

River will be a substantial obstacle to any wolves attempting to disperse westward from the reintroduced wolf population in Arizona, and the potential for wolves to disperse long distances across desert habitat is unknown. Therefore, we believe wolf dispersal to southern California and southern Nevada is similarly unlikely from either Arizona or the northern U.S. Rockies. Therefore, in the absence of clear biological support for either the inclusion or exclusion of southern California/Nevada in the Western DPS, we have decided to include these two States in the Western DPS for the sake of administrative convenience and to facilitate public understanding of the boundaries applicable to our new gray wolf regulations.

Therefore, as we have delineated them, the boundaries of these three gray wolf DPSs not only completely encompass the core gray wolf recovery populations and their recovery areas, but also include the known locations of all documented dispersers and the most likely locations for future dispersers from those core populations. While our Vertebrate Population Policy does not require the complete isolation of DPSs, it does require that they be "markedly separated" from each other and from other populations of the species. Based on documented wolf movements to date, these DPS boundary locations exceed that requirement.

*Change to the Boundary Between the Western DPS and the Southwestern DPS*—We proposed that the boundary between the Western DPS and the Southwestern DPS would be in northern Arizona and New Mexico, along the northern border of the experimental population area established for the nonessential experimental population of gray wolves in Arizona and New Mexico. This would have resulted in a large portion of the boundary between the Western DPS and the Southwestern DPS being less than 160 km (100 mi) from areas currently occupied by wolves in the Southwestern (Mexican) wolf recovery program, but being nearly 800 km (500 mi) from the southernmost wolf packs in the northern U.S. Rockies.

To date we have verified records of two northern U.S. Rocky Mountain wolves dispersing into northern Utah and no verified records of wolves dispersing into Colorado. Similarly, we have no verified records of Southwestern wolves dispersing into extreme northern Arizona or New Mexico, or into the southern half of Utah or Colorado. However, dispersal distance data from the Midwest and from other areas of the Rockies (Fritts 1983, Missouri Dept. of Conservation

2001, Ream *et al.* 1991) show that gray wolves disperse as far as 800 km (500 mi) from existing wolf populations. More routine long-distance movements probably are on the order of 400–480 km (250–300 mi).

Therefore, we have concluded that, in the final rule that establishes the Southwestern and Western DPSs, we should use a boundary that is more consistent with known and expected dispersal distances than was the boundary recommended in our July 13, 2000, proposed rule. U.S. Highway 50 in Utah and Interstate 70 in Colorado represent such a boundary. Furthermore, these highways are clear and convenient features on maps and on the landscape, and should facilitate implementing and enforcing these regulations on the ground. For these reasons, we are using these highways in Utah and Colorado to delineate a portion of the boundary between the Western Gray Wolf DPS and the Southwestern Gray Wolf DPS.

This boundary change also results in a larger area in which wolves will retain an endangered listing than was shown in our July 13, 2000, proposal. Gray wolves that disperse into the southern half of Utah and Colorado or into the portions of Arizona and New Mexico north of the nonessential experimental area will have entered the Southwestern DPS and will be protected as endangered wolves. However, if they are identifiable as having originated from one of the NEPs, they will be subject to the provisions for managing dispersing wolves as described in the appropriate experimental population rule at 50 CFR 17.84(i) or (k).

*Changes to Proposed 4(d) Rule for the Western DPS*—The conditions under which a private citizen can take a wolf in this final rule for the Western DPS are slightly more restrictive than those we proposed in July 2000. Under the proposal, a person could take a gray wolf on private land if it were seen physically attacking any domestic animal, if there was evidence of a wolf attack such as wounded domestic animals, and such taking was reported within 24 hours. In this final rule, such taking is allowed by a landowner, and without a permit, when a wolf is seen attacking any livestock (cattle, sheep, horses, or mules), livestock guarding or herding animals, or dogs on private land; such taking also can be done by permit on Federal grazing allotments. Some people commented that allowing wolves to be taken for attacking any domestic animal was too liberal and, in the case of small domestic animals, we would lack the type of documentation (physical evidence of wounds made by

wolves) that would be needed to prevent abuse of this provision. Some types of domestic animals, such as rabbits or small fowl, are too small for us to be able to determine if they were attacked by wolves. In addition, since 1987, when the first wolf depredation on livestock occurred, until December 2001, only cattle (n=188), sheep (n=494), horses (n=3), llamas (n=4), and dogs (n=43) have been confirmed to have been attacked by wolves in the northern Rockies. Other types of domestic animals are extremely rare in the parts of the western United States where wolves may occur, and wolf depredation on those types of smaller animals is unlikely because they are usually kept in pens. This final rule gives private landowners or Federal grazing permittees the ability to protect the types of domestic animals that might be vulnerable to wolf depredation. The conditions under which wolves may be legally taken would minimize the number of wolves that would be killed by private citizens without reasonable cause.

Injurious harassment (that is, by using nonlethal ammunition, such as rubber bullets or bean bag projectiles issued by the Service after appropriate training) is also being allowed under Service-issued permits on public livestock grazing allotments to reduce the incidence of bold wolf behavior. Aversively conditioning wolves that have become bold or begin to closely associate with livestock could help reduce wolf-livestock conflicts and the need for subsequent agency lethal wolf control. Providing this management tool under permit for livestock producers on public land grazing allotments would allow its selective use, would prevent abuse, and is not expected to increase wolf mortality, and may decrease it.

The Service has also eliminated the 10 breeding pair per State requirement prior to allowing lethal take permits for private landowners. This was changed to increase the potential to implement this type of important wolf management tool on private lands that in the future might experience chronic depredation by wolves, especially in States adjacent to Montana, Idaho, and Wyoming. It is highly unlikely that any area or State outside of the experimental populations areas, other than Montana, will have 10 or more breeding pairs before wolves are delisted. The overall wolf reclassification and recovery goal is based upon the overall number of breeding pairs in the northern U.S. Rocky Mountains, rather than those in each State. Eliminating the 10 breeding pairs requirement will eliminate confusion over the number of wolves