Pacific Seabird Group

DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

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November 20, 2015

Mrs. Tamayo Marukawa
Minister of the Environment
Ministry of the Environment Government of Japan
Godochosha No.5, Kasumigaseki 1-2-2,
Chiyoda-ku, Tokyo 100-8975, JAPAN

Re: Conservation of Japanese Seabirds by restoring islands of Japan

Dear Mrs. Marukawa:

At the 2014 International Ornithological Congress, held in Japan, the Pacific Seabird Group and Japan Seabird Group convened a special discussion on "Restoring Seabird Breeding Colonies Invaded by Rats and Other Introduced Mammals in Japan and Korea" (Pacific Seabird Group and Japan Seabird Group 2014). This discussion highlighted both the successes and challenges of removing rats and other invasive species that threaten Japan's rich seabird populations.

I am writing now on behalf of the Pacific Seabird Group to express our appreciation for the efforts of Japan to conserve its seabirds and to offer our support and assistance for continued investment and improvement in restoring critical seabird breeding habitats within Japan's waters.

The Pacific Seabird Group (PSG) is an international, non-profit organization that was founded in 1972 to promote the knowledge, study, and conservation of Pacific seabirds. It has a membership drawn from the entire Pacific basin, including Australia, Canada, China, Japan, Korea, Mexico, New Zealand, Russia and the United States. Among PSG's members are biologists and scientists who have research interests in Pacific seabirds, government officials who manage seabird refuges and populations, and individuals who are interested in marine conservation. PSG has served as an unbiased forum for government, university, and private sector biologists to discuss and resolve seabird and related conservation issues.

Globally, introduced rodents are present on almost 90% of the world's archipelagos (Atkinson 1985) and are responsible for 40 to 60% of all bird and reptile extinctions[1]. Eradication of rats from islands has proven to be a powerful conservation tool, with over 400 successful eradications documented worldwide, from small offshore rocks to very large and complex islands (DIISE 2015). The largest reported successful eradication was completed in 2012 at Macquarie Island, Tasmania, at more than 13,000 ha. Today, the island of South Georgia (about 400,000 ha) is awaiting confirmation of success of eradication efforts there, and Palmyra Atoll in the tropical Pacific was declared rat free in 2012. The recovery of native species and ecosystems after rat eradication is unequivocal; ecosystem change has been documented within weeks to months after the removal.

All but the smallest eradications have applied the same fundamental principles toward rodent eradication around the world, including:

- Delivering a bait containing a rodenticide into every potential rodent territory, either using bait stations, or delivered by broadcasting (hand or aerial approaches).
- Conducting the eradication at a time that maximizes the chances that all rodents will find and consume the bait.
- Minimizing the risk to native species that may be negatively impacted by the rodenticide or the operations.

Use of a highly palatable bait containing a rodenticide that is demonstrated to kill 100% of a rat population is recommended to maximize the probability of successfully removing rats from islands. Further, the high quality bait must be delivered into every potential territory. For large islands, or islands with steep cliffs where people cannot safely walk, the use of aerial broadcast is required to achieve eradication with bait broadcast from a hopper suspended under a helicopter, guided by an onboard GPS. Finally, the risks to native and endemic species from the rodenticide must be carefully considered and mitigated appropriately, including risk minimization or use of lesser risk rodenticides (that do not compromise efficacy).

The PSG understands that in Japan to date there have been mixed results with currently available bait products: in other words, some baits have worked and others have not. Where eradication has been successful, however, we understand recovery has been documented (Hashimoto 2009, Minato and Tokida 2015). We applaud the Japanese government for undertaking these important conservation projects and encourage you to continue with this important program. The Japan Wildlife Research Centre and its staff have demonstrated high competency in the understanding of both the ecology and the technical requirements necessary to maximize the probability of successfully removing rodents from islands.

The PSG also understands that some projects have failed to succeed in the removal of rats from islands. In order to increase the success rate, it may be useful to review the approach and the tools that Japan utilizes, and consideration of the tools and approaches used in other countries,

[1] Coastal Conservation Action Lab, University of California, Santa Cruz, California.

such as New Zealand, United States, Canada, Mexico, or Ecuador (for the Galapagos Islands). There is a range of rodenticides and bait formulations available for conservation purposes in Australasia and North America that may be considered for use by Japan to improve eradication success rates. If invited, the PSG would be pleased to suggest experts in rodent eradication with whom you might consult in order to refine and redesign elements of the program to increase success.

Should you or your staff at the Ministry of the Environment need additional information on rat eradications, PSG would be pleased to assist you in obtaining this information.

Sincerely,

Stanley Senner
Vice-Chair for Conservation

Literature Cited

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