January 20, 2006

Mr. Antoine Dixon
Forest Supervisor
U.S. Forest Service
100 W. Capitol St.
Suite 1141
Jackson, MS 39269

Dear Mr. Dixon:

We have received your letter of January 13, 2006, requesting the initiation of emergency section 7 consultation under the Endangered Species Act (Act) in response to tree removal and fuel reduction treatments due to Hurricane Katrina on the DeSoto National Forest. This letter provides the U.S. Fish and Wildlife Service's (Service) advisory notice that the proposed action may jeopardize the continued existence of the Mississippi gopher frog (*Rana sevosa*), an endangered species. This response is provided under the emergency consultation provisions of section 7 of the Act, implementing regulations at 50 Code of Federal Regulations [CFR] § 402.05, and under Service policy and procedures described in the section 7 consultation handbook[1].

Before implementing an action that may affect a listed or proposed species under normal (non-emergency) conditions, Federal agencies complete formal section 7 consultation with the Service to "insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of critical habitat. Under emergency provisions, however, the consultation and biological opinion are completed after the emergency is over. Nevertheless, the emergency procedures require that we advise you of our finding that the proposed action may jeopardize the continued existence of the frog, and if the action is implemented as proposed, we would issue a biological opinion upon the later completion of formal consultation that would confirm our findings.

[1] U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1988. Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act. ISBN 0-16-049596-2. Washington, DC.

Emergency Action

On and before September 28, 2005, Forest Service and Service staffs were collaborating to develop and evaluate a proposal to remove trees and reduce hazardous fuels. Our objectives were to benefit fire-dependent species by establishing conditions conducive to the continued use of frequent prescribed fire that is needed to maintain and restore habitat. Also, our efforts focused on methods to remove trees and reduce large woody fuels while avoiding or minimizing adverse effects to listed species, including the Mississippi gopher frog.

The overall action has been described in the Forest Service's October 2005, Environmental Assessment (EA) for Hurricane Katrina Tree Removal and Hazardous Fuels Treatment, as well as the subsequent Biological Evaluation (BE, FSM 2672.4) for Hurricane Katrina Tree Removal and Hazardous Fuels Treatment. The EA states that "The methods proposed to treat areas near the gopher frog pond do not include use of mechanized, ground disturbing equipment that could directly impact the gopher frog. The Forest Service's goal is to reduce fuels and continue to apply prescribed fire that is required to maintain and restore habitat for the benefit of this species. The Forest Service, in consultation with the Service, will identify preferred treatments that are not likely to adversely affect the gopher frog. However, if the only manner in which prescribed fire can be continued is to reduce fuels in a manner that is likely to adversely affect the species, then the Forest Service through continued consultation with the Service will make sure that the treatment is not likely to jeopardize the continued existence of the species."

Your letter of January 13, 2006, provided our office with the Forest Service's most recent preferred alternative for habitat restoration work within the 2.0 kilometer (km) (1.2 mile (mi)) radius Mississippi gopher frog protection area around Glen's Pond. This alternative proposes to salvage two areas west of the pond (14.2 hectares (ha) (35 acres (ac)) and one area east of the pond (27.9 ha (69 ac) east of Tiger Creek) with ground-based harvesting. The primary objectives of this action are to reduce fuel loadings to a level that will allow for resumption on an effective growing season prescribed fire regime and to minimize related smoke management issues which are a public safety concern. Another objective was to reduce as much of the host material for pine-infesting insects to limit the impacts of undesirable pest activity and additional tree mortality. The three treatment areas would be integrated into a larger salvage sale (Salvage #4) to maximize the potential to collect Knutson-Vandenburg (K-V) funds that could then be used to help pay for a helicopter operation in other severely damaged areas around Glen's Pond and other habitat restoration activities in the pond's vicinity. At least 4.05 ha (10 ac) from the compartment which includes Glen's Pond needed to be included in the salvage sale to allow K-V funds to be used for habitat management in that compartment. Also, Congress has designated funds to be provided to the Forest Service for work conducted in response to Hurricane Katrina. Some of these funds could also be used for habitat management in the Glen's Pond area.

The Service was presented with a map of Glen's Pond with areas of operable stands and areas of severe timber damage resulting from Hurricane Katrina outlined within the 1.5 km (0.93 mi) radius frog protection area. Forest Service personnel are concerned about smoke management and liability when conducting burns in this area due to the significant amount of 1,000 hour fuels. They would like to package the area in the frog protection area as a salvage timber contract. Also discussed were: 1) the potential for conducting a helicopter logging operation of the two stands in the immediate proximity of Glen's Pond; and 2) measures to limit impacts to the Mississippi gopher frog during a salvage timber operation. Finally, the Forest Service indicated that they would begin an initial field survey to determine the feasibility of conducting timber salvage of all stands within the 1.5 km (0.93 mi) radius protection area with modified conventional logging methods or helicopter logging and provide this information to the Service. The Service agreed to:

1) determine if it was possible to sufficiently identify above-ground indicators of below-ground gopher frog habitat that could be used to mark salvage exclusion areas; and
2) bring up this topic at a gopher frog recovery meeting and site visit to be held on December 13, 2005 and provide the results of this discussion to the Forest Service.

A Mississippi gopher frog recovery meeting was held at the office of the U.S. Forest Service, Southern Research Station in Saucier, Mississippi. The group discussed the following:

1. conducting dormant season burns every 2 to 3 years over a 5 to 10-year period until the 1,000 hour fuels would be reduced sufficiently to re-introduce growing season burning;
2. helicopter logging; horse-mule team timber operations or hand clearing;
3. modified mechanical logging using low impact machinery and techniques to protect gopher frog refugia; and
4. herbicides to reduce hardwood encroachment.

Status of the Mississippi Gopher Frog

Knowledge of the Mississippi gopher frog's ecology is almost completely limited to reproductive studies at the Glen's Pond breeding site. Little is known of their movement or migration corridor into or out of the pond. However, we can use data on movements of a related gopher frog in Florida to provide needed information. The maximum distance this frog moved from a breeding pond after reproduction was 2.0 km (1.2 mi). This distance was used to estimate the maximum distance a Mississippi gopher frog might move from Glen's Pond. Mississippi gopher frogs have only limited breeding years under normal circumstances. Over the last four to five years however, only a small proportion of individuals have bred

In March 2003, an undescribed disease resulted in the almost complete mortality of tadpoles at Glen's Pond during what was considered the best opportunity for recruitment in the near past. This disease is likely still present in the population. Thus, the

Mississippi gopher frog is a critically small population with an unresolved disease problem. In 2004, a minimum estimate of the adult breeding population was 89 Mississippi gopher frogs. There has been no significant recruitment since 1998 (7 years with no net population growth).

All three stands proposed for salvage by the Forest Service occur less than 2 km (1.2 mi) from Glen's Pond. Since we do not have long-term movement studies for the gopher frog, we consider the Mississippi gopher frog movement data to represent seasonal short-term movements. Observations of the gopher frog made in Florida indicate seasonal movements away from breeding ponds into the uplands and then back again to the ponds. We believe it is likely the Mississippi gopher frog also follows this same behavioral pattern.

Optimal or preferred habitat for the gopher frog is frequently burned, open, longleaf pine habitat with well-developed herbaceous strata and gopher tortoise burrows or other underground refugia. This is not, however, the prevailing habitat condition in the area surrounding Glen's Pond. From other studies and observations, gopher frogs are known to move through poor or degraded habitat to and from breeding ponds. Also, gopher frogs have been known to occur in poor habitat with understory shrub encroachment. Part of the Mississippi gopher frog population likely inhabits poor habitat because it is the dominant habitat type available. We lack sufficient data to conclude, alternatively, that individual frogs leave the breeding pond in a non-random manner, move preferentially to good habitat, and that this population resides entirely within the available stands and patches with good habitat conditions.

Given a population of 89 individuals, the incidence of a fatal disease in the population, and the lack of significant recruitment in 7 years, the Mississippi gopher frog has a high probability of extinction. We do not have information to indicate that the stands proposed for salvage do not harbor the population that is needed to make sure of its continued survival. Gopher frogs probably experience slower growth rates and higher mortality in poor and unsuitable habitat. Thus, habitat restoration and enhancement is vital to survival and recovery. However, the short-term consequences and risks of additive mortality from mechanical ground disturbance in the proposed treatment areas, combined with the high probability of extinction of the Mississippi gopher frog, requires that we take a cautious approach in authorizing any action that might cause mortality. Therefore, we believe that the proposed action has the potential to jeopardize the continued existence of the Mississippi gopher frog

Recommended conservation measures

1. Survey all treated areas and landings to identify and protect habitat structures (burrows and stump holes) and to mark all vegetative material to be removed prior to salvage large trees by use of helicopters, mule teams, specialized low-impact vehicles;

2. Remove all gopher frogs found: you conduct dormant season prescribed fire as frequently as possible, preferably no greater than at interval of 2 to 3 years, in smaller individual treatment blocks;
3. Fire lanes should use existing roads and wetland drains as much as possible, minimizing the use of motorized vehicles to those essential for safety during the prescribed burning;
4. Otherwise, survey, mark, and protect gopher tortoise burrows, stumps, and holes with a 7.6-m (25-ft) buffer before plowing fire lanes; and
5. Use prescribed dormant season fire over a 5 to 10–year period to reduce fuels to a level where you could implement frequent growing season fire. Given the resulting habitat response, primarily to dormant season burning of this area, the Service believes continuing this scenario for this period of time would likely prevent significant habitat deterioration until growing season fire can be prescribed to enhance and restore the habitat. This will likely require, however, dormant season fire at a greater frequency than has been historically prescribed for the area.

Formal Consultation

Please contact us for further information when the emergency action is completed. To evaluate the need for formal consultation at that time, the Forest Service should provide a description of the emergency, a justification for the expedited consultation, an assessment of the impacts of the action to the Mississippi gopher frog, a description of how and to what extent measures to reduce or minimize adverse impacts were implemented, and other information that we mutually agree as relevant.

If you have any questions about this response, please contact Linda LaClaire at 601-321-1126.

Sincerely,

Ray Aycock
Field Supervisor

Attachment:

Forest Service Preferred Alternative for Gopher Frog Habitat Restoration work - Katrina

January 13, 2006