

# GLOBAL RE-INTRODUCTION PERSPECTIVES

*Re-introduction case-studies from around the globe*



**Edited by  
Pritpal S. Soorae**



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**Cover photo:** Clockwise starting from top-left:

- Formosan salmon stream, Taiwan
- Students in Madagascar with tree seedlings
- Virgin Islands boa

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## Re-introduction of the gray wolf into Yellowstone National Park and central Idaho, USA

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### Introduction

Gray wolves (*Canis lupus*) were historically common in the western United States but were deliberately exterminated by 1930. Several subspecies of gray wolves were listed as 'Endangered' under the U.S. Endangered Species Act (ESA) in 1974, but in 1978 all gray wolves became listed in the contiguous U.S. In 1986, naturally dispersing wolves from Canada denned in Glacier National Park in northwestern Montana. In early 1995 and 1996 we re-introduced wolves in remote areas of extensive federal national forests in central Idaho (hard release) and into Yellowstone National Park in northwestern Wyoming (soft release) to accelerate recovery. Those areas were designated as experimental populations under section 10(j), a special category of the ESA that allows extra management flexibility, to foster political and local public tolerance. The gray wolf in North America is listed as a species of least concern in the IUCN Red List.

### Goals

- Goal 1: Develop enough public tolerance and political support so that wolf re-introductions could be conducted into suitable habitat.
- Goal 2: Conduct wolf re-introductions in a manner that would ensure development of a viable wolf population.
- Goal 3: Develop an interagency program to manage wolf population growth and distribution to minimize chronic conflicts with local people and their livestock.
- Goal 4: Provide accurate and science-based information about the project to maintain credibility and tolerance of wolves and the wolf management program.
- Goal 5: Transfer management of the recovered wolf



Gray wolf (*Canis lupus*) pack chasing elk  
@ Douglas W. Smith

population into the traditional State-led wildlife conservation model that includes regulated public hunting.

## Success Indicators

- **Indicator 1:** Re-introduction planning and federal government rule-making was authorized and funded by the U.S. Congress from 1988 - 1994. The management program remains funded.
- **Indicator 2:** Sixty-six wolves from two different areas of Canada were re-introduced to suitable habitat in central Idaho and Yellowstone National Park in 1995 and 1996.
- **Indicator 3:** By 2007, the population reached 1,500 wolves and had grown at 24% annually. Wolf packs are largely confined to suitable habitat within a 160,000 km<sup>2</sup> area (Oakleaf *et al.*, 2006). Over 700 problem wolves had been killed and confirmed livestock conflicts are below predicted levels.
- **Indicator 4:** From 1992 - 2007, the Federal, State, and Tribal interagency wolf management team conducted thousands of media interviews, hundreds of public and scientific presentations and publications, and produced weekly and annual reports. The program is widely perceived as highly successful.
- **Indicator 5:** In 2007, the northern Rocky Mountain wolf population was proposed to be removed from federal protection and transferred to State and Tribal wolf management programs.

## Project Summary

**Feasibility:** Wolves were listed under the ESA in 1974 and recovery plans were approved in 1980 and 1987. Wolves began to naturally recolonize northwestern Montana in the early 1980's and they attacked livestock in 1987. In 1988, Congress authorized the "Wolves for Yellowstone" studies. In 1991 Congress created a Wolf Management Committee in a failed attempt to develop a political solution to wolf restoration. In 1992, Congress mandated planning and massive public involvement about wolf re-introduction into central Idaho and Yellowstone National Park (USFWS, 1994). Re-introduction techniques were also analyzed (Fritts *et al.*, 1997 & Bangs and Fritts, 1996). The remoteness and huge size of

central Idaho made a hard release of young adult wolves most feasible. In Yellowstone Park, road access made release of packs from large pens possible. In 1994, federal regulations were promulgated that allowed more management flexibility for re-introduced wolves. We developed regulations and management agreements with other natural resource agencies. As one example U.S. Dept of Agriculture Wildlife Services specialists investigate reports of livestock



Cattle near Yellowstone during winter

damage and implement the appropriate control measures. Federal regulations were widely publicized so that the local public knew what they legally could do and who to call if they had questions or problems. Research on wolves in Glacier National Park began by the University of Montana in the early 1980s. Additionally, a federal, state, and tribal wolf working group had been involved in wolf management in northwestern Montana since 1988, so each agency's role and responsibilities were already well defined (Bangs *et al.*, 1998). Because of this history, a fairly large, dispersed, and experienced field staff was already in place by the time the first wolves were to be captured in Canada and released in the U.S.



**Cattle in Madison Valley - wolf release area**

**Implementation:** In 1994, we hired additional staff, purchased equipment, and developed contracts for logistic support (e.g. aircraft, facilities, trucks). We also enlisted cooperators to assist us including biologists, wolf capture specialists, law enforcement agents, and veterinarians from Alaska, Canada, and the contiguous U.S. We built pens in Yellowstone Park and identified release sites in central Idaho. We contacted Canadian officials to identify source populations and to address their biological, legal, and political concerns. We selected two sites to facilitate genetic diversity, minimize impact to one area, and to provide a back-up. Wolves were radio-collared to aid future capture efforts and to evaluate the affects of wolf removal. In western Alberta we bought, collared, and released wolves caught by local fur trappers. Wolf packs were then captured by helicopter darting. Wolves had health examinations for injuries, diseases, and parasites and then flown to the U.S. in individual shipping crates. In January 1995, 15 wolves were directly released in remote areas of central Idaho. After eight weeks, 14 wolves in three family groups were released from three one acre pens in Yellowstone Park. In 1996, this procedure was repeated in central British Columbia. Twenty wolves were released into central Idaho and 17 wolves in four family groups were released from pens in Yellowstone.

**Post-release monitoring:** Every re-introduced wolf was radio-collared and monitored 2 - 4 times a month. We continued to monitor wolves and from 1995 - 2007 about 30% of the wolf population has been radio-collared. Wolves have been confirmed to have killed over 830 cattle, 1,760 sheep, 101 dogs, and 14 goats, 12 llamas, 7 horses, and a mule. A privately-run compensation program has paid over US\$ 900,000 for confirmed and probable losses, which is a fraction of all wolf damage. We used a wide variety of lethal and non-lethal wolf control techniques to minimize and resolve conflicts with livestock. During the early phases of the program we relocated 117 problem wolves to resolved conflicts.

However, eventually problem wolves were just killed. We have killed over 700 wolves (averaging about 9% of the wolf population annually) because of conflicts with livestock (Service *et al.*, 2008). We increasingly liberalized our regulations to allow private citizens more opportunity to protect their property. In 1994 a landowner could shoot a wolf biting his cow; by 2005 a federal grazing permittee could shoot a wolf chasing his cow; and in 2008 anyone could legally shoot any wolf attacking their dog. These regulations helped build local tolerance of wolves and only 60 wolves were killed by private individuals.

We established a large Federal, State and Tribal working group to monitor and manage the wolf population and conflicts. We initiated and funded a large number of research projects to provide accurate science-based information about wolves. As the wolf population expanded we transferred management to the States and Tribes, emphasizing more local involvement. In 2007 we proposed to remove wolves from federal protection and transfer management authority solely to State management.

## Major difficulties faced

- Wolves are highly symbolic, especially in livestock production areas where they were deliberately eliminated by the local rancher's ancestors. Obtaining public tolerance and political support was very difficult and took 20 years of debate.
- Wolf re-introduction and management is very simple biologically. But it is very complex politically, so it becomes much more expensive, controversial, and time consuming than is realistically warranted.
- Local tolerance is needed for re-introductions to be successful. Rural people tend to generally oppose wolf restoration while urban residents tend to support it. Rural people support killing problem wolves and urban people often do not. Maintaining a program that addresses both viewpoints is difficult.
- Wolves and wolf management have nothing to do with reality or wolves - it is all about human values and perceptions. Biologists may not have strong people/political skills.

## Major lessons learned

- Wolves are an extremely adaptable carnivore but are highly symbolic to people. Success is nearly impossible without public and political support.
- Without core refugia like National Parks or large areas of suitable habitat (e.g. lots of native prey and few/seasonal, and only large, livestock) wolf restoration results in chronic problems that many people will not tolerate.
- Wolf populations require management and sometimes wolves must be killed to maintain local public tolerance. Real and perceived problems must be addressed to reduce illegal killing to a level the wolf population can sustain biologically.
- Clearly separate out scientific biological issues/facts (e.g. how many wolves can die and still maintain a viable wolf population or at what rate do wolves kill livestock) from human social values and perspectives (e.g. should people kill wolves or what rate of livestock loss is tolerable).

- Work hard, trust and respect other’s skills and abilities, be honest, empathize with other’s perspectives, be a professional honest broker within your political and administrative system.
- Our wolf re-introduction program was far too expensive and manipulative to be widely applied to other species or areas. Public controversy forced us to depend too much on radio telemetry and invasive technology. We ended up creating unrealistic public expectations about the level of human intervention needed to manage wolves. Continuing that level of management is unnecessary, reinforces human stereotypes of wolves being different from other animals, and is too unrealistic, intensive, and expensive to maintain, but the public continues to expect it.

**Success of project**

Highly Successful	Successful	Partially Successful	Failure
√			

**Reasons for success/failure:**

- We established a population of over 1,500 wolves in 160,000 km<sup>2</sup> of historic and still suitable habitat within 20 years.
- We have maintained livestock losses and other conflicts with people at low levels and the agency management program is widely respected and used. The general public and media consider the program highly successful.
- The federal wolf management program is being transferred to the traditional State and Tribal model for resident wildlife that will ensure that a viable wolf population, funding, and management will continue for perpetuity.

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