Unresolved Problems in the Condor Recovery Program: Response to Risebrough

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Risebrough raises four main issues about the condor recovery program in response to my book review (Beissinger 2001) of Snyder and Snyder (2000). He argues that (1) vested interests do not exist in the condor recovery effort, (2) the lead threat to condors has been misrepresented and overstated, (3) starting releases over with better birds is unnecessary because bad behavior will disappear from birds now in the wild, and (4) the Condor Recovery Team has already planned releases of parent-reared birds raised in naturalistic field enclosures, implying that my remarks on this subject were unnecessary.

As for the issue of vested interests, participants in the condor program receive numerous benefits from their participation. Most current members of the recovery team, including Risebrough, receive either continuous or intermittent financial support for their roles in the program and thus have "vested interests" in every sense of the term, regardless of whether the funds are from public or private sources. Members with jobs and welfare dependent on policy decisions in the program often face conflicts of interest when offering recommendations to the U.S. Fish and Wildlife Service (USFWS), and there has been little effort to obtain recommendations from personnel free of such conflicts. The problem of conflicts of interest is not limited to the condor program or to recovery teams, but it is a serious generic problem affecting the recovery of many species at many levels. One of the most valuable contributions of the Snyders' book is the discussion of how conflicts of interest impede progress and lead repeatedly to poor decisions. Pretending that this problem does not exist increases the likelihood that history will repeat itself.

With respect to the extent of the lead threat, the USFWS recognized that there was no practical means by which to halt the rapid decline of condors or to protect them from lead poisoning when it ordered the capture of the last remaining wild condors in 1986–1987. Evidence for a primary role of lead in the condor's decline has become stronger since this decision (Pattee et al. 1990; Meretsky et al. 2000, 2001; Snyder & Snyder 2000). With 16 recent emergency chelations of lead-poisoned condors in release efforts (6 in California and 10 in Arizona) and four to six deaths of released birds attributed to lead, it is remarkable that the importance of lead contamination is still under debate, especially considering that released condors have been maintained largely on a clean-food subsidy provided to bypass lead contamination. My remarks on the extent of mortality from lead restated the results of Meretsky et al. (2000, 2001), who considered emergency chelations as mortalities in their calculations and documented that lead was the major known threat of mortality to releases on this basis, an analysis that Risebrough evidently overlooked.

Condor reintroductions were initially justified on the assumption that released birds could be maintained on clean-food subsidy until better solutions to the lead threat were developed (Snyder & Snyder 2000). Clean-food subsidy has been provided more or less consistently in California, but was deliberately terminated in early 2000 for Arizona releases without protest by the recovery team. Soon thereafter, multiple cases of acute lead poisoning (deaths and chelations) occurred in Arizona. The Arizona releases have since returned to subsidy efforts, yet there are continued claims that there is no chronic lead contamination threat.

Risebrough's claim that all condors poisoned with lead in Arizona resulted from a single "anomalous" event is not based on direct observations of such an event. The dates of contamination of these birds are not clustered tightly enough to suggest a single event, and the presence of more than one size of shotgun pellet in several of these birds' digestive tracts does not provide credible evidence of a single event or "target shooting" of a carcass. Both legal and illegal hunting of wildlife are widespread in northern Arizona, so it would be surprising if lead-contaminated carcasses were "anomalous" there. Risebrough minimizes the threat of lead to condors in central California, but survival has probably been high there because of relatively conscientious and successful provisioning of clean food, not because of low lead threats.

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Fear of alienating the hunting community may discourage some participants in the condor recovery program from acknowledging or proposing effective solutions to the lead threat, but I think such fears have been overemphasized. Now that nontoxic alternatives to lead with ballistic and hunting properties equal to and superior to those of lead are becoming available (Meretsky et al. 2000), I believe the hunting community will accept nontoxic ammunitions if the issues are properly presented. A phaseout of lead ammunitions, as was done for lead in gasoline and paint, would benefit the health of condors, other wildlife species, and humans, especially hunters. The alternative of continuing to rely on food subsidy to avoid lead problems in condors is a solution of unknown long-term efficacy and commits the program to endless monetary and human-resource expenditures. Establishing viable wild populations of condors is unlikely if the lead threat is ignored.

With respect to misbehaving condors, incidents of undesirable human-oriented behavior continue to occur, as they have since the early 1990s, and now involve breeding birds. Although the problem clearly exists, no careful studies of trends in such behavior have been made, in part because the condor program lacks a research component. Whether birds currently in the wild will ever behave like historic condors is unknown. The human-oriented behaviors that caused some birds in the first releases to be recaptured often do not result in removal of condors from the wild now. Leaving misbehaving condors in the wild poses risks to the birds and to people that need not be taken when the alternative exists of limiting releases to better-quality birds.

With respect to releases of parent-reared birds raised in naturalistic field enclosures, the recovery team was given this recommendation in 1994 by a USFWS–sponsored workshop but did not endorse it until after Meretsky et al. (2000) again raised the issue. It has yet to be implemented, although negotiations with the Turner Fund are underway. Whether such releases will actually occur and exactly how they will occur are uncertain. It is also unclear whether releases of better-quality birds will solve ongoing behavioral problems as long as misbehaving birds are left in the wild in a position to "mentor" newly released birds into bad behavior.

In conclusion, Risebrough's comments serve mainly to highlight problems that the condor program has not solved. Solutions to these problems lie not in shutting down the condor release program or in trying to silence its critics, but in making changes to the release strategies based on a comprehensive, independent, scientific review of the program and in restructuring the program to remove conflicts of interest.

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