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Background Brief on...

Endangered Species

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Background

Plant and animal species evolve and become extinct as part of the natural life process over very long periods of time. From fossil records, scientists have calculated the long-term rate of extinction for many species. The protection of endangered species initially arose from evidence that the extinction rate has significantly accelerated in the most recent period of earth's history. The underlying concerns are that gene pools will lose important diversity necessary for adaptation and that we will lose the benefits these species may provide us (medicine, nutrient cycles, food).

Since Congress enacted the Endangered Species Act in 1973, 519 animals (including fish) and 746 plants have been listed as threatened or endangered. Of total U.S. listed species, 1,016 species have approved recovery plans in place. In Oregon, 51 animal and 35 plants are listed under the state and/or federal Endangered Species Acts. The Columbia White-tailed deer has been delisted since the last publication of this brief.

Federal Endangered Species Act

The federal Endangered Species Act (**ESA**) protects species whose survival is recognized (listed) as endangered or threatened. The National Oceanic and Atmospheric Administration (**NOAA**) Fisheries Division (formerly NMFS) and the U.S. Fish and Wildlife Service (**USFWS**) share responsibility for implementing ESA requirements. NOAA Fisheries has jurisdiction to implement ESA requirements for anadromous (salmonid) species that migrate from the ocean to freshwater for spawning and rearing. The U.S. Fish and Wildlife Service has the same jurisdiction with respect to freshwater species, plants and animals. Authority under the Act includes listing decisions, designating critical habitat, developing recovery plans, and regulating "take" of a listed species. A **take** means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" 16 U.S.C. 1532(19).

The USFWS and NOAA Fisheries are required to conduct a periodic review of species that are candidates for listing as threatened or endangered. A **status review** examines the best available scientific and commercial information on the vulnerability and threats to a species, subspecies, or distinct population segment. A vertebrate (animal or fish) population will be considered distinct for purposes of conservation under the Act if the population is substantially reproductively isolated and represents an important genetic component in the evolutionary legacy of the species. For fish, distinct population segments are called evolutionarily significant units (**ESUs**). The unit describes the

population's range of habitat within the state. Plant species, by contrast, are listed statewide

ESA: Key Sections

Section 9 makes it unlawful for any person to *take* a threatened or endangered fish or animal without authorization. Remedies for violations include injunctions, civil fines up to \$25,000 per violation, criminal penalties of up to \$50,000, and/or one year's imprisonment per violation. To date, no one has been prosecuted for a violation in Oregon; however, NMFS did file for a court injunction to stop operation of the Savage Rapids project. Plant species are not subject to *take* prohibitions or penalties.

Section 4 allows exceptions to the Section 9 *take* prohibition, with respect to *threatened* species, for activities specified in rule. These exceptions are set forth in **4(d) rules**, referring to Section 4(d) of the Act. Programs and activities identified in a 4(d) rule have been determined to adequately protect species. Therefore, *take* of a threatened species resulting from the named activities is not subject to federal enforcement action, and private parties do not have standing to bring a court action against such activities. Section 4 further provides for accepted state recovery plans to be the designated recovery path instead of federal regulation. Oregon was the first state to attempt this route with the Oregon Plan for Salmon and Watersheds [See Background Brief]. Section 4 also identifies a process for removing species from the endangered species list. There are no Section 4 exceptions for *endangered* species.

Section 7 requires federal agencies to ensure that any action they undertake will not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat that has been designated for a listed species. Federal agencies comply with this directive by formally consulting with the appropriate Service (NMFS or USFWS). The consultation process results in a **biological opinion** which describes the probable impact on a listed species and may include measures to reduce adverse impacts.

Section 10 authorizes NMFS and USFWS to issue an **incidental take permit** "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." To obtain a permit, an applicant must develop a **habitat conservation plan (HCP)** demonstrating the activity will not appreciably reduce the likelihood of the survival and recovery of a listed species in the wild.

How are Extinction Rates Determined?

Available scientific information is used to investigate the following types of questions: What was the historic population of the species? What is the current population of the species? Does the species inhabit the full range of its habitat? What is the condition for each year class (generation) in the maturation cycle of the species? What factors of decline does the species face within the range of its habitat? Many factors contribute to survival or extinction of any particular species. A risk of extinction is calculated by looking at both the natural population status (numbers) and the present factors of decline such as habitat degradation, exotic species competition or water quality conditions. A listing agency is not required to have complete science on which to base its decision, but it is required to use the best available science.

What Does a Listing Mean?

Endangered status means the identified species is in danger of extinction throughout all or a significant portion of its range. An endangered listing automatically prohibits any action(s) that would result in a *take* of a listed species.

Threatened status means that the species is likely to become endangered in the foreseeable future. A threatened listing allows the development of a 4(d) rule that may authorize certain activities to be exempt from the *take* prohibition.

Candidate status means that either the species does not face imminent extinction or additional information is necessary to determine whether it may qualify as threatened or endangered.

Proposed listings initiate a one-year timeframe for federal agencies to determine the risk of extinction and make a final listing decision. That decision will either be one of the above three categories or a 'not warranted' decision which removes the species from ESA regulation.

Oregon Endangered Species Act

In 1987, the Oregon Legislature enacted the state Endangered Species Act (ORS 496.171 to 496.192 and 498.026). Oregon's endangered species list includes all native species listed under the federal ESA as of May 15, 1987 plus any additional native species determined by the appropriate state agency to be in danger of extinction throughout any significant portion of its range within the state. The Act's goal is similar to the federal goal; that is, conservation of threatened or endangered species through "the use of methods and procedures necessary to bring a species

to the point at which [protective] measures are no longer necessary.” ORS 496.171(1).

The reach of the state ESA is different than that of the federal ESA. The species-recovery mechanism under the state ESA (survival guidelines described below) is limited to state-owned land, state-leased land and land over which the state has a recorded easement. In addition, endangered species management planning is limited to state agencies. Although the state ESA broadly prohibits *take* of listed species, the definition of *take* ("to kill or obtain possession or control") is narrower than that under federal law. Moreover, the state ESA also provides that "nothing in [the state ESA] is intended by itself to require an owner of any commercial forest land or other private land to take action to protect a threatened or endangered species or to impose additional requirements or restrictions on the use of private land." ORS 496.192(1).

Another significant difference is that invertebrates (insects and butterflies) are not protected under the state ESA. Federal ESA protections do apply and the Oregon Natural Heritage Program consults with the USFWS regarding invertebrates.

Any person may petition to add, remove or reclassify a species on the state list. State listing criteria are similar to federal criteria. A state listing decision is based on, among other things, biological information, assessment of threats to the species and its habitat, and the adequacy of programs and plans to protect the species or its habitat.

Upon listing, the state develops survival guidelines to ensure survival of individuals of the species. Endangered species management plans identify the role that state land plays in the conservation of the species. During implementation, state policy is to minimize duplication between the state and federal ESA requirements. The status of each threatened or endangered species on the state list is reviewed at least every five years. Species that have been removed from the state list include the Columbia White-tail deer, Stalk-leaved monkey flower, Colonial luina, and Ertter's senecio.

Oregon Authorities

Federal agencies have ultimate jurisdiction with respect to species on the federal list and Oregon actively participates in federal decision-making processes and recovery planning. The protections of the federal ESA trump any less protective provisions of state law. Eight species or populations are listed under the Oregon

Endangered Species Act but not under the federal ESA; Lower Columbia River coho salmon, American peregrine falcon, Arctic peregrine falcon, Aleutian Canada goose, gray whale, kit fox, wolverine, and the Washington ground squirrel.

The Fish and Wildlife Commission makes policy decisions under the Oregon ESA regarding animal and fish species. The Department of Agriculture makes plant species determinations (ORS 564.100). Insects and butterflies are monitored by the Natural Heritage Program at Oregon State University. The Natural Heritage Information Center also is a repository for data on all sensitive, threatened and endangered species in Oregon. Data on species may be accessed at www.oregonstate.edu/ornhic

Recent Legislation

House Bill 2138 (2003), based on the Salmon Recovery Task Force consensus recommendations, defined the following terms for endangered species purposes: listed unit, native fish, naturally produced, population, recovery, and self-sustaining. The measure requires the Governor, once recovery is achieved, to direct the Fish and Wildlife Commission to begin rulemaking to remove the species from the state endangered species list as long as adequate measures remain in place to avoid the species returning to threatened or endangered status.

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View threatened and endangered species lists at:
www.nmfs.noaa.gov/endangered.htm
<http://endangered.fws.gov>
www.dfw.state.or.us