Global Re-introduction Perspectives: 2013

Further case-studies from around the globe

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Re-introduction of the Mexican wolf in the Sierra Madre Occidental, Mexico

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Introduction

Mexican wolves were extirpated from the wild in the late 1970s, since then a captive breeding program involving the United States and Mexico has resulted in a bi-national recovery program with a current captive population of 253 (June, 2013). A wild population of 75 (December, 2012) in the Blue Range, US is the result of a re-introduction program started by the USFWS in 1998. Since 2006, several stakeholders in Mexico began a re-introduction process that culminated with the release of 10 Mexican wolves during 2011, 2012 and 2013, representing three family groups. Survivorship of the wolves has been affected by poisoning livestock carcasses and negative attitudes toward the re-introduction. A single stakeholder approach and supplemental feeding has increased the survivorship of those individuals released in 2013. We believe the process to establish a self sustaining population is just beginning, but there are changes occurring that might allow to achieve this in the mid term.

Goals

- Goal 1: Identification of re-introduction sites within the historical species range in Mexico.
- Goal 2: Constant monitoring of released individuals in the wild.
- Goal 3: Constant communication with local stakeholders to assess their perception of the project and apply adaptive management practices.

Success Indicators

- Indicator 1: Establishment of one or more self sustaining Mexican wolf populations in Mexico.
- Indicator 2: Increase Mexican wolf survivorship in the wild.
- Indicator 3: Achieve Mexican wolf reproduction in the wild.

Project Summary

Feasibility: A captive Mexican wolf program was established in the late 1970s, with the capture of five wild individuals in the Mexican States of Durango and Chihuahua. Currently, the program has the support of 52 institutions in Mexico and the United States and is composed by 253 individuals (June, 2013). The program is represented by three genetic lineages incorporated in the last 30

Mexican wolf in the wild

years. In 1998 the United States Fish and Wildlife Service (USFWS) re-introduced the species in the Blue Range Area (Arizona and New Mexico States), to date that population has reached 75 individuals. Parallel to the efforts carried out in the US, Mexico first developed a Mexican Wolf recovery project in 1999. In 2007 a recovery strategy for endangered species (PROCER) was established and a recovery plan for each one developed, included the Mexican Wolf (PACE: Lobo Gris Mexicano). In 2006, a group of stakeholders (including scientists, government and nonprofits) assessed the feasibility of carrying out the first re-introduction of Mexican wolves in Mexico. Six areas were selected (based on landscape suitability) to be surveyed for prey abundance (particularly ungulates) and social attitudes towards wolves. In 2008 two areas were selected as possible candidate areas both in the Sierra Madre Occidental: Sonora and Chihuahua. The land tenure landscape of Mexico, contrary to the United States, is dominated by privately owned lands (single individuals or community owned land “ejidos”) with minimal or no federally owned land, which implies that in order to release individuals on the ground we need the written approval of the landowner.

Implementation: The first group of Mexican wolves selected for re-introduction was rehabilitated for hunting abilities, other behavioral attributes and social cohesion. The first re-introduction occurred in Sonora, with a family group that included 2 males and 3 females (1 female and her 4 and 5 year old offspring). Additionally a male was released in the same area 6 months later to pair with the surviving female. The second re-introduction took place in Chihuahua in October 2012 and comprised a pair (6 year old male with a 5 year old female). A second release in the same area in April 2013 included another pair (3 year old male with a 7 year old female). All individuals were fitted with a satellite radio transmitter to obtain telemetry locations to determine their movement and survivorship. The areas selected for release had a different social approach; the first (Sonora) included a series of conversations with livestock producers with the aim of exposing the possible benefits of ecological restoration resulting from wolf presence and the impact observed in other experience. The second area (Chihuahua) had a less publicized approach that included custom-made talks with individual stakeholders resulting in the written consent of them accepting the release of wolves on their land. In the first stage of the release program (2011-2012), there was an allowance (economic support) for local

Mexican wolf at release site

landowners involved in the project provided by the National Commission of Natural Protected Areas (CONANP-SEMARNAT). All the monitoring effort and release activities (2011 - 2013) were implemented by academic and non-profit institutions, also through a grant by CONANP.

Post-release monitoring: Mexican wolves were monitored via satellite and ground telemetry. The satellite telemetry was carried out in collaboration with the USFWS, using the same programing of the collars as it has been used in the Blue Range Wolf Recovery Area (3 to 4 locations per day, with locations obtained between 2 to 4 days apart). Ground telemetry depended on the topography and safety conditions for the technicians. The first released family group split into two entities, a single 5 year old female and the other four remaining together. These four individuals were found poisoned during the 1 to 2 months after release. After almost 6 months of territorial stability in the region, the single female began a major movement that ended almost 200 km south of the release site, where her signal disappeared seven and a half months after the release.

During the releases in the second area (Chihuahua) two elements to favor Mexican wolf adaptation and monitoring were added: food supplementation and camera traps were placed in the release sites. The first pair released in Chihuahua had a bond and remained as such; their monitoring has been facilitated by this behavior. These individuals have fed on white tailed deer, cottontail rabbits, small peccaries and livestock carcasses. The second pair released in Chihuahua did not present such bonding structure and resulted in an immediate separation, which has resulted in a complex monitoring pattern; they have not settled and established a definitive home range. The male has traveled extensively north and the female has traveled south, both have dispersed on average 40 km of the release site. The habitat used by these two are significantly different, the male using Chihuahuan desert flatlands, the female has remained associated to high elevation pine-oak forests.

Major difficulties faced

- Livestock producer's antagonistic behavior in Sonora resulted in low survivorship of released individuals.

- Poor husbandry in livestock operations provide carrion to Mexican wolves, both in Sonora and Chihuahua.
- These problems have lowered the success of the re-introduction process.
- Local ego's has been an obstacle to successful communication of the project results.

Major lessons learned

- Mexican wolves are capable of living in a privately owned dominated landscape, supplemental feeding has been a major tool to facilitate and acclimatize the individuals to their environment. Food habits analysis have shown the use of native ungulates, and to some degree livestock carcasses.
- Livestock carcasses are readily available to Mexican wolves and other predators which are perceived as "depredation events" into the eyes of ranchers and livestock producers, alternative management should result in lower availability of carcasses The social approach in these projects should consider primarily rural areas, where the direct contact and information is needed, supported with programs like livestock insurance, support in management and incentives to conservation.
- The program requires long-term support of the Federal and State governments and strong collaboration with academics and NGO.

Success of project

Highly Successful	Successful	**Partially Successful**	Failure
		√	

Reason(s) for success/failure:

- An individually social based approach to the program has facilitated the tolerance of wolves in the second re-introduction site. Contrary to the first re-introduction site.
- Alternative husbandry techniques should be implemented by local stakeholders that have shown acceptance to the program, resulting in neighboring ranches implementing those techniques.
- Additional availability of Mexican wolves should favor the survivorship of more individuals.