



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

*National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668*

July 11, 2005

Alexander Shor, Program Director
Division of Ocean Sciences
National Science Foundation
4201 Wilson Boulevard, Suite 725
Arlington, Virginia 22230

Dear Mr. Shor:

The National Marine Fisheries Service (NMFS) has reviewed the Environmental Assessment for geological research proposed by the Lamont-Doherty Earth Observatory to be funded by the National Science Foundation (NSF). The purpose of the study is to examine the apparent systematic westward decreases in the rate of subduction and sediment delivery to the Aleutian trench. The proposed study would locate sites of recent seafloor volcanism in the Aleutian Islands using multibeam bathymetric and single channel seismic surveys, and conduct rock dredging operations to collect samples for geochemical studies.

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act requires federal agencies such as NSF to consult with NMFS regarding any action authorized, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). NMFS and the North Pacific Fishery Management Council have identified EFH throughout the Aleutian Islands for a variety of managed species including Pacific cod, Atka mackerel, and several species of rockfish. These species use bottom habitats in the Aleutians throughout their life cycles for spawning, breeding, feeding, and growth to maturity, and support valuable commercial fisheries.

NMFS has coordinated with NSF and your Anchorage-based consultant since November 2004 and commented several times regarding the dredging component of this project. We provided information regarding efforts by NMFS and the Council to identify and protect sensitive seafloor habitats via the *Environmental Impact Statement for Essential Fish Habitat Identification and Conservation in Alaska* (EFH EIS) and a separate Environmental Assessment for Habitat Areas of Particular Concern. In February 2005 the Council voted unanimously to recommend significant new management measures in the Aleutians Islands and Gulf of Alaska to reduce the effects of fishing on EFH. These new measures include the establishment of a 279,114 nm² Aleutian Islands Habitat Conservation Area where all bottom trawling will be prohibited; a 5,286 nm² Bowers Ridge Habitat Conservation Zone where all mobile bottom contact fishing gear will be prohibited; and six Aleutian Islands Coral Habitat Protection Areas totaling 110 nm² where all bottom contact fishing will be prohibited (see enclosed figure). NMFS is presently developing the regulations to implement these closures, which will greatly reduce the potential adverse effects of fishing on seafloor habitat features.



The dredging included in Lamont-Doherty's research proposal would be accomplished using a 1 meter wide hard rock dredge. Towing this dredge through hard bottom areas would adversely affect EFH by disturbing and removing complex habitat features used by federally managed groundfish and other species. The habitat features affected would probably include long-lived cold water corals. NMFS is particularly concerned about the dredging proposed southeast of Semisopchnoi Island. This site is one of the six Aleutian Islands Coral Habitat Protection Areas referenced above, and contains "coral garden" habitat characterized by an unusually dense and diverse assemblage of cold water corals. These six coral garden habitats were discovered by NMFS scientists in 2002 and have been observed nowhere else. During the development of the EFH EIS, NMFS and the Council received extensive public input in support of habitat protection for the Aleutian Islands, including over 33,000 written comments, most of which cited the importance of protecting cold water corals. This level of public interest, coupled with a desire to be precautionary in light of incomplete information regarding the effects of habitat disturbance for managed fish species, led the Council to adopt the fishing restrictions described above. For the coral garden areas, these restrictions would prohibit fishing gears such as pots and longlines that have much less potential to damage EFH than the rock dredge included in Lamont-Doherty's research proposal.

NMFS understands that the Semisopchnoi site has geological features important to the proposed study, including one of the largest features of this type currently known. The corals on the submarine volcano there are also of great scientific interest from a biological standpoint, and should not be considered off limits to all scientific research. However, in light of the potential impacts of the proposed research dredging and the extensive public process that led to agreement to protect the coral gardens from all bottom contact fishing gear, we urge NSF to restrict this research project so as to avoid adverse effects to the coral gardens. We offer the following EFH Conservation Recommendations pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Act:

1. NSF should condition its funding for the proposed research to avoid all rock sampling within the Semisopchnoi Island coral garden site. NSF should encourage the principal investigator for the study to identify an alternative site to collect samples using the rock dredge.
2. Alternatively, NSF should prohibit use of a rock dredge for collecting samples within the Semisopchnoi Island coral garden site, and only allow sampling with less intrusive sampling gear such as a submarine with a robotic arm.
3. For all other areas in the Aleutian Islands, NSF should prohibit using a rock dredge in areas that appear to have dense concentrations of coral (if the researchers can identify corals based on their mapping work in advance of sampling at a particular site).

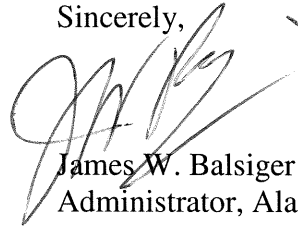
Section 305(b)(4)(B) of the Magnuson-Stevens Act requires NSF to provide NMFS with a detailed written response to these EFH Conservation Recommendations within 30 days, including a description of measures adopted by NSF for avoiding, mitigating, or

offsetting the impacts of the project on EFH. In the case of a response that is inconsistent with our recommendations, NSF must explain its reasons for not following the recommendations.

Again, NMFS acknowledges the scientific purposes of the proposed research, and we understand that the investigators want to sample within the Semisopchnoi site to obtain a type of young volcanic rock that may not be as readily obtainable elsewhere. Nevertheless, NMFS is concerned that sampling this area with a rock dredge conflicts with habitat protection measures that have been developed through an extensive public process involving many entities, including representatives of the fishing industry, fishery managers, environmental groups, scientists, and others. We hope you are able to devise appropriate restrictions for the proposed work so the investigators can achieve their principal scientific objectives while minimizing adverse effects to EFH.

NMFS will respond under separate cover regarding an Incidental Harassment Authorization for this project under the Marine Mammal Protection Act and the associated consultation under Section 7 of the Endangered Species Act. If you have any questions regarding our EFH comments, please contact John Olson at 907-271-1508.

Sincerely,



James W. Balsiger
Administrator, Alaska Region

Enclosure

cc: North Pacific Fishery Management Council