

ingested the hook, and 0 may be released dead. Applying the 27 and 42 percent post-release mortality rates developed by NMFS for sea turtles that have been hooked externally or entangled with line left on the animal and for sea turtles that have been hooked in the mouth or ingested the hook, preliminary estimates indicate that the West Coast-based pelagic longline fishery under the management measures proposed by the Council would result in the annual mortality of 61 loggerhead sea turtles and 15 leatherback sea turtles.

#### **Impacts to Loggerhead and Leatherback Sea Turtle Populations**

The estimated takes and mortalities of loggerhead and leatherback sea turtles by the West Coast-based pelagic longline fishery under the proposed FMP exceed those authorized under the ESA in other Pacific fisheries. As an example, the agency's incidental take statement in the 2002 biological opinion on the western Pacific pelagic fisheries authorized takes in the Hawaii-based longline fishery of only 8 leatherback and 14 loggerhead turtles per year. In contrast, as calculated above, at the estimated fishing level of 2002, longline fishing for swordfish east of 150° W. long. would be expected to result in the take of 52 leatherback turtles and 174 loggerhead turtles.

As required under the ESA, NMFS is now conducting a formal consultation under section 7 of the ESA on the Council's FMP in order to determine if fishing activities proposed under the FMP are likely to jeopardize the continued existence of endangered or threatened species under NMFS' jurisdiction. Based on the severe decline and lack of recovery in loggerhead and leatherback sea turtles populations, and the extensive analyses conducted by the agency on existing threats to these populations, NMFS is concerned that the take levels expected to occur in the West coast-based pelagic longline fishery under the Council's FMP might be likely to jeopardize the continued existence of these species. If the section 7 consultation on the Council's FMP concludes that the action is likely to jeopardize the continued existence of endangered or threatened sea turtle species, then NMFS will be unable to authorize the expected amount of incidental take by the West Coast-based pelagic longline fishery under the Council's FMP.

Until NMFS completes a full analysis of the impacts of the Council's FMP on endangered or threatened sea turtles, NMFS cannot determine what measures will be included in the final regulations

of this fishery in order to conserve loggerhead and leatherback sea turtles. The consultation could conclude that the Council's FMP is not likely to jeopardize sea turtle populations. On the other hand, the consultation could conclude that the Council's FMP is likely to jeopardize the continued existence of sea turtle populations and include a reasonable and prudent alternative (RPA) that would mitigate sea turtle takes to avoid the likelihood of jeopardy. Mitigation measures may depend on the severity of the impact to sea turtle populations and could include effort reduction or a complete prohibition of swordfish fishing. The FMP contains framework procedures by which adjustments in conservation and management measures may be made through regulatory amendments if available information and conditions warrant it, and the RPA could provide a basis for such action. However, promulgation of regulations to implement the RPA could take several months to complete and leave fishers in a very difficult situation in the interim because they would lack an exemption from the take prohibition specified in section 9 of the ESA.

Given that NMFS anticipates an annual mortality of 61 loggerhead sea turtles and 15 leatherback sea turtles as a result of the West Coast-based pelagic fishery, NMFS is proposing to implement restrictions in the West Coast-based pelagic longline fishery in waters east of 150° W. long. to conserve leatherback and loggerhead sea turtles as required under the ESA. Under this rule, West Coast-based pelagic longline vessels would be prohibited from making shallow longline sets on the high seas in the Pacific Ocean east of 150° W. long. The prohibition of shallow longline sets west of 150° W. long. proposed under the FMP would also apply, if the FMP is approved and implemented by NMFS. The regulatory text of this proposed rule might be revised, as necessary, to comport with the RPA, if any, of the section 7 consultation on the FMP. As a result, NMFS is requesting comments on this rulemaking and any alternative management regime to conserve sea turtles.

There are several other factors that may ultimately affect the management of the West Coast-based pelagic longline fishery. As noted, the FMP contains framework procedures by which adjustments in conservation and management measures may be made through regulatory amendments if warranted by available information and conditions. Further, the FMP recognizes a potential for exempted fishing permits

that allow testing of alternative gear and/or techniques that might demonstrate that longline fishing can be conducted in a manner that will not adversely affect protected species or that will result in lower levels of bycatch. NMFS is conducting research in the Atlantic Ocean into gear and techniques that might allow longline fishing for swordfish or other species with less risk to sea turtles. Preliminary results from this research indicate that the use of 18/0 circle hooks with no offset and squid bait may reduce loggerhead and leatherback sea turtle capture rates by more than 80 and 50 percent, respectively. The use of 18/0 circle hooks with a 10 percent offset and mackerel type bait may reduce loggerhead and leatherback sea turtle capture rates by more than 90 and 65 percent, respectively. Additional treatments are being tested using 20/0 circle hooks and mackerel which also show promise with possible significant reductions in sea turtle catch rates. Large circle hooks have also been shown to reduce the rate of swallowed hooks which may decrease post-hooking mortality resulting from internal injuries. The best treatments for reducing the capture of loggerhead and leatherback sea turtles cannot be identified until the researchers analyze the data and their significance. However, based on these promising results, NMFS is considering allowing the use of circle hooks and mackerel type bait to target swordfish and is soliciting public comment on this alternative.

A similar experiment is planned for the central Pacific Ocean, pending completion of an Environmental Impact Statement. The results of these experiments will be provided to the Council. NMFS anticipates that the Council will review information as it is generated to consider possible changes in longline fishing regulations and may propose changes. NMFS will consider any such proposals, which could result in lessening the burden to fishermen while maintaining adequate protection of sea turtles under these regulations. NMFS will fully support the Council in examination and selection of appropriate protective measures. However, the need for protection of sea turtles in the near term warrants the use of Secretarial authority under the ESA (as well as under the HSFCA, 16 U.S.C. 5503(d)) to promulgate regulations in this fishery to ensure the fishery complies with the ESA.