



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Alaska Maritime National Wildlife Refuge  
95 Sterling Hwy., Suite 1  
Homer, AK 99603-7473



15 December 2009

Dear Reader,

You may have received a copy of the operational report for the Rat Island Habitat Restoration Project by email in August 2009. This Addendum clarifies some points in the report. Instead of changing the report already distributed, we are attaching a copy of the original report with this Addendum:

1. Although the average application rate for the rodenticide was included in the report (p. 11), specific application rates were not included for the first and second applications, for coastal and inland areas, and for hand broadcasts around lakes. These rates appear below:

## **First Application**

Coastal:	11.20 kg/ha
Inland :	5.20 kg/ha

Lake Zones (hand broadcast, 81 ha):	7.95 kg/ha
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## **Second application**

Coastal:	13.70 kg/ha
Inland:	6.00 kg/ha

## **Additional Application**

Gaps and cliff areas (424 ha):	7.76 kg/ha
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2. Table 1 (p.6) and Table 2 (p. 13) omitted aerial bait application around lake exclusion zones on October 3. As indicated below, bait was applied each day over a 7 day period:

<b>Date (2008)</b>	<b>Baiting schedule</b>
September 29	Aerial application bait block East and Mountains
September 30	Aerial application bait block West
October 1	Hand broadcast inside lake exclusion zones
October 2	Aerial application bait block Mountains, Hand broadcast inside lake exclusion zones, Aerial application Ayugadak Islet
October 3	Aerial application around lake exclusion zones
October 4	Aerial broadcast bait block East
October 5	Aerial application bait block West, cliff areas, and bait gaps

3. The schedule and approach for monitoring for rat mortality and for non-target mortality (pp 18-19) correctly states that incidental observations were made for dead rats and birds. However, the length of time for this monitoring was very limited and the crews left the island after the last aerial application on 6 Oct 2008. Subsequent monitoring occurred May 26-June 18 (detailed report pending).

4. Two of 10 freshwater samples taken from two lakes during the eradication tested positive for brodifacoum. Average values of replicate samples collected from lakes were incorrectly reported in Table 6 (p. 25). A summary appears below:

Table 6. Corrected brodifacoum residues in fresh water collected on Rat Island prior to, and at 24- and 48- hours post bait application (\* MLOD= 0.052 ppb).

Collection location	Sample #	Collection Date	Time series	Brodifacoum conc (ppb)*
Lake system 8	1-1	8/8/2007	pre-application	<MLOD
Lake system 8	1-2	8/8/2007	pre-application	<MLOD
Lake system 8	1-3	8/8/2007	pre-application	<MLOD
Lake system 9	2-1	8/8/2007	pre-application	<MLOD
Lake system 9	2-2	8/8/2007	pre-application	<MLOD
Lake system 9	2-3	8/8/2007	pre-application	<MLOD
Lake system 1	3-1	8/8/2007	pre-application	<MLOD
Lake system 1	3-2	8/8/2007	pre-application	<MLOD
Lake system 1	3-3	8/8/2007	pre-application	<MLOD
Lake system 4	4-1	8/8/2007	pre-application	<MLOD
Lake system 4	4-2	8/8/2007	pre-application	<MLOD
Lake system 4	4-3	8/8/2007	pre-application	<MLOD
Lake 4B West	1-1	10/1/2008	24 hr post-application	<MLOD
Lake 4B West	1-2	10/1/2008	24 hr post-application	<MLOD
Lake 4B East	1-1	10/1/2008	24 hr post-application	<MLOD
Lake 4B East	1-2	10/1/2008	24 hr post-application	0.203
Lake 4A	1-1	10/2/2008	48 hr post-application	0.199
Lake 4A	1-2	10/2/2008	48 hr post-application	<MLOD
Lake 4A	1-3	10/2/2008	48 hr post-application	<MLOD
Lake 4B West	2-1	10/2/2008	48 hr post-application	<MLOD
Lake 4B West	2-2	10/2/2008	48 hr post-application	<MLOD
Lake 4B West	2-3	10/2/2008	48 hr post-application	<MLOD

Brodifacoum has very low solubility in water. The fact that small samples tested positive is most likely explained by small bait particles in the sample, rather than brodifacoum in solution. Small particles of bait could occur in lakes after bait application as bait dust. Bait dust could have entered into the water during bait application as drift either during the aerial application or hand broadcast, or accidentally during water sample collection.

5. In Table 7 (p. 26), the fifth, sixth and seventh column header the word "Measured" is in error and should be replaced with "Hypothetical". Hypothetical data were used to demonstrate the number of pellets required to drift into the lake system to achieve a measurable brodifacoum concentration if brodifacoum were soluble in fresh water.

6. Although the statement at the bottom of page 28 was meant to apply to the Fish and Wildlife Service work in the future on Rat Island, it could be understood to erroneously imply a regulation is in place that applies broadly to visitors to the island in the future and there is no such regulation in place.

If you have any comments or inquiries, please contact Supervisory Wildlife Biologist, Vernon Byrd at (907) 235-6546.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven J. Delehanty". The signature is stylized with a large initial "S" and a long horizontal stroke extending to the right.

Steven J. Delehanty  
Refuge Manager

Enclosure: Rat Island Habitat Restoration Project: Operational Report