

DEPARTMENT OF MARINE & WILDLIFE RESOURCES



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DMWR Report for 193rd Council Meeting

1. The Shore-based Creel Survey accomplished 182 sampled dates, conducted 249 surveys, and 682 completed runs along the Tutuila and Manu'a islands coastlines in 261 Weekdays and 51 Weekends/holidays of this Fiscal Year. The monitoring team recorded 256 Participation counts and 118 Interview catch data. The data analysis represents the expanded estimates of our local subsistence and recreational fisheries through statistical survey protocols of this period. The information collected is also used to describe or define the different trends and conditions of our marine fishery resources over time.



The following table is a summary of the field data, collected from a diversity of fishing techniques applied by our local nearshore fishermen along with catch totals observed in shore-based creel surveys from October 1st, 2021 through September 30th, 2022

Expanded Catch/Effort Summary:

2021-2022	Spearfishing	Rod and Reel	Gleaning	ThrowNet	GillNet(A)	Enu(traps)
Oct-Sep.	4,752lbs	14,318lbs	5,256lbs	1,292lbs	306lbs	6,323lbs

Total expansions from October 2021 – September 2022

Catch(lbs)	Gear-Hrs	Catch/Gear-Hrs
32,247lbs	13,643hrs	2.36lbs

2. Sportfish Life History Program. The program aims to determine the genetic relatedness of fish stocks between American Samoa and Samoa for 3 representative species (the malau *Myripristis berndti*, alogo *Acanthurus lineatus* and fuga *Scarus oviceps*). The species were selected as they are abundant and targeted in both American Samoa and Samoa. Staff collected at least 30 samples for each species of from each of the islands of Upolu, Savaii and Tutuila. Samples were went and analyzed by project partner Australian Genome Research Facility. The DNA was extracted from the fin of each fish and the microsatellite DNA were extracted and analyzed. The genetic analyses indicated that the populations in Upolu, Savaii and Tutuila for the 3 species were related. This suggests that both American Samoa and Samoa are fishing the same fish populations of these 3 fish species and that ideally management for these species need to coordinated.



Myripristis berndti



Scarus oviceps



Acanthurus lineatus

3. We deployed 4 FADs but lost one. We have FAD B in Pago Pago harbor, FAD C in Vaitogi, and FAD E in Fagasa. These FADs are inspected and being maintained monthly. We also deployed satellite buoys in FAD B and C. We lost the first FAD C and the buoy of the replacement to vandalism. The satellite buoy images indicated that these FADs are effective aggregating skip jacks, bigeye and yellowfin tunas. We have already ordered 6 FAD units this year. Staff led two fishing tournaments this year in coordination with the Pago Pago Gamefishing Association and the Department Commerce during Healthy Coast, Wealthy Coast celebration.



Bottomfish Tournament (Feb 2022)

in
for
of





FAD C off Vaitogi.



FAD B off Pago Pago Harbor

4. We have coordinated research on giant clams with University of Hawaii researchers Paolo Marra-Biggs and Dr. Rob Toonen. Mr. Biggs just finished giant clam surveys in Manua and Rose and collected samples for genetic analyses. The data analyses conducted by Mr. Biggs and DMWR indicated that the Tau and the Manua Islands followed by Rose have the highest densities of giant clams. The data also indicate that there is low density of giant clams in Swains which indicates that fishing pressure is not the only factor affecting clam abundance. Other factors are habitat, watershed quality and climate. In general, American Samoa still has relatively higher abundance of giant clams in the south Pacific. Mr. Biggs also discovered a new species of giant clam in American Samoa, *Tridana noae*, extending its distribution to this part of the Pacific.



(Photo by Paolo Marra-Biggs)

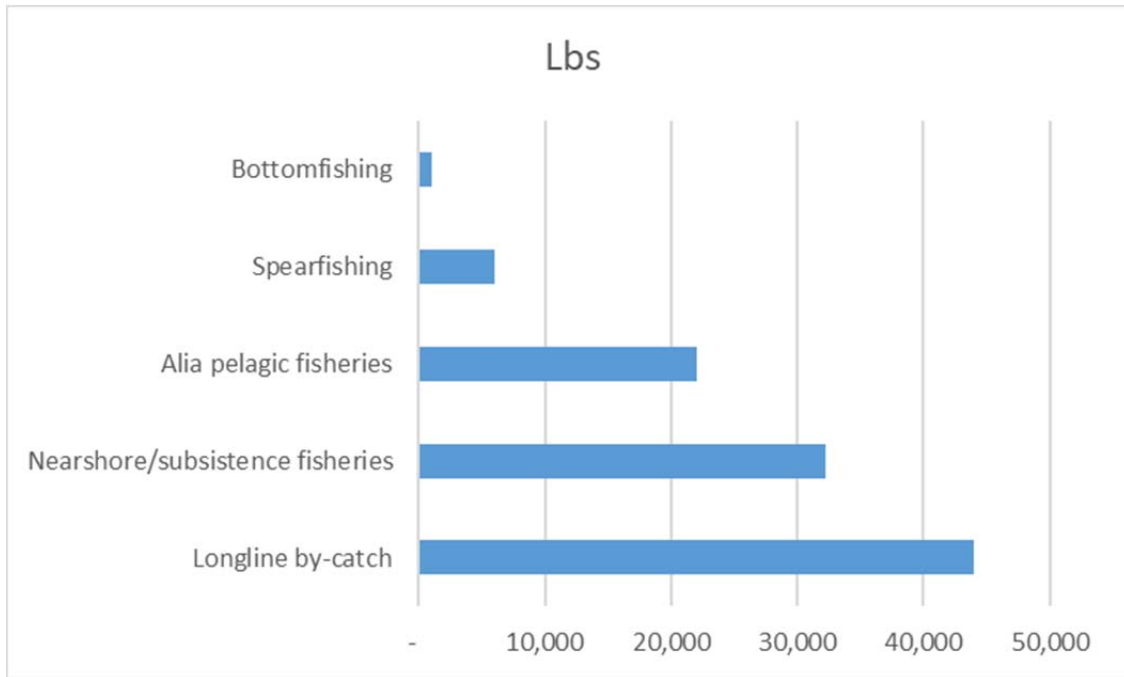
5. The boat-based creel program staff recorded activity of 6 alia boats targeting pelagic fish for the whole year, landing around 22,000 lbs of pelagic fish. The top species was skipjack tuna with around 18,000 lbs. On the other hand, the commercial invoice system showed over 44,000 lbs of pelagic fish sold by commercial vendors. The top pelagic fish was black marlin at 19,000 lbs, wahoo at over 8,000 lbs, yellowfin tuna at 3,000 bs and swordfish at 1,900 lbs. The latter species are by-catch and non-target fish of longlining boats emphasizing the importance of this fish supply for the local community.



Around three alia boats were involved in spearfishing and landed over 6,000 lbs of reef fish. Around 2,700 lbs were parrotfish,

1,500 lbs were surgeonfish. And 500 lbs of lobster were caught.

Around 1,000 lbs of bottomfish was caught this year by three alia boats. Red gill emperor accounted for 200 lbs, grey jobfish 200 lbs, humpback snapper 200 lbs, red snapper 180 lbs and ruby snapper 130 lbs. Bottomfishing has drastically declined for the recent years probably due to the lingering effect of COVID-19 on crew availability, decreasing participation and high costs of operations.



Fisheries landings in American Samoa for FY21-22. Data indicate that longline by-catch accounting for 45% of fish consumed followed by nearshore subsistence fishing at 35%.

6. The Key Reef Species Program has conducted surveys in the following areas:

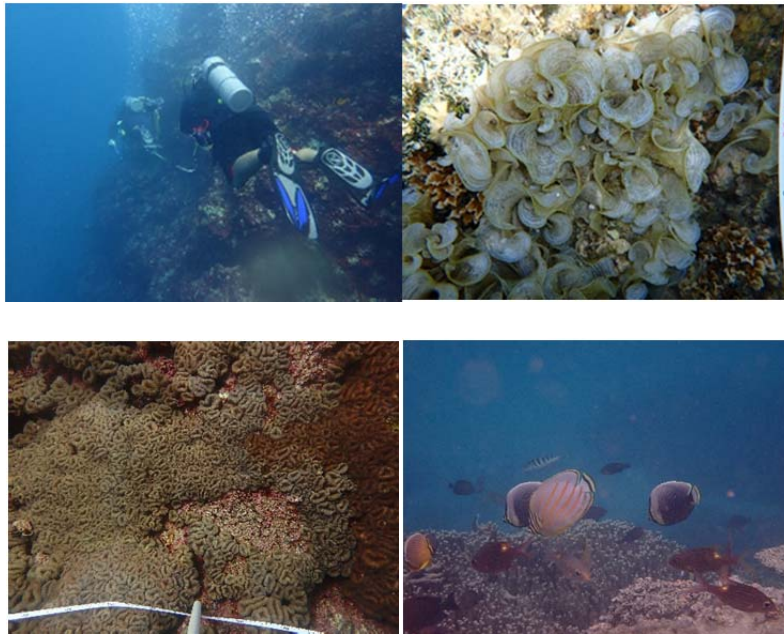
Tutuila Reef Flat and Reef Slope survey

1. Reef Flat survey in Alofau

1. Reef slope survey in Alofau

2. Reef Flat survey in Aoa
3. Reef Flat Survey in Aua
4. Reef Flat survey in Auto
5. Reef Flat Survey in Faga'alu
6. Reef Flat Survey in Sailele
7. Reef Flat survey in Amanave
8. Reef flat survey in Faga'alu
9. Reef flat survey in Nu'uuli

2. Reef slope survey in Auto
3. Reef slope survey in Fagaitua
4. Reef slope survey in Aoa
5. Reef slope survey in Aua
6. Reef slope survey in Faga'alu
7. Reef slope survey in Nu'uuli



Photos taken during dive surveys.

7. In efforts to revive the Community-based Fisheries Management Program in the coastal villages of American Samoa, an awareness and educational meeting was held on the 22nd November at Office of Samoan Affairs in the presence of all village mayors in Tutuila and Manu'a. The main objective was to provide a general overview/reminder of the importance of the MPA/CFMP program and the commitment of DMWR to re-visit and implement the program in participating villages. Following this meeting, the village councils of three coastal villages on Tutuila island decided to re-join the program. This was achieved through initial consultations of DMWR staff with village councils over the months and sealed with the signing of the cooperative agreements on the 29th June 2022 at DMWR office. The three villages are Sa'ilele, Amanave and Faga'alu and work is underway for effective



Faga'alu mayor with signed cooperative agreement



Mayors of Amanave and Sa'ilele with signed cooperative agreements

implementation of program objectives, including more participation from other coastal villages as work progresses.

Another highlight for the CFMP team in last FY included certification of two staff, Ailua Tauala and Dimary Ulberg with the PADI scuba dive open water certification. One staff from Key Reef Monitoring program also joined. The training was conducted in Apia from August 8th-12th 2022 and included a two-day online theory class followed by four days of practical skills in the pool and out in the open ocean water. The main objective of the certification training is to have fully equipped and qualified divers to assist with biological monitoring surveys.



3 new scuba dive open water certified DMWR staff



Execution Priority 1: PSMA

- The DMWR officers conducted vessel boarding, vessel inspection, and monitored

offload activities to ensure documentation matched the actual offload and that all documentation for shipping were complete.

- There was a total of 13 Foreign vessels that were boarded and inspected to ensure PSMA compliance.

Execution Priority 2: MSA

- DMWR conducted port checks to ensure MSA compliance under this priority. During port checks, officers observed markings to ensure legibility and that they meet current requirements. During boarding, officers checked to make sure all permits and required documentation were current and appropriate for its activities. A total of 5 Vessel was boarded and inspected.

Execution Priority 3: SIMP

- The DMWR officers monitored 9 containers of Albacore at STP dock.

Execution Priority 4: NMSA

- The officers conducted 8 land and 2 sea patrol this quarter.
 - o Land Patrol - Fagatele and Anu'u

General Enforcement: Protected Species

There were no stranding patrols or stranding reports for this quarter.