

MARFIN Home Page at: <http://caldera.sero.nmfs.gov/grants/grants.htm>.

FOR FURTHER INFORMATION CONTACT: Ellie Francisco Roche, Chief, State/Federal Liaison Office at 727-570-5324.

SUPPLEMENTARY INFORMATION:

I. Funding Opportunity Description

MARFIN is a competitive Federal assistance program that funds projects seeking to optimize research and development benefits from U.S. marine fishery resources through cooperative efforts involving the best research and management talents to accomplish priority activities. Projects funded under MARFIN provide answers for fishery needs covered by the NMFS Strategic Plan, available from the Southeast Regional Office (see **ADDRESSES**), particularly those goals relating to: rebuilding over-fished marine fisheries, maintaining currently productive fisheries, and integrating conservation of protected species and fisheries management. Funding priorities for MARFIN are formulated from recommendations received from non-Federal scientific and technical experts and from NMFS' research and operations officials.

Your proposal must address one of the funding priorities listed below as they pertain to federally managed species or species relevant to Federal fisheries management. If you select more than one priority, you should list first on your application the priority that most closely reflects the objectives of your proposal.

Highest consideration is given to funding projects that have the greatest probability of recovering, maintaining, improving, or developing fisheries; improving the understanding of factors affecting recruitment success; and/or generating increased values and recreational opportunities for fisheries. Projects are evaluated as to the likelihood of achieving these objectives, with consideration of the magnitude of the eventual economic or social benefits that may be realized. Priority is given to funding projects in the subject areas listed in this section, but proposals in other areas are considered on a funds-available basis. There is no preference between short-term and long-term projects.

A. Bycatch

The bycatch of biological organisms (including interactions with sea turtles and marine mammals) by various fishing gears can have wide-reaching impacts from a fishery's management

and an ecological standpoint, with the following major concerns:

1. Shrimp trawl fisheries. Studies are needed to contribute to the regional shrimp trawl bycatch program (including the southern U.S. Atlantic rock shrimp fishery) being conducted by NMFS in cooperation with state fisheries management agencies, commercial and recreational fishing organizations and interests, environmental organizations, universities, Councils, and Commissions. Specific guidance and research requirements are contained in the Cooperative Bycatch Plan for the Southeast, available from NMFS (see **ADDRESSES**). In particular, the studies should address:

(a) Data collection and analyses to expand and update current bycatch estimates, temporally and spatially emphasizing areas of greatest impact by shrimping. Sampling effort should include estimates of numbers, weight, and random samples of size (age) structure of associated bycatch complex, with emphasis on those overfished species under the jurisdiction of the Councils. Data collection should also include mortality, age, and length information for red drum in both inshore and offshore shrimp fisheries.

(b) Assessment of the status and condition of fish stocks significantly impacted by shrimp trawler bycatch, with emphasis given to overfished species under the jurisdiction of the Councils. Other sources of fishing and nonfishing mortality should be considered and quantified as well.

(c) Identification, development, and evaluation of gear, non-gear, and tactical fishing options to reduce bycatch.

(d) Improved methods for communicating with and improving technology and information transfer to the shrimp industry.

(e) Development and evaluation of statistical methods to estimate the bycatch of priority management species in the Gulf and South Atlantic shrimp trawl fisheries.

2. Pelagic longline fisheries. Several pelagic longline fisheries exist in the Gulf and South Atlantic, targeting highly migratory species, such as tunas, sharks, and swordfish. Priority areas include:

(a) Development and evaluation of gear and fishing tactics to minimize bycatch of undersized and unwanted species, including sea turtles, marine mammals, billfish, and overfished finfish species/stocks.

(b) Assessment of the biological impact of longline bycatch on related fisheries.

3. Reef fish fisheries. The reef fish complex is exploited by a variety of fishing gear and tactics. The following research on bycatch of reef fish species is needed: Characterization and assessment of the impact of bycatch of undersized target species, including release mortality, during recreational fishing and during commercial longline, bandit gear and trap fishing.

4. Finfish trawl fisheries. Studies are needed on quantification and qualification of the bycatch in finfish trawl fisheries, such as the flounder and fly-net fisheries in the South Atlantic.

B. Reef Fish

Some species within the reef fish complex are exhibiting signs of being overfished, either because of directed efforts or because of being the bycatch of other fisheries. The ecology of reef fish makes them vulnerable to overfishing, because they tend to concentrate over specific types of habitat with patchy distribution. This behavior pattern can make traditional fishery statistics misleading. Priority research areas include:

1. Collection of basic biological data for species in commercially and recreationally important fisheries. (a) Age and growth of reef fish. (1) Description of age and growth patterns, especially for vermilion, gray, and cubera snappers; gray triggerfish; gag; black grouper; hogfish; red porgy; and other less dominant forms in the management units for which data are lacking.

(2) Collect otoliths on groupers, snappers and other reef fish according to Gulf States Marine Fisheries Commission (GSMFC) otolith manual. If proposal is selected for funding, coordinate studies and design of sampling systems to provide production-style aging programs for the reef fish fishery with Steve VanderKooy at GSMFC (228) 875-5912.

(b) Reproduction studies of reef fish. (1) Maturity schedules, fecundity, and sex ratios of commercially and recreationally important reef fish, especially gag and other groupers in the Gulf and South Atlantic.

(2) Studies of all species to characterize the actual reproductive contribution of females by age.

(3) Identification and characterization of spawning aggregations by species, area, size group and season, especially for gag and other groupers.

(4) Effects of fishing on changes of sex ratios for gag, red grouper, and scamp, and disruption of aggregations.

(5) Investigations of the reproductive biology of gag, red grouper and other grouper species.