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THE AMERICAN SAMOA DEPARTMENT OF MARINE AND WILDLIFE RESOURCES REPORT FOR 192nd Council Meeting

This report briefly describes the activities undertaken by the DMWR-Fisheries for the period April 2022 up to recent.

Fisheries Division

AMERICAN SAMOA SPORTFISH INVESTIGATION AND CONSERVATION PROJECTS

(Funding source: U.S. Fish and Wildlife Service)

<u>Marine Protected Area Program</u>: Restore a viable sportfish stock through village-based fishery management and monitoring;

I. HIGHLIGHTS

A. Monitoring and Management

i. MPA Site Visits None (Planned accordingly for final quarter)

ii. Media and Community Outreach

None (Planned accordingly for final quarter)

iii. Biological Surveys None for MPA sites and exclusive CFMP purposes

B. Meetings/Workshops/Trainings

• A meeting with Amanave mayor and representatives of the village council was held at the village of Amanave on the **21**st **April.**

- A meeting with Sa'ilele mayor and representatives of the village council was held at the village of Sai'lele on the **5th May.**
- CFMP attended the **FishPath Tool** virtual workshop from **May 23rd-27**th at DMWR conference room.
- A meeting with the mayors and village councils of Alofau, Amanave, Auto, Faga'alu and Sa'ilele was held at DMWR fale Samoa on the **29**th**June.**

C. Development

None

II. SUMMARY OF ACTIVITIES

Meetings/Workshops/Trainings

• A meeting with Amanave mayor and representatives of the village council was held at the village of Amanave on the **21**st **April.** This was the initial meeting with the

village council to remind them of the importance of the program and what it entails for the village and overall sustainability of marine resources in American Samoa. Amanave is quite familiar with this collaborative work as they first joined the CFMP program in February 2009. They have established their interest and support in re-joining the program. Certain requests have been made including a small boat for enforcement, multiple "no fishing" signs in the villages and more timely response from Fisheries Enforcement in addressing illegal fishing in the village.

• A meeting with Sa'ilele mayor and representatives of the village council was held at the village of Sai'lele on the **5th May.** This meeting was also the initial meeting for the village which first joined the CFMP program in January 2009. An



Figure 1: Meeting with Amanave village council

observation stressed out by the mayor during the meeting included the multiple recent sightings of green turtles along the beach in the beginning of this year, to which they

released back into the water at every occasion. Sai'lele established their continuous support and interest in re-joining the CFMP program at this meeting.



Figure 2: Meeting with Sa'ilele village council

• CFMP attended the **FishPath Tool** virtual workshop from **May 23rd-27th** at DMWR conference room, together with other sub-divisions of DMWR and its key stakeholders. The workshop was a collaboration with NOAA PIRO and The Nature Conservancy (TNC) in Washington, USA.

FishPath is an approach to setting fisheries on the path to sustainability using a stakeholder engagement process guided by the online FishPath decision-support tool. During the workshop attended by participants from DMWR and its key stakeholders, the

FishPath tool was introduced as a guide through a series of questions regarding the economic, operational, biological, ecological and governance characteristics of the selected fisheries/species. The FishPath Tool is divided into three main sections: Management Measures, Assessments, and Data Collection. The workshop was focused on the



Figure 3: Fish Path Workshop Day 1

identification and review of Management Measure options and had time to explore available assessment options. Several management measure options were discussed along with relevant considerations, assumptions, and challenges of implementation. The main objectives of the workshop were:

- o Clarify overall objective and timeline for JCR-FMP process
- o Clarify species and species groupings for consideration in the FMP
- Use the FishPath Tool as a group to identify viable management regulations available for further consideration and communication to fishers and communities
- Review preliminary Management Strategy

- Evaluation (MSE) modelling efforts to learn about how the model works and refine scenarios and options using the FishPath Tool
- Set a working plan for FMP development

The FishPath workshop will build and lead into a series of future meetings and consultations for the development of the American Samoa's jurisdictional fisheries management plan.

A meeting with the mayors and village councils of *Alofau, Amanave, Auto, Faga'alu* and *Sa'ilele* was held at DMWR fale Samoa on the **29thJune.** The main objective was to renew and sign their

cooperative agreements with the Department for managing their village Marine Protected Area. The day was attended by village mayors and representative councils, together with the Office of Samoan Affairs. It included important remarks from the Director on overall sustainability of marine resources in American Samoa. A brief presentation from CFMP on the importance of village MPA was also shared together with future work of the program for the villages. The co-operative agreements signed will be renewed every



three (3) years. As of June 29th 2022, the three (3) active village MPA sites currently recognized under the

Figure 4: DMWR meeting with village councils

Community-based Fisheries Management Program of the Department are: *Amanave, Faga'alu and Sa'ilele.* Work is underway for renewal of agreements with previous villages under the program and hopefully gather more participation from other coastal villages of American Samoa in the future.



Figure 5: Faga'alu mayor with signed cooperative agreement



Figure 6: Mayors of Amanave and Sa'ilele with signed cooperative agreements

Inshore Fishery Documentations Program: Determine the performance of the near shore sport fish fishery;

The Shore-based Creel Survey completed a total of 170 runs, accomplished 64 sampled day surveys within 65 Weekdays and 13 Weekend/Holiday for this third quarter. The monitoring team recorded 78 Participation counts and 36 Interview data including opportunistic interviews that will calculate an estimate of catch and effort data from April to June 2022. Information collected accumulates and generates expansion totals that express the estimated catch landings by gear type of the near shore fishery. The Territorial Covid-19 Threat restrictions continued and resulted to survey schedule adjustments as well as limiting the numbers of workers/employees in the office.

Note: COVID-19: Shorebased Creel survey continues to implement every necessary precaution and safety measure to avoid any risk of exposure to the virus. With the necessary minimization of staff in in the work place we resumed our work as we try to maximize our efforts to accomplish our project objectives while in the State of Emergency. A team member was diagnosed with Covid 19 in early April therefore more adjustments to our project work plans changed as well.

Below are the results generated from Shorebased creel survey data collection efforts and data summaries of this quarter. Total expanded catch with pooling is estimated at 7,433; the total expansion for Gear/Hr totals to 5,089lbs; and the expansion total for Catch/ Gear-Hr is 1.46lbs.

2022Rod and
ReelGleaningSpear-
SnorkelGillNet(A)April to June5,557 lbs996 lbs610 lbs270 lbs

The expanded catch/ effort summary by gear methods:

The catch summary also provides a list of species composition in total landings with pooling. The ten dominant species for this quarter are listed below.

1.	Bigeye-scad/ S.crumenophthalmus/ Atule	1,507 lbs
2.	Bluefin trevally/ Caranx melampygus/ Malauli apamoana	1,075 lbs
3.	Octopus/ Octopuses cynea/ Fe'e	988 lbs
4.	Brassy trevally/Caranx papuensis/Malauli-sinasama	884 lbs
5.	Humpback snapper/ Lutjanus gibbus/ Mala'I	693 lbs
6.	Honeycomb grouper/Epinephilus merra/Gatala-aloalo	438 lbs
7.	Sabre squirrelfish/Sargocentron spiniferum/Tamalau	314 lbs
8.	Blue-banded surgeonfish/Acanthurus lineatus/Alogo	250 lbs
9.	Fringelip mullet/Crenimugil crenilabus/ Anae	213 lbs
10.	Great barracuda/S.barracuda/Saosao	131 lbs

Key Reef Species Program and Sportfish Life History Program: Evaluate the status of sportfish and collect life history information;

Reef Slope and Flat surveys planned for 4nd quarter will continue as we slowly get back into diving after covid. We have consulted with Dr. Tuiolosega regarding diving and previous covid infection. He has advised that diving is safe as long as we stick by our diving protocols and practice safety diving. The portable dive compressor has been set up at the FAD container storage for dive tank re-fills. 15 New dive tanks have been assembled, tagged and will be filled.

Reef flat and reef slope surveys are scheduled to continue throughout the fourth quarter depending on weather. Staff has also been working on encoding reef flat fish data into the database. Staff is also developing training for benthic analysis with CRAG.

Boston Whaler is at Industrial for fuel tank removal and replacement. The source of the problem was water leaking into the fuel system and causing misfires and fuel pump problems. After removal of old fuel tank, we determined that it was better to build and

replace the old rotten out fuel tank. Andy is currently building a new fuel tank for the boat.

Tissue collection for population genetic research was affected with COVID social and travel restrictions. Population genetic analysis for the soldierfish *Myripristis berndti* using microsatellite markers developed was conducted for samples collected in Tutuila, Upolu and Savaii. The data analysis results indicated a single population genetic stock for this soldierfish among the three islands. This has implications for the fisheries management of this reef fish.

<u>Fish Aggregating Device Program</u>: Provide an alternative resource access by enhancing sportfishing through fish aggregating devices;

Staff has assembled FAD C and it is ready to be deployed. We are ordering ropes for FAD A and pre-assembled FADs for FADs A, B, C, E and J. Staff finalized the POs with finance staff.

<u>Technical Guidance and Scientific Exchange</u>: Provide technical guidance to agencies and communities in the territory, federal and regional partners on sportfish and sportfish habitat related issues

Chief of Fisheries attended various meetings on:

- (1) Green turtle critical habitat discussions with NOAA PIRO protected species staff;
- (2) Data integration in American Samoa datasets with PIFSC research affiliate;
- (3) Council Archipelagic Plan Team meeting (April 19 to 21);
- (4) Fisheries Data Collection and Research Committee meeting (April 27 to 28);
- (5) Council Pelagic Plan Team meeting (May 3 to 5);
- (6) South Pacific Tuna Treaty discussions with US delegation and FFA (May 10)
- (7) Marine Economy Data Workshop (May 5)
- (8) South Pacific Albacore working group discussions;
- (9) FishPath Workshop (May 23 to 27);
- (10) American Samoa Coral Reef Fisheries Management Planning;
- (11) American Samoa tuna sampling discussions with SPC scientist Dr. Simon Nicol and Council staff Dr. Mark Fitchett;
- (12) 144^{th} SSC meeting (June 14 to 16);
- (13) 191^{st} CM meeting (June 21 to 23)

Program management: Managing staff and assets.

- (1) Chief of Fisheries worked with supervisors, finance staff and grant manager in finalizing and submitting the SFR FY23 programs' proposals.
- (2) Chief of Fisheries worked with supervisors and finance staff on Pos.

MONITORING FISH STOCKS

Funding source: NOAA-NMFS

The pelagic fisheries report for longline vessels and purse seine are covered by the Pelagic Fisheries Ecosystem Report by the Western Pacific Fisheries Management Council and the Pacific Islands Fisheries Science Center. The pelagic fisheries by sportsfishing is reported under the Fish and Wildlife Restoration Grant. The pelagic fisheries reported here are from alia longline, bottomfishing, trolling, mix bottomfishing/trolling and spearfishing operations in American Samoa.

There were 4 active alias that have contributed to the landings from longline, bottomfishing, trolling, mix bottomfishing/trolling and spearfishing activities from April 2022 to June 2022. Throughout this quarter, these vessels have landed a total of 1,177 expanded pounds of fish. Surveys were conducted randomly throughout the month for at least 3 weekdays a week and 2 weekends per month. Throughout this quarter, there were 31 fishing trips with fishing effort recorded from 10 interviews.

Data collection efforts encountered many challenges during this reporting period. As the COVID-19 virus made it to the territory in February 2022, precautionary measures were in place to ensure the safety of all employees. Remote work was initiated and field (including office) work was limited to 1 -2 days a week. There was an increase in absenteeism in this staggered scheduling because of families being affected by the virus. In addition, dedicated vehicles for field work were in need of maintenance. The virus affected many in the government and the protocol for processing service orders were incomplete. Therefore, fewer sites were visited during data collection efforts for port sampling and market/vendors. There was evidently very few participants in the fishery during this reporting period. Data collection efforts were finally reinstated into full effect in June 2022.

The objectives of the project and corresponding activities for this reporting period are:

1. Monitor catches of highly migratory, species harvested within American Samoa's EEZ by means of port sampling of commercial vessels and continue documentation of market sales.

Only one active fishing vessel was recorded in the quarter and the dominant catch was skipjack.

2. Monitor catches of Bottomfish species harvested within American Samoa's EEZ by means of documenting market sales and port sampling.

There were three alias that contributed to the total landings of 83 expanded pounds of bottomfish species this quarter. Gray jobfish (*Aprion virescens*) was the dominant species caught this reporting period with an estimated 26 pounds which accounts for 31% of the bottomfish species caught. The following table lists the five most common species caught this quarter which accounts for 89% of the total bottomfish species landings.

Scientific Name	Samoan Name	Common Name	Fotal (lbs.)
Lutjanus bohar	Mumea	Twinspot snapper	12
Lethrinus rubriopercularis	Filoa apa'apamūmu	Redgill emperor	21
Aprion virescens	Asoama	Gray jobfish	26
Lutjanus gibbus	Mala'ī	Humpback snapper	9
Lutjanus kasmira	Savane	Blue line snapper	5
		Others	9
		Total (lbs.)	83

 Table 1. Total bottomfish landings by species/group from April 2022 to June 2022

3. Monitor catches of Spearfishing activities within American Samoa's EEZ by means of documenting market sales and port sampling.

There were two alias actively spearfishing this quarter with a recorded catch of 1,047 expanded pounds of nearshore marine species. Spearfishing activites are conducted at least 4 days a week. There were 7 interviews collected from 20 fishing trips recorded. The most dominant species caught is the Japanese parrotfish (*Chlorurus japanensis*) which accounts for 20% of total landing of nearshore fisheries caught. The following table lists the most common species caught this quarter.

Table 2. Tot	al of nearshore	e fish species	landed by boat-	<i>based spearfishing</i>	activities.
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Scientific Name	Samoan Name	Common Name	Total (lbs.)
Scarus rubroviolaceus	Fuga / Laea	Redlip parrotfish	341
Chlorurus japanensis	Fuga / Laea	Japanese parrotfish	205
Acanthurus lineatus	Alogo	Bllue-banded surgeonfish	148
Scarus coeruileus	Fuga / Laea	Blue-patch parrotfish	41
Scarus oviceps	Fuga / Laea	Dark-capped parrotfish	52
		Others	260
		Total (lbs.)	1047

4. Disseminate information of American Samoa's Fisheries and Data Collection efforts

a. Posters on local fish species caught by Spearfishing, Longline, Troll and Bottomfishg were distributed to up to 42 community members.

b. Brochures (100) on the local fisheries regulations were printed to be distributed to local fishermen when applying for a commercial fishing license. These brochures are also distributed to the public.

5. Fund Enforcement activities related to interjurisdictional fish species.

- a. The department issued 22 commercial fishing licenses for local fishermen this quarter. Eleven were renewals and ten newly issued fishing licenses.
- b. Commercial Invoice Collection is scheduled on/or before the 16th of every month. The team was able to collect commercial invoices from 59 vendors this quarter.
- c. Acknowledgement forms were designed to verify commercial fishermen have participated in the regulations briefing conducted by the Enforcement Division. This form also informs applicant(s) of their participation in all data collection efforts by the department. Copies of the forms is given to the (1) applicant; (2) Enforcement Division and (3) Boat-based Creel Survey Program for records and supporting documents in future citations.

<u>Recreational Fisheries Marine Debris Program</u>: (Funding source: NOAA Sustainable Fisheries)

The department obtained the no-cost extension grant request. Education and outreach materials such as shirts and stickers with marine debris logo have been developed.

Giant Clam Restoration: (Funding source: US Fish and Wildlife service)

The department is still finalizing the research contract with University of Hawaii Research Corporation after another round of comments from Dr. Toonen. The contract will extract DNA information from giant clam tissue previously collected among islands in American Samoa to determine genetic connectivity. A giant clam survey is also being organized by DMWR with Mr. Briggs to update density data among the islands in the Territory. The survey will identify sites of high giant clam density and essential habitats.

The Chief Fisheries Biologist is current analyzing giant clam densities from diver-tow surveys conducted by PIFSC CREP staff every 3 years from 2005 to 2018 in the isalnds in American Samoa. The giant clam densities were analyzed with potential drivers such as island, habitat, benthos cover (coral, algae, coralline algae) coral reef complexity, climate variables (SST, wave energy, irradiance and chl a among islands) and island human population as proxy for fishing pressure. Preliminary results indicate the importance of the physical environment and water quality influencing giant clam densities. There were higher clams in the lagoon (especially in Rose) and in areas with low chlorophyll a.

Enforcement Division

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. A total of 28 foreign vessels were boarded and inspected.

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 14 domestic vessels were boarded and inspected.

Execution Priority 3: SIMP

The DMWR officers monitored 76 containers of Albacore at StarKist and STP dock during the months of April, May, and June.

Execution Priority 4: NMSA

DMWR officers conducted 9 land and 1 sea patrols for the months of April, May, and June.

Sea Patrol

- Aunuu
- Fagatele

Land Patrol

• Fagatele

General Enforcement: Protected Species

- Released three turtles stuck in gillnet at coconut point during a surveillance at Nuuuli in April.
- The Officers responded to a dead whale stranding at Tula beach on the 20th of May
- The officers responded to two dead turtle strandings at Lyons park in June.