



2013 Annual Bearded Vulture Information Meeting

Valle di St. Rhêmes, Aosta, 9-11 November

Main conclusions

On the 29th October 1913 a hunter from Bergamo shot a bearded vulture in the Valle di Rhêmes (Aosta, Italy). The historic photo from this event is generally considered as marking the extinction of this impressive species in the Alps.

Exactly one hundred years later the bearded vulture is back to the Valle di Rhêmes – in fact this area is now one of the core regions for the species in the Alps, following an extraordinary comeback based on an ambitious international reintroduction program, started in 1986.

One century after extinction, and after 27 years of coordinated efforts to reintroduce the species back, over 80 bearded vulture experts, park technicians and rangers, NGO staff and government agencies decision makers met on this historic spot to discuss the latest updates, and plan ahead, on the bearded vulture alpine reintroduction project.

The main conclusions of the 2013 annual bearded vulture information meeting are the following:

- ✓ The bearded vulture alpine reintroduction project is a great success – one of Europe's great conservation achievements. Across the Alps, the population is increasing (total population size now numbers about 200 individuals, with 25-28 pairs). With 197 birds released (8 in 2013), and 109 successfully fledged wild-hatched individuals (16 in 2013), the species can be considered as truly re-established.
- ✓ The first signs for linkages between the Alps and the Pyrenees are appearing: birds released in the French Massif Central-Cevennes by the LPO project are now present in the Pyrenees and the Alps, first evidence that it will be possible to establish an Alpine-Pyrenean metapopulation thanks to the French Corridor program.
- ✓ Thanks to the very high productivity in the re-established alpine population (0.502 all years combined, 0.59 in 2013), the number of bearded vultures hatched in the wild (n= 109) will surpass the number of released birds (n=197) within the next few years.



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- ✓ Bearded vultures in the Central Alps/NW Alps (2013: 22-23 pairs, productivity of 0.51-0.65) are doing really well (but maybe first signs of density-dependence in the core areas are showing up?). On the other hand the productivity in the SW Alps/Eastern Alps is much lower (2013: 4-5 pairs, productivity of 0.17-0.24).
- ✓ Release of young birds from EEP is still necessary for genetic reasons, not for demographic reasons. Criteria for release exit strategy: 20 founder genome equivalents and a genetic effective population size of 50. To explain what this means: with 20 founder genome equivalents the genetic diversity in the wild population will be of the same size as if it was derived from 20 founder animals which all reproduced equally with no loss of alleles. Additionally, to avoid close inbreeding in the near future a genetic effective population size of 50 would be necessary.).
- ✓ Priority to recalculate demographic model with up-to-date data, and try for regional models focussing on the different alpine contexts
- ✓ Urgent to continue with genetic monitoring (through feather sampling) for genetic mapping and collecting evidence of linkages with other populations.
- ✓ All released birds, but eventually also rehabilitated ones, should be released with new darvic colour-rings to add to the monitoring. Possible risks associated with accessing nests could outweigh expected benefit, so general ringing of wild-born young is not advised at this stage. However, in single specific cases marking of wild hatched birds can be done, as long as a close monitoring of such actions and a careful and critical evaluation of such interventions is guaranteed (lead by the team of ASTERS).
- ✓ Movements (as plotted by satellite tags) of the released birds in Alps (but also in Andalusia) much greater than the wild born ones in the Pyrenees (PLOS One, Margalida et al. 2013). Three possible explanations: genetics and population size, released vs. autochthonous and, the most probable, feeding stations.
- ✓ Pyrenees – Evidence that the “heavy” feeding stations in Spanish Pyrenees (Aragòn) are preventing natural dispersion
- ✓ Pyrenees - On the other hand, the “small” feeding stations used in Aude by LPO are promoting the corridor to the Cevénnes and eventually the Alps. Birds have crossed the river Aude!



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- ✓ Birds can move more than 100 km in one day. Suggestions that birds in their 2nd calendar here disperse widely. Evidence of philopatry confirmed (they often return to release site).
- ✓ Andalusia – project mid-way, 28 birds released, 9 found dead, 14 birds definitely alive and in the region. Releases to continue, breeding to be expected in the next 5 years. Needs constant assessment to re-evaluate number of birds needed per year and estimated project duration and cost. Poisoning work needs to continue to minimise mortality.
- ✓ Lead poisoning a major threat (several recent cases documented in the Alps, and mean values in liver and bone much higher than in the Pyrenees) – need to continue with research (Italy and Switzerland leading) and advocacy.
- ✓ First signs of change of attitude in the region re. lead: in some areas non-lead ammunition starts to be used after successfully advocacy work by partners (Stelvio NP, Vogelwarte CH, Stiftung Pro Bartgeier).
- ✓ Need to continue to monitor populations and mortality to see potential impact of wind farms in the region (potential for rapid development). Habitat modeling might help to identify most important areas for the species and thus high risk areas in case of new wind farms.
- ✓ Bearded vulture EEP –5 breeding centers, 35 zoos: Captive breeding stock 161 birds, 38 pairs. 422 juveniles raised so far, 225 released for *in-situ* projects. Specialized breeding centers essential for EEP (0,96 chicks/pair year vs. 0,39 in Zoos, average of the last 10 years), but Zoos have essential awareness role.
- ✓ EEP needs to retain some young males to balance sex ratio in the near future.
- ✓ EEP – flight shows becoming a real problem – need to engage more with bird crime enforcement agencies. Many birds lost to EEP. Zoos also need to engage to prevent wild birds being legalised or sold to flight shows.
- ✓ Corsica – genetic analysis a priority in the short term (winter to spring 13-14). Then re-evaluation to consider restocking & careful assessment of feeding strategy options.



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- ✓ New projects with bearded vulture – most relevant for the ultimate goal (restoration of the former range=, but need to take in consideration IUCN guidelines, conservation priorities and EEP capacities.
- ✓ Bearded vulture in the Alps, and to a lesser extent in the Pyrenees, Corsica, Andalusia and Crete, very well studies, but almost nothing is known about populations elsewhere, notably in Ethiopia, Turkey, Caucasus and Central Asia. Globally considered Least Concern, but need to redirect effort to rest of the global distribution range to evaluate properly trends and population size.
- ✓ Need for an update of the international species action plan – current one dates from 1998.

Vulture Conservation Foundation, 25. November 2013.



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