

The Road to Success

International Vulture Conservation Strategies

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Introduction

Projects I

USFW California Condor Recovery Programme

- Became extinct in the wild in 1987
- Only 22 individuals left
- Releasing birds in 90's
- 2014: 225 wild and 214 captive
- Ongoing reinforcements and monitoring



Introduction Projects II

Bearded Vulture Reintroduction in Europe

• Wild population extinct in the Alps, remaining in Pyrenees, Corsica, Crete

- Project started in 1970's (creation of the breeding network)
- Releasing in the 1980's. Nowadays release of rare genetic lines
- International monitoring programme (IBM)
- Currently 27 pairs in Alps. 150 pairs in Pyrenees
- Population considered demographically self-sustainable



Introduction Projects III

BSPB Egyptian Vulture conservation

- 80% decline in the last 30 years
- Project 2011-2016
- Wild population still declining, threats unknown
- Focus on research, conservation, no capture or reintroduction

Key Aspects to A Successful Conservation Strategy

➤ Scientific Background: Species ecology

➤ Threats: knowing and eliminating

➤ Best Methodology: Using past projects

▶Risks: pros and cons

➤ Monitoring: tracking long term success of species

Scientific Background

- Captive Breeding
- Successful Re-introduction
- Monitoring
- Baseline: understanding what 'success' means

Condor: little understanding of ecology, problems with reintroductions and human interactions due to lack of learned adaptive behaviour

Bearded Vulture: Captive breeding





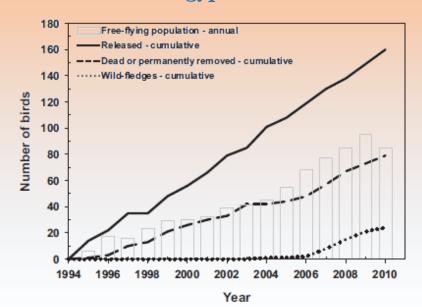


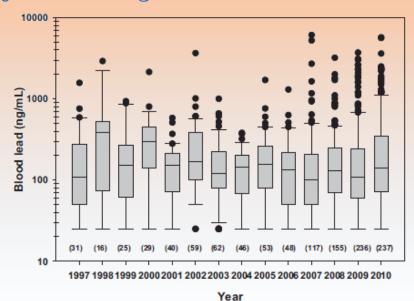
Threats

"Reintroductions make sense only when the principal cause of extinction has been eliminated" (Griffith et al. 1989).

- Building on Ecology and Research
- Understanding cause of decline
- Addressing before further action

Condor: threat still exists: issues that arise? High cost and effort, unsustainable Egyptian Vulture: Exemplary projects- building off what others have done





Best methodology

Main Conservation Actions:

- Translocation
- Reinforcement
- Conservation introduction
- Reintroduction

Arguments on actions to be taken

Look at previous projects and learn from their actions



Risks

When there is disagreement, what action to take? How long to wait?

- Cons to every decision
- Go off historical projects
- Unaccounted for responses: Ex. Risk of Outbreeding

Condor Project: Risk of capturing all remaining population outweighed risk of species going extinct

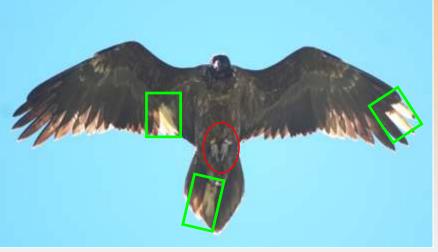
Table 2. Distribution and abundance of Egyptian Vultures in the Balkan Peninsula in 2013, separated into six
spatially discrete concentrations of breeding territories ('population cluster', Figure. 2).

Population cluster	Active territories in 2013	Distance to nearest cluster
Southern Albania/ western Greece	12	150 km
Central Greece	4	85 km
The FYR of Macedonia	21	142 km
Southern Bulgaria/eastern Greece	22	95 km
North-eastern Bulgaria	6	120 km
European Turkey	2	95 km

Monitoring

- Monitor for unknown variables
- Ensure no further threats (ex. Diclofenac)
- Population dynamics

Difference between demographic and genetic points of view (Schaub et al. 2009)



80

Genetics!



Conclusion

What Makes a Good Project?

- Scientific Background: Necessary for understanding of what 'normal' behaviour and life history, and to clarify end goal and what success means
- Threats: Must be focus of project to remove cause for any success in further steps
- Best Methodology: Choosing the best technique and using historical data and actions to learn from previous projects, taking into account resources, time, and budget
- > Risks: understanding there are always 'cons' to decisions and weighing decision in the long term
- Monitoring: tracking long term success of species not only in population numbers but genetics, and protectiong from returning or new threats

Conclusion

What Makes a Good Project?

➤ Individualize Your Project:

Take into account individual variables and factors that may be different or new; is

your species migratory? Are there international issues included? Subspecies, etc.

















