Overview

In general, acceptance of the BRD rule by the Gulf shrimp industry has been good. The rule went into effect on May 14, 1998, although the first two weeks of the rule were set aside as a widely publicized educational period where citations were not issued for BRD violations. This was done in concert with a major technology transfer effort involving workshops and wide distribution of instructional brochures and videos. In conjunction with implementation of the rule, a significant research effort was undertaken to evaluate the operational performance of BRDs and to respond to recommendations from the recent Congressionally mandated peer reviews.

Research

There are two categories of research with the first being to evaluate the performance of the BRDs, and the second to address data deficiencies in the stock assessment and recovery projections. The first is time critical as BRD performance must be evaluated for a decision to be made by September 1, 1998 on whether to release any of the 3.12 million pound reserve TAC to the red snapper commercial and recreational fisheries. For the entire reserve to be released, BRDs must reduce the bycatch mortality of juvenile red snapper by at least 60 percent, as qualified by estimates of compliance, release mortality, and the lack of compatible BRD regulations in state waters. If the reduction is 50 percent or less, no reserve will be released, but if between 50 and 60 percent, then a proportional part of the reserve will be released.

**BRD Performance:** As of July 15, there were 16 observers on vessels with 12 completed trips and 7 observers on standby for immediate deployment. This is the most critical portion of the research, and it seems to be going well. About two weeks ago, a shift in research strategy was made from mandatory observer coverage to partial charters where vessel owners are reimbursed $300 per day for the observers. The shift was brought about by the reluctance of many vessel owners to accept mandatory observers possibly due at least in part to organized resistance by one of the major shrimping associations. Without the shift, it is unlikely that BRD performance could have been evaluated in time for the September 1 decision point.

Early data returns from observers suggest that BRDs may be achieving a higher level of bycatch reduction than anticipated. Shrimp loss also may be higher than measured in previous studies -- almost 10 percent. Shrimp loss, however, should reduce over time as the vessel captains learn how to use BRDs. A more complete analysis will be available by July 22, 1998.

Compliance also appears better than expected with only two BRD violations identified so far. A major BRD enforcement effort is planned to begin next week. The study of BRD related release mortalities appears to be going well with the final cruise scheduled to begin in about two weeks. It is too early to extract any results from this portion of the research, although the research on state water related red snapper mortalities is on schedule and is suggesting that these mortalities may be relatively minor. This is because in state waters many of the trawlers are using BRDs, and the number of juvenile red snapper is relatively small.

**Response to Peer Reviews:** This phase of the research is on schedule involving improved and expanded age and fecundity sampling of recreational catches, sampling of commercial landings...
when the season is reopened, and characterization of uncertainty in the assessments and recovery projections. Additionally, this phase of the research is targeting improved bycatch estimates based on observer data and enhanced estimates of shrimping effort. The latter is being addressed through expanded port interviews, logbooks, and vessel monitoring systems. The use of vessel monitoring systems, however, has been resisted by the shrimp industry such that only 14 of the planned 50 units have been installed. Installations are being continued.

**Issues**

Two issues have arisen since BRDs were required and the research was initiated. The first is the most significant and involves estimates of recreational fishery landings from the NMFS MRFSS and headboat surveys. These landing estimates are much higher than in previous years and if accurate would require closure of the fishery prior to September 1, 1998. However, a review completed on July 14 with state fishery statisticians and a Gulf Council representatives indicated enough concern with the estimates, in combination with a significant oceanographic anomaly in the northeastern Gulf of Mexico, to delay any decision on a closure. The delay would be long enough to allow the next wave of MRFSS data to be considered and to evaluate the impact of the oceanographic anomaly on red snapper catches. A final review of these data will be completed by August 15, 1998.

The second issue is an amended law suit filed by the Texas Shrimp Association contesting implementation of the BRD rule. The suit claims the government was arbitrary by requiring BRDs and not reducing the red snapper TAC, the research upon which the BRD rule was based is flawed, and the interim rule requiring mandatory observers, logbooks, and vessel monitoring systems was implemented without adequate notice. This law suit is not expected to impact the research or the decision on release of the reserve red snapper TAC.