**Reintroduction into the wild after an extreme bottleneck: lessons from the Alagoas Curassow**

M. R. Francisco1,2, M. C. Costa2, R. A. Azeredo3, J. Simpson3, & L. F. Silveira4

1 Departamento de Ciências Ambientais, Universidade Federal de São Carlos, Campus de Sorocaba, 18052-780, Sorocaba, SP, Brazil

2 Programa de Pós Graduação em Ecologia e Recursos Naturais, Universidade Federal de São Carlos, 13565-905, São Carlos, SP, Brazil

3 CRAX - Sociedade de Pesquisa do Manejo e da Reprodução da Fauna Silvestre, Contagem, MG, Brazil

4 Seção de Aves, Museu de Zoologia da Universidade de São Paulo, 04218-970, São Paulo, SP, Brazil

One of the main assumptions of conservation sciences is that species that have passed through severe bottlenecks have higher chances of extinction due to demographic and genetic issues. This has posed a debate of whether the resources available for conservation should be invested in more viable taxa. Addressing the effectiveness of conservation of species that have been through extreme reductions in population size is an ideal way to test this idea. Here were present the study case of the Alagoas Curassow, *Pauxi mitu* (Aves, Galliformes), which has survived to one of the most extreme bottlenecks ever documented by science, and was reintroduced into the wild on September 2019, and we point out the reasons why it may have survived. The last record of the Alagoas Curassow in the wild was in 1979, when five individuals were captured for captive breeding. The current population descends from only three of these animals (one male and two females). After a problem of hybridization caused by the lack of pedigree control, in 2008 a genetic monitoring program started and permitted the identification of a pure group of individuals for the reconstruction of the captive breeding program. The survival of the Alagoas Curassow can be attributed to: i) the rescue of the last remaining individuals just before species extinction, ii) the correct reproductive management in captivity, iii) the fact that founder individuals were not related, iv) a rapid demographic expansion, and v) a long term genetic monitoring program to avoid further genetic variability losses. The main lesson provided by this study case is that the decision of choosing between investing money to avoid other species to become critically endangered or to recover the most critical ones is certainly over simplistic, and species with different levels of risk must be included in conservation managers' agenda.