000 animals (Rice and Wolman 1971).

Recent estimates of abundance.—Small and DeMaster (1995), citing the most recent survey results available at the time, made an abundance estimate of 23,109 gray whales in the eastern North Pacific. They calculated a minimum population estimate of 21,715. An earlier analysis by Buckland et al. (1993) resulted in an abundance estimate of approximately 21,000 gray whales, based on censuses south of Monterey. These authors estimated an annual rate of increase of 3.29% between 1967/68 and 1987/88. Pyle and Gilbert (1996) estimated a roughly similar rate of increase (i.e., 4.7%) based on sightings made from Southeast Farallon Island between 1973 and 1994.

Reilly (1992:1062) stated, “All uncertainty considered, the population is probably above its 1846 level...and may now be approaching current carrying capacity.”

Washington

Gray whales have migrated through Washington coastal waters for millenia. When the population declined under pressure from commercial whalers, fewer whales migrated through Washington. With the species' recovery, the state again hosts thousands of migrating gray whales.

Early records of gray whales within enclosed marine waters of Washington are lacking. Scheffer and Slipp (1948) commented: “As an inshore species the gray whale doubtless appeared at times within Puget Sound, but of this we have no proof.” However, gray whales have become regular summer residents of Washington since the species' recovery.

Calambokidis and Quan (1997) reported on 47 individual gray whales identified in Washington (and British Columbia) between March and October 1996. Sixteen of these whales were identified more than once and with at least one sighting made in a “non-migratory” period between June and October [(Pyle and Gilbert (1996) excluded 16 May to 31 October from “migration” at Southeast Farallon Island, California)]. Eleven of the 16 had also been identified in Washington during previous years.

Gray whales were seen consistently in Grays Harbor during 1996 surveys; at least 27 different whales used the harbor, most of them for extended periods (Calambokidis and Quay 1997). Fourteen other individuals were known to have used the northern outer coast. Eight individuals were identified in the Strait of Juan de Fuca, down from at least 20 in 1995 (Calambokidis 1996). No gray whales were identified in Puget Sound in 1996, although 6 or more frequented northern

Puget Sound and a few others were encountered in central or south Puget Sound during 1995 (Calambokidis 1996, Calambokidis and Quay 1997).

A fairly high proportion of gray whales summering in Washington's coastal and inland waters are identified during more than 1 year (Calambokidis 1996, Calambokidis and Quan 1997). They apparently move during the summer between Washington localities, as well as into British Columbia (Calambokidis and Quan 1997). These resident, feeding whales have yet to be adequately studied.

HABITAT STATUS

Current concern about habitat degradation within the gray whale range is focused primarily on industrial development at breeding/calving lagoons in Mexico. A salt works facility in Laguna San Ignacio has been proposed by the Mexican government and Mitsubishi Corporation. The development has the potential to alter the temperature and salinity of this major calving lagoon. It would also alter the shoreline, create a cargo pier, and increase shipping traffic. An initial environmental assessment for the project was broadly viewed as inadequate. A second assessment is under way.

Additional concerns over gray whale habitat include sounds generated for oceanographic research, disturbances related to oil and gas exploration, contaminants in the benthos, and onshore and nearshore development.

Researchers on global warming are testing Acoustic Thermometry of Ocean Climate (ATOC) as a means to detect significant changes in core ocean temperature. ATOC research includes tests off the coast of California to determine what effect the method's low-frequency sounds (75 Hertz) may have on marine mammals. Although no specific research on gray whales is occurring within the program (tests occur off shore, while gray whales migrate near shore), effects on other animals appear to be negligible. Monitoring of marine mammal behavior is continuing throughout an initial 2-year ATOC phase.

Recently, oceanographers investigating coastal processes used sound at their research site in the San Juan Islands. In this case, also, associated research to detect effects of the sounds on marine mammals revealed no apparent impacts.

Activities associated with gas and oil exploration may influence gray whale behaviors. However, a moratorium on such exploration is in effect for coastal waters within 3 mi of the Washington shoreline through July 2000. Oil and gas exploration activities may have an effect on gray whale foraging areas or migratory paths elsewhere.

While in Washington, gray whales have the potential to ingest toxicants while foraging in the contaminated sediments of Puget Sound. Migratory gray whales probably do little or no foraging while in Washington waters, but “summer residents” feed on benthic invertebrates.

CONSERVATION STATUS

Legal Status

Washington.—The gray whale has been listed as State Endangered in Washington since June 1981. State Endangered was defined in 1990 to mean “any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state” (Washington Administrative Code 232-12-297).

Other codified designations are State Threatened and State Sensitive. State Threatened species are those “likely to become an endangered species within the foreseeable future...without cooperative management or removal of threats.” State Sensitive species are “vulnerable or declining and...likely to become endangered or threatened...without cooperative management or removal of threats.” Each of these designations addresses a species’ status within Washington.

This status review was prompted by the Department’s awareness of an improved population status of gray whales and in light of the federal delisting of the eastern North Pacific stock.

United States.—The gray whale was designated endangered on June 3, 1970, under the federal Endangered Species Conservation Act of 1969, and retained that designation under the Endangered Species Act of 1973. In January 1993, the National Marine Fisheries Service (NMFS) determined that the eastern North Pacific population should be delisted. In June 1994, the U.S. Fish and Wildlife Service concurred with NMFS and amended its List of Endangered and Threatened Wildlife and Plants by removing the eastern North Pacific gray whale population (the Service retained the western North Pacific population as endangered).

Notable among commenters on the NMFS proposed rule was the Marine Mammal Commission, an independent agency of the Executive Branch of the United States. The Commission recommended to NMFS that the eastern North Pacific population be downlisted to threatened, rather than delisted. Many environmental organizations shared the Commission’s opinion.

The eastern North Pacific stock of the gray whale continues to be federally protected under the Marine Mammal Protection Act (MMPA). Under the MMPA, take of gray whales is prohibited (see “Harassment,” page 9).

International.—Gray whales have been protected from commercial whaling by the International Convention for the Regulation of Whaling since 1946. The International Whaling Commission

(IWC) sets a quota on take of gray whales by aboriginal peoples. For 1995, 1996, and 1997, the quota is set at 140. The IWC will meet in October 1997, at which time the quota may be altered.

Management Activities

Surveys.—Aerial and boat surveys and shore-based observations all are employed by Washington gray whale researchers. Surveys of varying intensity have occurred during the past several years in Washington. The focus of most surveys has been to photographically document individual whales.

Three primary methods are used for determining overall gray whale abundance throughout its range (Reilly 1992): aerial surveys in Mexico, shore-based surveys along California coast, and aerial and ship-based surveys in Bering and Chukchi seas. The California surveys probably provide the most reliable data for population assessment.

Stranding reports.—The Northwest Marine Mammal Stranding Network investigates whale strandings in Washington. From 1977 to 1996, the network documented 101 gray whale deaths in the state (Calambokidis et al. 1994, Calambokidis 1996, Calambokidis and Quay 1997). Biologists from organizations such as the Cascadia Research Collective, the Whale Museum, and the National Marine Mammal Laboratory investigate such strandings, measuring and examining carcasses to gain insight into the whales and their deaths.

Photo-identification.—Individual gray whales can often be identified through photographs of their dorsal hump area or flukes. This technique is being used in Washington to track movements, residency patterns, and interannual site fidelity.

Sighting reports.—Members of the public who sight gray whales often report their observations to a hotline at the Whale Museum [(800) 562-8832] or to Cascadia Research Collective. Sighting reports provide biologists with useful data and may prompt focused monitoring or investigations.

FACTORS AFFECTING CONTINUED EXISTENCE

Adequacy of Existing Regulatory Mechanisms

The Marine Mammal Protection Act (MMPA) prohibits harassment of gray whales, but provides for harvest under specific exceptions. The MMPA does not abrogate any pre-existing treaty rights with Native American tribes.

The International Whaling Commission imposed a moratorium on commercial whaling in 1982, but enforcement of the ban is not strong. The IWC also allows limited harvest for subsistence and ceremonial purposes by aboriginal peoples.

Whale Watching

Most whale watch operators in Washington seek orcas, but will shift to gray whales and other marine wildlife opportunistically. Whale watching has increased in popularity, with at least 42 U.S. and Canadian whale watch charters operating 54 boats in Haro Strait in 1996 and more than 70 boats in 1997 (R. W. Osborne, unpublished data). In 1996, approximately 80,000 people payed for chartered whale watching excursions in San Juan County, more than doubling the number of passengers in 1991 (R. W. Osborne, unpublished data). Whale watching injected nearly \$7 million into the San Juan County economy in 1996 (R. W. Osborne, unpublished data).

At least eight operators based in Westport focus on gray whales in Grays Harbor and vicinity. No comparable statistics have been compiled for these charters.

Harassment

Under the MMPA, take of gray whales is prohibited. Take is defined as, “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill” gray whales.

The term harassment is defined to mean any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

In Washington, unintended harassment may result from those who wish to view gray whales at close range. Whale watching can negatively affect migrating gray whales by interrupting swimming patterns, altering migratory routes, and displacing cow/calf pairs from inshore waters. Guidelines intended to minimize disturbance are used by most or all commercial whale watch operators. Individuals encountering gray whales while boating should remain 100 yards behind and to the side of the animal, without sudden change of speed or course (Calambokidis et al. 1994).

Entanglement

Gray whales can become entangled in fishing gear, sometimes so severely as to cause their deaths. Calambokidis (1996) recounted evidence of a few whales killed or injured in Washington through entanglement in rope or net from crab pots or gillnets. In southern California, yearlings seem to

be most vulnerable to entanglement, and most incidents appear to occur during northward migration (Heyning and Lewis 1990).

Proposed Harvest by Washington Tribes

In 1996, the U.S. delegation to the 48th session of the International Whaling Commission (IWC) brought, on behalf of the Makah Tribe, a request to harvest five gray whales per year for ceremonial and subsistence use. The matter was deferred to the October 1997 session of the IWC. The IWC aboriginal subsistence whaling category currently allows whaling by indigenous people in Russia, the United States (Alaska), Denmark (Greenland), and St. Vincent and the Grenadines.

Contaminants

Chemical contaminants in sediments of Puget Sound and the Strait of Juan de Fuca may affect gray whales that forage in those areas. However, Varanasi et al. (1994) found that concentrations of anthropogenic chemicals in stranded gray whales show little relation to the levels of chemical contaminants at the stranding sites. These researchers also found that concentrations of potentially-toxic chemicals in gray whale tissues were relatively low when compared to other cetaceans. Whether the levels in stranded whales were different from those in apparently healthy gray whales could not be assessed at the time, because data on free ranging whales were not available.

Recent initial biopsy results for blubber of free-ranging gray whales suspected of feeding near Neah Bay showed that levels (wet weight basis) of PCBs and DDTs (sum of DDT and metabolites such as DDE) did not differ markedly from those found in the stranded whales (J. E. Stein, pers. comm.). As a means of comparison, the contaminant levels in blubber also did not exceed standards set by the Food and Drug Administration for safe human consumption. The biopsy results also suggested that these transient resident whales were on their northbound migration as their lipid levels were low (<10% lipid).

Despite little apparent effect of these contaminants on gray whales, additional research is advisable to ascertain the health of gray whales feeding in Washington.

Present and Threatened Habitat Loss

Gray whales are not at risk of losing habitat in their migratory corridor past Washington. The coastal route from near Copalis to Cape Flattery is part of the Olympic National Marine Sanctuary. The Strait of Juan de Fuca and waters of northern Puget Sound and the San Juan Islands are part of a Northwest Straits proposed National Marine Sanctuary.

Summering gray whales can be affected by anthropogenic changes in their environment. At present, loss of gray whale habitat in Grays Harbor, the Strait of Juan de Fuca, and Puget Sound is not considered an immediate threat to the population.

CONCLUSIONS AND RECOMMENDATION

The eastern Pacific population of the gray whale migrates through Washington waters when traveling between its Alaskan feeding waters and its Mexican breeding waters. A few gray whales reside in the state's nearshore waters during portions of the summer; these "summer residents" are known to move among Washington localities and into British Columbia.

The abundance of gray whales in the eastern Pacific is estimated to be as great or greater now than it was prior to the onset of commercial exploitation around 1850. The population of approximately 23,000 whales is no longer in danger of extinction. The U.S. Fish and Wildlife Service delisted the species in 1994, based on the recommendation of the National Marine Fisheries Service (the western Pacific population remains endangered).

The federal delisting of the eastern Pacific population was contentious. The Marine Mammal Commission and environmental organizations recommended downlisting to a threatened designation or maintaining the endangered status. These entities expressed concern over potential impacts of proposed salt mining at a major calving area (Laguna San Ignacio, Mexico), an increase in the frequency of "take" by recreational boaters and professional whale-watching operators, increased development along migratory corridors, impacts of oil and gas development, and possible influences of sonic experiments (e.g., acoustic thermometry) on gray whales.

State Endangered status of the gray whale is no longer warranted, because the species is not "seriously threatened with extinction." State Threatened status is not warranted, because the species is not "likely to become an endangered species within the foreseeable future."

Gray whales present in inland marine waters of Washington during summer may constitute a "significant portion of [the species'] range within the state." Although certain threats to Washington's summering whales may be greater than to migrating individuals, no available evidence indicates the foreseeable extirpation of the summer resident subpopulation.

However, whale watching has increased, whales may eventually be subject to low-quota harvest by Washington tribes, and there are uncertainties about the status of and risks to gray whales summering in Washington. For these reasons, State Sensitive status is warranted, because the gray whale is "vulnerable" and requires "cooperative management or removal of threats" to avoid becoming threatened or endangered. If the gray whale is designated State Sensitive, the Department will be required to prepare a management plan within three years.

The Department recommends the gray whale be downlisted to State Sensitive status.

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PERSONAL COMMUNICATIONS

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APPENDIX

Washington Administrative Codes 232-12-011, -014, and -297

WAC 232-12-011 Wildlife classified as protected shall not be hunted or fished.

Protected wildlife are designated into three subcategories: Threatened, sensitive, and other.

(1) Threatened species are any wildlife species native to the state of Washington that are likely to become endangered within the foreseeable future throughout a significant portion of their range within the state without cooperative management or removal of threats. Protected wildlife designated as threatened include:

Common Name	Scientific Name
western gray squirrel	<i>Sciurus griseus</i>
Steller (northern) sea lion	<i>Eumetopias jubatus</i>
North American lynx	<i>Lynx canadensis</i>
bald eagle	<i>Haliaeetus leucocephalus</i>
ferruginous hawk	<i>Buteo regalis</i>
marbled murrelet	<i>Brachyramphus marmoratus</i>
green sea turtle	<i>Chelonia mydas</i>
loggerhead sea turtle	<i>Caretta caretta</i>

(2) Sensitive species are any wildlife species native to the state of Washington that are vulnerable or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. Protected wildlife designated as sensitive include:

Common Name	Scientific Name
Larch Mountain salamander	<i>Plethodon larselli</i>

(3) Other protected wildlife include:

Common Name	Scientific Name
cony or pika	<i>Ochotona princeps</i>
least chipmunk	<i>Tamias minimus</i>
yellow-pine chipmunk	<i>Tamias amoenus</i>
Townsend's chipmunk	<i>Tamias townsendii</i>
red-tailed chipmunk	<i>Tamias ruficaudus</i>
hoary marmot	<i>Marmota caligata</i>
Olympic marmot	<i>Marmota olympus</i>
Cascade golden-mantled ground squirrel	<i>Spermophilus saturatus</i>
golden-mantled ground squirrel	<i>Spermophilus lateralis</i>
Washington ground squirrel	<i>Spermophilus washingtoni</i>
red squirrel	<i>Tamiasciurus hudsonicus</i>
Douglas squirrel	<i>Tamiasciurus douglasii</i>
northern flying squirrel	<i>Glaucomys sabrinus</i>
fisher	<i>Martes pennanti</i>
wolverine	<i>Gulo gulo</i>
painted turtle	<i>Chrysemys picta</i>
California mountain kingsnake	<i>Lampropeltis zonata</i> ;

All birds not classified as game birds, predatory birds or endangered species, or designated as threatened species or sensitive species; all bats, except when found in or immediately adjacent to a dwelling or other occupied building; mammals of the order *Cetacea*, including whales, porpoises, and mammals of the order *Pinnipedia* not otherwise classified as endangered species, or designated as threatened species or sensitive species. This section shall not apply to hair seals and sea lions which are threatening to damage or are damaging commercial fishing gear being utilized in a lawful manner or when said mammals are damaging or threatening to damage commercial fish being

lawfully taken with commercial gear. Statutory Authority: RCW 77.12.020. 90-11-065 (Order 441), § 232-12-011, filed 5/15/90, effective 6/15/90. Statutory Authority: RCW 77.12.040. 89-11-061 (Order 392), § 232-12-011, filed 5/18/89; 82-19-026 (Order 192), § 232-12-011, filed 9/9/82; 81-22-002 (Order 174), § 232-12-011, filed 10/22/81; 81-12-029 (Order 165), § 232-12-011, filed 6/1/81.]

WAC 232-12-014 Wildlife classified as endangered species.

Endangered species include:

Columbian white-tailed deer	<i>Odocoileus virginianus leucurus</i>
Mountain caribou	<i>Rangifer tarandus</i>
Blue whale	<i>Balaenoptera musculus</i>
Bowhead whale	<i>Balaena mysticetus</i>
Finback whale	<i>Balaenoptera physalus</i>
Gray whale	<i>Eschrichtius gibbosus</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Right whale	<i>Balaena glacialis</i>
Sei whale	<i>Balaenoptera borealis</i>
Sperm whale	<i>Physeter catodon</i>
Wolf	<i>Canis lupus</i>
Peregrine falcon	<i>Falco peregrinus</i>
Aleutian Canada goose	<i>Branta canadensis leucopareia</i>
Brown pelican	<i>Pelecanus occidentalis</i>
Leatherback sea turtle	<i>Dermochelys coriacea</i>
Grizzly bear	<i>Ursus arctos horribilis</i>
Sea otter	<i>Enhydra lutris</i>
White pelican	<i>Pelecanus erythrorhynchos</i>
Sandhill crane	<i>Grus canadensis</i>
Snowy plover	<i>Charadrius alexandrinus</i>
Upland sandpiper	<i>Bartramia longicauda</i>
Northern spotted owl	<i>Strix occidentalis</i>

[Statutory Authority: RCW 77.12.020(6). 88-05-032 (Order 305), § 232-12-014, filed 2/12/88. Statutory Authority: RCW 77.12.040. 82-19-026 (Order 192), § 232-12-014, filed 9/9/82; 81-22-002 (Order 174), § 232-12-014, filed 10/22/81; 81-12-029 (Order 165), § 232-12-014, filed 6/1/81.]

WAC 232-12-297

Endangered, threatened, and sensitive wildlife species classification.

PURPOSE

- 1.1 The purpose of this rule is to identify and classify native wildlife species that have need of protection and/or management to ensure their survival as free-ranging populations in Washington and to define the process by which listing, management, recovery, and delisting of a species can be achieved. These rules are established to ensure that consistent procedures and criteria are followed when classifying wildlife as endangered, or the protected wildlife subcategories threatened or sensitive.

DEFINITIONS

For purposes of this rule, the following definitions apply:

- 2.1 "Classify" and all derivatives means to list or delist wildlife species to or from endangered, or to or from the protected wildlife subcategories threatened or sensitive.
- 2.2 "List" and all derivatives means to change the classification status of a wildlife species to endangered, threatened, or sensitive.
- 2.3 "Delist" and its derivatives means to change the classification of endangered, threatened, or sensitive species to a classification other than endangered, threatened, or sensitive.
- 2.4 "Endangered" means any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state.
- 2.5 "Threatened" means any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats.
- 2.6 "Sensitive" means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats.
- 2.7 "Species" means any group of animals classified as a species or subspecies as commonly accepted by the scientific community.
- 2.8 "Native" means any wildlife species naturally occurring in Washington for purposes of breeding, resting, or foraging, excluding introduced species not found historically in this state.
- 2.9 "Significant portion of its range" means that portion of a species' range likely to be essential to the long term survival of the population in Washington.

LISTING CRITERIA

- 3.1 The commission shall list a wildlife species as endangered, threatened, or sensitive solely on the basis of the biological status of the species being considered, based on the preponderance of scientific data available, except as noted in section 3.4.
- 3.2 If a species is listed as endangered or threatened under the federal Endangered Species Act, the agency will recommend to the commission that it be listed as endangered or threatened as specified in section 9.1. If listed, the agency will proceed with development of a recovery plan pursuant to section 11.1.
- 3.3 Species may be listed as endangered, threatened, or sensitive only when populations are in danger of failing, declining, or are

vulnerable, due to factors including but not restricted to limited numbers, disease, predation, exploitation, or habitat loss or change, pursuant to section 7.1.

- 3.4 Where a species of the class Insecta, based on substantial evidence, is determined to present an unreasonable risk to public health, the commission may make the determination that the species need not be listed as endangered, threatened, or sensitive.

DELISTING CRITERIA

- 4.1 The commission shall delist a wildlife species from endangered, threatened, or sensitive solely on the basis of the biological status of the species being considered, based on the preponderance of scientific data available.
- 4.2 A species may be delisted from endangered, threatened, or sensitive only when populations are no longer in danger of failing, declining, are no longer vulnerable, pursuant to section 3.3, or meet recovery plan goals, and when it no longer meets the definitions in sections 2.4, 2.5, or 2.6.

INITIATION OF LISTING PROCESS

- 5.1 Any one of the following events may initiate the listing process.
 - 5.1.1 The agency determines that a species population may be in danger of failing, declining, or vulnerable, pursuant to section 3.3.
 - 5.1.2 A petition is received at the agency from an interested person. The petition should be addressed to the director. It should set forth specific evidence and scientific data which shows that the species may be failing, declining, or vulnerable, pursuant to section 3.3. Within 60 days, the agency shall either deny the petition, stating the reasons, or initiate the classification process.
 - 5.1.3 An emergency, as defined by the Administrative Procedure Act, chapter 34.05 RCW. The listing of any species previously classified under emergency rule shall be governed by the provisions of this section.
 - 5.1.4 The commission requests the agency review a species of concern.
- 5.2 Upon initiation of the listing process the agency shall publish a public notice in the Washington Register, and notify those parties who have expressed their interest to the department, announcing the initiation of the classification process and calling for scientific information relevant to the species status report under consideration pursuant to section 7.1.

INITIATION OF DELISTING PROCESS

- 6.1 Any one of the following events may initiate the delisting process:
 - 6.1.1 The agency determines that a species population may no longer be in danger of failing, declining, or vulnerable, pursuant to section 3.3.
 - 6.1.2 The agency receives a petition from an interested person. The petition should be addressed to the director. It should set forth specific evidence and scientific data which shows that the species may no longer be failing, declining, or vulnerable, pursuant to

section 3.3. Within 60 days, the agency shall either deny the petition, stating the reasons, or initiate the delisting process.

- 6.1.3 The commission requests the agency review a species of concern.
- 6.2 Upon initiation of the delisting process the agency shall publish a public notice in the Washington Register, and notify those parties who have expressed their interest to the department, announcing the initiation of the delisting process and calling for scientific information relevant to the species status report under consideration pursuant to section 7.1.

SPECIES STATUS REVIEW AND AGENCY RECOMMENDATIONS

- 7.1 Except in an emergency under 5.1.3 above, prior to making a classification recommendation to the commission, the agency shall prepare a preliminary species status report. The report will include a review of information relevant to the species' status in Washington and address factors affecting its status, including those given under section 3.3. The status report shall be reviewed by the public and scientific community. The status report will include, but not be limited to an analysis of:
- 7.1.1 Historic, current, and future species population trends.
- 7.1.2 Natural history, including ecological relationships (e.g., food habits, home range, habitat selection patterns).
- 7.1.3 Historic and current habitat trends.
- 7.1.4 Population demographics (e.g., survival and mortality rates, reproductive success) and their relationship to long term sustainability.
- 7.1.5 Historic and current species management activities.
- 7.2 Except in an emergency under 5.1.3 above, the agency shall prepare recommendations for species classification, based upon scientific data contained in the status report. Documents shall be prepared to determine the environmental consequences of adopting the recommendations pursuant to requirements of the State Environmental Policy Act (SEPA).
- 7.3 For the purpose of delisting, the status report will include a review of recovery plan goals.

PUBLIC REVIEW

- 8.1 Except in an emergency under 5.1.3 above, prior to making a recommendation to the commission, the agency shall provide an opportunity for interested parties to submit new scientific data relevant to the status report, classification recommendation, and any SEPA findings.
- 8.1.1 The agency shall allow at least 90 days for public comment.
- 8.1.2 The agency will hold at least one public meeting in each of its administrative regions during the public review period.

FINAL RECOMMENDATIONS AND COMMISSION ACTION

- 9.1 After the close of the public comment period, the agency shall complete a final status report and classification recommendation. SEPA documents will be prepared, as necessary, for the final agency recommendation for classification. The classification recommendation will be presented to the commission for action. The final species status report, agency classification recommendation, and SEPA documents will be made available to the public at least 30 days prior to the commission meeting.
- 9.2 Notice of the proposed commission action will be published at least 30 days prior to the commission meeting.

PERIODIC SPECIES STATUS REVIEW

- 10.1 The agency shall conduct a review of each endangered, threatened, or sensitive wildlife species at least every five years after the date of its listing. This review shall include an update of the species status report to determine whether the status of the species warrants its current listing status or deserves reclassification.
- 10.1.1 The agency shall notify any parties who have expressed their interest to the department of the periodic status review. This notice shall occur at least one year prior to end of the five year period required by section 10.1.
- 10.2 The status of all delisted species shall be reviewed at least once, five years following the date of delisting.
- 10.3 The department shall evaluate the necessity of changing the classification of the species being reviewed. The agency shall report its findings to the commission at a commission meeting. The agency shall notify the public of its findings at least 30 days prior to presenting the findings to the commission.
- 10.3.1 If the agency determines that new information suggests that classification of a species should be changed from its present state, the agency shall initiate classification procedures provided for in these rules starting with section 5.1.
- 10.3.2 If the agency determines that conditions have not changed significantly and that the classification of the species should remain unchanged, the agency shall recommend to the commission that the species being reviewed shall retain its present classification status.
- 10.4 Nothing in these rules shall be construed to automatically delist a species without formal commission action.

RECOVERY AND MANAGEMENT OF LISTED SPECIES

- 11.1 The agency shall write a recovery plan for species listed as endangered or threatened. The agency will write a management plan for species listed as sensitive. Recovery and management plans shall address the listing criteria described in sections 3.1 and 3.3, and shall include, but are not limited to:
- 11.1.1 Target population objectives.
- 11.1.2 Criteria for reclassification.
- 11.1.3 An implementation plan for reaching population objectives which will promote cooperative management and be sensitive to landowner needs and

property rights. The plan will specify resources needed from and impacts to the department, other agencies (including federal, state, and local), tribes, landowners, and other interest groups. The plan shall consider various approaches to meeting recovery objectives including, but not limited to regulation, mitigation, acquisition, incentive, and compensation mechanisms.

11.1.4 Public education needs.

11.1.5 A species monitoring plan, which requires periodic review to allow the incorporation of new information into the status report.

11.2 Preparation of recovery and management plans will be initiated by the agency within one year after the date of listing.

11.2.1 Recovery and management plans for species listed prior to 1990 or during the five years following the adoption of these rules shall be completed within five years after the date of listing or adoption of these rules, whichever comes later. Development of recovery plans for endangered species will receive higher priority than threatened or sensitive species.

11.2.2 Recovery and management plans for species listed after five years following the adoption of these rules shall be completed within three years after the date of listing.

11.2.3 The agency will publish a notice in the Washington Register and notify any parties who have expressed interest to the department interested parties of the initiation of recovery plan development.

11.2.4 If the deadlines defined in sections 11.2.1 and 11.2.2 are not met the department shall notify the public and report the reasons for missing the deadline and the strategy for completing the plan at a commission meeting. The intent of this section is to recognize current department personnel resources are limiting and that development of recovery plans for some of the species may require significant involvement by interests outside of the department, and therefore take longer to complete.

11.3 The agency shall provide an opportunity for interested public to comment on the recovery plan and any SEPA documents.

CLASSIFICATION PROCEDURES REVIEW

12.1 The agency and an ad hoc public group with members representing a broad spectrum of interests, shall meet as needed to accomplish the following:

12.1.1 Monitor the progress of the development of recovery and management plans and status reviews, highlight problems, and make recommendations to the department and other interested parties to improve the effectiveness of these processes.

12.1.2 Review these classification procedures six years after the adoption of these rules and report its findings to the commission.

AUTHORITY

13.1 The commission has the authority to classify wildlife as endangered under RCW 77.12.020. Species classified as endangered are listed under WAC 232-12-014, as amended.

13.2 Threatened and sensitive species shall be classified as subcategories of protected wildlife. The commission has the authority to classify wildlife as protected under RCW 77.12.020. Species classified as protected are listed under WAC 232-12-011, as amended. [Statutory Authority: RCW 77.12.020. 90-11-066 (Order 442), § 232-12-297, filed 5/15/90, effective 6/15/90.]

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