ERRATA:
Environmental Assessment for Pilot Release of ʻAlalā (*Corvus hawaiiensis*) on East Maui, Hawaiʻi

INTRODUCTION

This errata documents changes (corrections and minor revisions) to the text of the Environmental Assessment for Pilot Release of ʻAlalā (*Corvus hawaiiensis*) on East Maui, Hawaiʻi (EA) as a result of comments received on the EA during the public review process, as well as other corrections. Page numbers referenced pertain to the EA released to the public for review on October 31, 2023. Original text from the EA is included to provide context and to allow for comparison to the text change. Additions to text are underlined, and deleted text is shown by ~~strikeout~~.

ERRATA

Page 1

Original: Because ~~there are no ʻio on Maui, the island~~ would allow the opportunity to test if released ʻalalā are able to breed successfully in absence of predation on ʻalalā by ʻio.

Revision: Because sightings of ʻio on Maui are extremely rare and ʻio do not breed on Maui (Banko 1980, entire) (all references are in **Appendix A**), releasing ʻalalā on Maui would allow the opportunity to test if ʻalalā are able to breed successfully in absence of predation on ʻalalā by ʻio.

Original: Subfossil remains indicate that corvids were once present on islands of Oʻahu, Maui, and Molokaʻi; Maui had the ʻalalā or a similar species as late as the period of human occupation based on radiocarbon dating of crow subfossil remains from east Maui (James *et al.* 1987, p. 2354~~; all references are in **Appendix A**~~).

Revision: Subfossil remains indicate that corvids were once present on islands of Oʻahu, Maui, and Molokaʻi; Maui had the ʻalalā or a similar species as late as the period of human occupation based on radiocarbon dating of crow subfossil remains from east Maui (James *et al.* 1987, p. 2354).

Page 16

Original: Plant species listed as threatened or endangered receive federal and state protection under the ESA and Chapter 195D, Hawaiʻi Revised Statutes, respectively, and are characterized as those that are in danger of or area threatened with extinction throughout all or a significant portion of their range.

Revision: Plant species listed as threatened or endangered receive federal and state protection under the ESA and Chapter 195D, Hawaiʻi Revised Statutes, respectively, and are characterized as those that are in danger of or area are threatened with extinction throughout all or a significant portion of their range.

Page 17

Original: The Koʻolau proposed release site (Alternatives 2 and ~~3~~) is protected by ungulate exclusion

fencing and natural barriers from ungulate intrusion.

Revision: The Koʻolau proposed release site (Alternatives 2 and 4) is protected by ungulate exclusion fencing and natural barriers from ungulate intrusion.

Original: The Kīpahulu proposed release site (Alternatives 2 and ~~4~~), though fenced in some portions, has presence of feral ungulates throughout the area.

Revision: The Kīpahulu proposed release site (Alternatives 2 and 3), though fenced in some portions, has presence of feral ungulates throughout the area.

Page 21

Original: ʻAlalā experienced a severe decline in numbers and range during the latter part of the 19th and throughout the 20th century (Berger ~~1972~~, p. 91).

Revision: ʻAlalā experienced a severe decline in numbers and range during the latter part of the 19th and throughout the 20th century (Berger 1981, p. 91).

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Original: Conservation measures include tree snail surveys, tree snail live collection and captive propagation, and introduction of tree snails to the ~~OSTE~~ snail exclosure. Tree snail surveys would be conducted at the Kīpahulu proposed release site before the proposed release, and information obtained from these surveys incorporated into the final EA. There is a population of approximately 60 *Partulina marmorata* in captivity, and it is anticipated a small number of *P. marmorata* tree snails will be introduced to the ~~OSTE~~ in 2024. The conservation measure to introduce captive raised *Partulina marmorata* to the ~~OSTE~~ snail exclosure is its own recovery actionindependent of the proposed ʻalalā release, but when accomplished, will result in a second (protected) wild population of *Partulina marmorata* tree snails. There is virtually no risk of ʻalalā flying over 15 miles from the Kīpahulu proposed release site to the ~~OSTE~~, and if this did occur, these ʻalalā would be captured and returned to captivity.

Revision: Replace the acronym "~~OSTE~~" where it appears in this paragraph with "OTSE."

Page 75

Add the following reference to Appendix A: References.

Banko, W.E. 1980. History of Endemic Hawaiian Birds. Part 1. Population Histories—Species Accounts. Forest Birds: Hawaiian Hawk (ʻIo). Cooperative National Park Resources Studies Unit, University of Hawaii at Manoa. 24 pp.

Remove the following reference from Appendix A: References.

Bouyer, B.L., and S.K. Lopes. 2023. Cultural Impact Assessment for the Release of Endangered Captive-bred ʻAlalā in the Koʻolau and Kīpahulu Forest Reserves. Prepared for Department of Land and Natural Resources, Division of Forestry and Wildlife, 1151 Punchbowl Street, Room 325, Honolulu, HI 96813. 111 pp.

Page 76

Add the following reference to Appendix A: References.

EPA (U.S. Environmental Protection Agency). 2015. Registration Review – Preliminary Problem Formulation for Ecological Risk and Environmental Fate, Endangered Species, and Drinking Water Assessments for Diphacinone and Diphacinone Sodium Salt. United States Environmental Protection Agency, Washington D.C., 20460. MEMORANDUM, Date 12/06/2015.

Page 77

Add the following reference to Appendix A: References.

Giffin, J.G., J.M. Scott, and S. Mountainspring. 1987. Habitat Selection and Management of the Hawaiian Crow. The Journal of Wildlife Management 51:485-494.

Page 78

Add the following reference to Appendix A: References.

Klavitter, J., P. Banko, D Ball, K. Clarkson, P. Harrity, and S. Johnston. 1995. Activity patterns and foraging ecology in ʻÀlalā (*Corvus hawaiiiensis*): A comparison of wild adult and captive reared juvenile Hawaiian Crows. Preliminary U.S. Fish and Wildlife Service Report. 1995. Pacific Islands Fish and Wildlife Office, Honolulu, Hawaii. 16 pp.

Page 79

Original: Work, T., J. Dagenais, R. Rameyer, and R. Breeden. 2015 Mortality patterns in endangered Hawaiian geese (Nene; Branta sandvicensis) Journal of Wildlife Diseases 51:688-695.

Revision: Work, T., J. Dagenais, R. Rameyer, and R. Breeden. 2015. Mortality patterns in endangered Hawaiian geese (Nene; Branta sandvicensis) Journal of Wildlife Diseases 51:688-695.

Original: Greggor, A. ~~12-14-2022~~. Pers. Comm. to J. Nelson, email communication. Subject: ~~food resources at Kīpahulu release site~~.

Revision: Greggor, A. 12-21-2022. Pers. Comm. to J. Nelson, email communication. Subject: ʻAlala response to low flying helicopters and drones at Puʻu Makaʻala NAR.

Page 80

Original: Similarly, on Hualālai, ʻalalā were historically seen moving from the montane dry forests on the north side to the wet west side of Hualālai in response to seasonal food resources (~~Giffin 1983, pp. 21-22;~~ Banko *et al.* 2002, p. 4).

Revision: Similarly, on Hualālai, ʻalalā were historically seen moving from the montane dry forests on the north side to the wet west side of Hualālai in response to seasonal food resources (Banko *et al.* 2002, p. 4).

Page 81

Original: In common with many Hawaiian birds, the ʻalalā experienced a severe decline in numbers and range during the latter part of the 19th and throughout the 20th century (Berger ~~1972~~, p. 91).

Revision: In common with many Hawaiian birds, the ʻalalā experienced a severe decline in numbers and range during the latter part of the 19th and throughout the 20th century (Berger 1981, p. 91).

Page 83

Original: The primary cause of death for three recovered carcasses could not be determined ~~(A. Gregor, pers. comm., 2022).~~

Revision: The primary cause of death for three recovered carcasses could not be determined (USFWS/DLNR, unpubl. data).

Page 84

Original: During the Puʻu Makaʻala release the field team observed release cohorts mixing around supplemental feeding stations near hacking aviaries built for later releases and intra-specific conflicts at and near the feeding stations, as well as in the surrounding forest ~~(A. Greggor, pers. comm., 2022).~~

Revision: During the Puʻu Makaʻala release the field team observed release cohorts mixing around supplemental feeding stations near hacking aviaries built for later releases and intra-specific conflicts at and near the feeding stations, as well as in the surrounding forest (USFWS/DLNR, unpubl. data).

Original: Preliminary analyses of the circumstances surrounding ʻalalā mortalities suggest that birds were at higher risk during periods of weaning and as the number of territorial birds on the landscape increased ~~(A. Greggor, pers. comm., 2022).~~

Regional: Preliminary analyses of the circumstances surrounding ʻalalā mortalities suggest that birds were at higher risk during periods of weaning and as the number of territorial birds on the landscape increased (USFWS/DLNR, unpubl. Data).