

metapopulation of gray wolves in the Northern Rocky Mountains). We conclude, based both on the wolf's recovery progress, and on our assessment of the threats that will remain once the wolf is reclassified as threatened (including the continuation of the nonessential experimental population designation and its special regulations), that the gray wolf is not in danger of extinction throughout its range within the Western DPS. Because the three initially isolated populations in the Western DPS now function as a single large metapopulation, and because there is no other population of wolves within the DPS, this conclusion applies to all parts of the wolf's range in the DPS, and so we also conclude that the wolf is not in danger of extinction within any significant portion of its range in the DPS. The gray wolf therefore is no longer endangered throughout all or a significant portion of its range in the Western DPS.

#### Southwestern DPS

The recovery program for the Southwestern (Mexican) gray wolf is based upon reintroductions of captive reared Mexican wolves to portions of their historical range in the Southwestern U.S. and Mexico. These captive-reared wolves are the products of a carefully managed breeding program designed to preserve the remaining genetic diversity of the historical wolves in those areas and maximize the genetic diversity in the reintroduced population. This propagation and reintroduction program ensures that the principle of representation is achieved in the Mexican wolf recovery program.

At this point, the Mexican wolf recovery program lacks a recovery goal. A prime objective of 100 self-sustaining wolves in the wild was set in the 1982 Mexican Wolf Recovery Plan (Service 1982), but the Plan states that goal is preliminary, and is focused more on assuring the survival of wolves in the Southwest and Mexico, rather than on recovering and delisting them. As more is learned about wolves and their conservation in the Southwest, the Service will endeavor to develop reclassification (endangered to threatened) and delisting criteria for the Mexican wolf. When delisting criteria are developed, they too will incorporate the principles of representation, resiliency, and redundancy to assure the long-term survival of the Mexican wolf.

However, at this time we believe their geographic distribution, low numbers and population density, and relatively low rate of population increase indicate that the Mexican wolf recovery program

has not achieved sufficient redundancy and resiliency to assure the long-term survival of the gray wolf in the Southwest and Mexico. We conclude that the gray wolf continues to be in danger of extinction throughout all or a significant portion of its range in the foreseeable future in the Southwestern DPS, and it remains properly classified as endangered in the DPS except where part of a nonessential experimental population.

#### I. Gray Wolf Recovery Plans

Section 4(f) of the Act directs us to develop and implement recovery plans for listed species. In some cases, we appoint recovery teams of experts to assist in the writing of recovery plans and oversight of subsequent recovery efforts. Once a species no longer meets the definition of endangered or threatened it is considered to be recovered and must be delisted. Therefore, the restoration of a species throughout its historical range, or even throughout all the remaining suitable habitat, may not be necessary before a species may be delisted.

We initiated recovery programs for the originally listed subspecies of gray wolves by appointing recovery teams and developing and implementing recovery plans. Recovery plans describe criteria that are used to assess a species' progress toward recovery, contain specific prioritized actions believed necessary to achieve the recovery criteria and objectives, and identify the most appropriate parties to implement the recovery actions.

Recovery plans contain criteria that are intended to trigger our consideration of the need to either reclassify (from endangered to threatened) or to delist a species due to improvements in its status. Criteria are based upon factors that can be measured or otherwise objectively evaluated to document improvements in a species' biological status. Examples of the type of criteria typically used are numbers of individuals, numbers and distribution of subgroups or populations of the species, rates of productivity of individuals and/or populations, protection of habitat, and reduction or elimination of threats to the species and its habitat.

The reclassification and recovery criteria contained in our recovery plans must be viewed in terms of the other currently available information. In some cases, new information will demonstrate that reclassification or delisting is appropriate independent of the information in the recovery plan. For example, our knowledge of a species and its conservation needs may be

incomplete when the recovery plan is prepared. The criteria are based on the best available scientific data and analysis at the time the plan is developed. However, as recovery progresses and our knowledge of a species increases, we may need to reinterpret the original recovery goals, or even add or drop one or more recovery criteria. If appropriate, and if funding and timing allow, we may revise or update recovery plans to reflect our new knowledge and modified recovery criteria. However, revision of recovery plans or recovery criteria is not a required precursor to species reclassification or delisting.

The first gray wolf recovery plan was written for the eastern timber wolf, and it was approved on May 2, 1978 (Service 1978). This recovery plan was later revised and was approved on January 31, 1992 (Service 1992a). The 1978 Recovery Plan for the Eastern Timber Wolf (Eastern Plan) and its revision were intended to recover the eastern timber wolf, *Canis lupus lycaon*, believed at that time to be the only gray wolf subspecies that historically inhabited the United States east of the Great Plains. Thus, the Eastern Plan covers a geographic triangle extending from Minnesota to Maine and into northeastern Florida. The recovery plan for the eastern timber wolf was based on the best available information on wolf taxonomy at the time of its publication. Since the publication of those recovery plans, various studies have produced conflicting results regarding the identity of the wolf that historically occupied the eastern States. Therefore, this recovery program has focused on recovering the gray wolf population that survived in, and has expanded outward from, northeastern Minnesota, regardless of its subspecific identity. (See the *Taxonomy of Gray Wolves in the Eastern United States* section above).

The Northern Rocky Mountain Wolf Recovery Plan (Rocky Mountain Plan) was approved in 1980 and revised in 1987 (Service 1980, 1987). The Rocky Mountain Plan states in its introduction that it should be understood to refer to "gray wolves in the northern Rocky Mountains of the contiguous 48 States, rather than to a specific subspecies." The Rocky Mountain Plan focuses recovery efforts in Idaho, most of Montana, and Wyoming.

The Mexican Wolf Recovery Plan was approved in 1982 (Service 1982). Based on a review of Southwestern (Mexican) subspecies of the gray wolf by Bogan and Mehlhop (1983), the plan combines the historical ranges of *Canis lupus baileyi*, *C. l. monstabilis*, and the