MARINE MAMMAL COMMISSION

18 November 2010

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Hawaiian Monk Seal Recovery Coordinator
Pacific Islands Regional Office
National Marine Fisheries Service
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Dear Dr. Walters:

On 1 October 2010 the National Marine Fisheries Service issued a *Federal Register* notice (75 Fed. Reg. 60721) announcing its intent to prepare a programmatic environmental impact statement on possible new recovery action for the Hawaiian monk seal. The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, offers the following suggestions regarding information and analyses that the Service should address in the programmatic statement.

The Service notes that the statement will analyze the environmental impact of four categories of management actions, including (1) vaccination studies on inoculating monk seals for certain diseases, (2) aversive conditioning to modify monk seal behavior that could place the seals at risk from interactions with people or domestic animals, (3) temporary archipelago-wide translocation of juvenile seals from the Northwestern Hawaiian Islands (NWHI) to the main Hawaiian Islands to improve their chance of survival, and (4) deworming programs to reduce parasite loads that may limit nutrient uptake by young seals. The continuing decline in monk seal numbers underscores the urgency of developing, testing, and applying new management tools. The four actions identified in the *Federal Register* notice have been discussed at length during recent recovery team meetings and hold great promise for promoting the recovery of the population. The Marine Mammal Commission commends and fully supports the National Marine Fisheries Service's efforts to analyze the possible effects of the proposed actions in a programmatic environmental impact statement. To help ensure that the information included is as thorough and useful as possible, the Commission suggests that the document review and analyze the following points.

<u>Vaccination Studies</u>:

1. The need to demonstrate the safety of possible vaccines that might be administered to wild seals by testing them first on captive seals;
2. possible alternative vaccines and schedules for inoculating seals based on different age and sex classes and on differences in disease risks in different parts of the species' range; and
3. monitoring studies to assess the effects of vaccinations on the seals and the environment.

Effects of Aversive Conditioning:

1. The full range of aversive conditioning techniques that could be tested and used without posing undue risk of injury or harm to the seals (e.g., acoustic harassment, mild electric shocks that could be applied to seals on land or to seals approaching and biting swimmers in the water, visual deterrents, various forms of physical force);
2. the steps that will be taken to ensure that tests and analyses of techniques are well designed;
3. the range of situations in which aversive conditioning might be appropriate, the areas and situations in which aversive conditioning would not be used, and a decision matrix to determine when and when not to use different methods;
4. steps to ensure that aversive conditioning methods will be used consistently in those situations;
5. steps to ensure that aversive conditioning is administered by authorized individuals only;
6. steps to record information on use of authorized methods on wild seals and to evaluate their efficacy;
7. steps to ensure that the application of these methods do not result in significant injury or harm to the seals or other species and do not pose risks to human safety; and
8. public outreach and education efforts to explain policies related to the use of aversive conditioning.

Effects of Archipelago-wide Translocations:

1. The full range of options relative to the number, age, and sex of seals that might be translocated annually from the NWHI to the main Hawaiian Islands, the length of time that individual seals would remain in the main Hawaiian Islands, and the period of time during which translocations might occur;
2. a thorough description of capture, transport, and interim care procedures, with consideration given to risks and ways to mitigate them;
3. possible release sites and strategies in the main Hawaiian Islands, including advantages and disadvantages of different options (e.g., establishing local colonies that would facilitate monitoring, differences in the potential for interactions with people, access to foraging areas);
4. the adequacy of health-care facilities and staff to treat translocated seals that may develop medical problems at any stage, beginning with capture;
5. the need for a testing phase to evaluate the potential for a larger-scale program;
6. the potential value of initial simultaneous translocations to and from the NWHI and main Hawaiian Islands to assess the seals' abilities to adapt to foraging conditions in the NWHI, to test translocation methods, and to avoid increasing seal numbers in the main Hawaiian Islands during the initial testing phase;
7. monitoring strategies and studies to assess the efficacy of translocations (e.g., studies to assess forging patterns, areas, and success; growth rates and physical condition; and survival rates of seals in both the NWHI and main Hawaiian Islands);
8. monitoring studies to compare reproductive rates of seals returned to the NWHI with those of seals not moved;
9. the steps to be taken to ensure that related monitoring and assessment studies are well designed;

10. evaluation of interactions between translocated seals and people in the main Hawaiian Islands;
11. the steps that would be taken to prevent the illegal shooting of translocated monk seals and to minimize risks of interactions between translocated seals and people on beaches or in the water;
12. steps that would be taken to document, quantify, and assess the implications of interactions between translocated seals and people in the main Hawaiian Islands;
13. the risk of altering sex ratios and increasing the occurrence of male aggression at colonies in the NWHI and means for avoiding that risk;
14. the risk of seals reaching maturity and beginning to reproduce in the main Hawaiian Islands before being returned to the NWHI and how that could affect their return to the NWHI; and
15. public outreach efforts required to assess concerns about translocating seals from the NWHI to the main Hawaiian Islands and to develop public cooperation as needed.

Effects of Deworming:

1. Possible application methods relative to the number of seals that might be treated by age, sex, and location;
2. the frequency with which individual seals might be treated;
3. the possible need for a risk assessment to assess the potential benefits of wide-scale application compared with the risks of handling and treating seals;
4. monitoring studies that would be used to determine the utility of deworming as well as possible side effects, how long the treatments would last, and overall efficacy of the program; and
5. the steps that will be taken to ensure that monitoring and assessment studies are well designed.

Finally, in recent years scientists and managers have discussed the possibility of moving mother-pup pairs in the main Hawaiian Islands from areas that may be hazardous to their health or survival—and where protection cannot be ensured—to a safer location. For example, seals born on beaches such as Waikiki may be at high risk of interactions with people and domestic animals. It could be in the best interest of those mother-pup pairs to move them to a more remote area where the risk of harm or the likelihood of becoming habituated to people is lower. Similarly, a mother-pup pair at a site in the NWHI where the risk of shark predation is high might be moved to another location. Such management actions should be considered along with the actions already identified in the *Federal Register* notice.

I hope these comments are helpful. Please contact me if you have questions on any of these points.

Sincerely,

Timothy J. Ragen, Ph.D.
Executive Director