Chronology Of Major Developments:
The Hawaiian Lobster & Groundfish Fisheries
and Hawaiian Monk Seal Interactions

1950's Population counts of Hawaiian Monk Seals begin in Northwest Hawaiian Islands (NWHI).


1972 Enactment of Marine Mammal Protection Act (217K pdf); National Marine Fisheries Service (NMFS) assumes jurisdiction over Hawaiian monk seal.

1975 NMFS seeks advice from the Marine Mammal Commission (MMC) as to whether Hawaiian monk seal should be listed as "depleted" under Marine Mammal Protection Act (MMPA). MMC recommends depleted classification and further recommends endangered listing under the Endangered Species Act (ESA) so that monk seal beach and marine habitat can be protected as well.

1976 Enactment of Fishery Conservation and Management Act (later renamed Magnuson-Stevens Fishery Conservation and Management Act).
-NMFS designates Hawaiian monk seal as depleted under the MMPA (41 Fed. Reg. 30120), and endangered under the ESA (41 Fed. Reg. 51611). NMFS does not designate critical habitat at this time, despite recommendation to do so in management plan prepared by NMFS Southwest Region.

1977 NMFS draft Environmental Assessment (EA) proposes designation of Hawaiian monk seal 'critical habitat' to depth of 10 fathoms around rookeries and haulouts in NWHI (noting that the draft lobster FMP prohibits fishing within 10 fathoms to protect lobsters).

1978 -MMC urges critical habitat designation for Hawaiian monk seal including waters out to 3 miles around each island;
-State of Hawai'i opposes critical habitat designation;
-Lobster fishery begins in waters around NWHI;
-ESA amended to add new definition of "critical habitat".

1979 State of Hawai'i Department of Land and Natural Resources (DLNR) publishes a Fisheries Development Plan, designed to stimulate fishing activity in the NWHI.

1980 NMFS appoints 12-person Hawaiian monk seal recovery team;
-NMFS issues Draft Environmental Impact Statement (DEIS) on critical habitat designation, suggesting 3 alternatives for setting seaward extent: 10 fathoms, 20 fathoms, and 3 nautical miles.
-NMFS conducts research dives suggest areas between 10 and 20 fathoms are essential foraging habitat during breeding season. NMFS Honolulu office recommends 20-fathom seaward boundary of critical habitat.

1981 NMFS initiates consultation under ESA and issues first biological opinion on the lobster Fishery Management Plan (FMP). Opinion finds that monk seals are "opportunistic feeders
supported by a diverse prey base" including lobsters, but that information is insufficient to assess
the fishery's impact on monk seal diet. Opinion cautions that if optimum yield is overestimated, the
fishery could result in depletion of the lobster resource. Implementation of the FMP is
recommended, however, because it would provide a basis for regulating the fishery. Opinion,
however, does not conclude that the fishery poses no jeopardy to the monk seal.

1982 Hawaiian Monk Seal Recovery Team submits its final recovery plan, including
recommendation of seaward boundary of critical habitat extend to 20 fathoms.
-Hawaiian monk seal population is estimated to be at half its 1957-1958 level.

1983 NMFS approves for implementation the FMP for the Crustacean Fisheries of the Western
Pacific Region (lobster FMP). FMP is accompanied by an environmental impact statement (EIS).
Lobster fishery grows rapidly in the 1980s, peaking in 1984 and gradually declining from 1985
through 1989.
- NMFS releases Hawaiian Monk Seal Recovery Plan (48 page pdf document). Plan calls for, inter
alia, studies to quantify the consumption of commercially caught species by the monk seal.

1984 Sierra Club Legal Defense Fund (SCLDF) sends 60-day notice of intent to sue under ESA
citizen suit provision, charging NMFS with violation of ESA and MMPA for failure to designate
critical habitat;
-NMFS prepares memorandum to designate critical habitat to 10 fathoms seaward of NWHI,
excluding Maro Reef;
-Recovery Team issues statement opposing 10-fathom boundary as including insufficient feeding
habitat.

1985 Laysan Island adult Hawaiian monk seal population is 295 with 2:1 male:female ratio.
-Lobster catches at NWHI peak at 2.4 million pounds.

1986 -NMFS approves for implementation the FMP for the Bottomfish and Seamount Groundfish
Fisheries of the Western Pacific Region (bottomfish FMP). FMP does not include an EIS, but
NMFS does issue a biological opinion on the bottomfish FMP concluding it poses no jeopardy to
endangered monk seals.
-SCLDF sends 60-day notice of intent to sue, charging NMFS with violation of ESA and MMPA
for failure to designate adequate critical habitat for Hawaiian monk seal;
-NMFS submits final EIS and final rule establishing 10-fathom seaward boundary for Hawaiian
monk seal critical habitat, excluding Maro Reef;
-MMC writes to NMFS stating that the 10-fathom boundary is inconsistent with biological facts,
urging NMFS to reopen designation decision and extend boundary to 20 fathoms and include Maro
Reef.

1987 NWHI bottomfish fishery has grown from 50 tons/year in 1977 to 460 tons/year.

1988 NMFS enlarges the designated "critical habitat" for Hawaiian monk seal to 20 fathoms
contour seaward of NWHI, including Maro Reef, to include adequate foraging area.

1990 Lobster catches fall to 862,000 pounds.
1991 NMFS conducts informal Section 7 consultation on lobster FMP. NMFS closes lobster fishery in May. Catch per unit effort (CPUE), measured as # of lobsters per trap haul, has declined to 0.56 from 2.71 in 1983.
-NMFS prepares a biological opinion in connection with an amendment to the bottomfish FMP that would place observers on vessels fishing in the NWHI, concludes no jeopardy likely to monk seal's continued existence.

1992 NMFS approves lobster FMP amendment to include a 6-month closed season annually and annual catch quota; fishery re-opens.
- NMFS report on the status of monk seals finds that seals at French Frigate Shoals may depend on the availability of prey at Gardner Pinnacles and Necker Island, where most lobster traps have been set in recent years.

1993 NMFS closes NWHI lobster fishery due to insufficient recovery of stocks.

1994 NMFS re-opens lobster fishery with annual quota of 200,000 lobsters; closes fishery after finding a ten-fold error in this quota (quota should have been set at 20,900 lobsters).

1995 -Lobster fishery remains closed; 38,000 lobsters taken under experimental permit.
-NMFS Honolulu laboratory conducts workshop to develop recommendations to facilitate recovery of Hawaiian monk seal population at Midway Atoll National Wildlife Refuge.

1996 NMFS prepares new biological opinion triggered by lobster FMP's amendment #9, creating new harvest guideline system providing annual, area-specific catch guidelines and allowing fishers to retain berried (egg-laden females) and undersized (juvenile) lobsters due to high mortality of discards. System relies on an existing model of calculating the exploitable lobster biomass. Opinion notes continued decline in Hawaiian monk seal pup production, as well as overall decline in seal population over past 6 years as cause for significant concern, potentially attributable to decline in prey availability. Opinion concludes that available information indicates a relatively healthy status of the lobster stocks and, with the small contribution of the French Frigate Shoals to the fishery, catch competition with monk seals in this area is unlikely, although available information still had not clarified the importance of lobster in monk seal diet. New harvest rate strategy would protect reproductive capacity and existing stock of lobster in the NWHI. Opinion concludes that the fishery operating under Amendment 9 is not likely to jeopardize the monk seal. CPUE in 1995 was 0.60.

1997 NMFS report notes that the monk seal population at French Frigate Shoals atoll has declined nearly 55% since 1989. Survival rate of seal pups at the atoll has declined from approximately 90% in the mid-1980s to about 10%.

1998 NMFS establishes take quotas for each of 3 primary lobster fishing areas, and a 4th quota for remaining areas. Within the year, 40% of all lobster fishing activity is concentrated at Necker Island, where Hawaiian monk seals were known to be foraging.
-Lobster CPUE drops to 0.48.
-During 1998 and 1999 lobster seasons, only 5 and 6 vessels participate in the fishery, despite the FMP's allowance of a maximum of 15 permit holders.
-Preliminary results from fatty acid signature studies conducted by NMFS scientist, Dr. Sara
Iverson, indicate that the Hawaiian monk seal diet may rely more heavily on lobsters than had been indicated by previous studies, with lobster comprising as much as 20-25% of the diet of seal pups and adult female seals.

**1999** NMFS conducts an informal Section 7 consultation on the lobster FMP concluding that the proposed lobster harvest guidelines are not likely to adversely affect Hawaiian monk seals, although internal debate whether the available information was sufficient to support this conclusion, and later decision by NMFS to initiate formal consultation on the lobster FMP. In Fall, 1999, Marine Mammal Commission sends letter to NMFS recommending prohibition of lobster fishing at all major monk seal breeding atolls. Dec., NMFS announces decision to prepare an EIS on the federal management of crustaceans in the western Pacific region. 64 Fed. Reg. 70679 (Dec. 17, 1999).

**2000**

Jan. 3, NMFS releases *draft stock assessment* for Hawaiian monk seal under Marine Mammal Protection Act.

Jan. 26, Greenpeace Foundation, Center for Biological Diversity, and Turtle Island Restoration Network file suit in federal district court in Honolulu claiming that NMFS' management of the lobster and bottomfish fisheries violates its duties under ESA and NEPA, with motion for a preliminary injunction against all commercial lobster fishing until final disposition of suit. The crux of the ESA claim is that the fisheries are depleting the monk seal's food supply and interacting in an injurious manner. The biological opinions do not use the best available information that suggests lobsters importance to the seal's diet. The NEPA claim argues that the agency has failed to adequately assess the environmental impacts of the fisheries on the monk seal. Case is assigned to Judge Samuel P. King.

Feb., NMFS scientists calculate the 2000 lobster harvest guidelines based on estimates of exploitable populations, noting an increase in the uncertainty of model parameters and evidence suggesting a lack of appreciable rebuilding despite significant reductions in fishing effort. NMFS SW Fisheries Science Center recommends closure for the 2000 season. Marine Mammal Commission urges NMFS to close the lobster fishery.

Feb. 14, NMFS reinitiates consultation on the lobster FMP, expected completion by July.

March, Western Pacific Fishery Management Council votes to recommend that NMFS keep the lobster fishery open, urging NMFS to use a bias-adjustment factor to refine estimates of abundance and resulting harvest guidelines and to set a total harvest guideline of 130,000 lobsters for 2000 season.

Apr. 21, Court holds hearing on the motion for preliminary injunction closing the lobster fishery. Apr. 28, NMFS proposes rule under the Magnuson-Stevens Act to implement emergency closure of the NWHI lobster fishery for 2000 (set to open July 1) as a precautionary measure to respond to concerns about the health of the lobster resource and the potential for overfishing. NMFS announces likelihood of allowing an experimental fishing program during the closure to improve population models and estimates of exploitable populations. 65 Fed. Reg. 24906. Final rule and closure published on June 26. 65 Fed. Reg. 39314.

June 5, Judge King denies the plaintiffs' request for a preliminary injunction, but finds that the plaintiffs were likely to prove that the continued operation of the fishery threatened the survival of the monk seal, because NMFS had voluntarily closed the fishery for the 2000 season. *Greenpeace Foundation v. Daley*, 122 F.Supp.2d 1110 (D. Haw. 2000).
Oct. 6, NMFS reinitiates consultation on implementation of NWHI bottomfish FMP because of amount of time lapsed since its issuance of its last Biological Opinion in 1991.

Nov. 30, Judge King finds that the 1996 biological opinion was inadequate; that NMFS did not fulfill its "rigorous" obligation to insure that implementation of the lobster FMP did not result in jeopardy or adverse modification to Hawaiian monk seal critical habitat. Court finds NMFS' conclusion that no jeopardy would occur to be arbitrary and capricious because the agency lacked sufficient information regarding the impact of the fishery on Hawaiian monk seal. Court finds, however, that the plaintiffs presented insufficient information to establish that the lobster fishery "takes" the monk seal through adverse modification of habitat through prey depletion. A declaration filed by NMFS scientist, Dr. Sara Iverson, emphasizes that the results of her fatty acid studies are preliminary and the research has not been peer reviewed. Judge King deems the information insufficient to establish as a matter of law that lobster is critical to the diet of Hawaiian monk seals. The court grants a preliminary injunction for the lobster fishery until the new section 7 consultation is completed and a biological opinion and EIS are prepared, but allowing NMFS to conduct a data-collection fishery on catch and release basis. The court finds that a permanent injunction is warranted under NEPA because of NMFS' failure to comply with NEPA by conducting a thorough environmental evaluation of the impact of lobster fishing creates a significant likelihood of harm to Hawaiian monk seal. The court finds no material question of fact with regard to the harm associated with the bottomfish fishery, finds incidental takes of Hawaiian monk seals in the bottomfish fishery are unauthorized under ESA, and grants summary judgment to plaintiffs on their Section 9 claim. Judge King refrains from issuing an injunction on the bottomfish fishery until he can hold an evidentiary hearing on the likelihood of irreparable harm due to the closure of the fishery. Greenpeace Foundation v. Mineta, 122 F.Supp.2d 1123 (D.Haw. 2000).

Nov. 30, Western Pacific Regional Fishery Management Council agrees to NMFS' recommendation to close commercial lobster fishery in NWHI at the 3 primary banks: Necker, Maro, and Gardner through 2001 and at all other banks through 2002.

Dec. 4, President Clinton's Executive Order 13178 announces creation of Northwest Hawaiian Islands Coral Reef Ecosystem Reserve by Executive Order 2001.

Jan. 18, President Clinton's Executive Order 13196 establishes final Northwest Hawaiian Islands Coral Reef Ecosystem Reserve.

NMFS released the draft EIS/Crustacean Fishery Management Plan and draft EIS/bottomfish Fishery Management Plan.

Mar. 13, Court held evidentiary hearing on the economic impacts of the proposed injunction on the bottomfish fishery.