

removed from the endangered population in Mexico (5 wolves) to be used as breeding stock for reintroduction programs in the United States; or were previously released *Canis lupus baileyi* that were recaptured for probable permanent confinement after being judged unsuitable for the reintroduction program (9 wolves) (William Berg, MN DNR, *in litt.* 1998; Mech, *in litt.* 1998; Brian T. Kelly, U.S. Fish and Wildlife Service pers. comm. 2002; Wydeven 1998).

We believe that no wolves have been legally removed from the wild for educational purposes in recent years. Wolves that are used for such purposes are the captive-reared offspring of wolves that were already in captivity for other reasons.

Refer to the *Depredation Control Programs in the Midwestern States* and *Depredation Control Programs in the Western DPS* sections under the *Summary of Factors Affecting the Species* section, factor D. *The adequacy or inadequacy of existing regulatory mechanisms*, below, for discussions of additional wolf mortalities associated with wolf depredation control programs.

Eastern DPS. The taking of gray wolves that are now classified as threatened for commercial, recreational, scientific, or educational purposes remains generally prohibited under the Act, but can be authorized by Federal permit. In addition, the taking of threatened wolves for conservation purposes can be done without an authorizing permit, if that taking is done by an employee or agent of a State conservation agency having an approved conservation agreement under the provisions of section 6(c) of the Act. The wildlife management agencies of the States of Minnesota, Wisconsin, Michigan, North Dakota, and South Dakota each have such an approved conservation agreement, and therefore will be able to take gray wolves for conservation purposes. The amount of such take must be reported to us annually.

This reclassification to threatened status for the Eastern DPS will not result in any decrease in protection for gray wolves in Minnesota, because they already are classified as threatened there. Therefore, there will be no increase in the taking of Minnesota wolves for these purposes. The extremely small current level of such take has not affected the recovery of Minnesota wolves, and is not expected to do so in the future.

Gray wolves in Wisconsin, Michigan, North Dakota, South Dakota and any other State where they may occur in the Eastern DPS are now subject to a

possible increase in take, due to this reclassification, by employees or agents of these States. However, this take must be for conservation purposes, and is thus likely to be either for research purposes or part of a wolf depredation control program. (Depredation control programs, and the take expected to result from them under the new section 4(d) special regulation that now applies to parts of the Eastern DPS, are discussed in the *Depredation Control Programs in the Midwestern States* section under the *Summary of Factors Affecting the Species* section, factor D, *The adequacy or inadequacy of existing regulatory mechanisms*, below.) Therefore, we believe that such take will be minimal and that exempting such take is consistent with the recovery of the wolf in the Eastern DPS. To date, there has been no take of wolves for conservation purposes in, and we do not anticipate such take unless one or more packs becomes established in, the Dakotas or other States within this DPS, except for Minnesota, Wisconsin, and Michigan. Existing regulations require that the take must be for conservation purposes, and must be consistent with gray wolf recovery.

In summary, the taking of wolves by tribes, Federal agencies, organizations, or private citizens for commercial, recreational, scientific, or educational purposes may increase slightly, because the Act allows us to issue take permits for zoological exhibition, educational purposes, and "special purposes consistent with the Act" for threatened but not for endangered wildlife. However, the requirement that such take must be consistent with the conservation of the threatened species means that the magnitude of the take will be small and cannot inhibit gray wolf recovery. In addition, any additional take, under the new 4(d) regulation, of threatened wolves by State conservation agency employees must be for scientific research or conservation programs, and therefore must be consistent with continued wolf recovery.

Western DPS. Since western gray wolves were listed as endangered and experimental, no legal commercial, recreational, or educational utilization or take of them has occurred. In the States where wolves are now reclassified to threatened status and are now covered by the new 4(d) special regulation, no legal take would be allowed for these purposes under the threatened classification or under the new special regulation.

We believe some wolf mortalities associated with the ongoing scientific studies of wolves will continue to occur.

Some of these studies involve capturing and radio-collaring wolves. Wolf capture by trapping, helicopter netgunning, and darting has the potential to seriously injure or kill wolves. Rare, these unintentional mortalities generally average less than 2 percent of the wolves handled (Service 1994a). During the reintroduction of wolves from Canada, nearly 100 wolves were handled and 2 died. Since then, there have been fewer than 6 wolf mortalities out of over 400 wolves captured as part of routine trapping and radio-collaring for monitoring purposes in Montana, Idaho, and Wyoming.

Southwestern DPS. In Arizona, New Mexico, the southern half of Utah and Colorado, the western half of Oklahoma and Texas, and Mexico, gray wolves continue to be protected by section 9 of the Act under their endangered or nonessential experimental population classifications. These classifications prohibit any commercial or recreational take of gray wolves, and we are unaware of any such take of southwestern wolves since their reintroduction. Enforcement by us will continue to keep such take to minimal levels.

Take for scientific or recovery purposes, including educational purposes, will be available in these States, but such take can be authorized only by a permit from us, and it must promote the conservation of the species. Thus, in all cases, gray wolf take for scientific, educational, and conservation purposes must benefit the gray wolf and must promote its recovery. Therefore, any take of this nature will not negatively impact continuing wolf recovery.

We do not believe that these forms of intentional take comprise a threat to the southwestern gray wolves, nor will they significantly impede recovery progress.

C. Disease or Predation

Disease. Many diseases and parasites have been reported for the gray wolf, and several of them have had significant impacts during the recovery of the species in the 48 conterminous States (Brand *et al.* 1995). These diseases and parasites, and perhaps others, must be considered to be significant potential threats to gray wolf populations in the future. Thus, in order to avoid a disease/parasite-related decline in the gray wolf population, their presence and impacts require diligent monitoring and appropriate follow-up for the foreseeable future.

Eastern DPS. Canine parvovirus (CPV) is a relatively new disease that infects wolves, domestic dogs, foxes, coyotes, skunks, and raccoons. Recognized in the United States in 1977 in domestic dogs,