



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

2-21-F-91-330

April 24, 1992

MEMORANDUM

TO: Regional Director, National Park Service, San Francisco, California

FROM: Field Supervisor

SUBJECT: Amendment to Biological Opinion - Issuance of a Permit to Arizona State University Personnel to Collect Humpback Chub and Razorback Sucker in the Grand Canyon National Park, Coconino County, Arizona

This amends the Fish and Wildlife Service's (FWS) June 27, 1991, biological opinion on issuance of a National Park Service (NPS) permit to Arizona State University (ASU) personnel to collect endangered humpback chub (*Gila cypha*) and endangered razorback sucker (*Xyrauchen texanus*) in the Grand Canyon National Park.

On March 25, 1992, you requested formal Section 7 consultation regarding issuance of a 1992 NPS collecting permit to ASU based on activities identified in their original study plan and modifications identified in their 1992 permit renewal request (your reference: N1621 [WR-RN/GICY]). Consideration of those modifications are discussed later in this memorandum. While the 1992 permit requests were being processed, we mutually agreed (memoranda dated December 20, 1991, and February 3, 1992) with the NPS to extend the duration of our 1991 biological opinion.

Your memorandum identified the potential for accidental take of three other Federal listed species: Colorado squawfish (*Ptychocheilus lucius*), bonytail chub (*Gila elegans*), and Little Colorado spinedace (*Lepidocmeda vittata*). Because the FWS does not recognize the Colorado River in the Grand Canyon as occupied habitat for those species, formal Section 7 consultation is not necessary. In the speculative event that one of those species is encountered, we recommend that the specimen be documented fully, including photographs, and that it be released at the capture site.

The original study plan included the deployment of fish weirs placed across the entire width of the Little Colorado River (LCR). We understand from conversations with Dr. Paul Marsh (ASU) that they no longer intend to use this method.

The applicant has also requested a modification of their protocol that pertains to the time period hoop nets are checked in the study area of the LCR upstream of the NPS boundary. For Section 7 evaluations, the action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Thus, work performed by the applicant on other areas of the LCR is of interest here.

The FWS supports the collection of life history information that will increase the understanding of an endangered species and factors that influence its survival. On the other hand, we must balance the adverse cost to the species resulting from any of the research activities. The humpback chub population in the Grand Canyon is subject to an increased intensity of sampling due to the number of research projects being conducted. We also believe that the data from individuals that have been PIT-tagged and recaptured are important and reveal movement, growth, and perhaps population characteristics for the present study period and for studies in the future. We are cautious about possibly compromising that information with additional stress, behavioral changes, or possible mortality that may result from increased holding time in a hoop net.

We appreciate the information provided by the applicant to support the extension of the collecting period to a maximum of 72 hours and acknowledge the difficulty in sampling remote reaches of the LCR. In the section in the June 1991 biological opinion on terms and conditions to minimize incidental take, we stated that time between examination of an entanglement net (hoop) not exceed 12 hours. This office, with advise from other fishery professionals, believes that period could be extended to 24 hours without adversely affecting the humpback chub. When possible, we suggest that the 12-period be employed for the welfare of the species.

Since the 1991 opinion, the razorback sucker was listed as an endangered species (effective November 22, 1991). Occurrence of the species is rare in the Grand Canyon, and the recommended handling procedure that was included in the 1991 opinion (as a proposed species) should be continued in 1992 for the razorback sucker as a listed species. An incidental take limit of one has been established for the species, and the same reasonable and prudent measures and terms and conditions included for the humpback chub in the 1991 opinion will apply for the razorback sucker.

This amendment pertains to the study and collecting period that will be extended by the permit until December 31, 1992. Our biological opinion, that the issuance of the permit is not likely to jeopardize the continued existence of the humpback chub or razorback sucker, remains unchanged.

Thank you for your interest in conserving endangered species. If we can be of further assistance, please contact Frank Baucom or Ren Lohofener (Telephone 602/379-4720).



Sam F. Spiller

cc: Director, Fish and Wildlife Service, Washington, D.C. (FWE-ES)
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