



WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

Summary of the NWHI Bottomfish Fishery

Current Issues and Concerns

- A lawsuit is pending against NMFS alleging they did not comply with section 7 and 9 of the ESA and MMPA. The lawsuit poses to close the NWHI bottomfish fishery. Plaintiff alleges that incidents have occurred where fishermen have clubbed or shot monk seals in response to theft from fishing lines, that bottomfish hooks are harming monk seals, and that discarding of unmarketable fish, mainly ciguatoxic kahala, is being used to distract monk seals.
- On November 15, 2000 the judge called for an “evidentiary hearing” to collect the necessary information from the bottomfishing industry. Bottomfish fishers will be allowed to address the allegations. The court has not yet selected a date for the hearing.
- NMFS, on October 16, 2000, reinitiated a Section 7 consultation (biological opinion) under the Endangered Species Act for the bottomfish FMP.
- The Council is preparing a draft EIS for the bottomfish fisheries. The draft EIS for bottomfish was transmitted to NMFS on November 2, 2000. According to the timeline submitted by NMFS to the court, the EIS is expected to be completed by mid-2001.
- Coral reef management initiatives in the NWHI will likely impact the areas where bottomfish fishing occurs. The President, through establishment of a national marine sanctuary, will likely severely limit fishing activities in the NWHI. Tentative proposed area closures would reduce bottomfish fisheries in the NWHI by 1/3.
- The president's proposal would ban all other forms of fishing making mixed bottomfish trips illegal (trolling, pelagic handline, etc).

Description of the Fishery

Summary of the NWHI Fishery Management:

- The NWHI fishery divided into two management zones: HOOMALU AND MAU ZONE
- The Hoomalu Zone of the Northwestern Hawaiian Islands (NWHI) encompasses federal waters surrounding French Frigate Shoals, beginning at 165°W longitude, north to Kure Atoll (see map).
- The Mau Zone of the NWHI encompasses federal waters surrounding Nihoa and Necker Islands, beginning at 161°20'W longitude and termination at 165°W longitude.
- In 1989 the Hoomalu Zone became a federally permitted limited access fishery for bottomfish.
- Currently, 7 permits are issued for the Hoomalu zone.
- In June 1999, a limited entry program was established for the Mau zone with 10 vessels qualifying based on the past participation
- 10 permits is the long term target number established by the Council for the Mau zone
- 20 percent or 2 permits of the Mau zone limited entry permits are reserved for future Community Development Program participants.

- Permits are non-transferable and must be renewed annually.
- Each permit holder must make minimum trips and landings to retain their permits for the following year.
- All permit holders must attend a protected species workshop from the National Marine Fisheries Service.
- The fishery is subject to observer coverage. In the early 1990s, observers were placed on bottomfish vessels to determine the interaction between fishermen and monk seals.
- According to NMFS, there are no known mortalities of monk seals attributed to the NWHI bottomfish fishery.
- The status of bottomfish species in the NWHI is healthy. Spawning potential ratios (SPR), an indicator to measure overfishing, ranged between 73-94% in 1998 for the five major species. Overfishing is defined as 20% or less.
- Impacts on habitat from bottomfishing is considered to be minimal.

Characteristics of the Fishery:

- Prior to the implementation of the Bottomfish FMP, commercial bottomfish landings in the MHI and NWHI were estimated at 1.4 million lbs.
- In the 1960s, landings decreased to 400,000 lb, but consequently rose back to over 1.0 million pounds in the 1970s due to expanded local market and strong interest in the NWHI stocks.
- The Council implemented the Bottomfish FMP for bottomfish and seamount groundfish fisheries in the western Pacific region in 1986 and has amended this plan six times.
- Currently, 17 vessels fish an area approximately a quarter the size of the United States and provide the State of Hawaii with more than one-half of its fresh premium-quality bottomfish for local and export markets.
- The fishery currently harvests less than 55% of the maximum sustainable yield (MSY) and is valued at just under \$1 million per year.
- Bottomfishing occurs year-round.
- The most productive bottomfish depths are found between 50 and 100 fathoms and between 50% and 90% of the total bottomfish in the NWHI are caught at these depths.
- The most productive bottomfishing grounds include: Brooks Banks, Laysan Island, Maro Reef and Necker Island respectively, however, productivity varies at banks by year.
- The productive depth range around each bank is typically fished over a period 1-3 years. Therefore areas are not repeatedly fished within a given year.

Gear Description and Use:

- Vessel size ranges from the mid-30's to a maximum of 60 feet.
- A typical vessel usually has four fishing stations with standard gear at each station consisting of a hydraulic or electric handline consisting of a 130 lb test mainline and terminal rigs, to which the hooks and lead weight are attached.
- Terminal line consists of 4-12 hooks spaced at 7-8 feet intervals with a 2-6 lb lead weight attached at the end of the line.
- A chum bag is attached just above the last hook and filled with finely chopped fish. Each hook is baited with fish or squid, and the gear is lowered into the water.
- The bottomfish fishery primarily targets deep-sea snappers and groupers generally

consisting of following deep-water snapper and grouper species are sought after because of their high market values. These include the species: Kalekale- (*Prisipomoides seiboldi*), Opakapaka- (*P. Coruscanus*), Gindai- (*P. Zonatus*), Ehu or red snapper- (*Etelis carbunculus*), and sea bass- (*Epinephelus quernus*).

- Depending on species targeted, the gear is lowered at depths ranging from 50-150 fathoms.
- Using years of acquired knowledge and advanced electronic equipment such as sonar fish finders and geographic positioning systems, target species are located and the gear can be accurately placed within a few meters above those substrates.
- Once the gear is placed in its ideal location, it is jerked sharply to release the chum bag.
- The mainline is then hauled either by hand, hydraulic gurdy or electric reel.
- Vessels drift or anchor during gear deployment depending on weather conditions, ocean currents, species targeted, and other variables.
- Bottomfish trips in the NWHI often include mixed trips. Mau zone fishers are more likely to conduct mix trips than Hoomalu zone fishers. Vessels often troll to and from the bottomfishing grounds for pelagic species, ie. tuna, ono, mahimahi, etc.. Trolling is also used to target uku or grey snapper, which is BMUS. Fishers also conduct pelagic handlining on offshore banks and seamounts.

Incidental By-catch:

- Being a hook and line rig, the gear is relatively selective, with the ability to target particular species groups dependant upon the skill of the fisher.
- Experienced vessel crews have the ability to catch the desired species with very little bycatch.
- Gear is deployed at specific depths and in areas of certain habitat characteristics, eg high relief.
- Logbook data and research programs conducted by the State of Hawaii and the NMFS indicate that bycatch accounts for approximately 8-19% of the total catch in bottomfish fisheries in the Hawaiian archipelago.
- Sharks, oilfish, snake mackerel, pufferfish, and moray eels are the most numerous discard species; they are not kept by vessels because of their unpalatability.
- Some carangids (large jacks and amberjacks) are also discarded because of concerns of ciguatera poisoning.
- A large percentage of the snappers and the grouper are included as bycatch because of damage from sharks.

Summary of Regulations

- The owner of any vessel used to fish for bottomfish management unit species in the NWHI must possess either a Mau Zone permit, or a Ho‘omalulu zone permit. A single vessel may not be registered in both zones concurrently.
- Possession and use of bottom trawls and bottom set gillnets is prohibited.
- Permits are non-transferrable.
- Establishes limited-entry into Ho‘omalulu and Mau Zones based prior qualified landings of BMUS

- Implements a use-it or lose-it requirement to permit renewal of vessels.
- The possession and use of any poisons, explosives, or intoxicating substances for the purpose of harvesting bottomfish managed unit species is prohibited.
- The fishery is subject to mandatory logbook reporting using the State of Hawaii NWHI bottomfish forms.
- Permitted vessels may not exceed 60 ft in length, unless approved by the Regional Administrator in consultation with the WPRFMC.
- Each permit holder must attend a NMFS protected species workshop
- Each permit holder must notify the Regional Director prior to any fishing within any protected species study zone in the NWHI.
- Framework regulatory amendment is being considered to add criteria for new entry should the number of vessels falls below the target level of 10.