DEPARTMENT OF MARINE & WILDLIFE RESOURCES



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DMWR Fisheries Division Second Quarter Report FY23

1. Shore-based creel program:

The Shore-based Creel Survey completed a total of 115 runs, accomplished 41 sampled survey days within 65 Weekdays and 12 Weekend/Holiday for this second quarter. The monitoring team recorded 33 Participation counts and 34 Interview data not including opportunistic interviews that will calculate an estimate of catch and effort data from January to March. Information collected accumulates expansion totals that express the estimated catch landings by gear type of the near shore fishery.

Below are the results generated from Shorebased creel survey data collection efforts from Tutuila and Manu'a islands. Total expanded catch with no pooling is estimated at 15,598 and the expansion CPUE total for Catch/ Gear-Hr is 2.79 lbs./hr.

The expanded catch/ effort summary by gear methods:

2023	Rod and Reel	Gleaning	Spear-Snorkel	<u>GillNet(A)</u>
Jan to March	2,458 lbs	<u>191 lbs</u>	12,724 lbs	<u>225 lbs</u>

The catch summary also provides a list of species composition in total landings with no pooling. The eight dominant species for this quarter are listed below.

1.	Steephead parrotfish/Chlorurus microrhinos	3,581 lbs
2.	Bluefin trevally/Caranx melampygus	2,156 lbs
3.	Octopus/ Octopuses cynea	1,765 lbs
4.	Redlip parrotfish/Scarus rubroviolaceus	1,495 lbs
5.	Stareye parrotfish/Calotomus carolinus	1,134 lbs
6.	Bluespine unicornfish/Naso unicornis	846 lbs
7.	Blue-banded surgeonfish/Acanthurus lineatus	756 lbs
8.	Bigscale soldierfish/Myripristis berndti	727 lbs

- 2. <u>Key Reef Species Program</u>: Staff conducted 5 reef slope sites but only completed 2 reef slope sites for this quarter. Staff also assisted other programs: a) community visits in the Community-Based Fisheries Management Program; and b) in regular inspections of FADs C, B and E since the FAD program has only one staff. One of its staff is on workman's compensation leave due to a boating accident and this has severely impaired the coral reef monitoring capacity of the program. One staff completed Advanced and Rescue Diving training. Staff are also involved in maintaining Division boats, dive shop and FAD storage facilities.
- 3. **Sportfish Life History Program**: Staff are coordinating with the Australian Genome Research to develop population genetic markers for model species in the Samoan Archipelago. New microsatellite population genetic markers have been developed for the bottomfish *Lutjanus kasmira*, *Lethrinus rubrioperculatus*, and for the reef fish *Acanthurus lineatus* in Tutuila, Savaii and Upolu. The next step will be generation of microsatellite data from these three species for population genetic data and analysis.
- 4. <u>Fish Aggregation Device Program</u>: Staff received 5 new FAD modules and two of these new FADs have been deployed. Staff were also preparing for the upcoming 2023 Flag Day Fishing Tournament.
- 5. <u>Giant Clam Restoration Planning</u>: DMWR is finalizing contract with the laboratory of Dr. Rob Toonen of University of Hawaii-Manoa for the population genetic structure analyses of giant clam *Tridacna maxima* among the sampled islands in the Territory (Rose Atoll, Tau Island, Ofu and Olosega Islands, and Tutuila island).
- 6. DMWR CFMP and Wildlife team joined the Project Notification and Review System (PNRS) site visits on the 13th and 19th January for the following projects:
- Nu'uuli Access Road Improvement, Drainage and Amaile Stream Project
- Nu'uuli Shoreline Protection
- Matatula Elementary School Access Road and Slope Protection



The site visits were a collaborative work with other government Agencies including AS Environmental Protection Agency and Department of Works. Although the projects served to address the issues of coastal erosion, DMWR has raised concerns and recommendations for best management practices to be implemented to avoid silt discharge runoffs and further sedimentation in the ocean, high water turbidity and disruption of coral and reef fish life in the coastal areas. Work assessments are ongoing for the environmental feasibilities of these projects with the government stakeholders including the US Army Corps of Engineers and the construction contractor *Paramount Builders Inc.* Nu'uuli has been a pilot site for coral restorations in the past with CRAG and will be monitored in any future interests for a village marine protected area.

CFMP staff assisted CRAG in the monitoring of the black-band disease (BBD) on the Montipora corals following its first sighting in 2023 on the 12th January in Onesosopo. A total of 10 coral colonies were tagged and monitored for growth rates and spread of the active lesions, from January 22nd to March 7th.

Assessment visits for the presence of BBD in nearby reef flats of Auto and Alofau were conducted on the 1st February and 3rd March respectively. No BBD was observed in Alofau and Auto/Amaua. Monitoring is ongoing at these sites and updates will be provided accordingly for any prevalence. More information on the tagged BBD colonies could also be found with CRAG monitoring records.

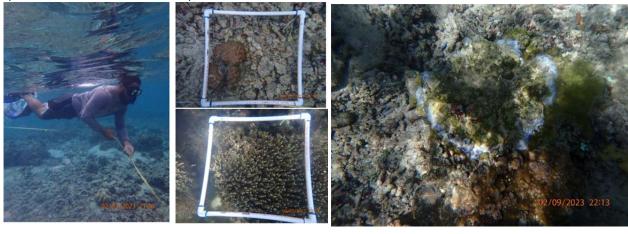
Following the signed MPA cooperative agreement with DMWR on June 29th 2022, consulations were in place with the village council of Fagaalu to have a "no fishing" sign installed for awareness to



the public. The sign was installed by All Star company on the 1st February. Faga'alu village council has reported past cases with fishermen outside of Fagaalu who continously fish within their protected area. The awareness sign, amongst other intiatives, serves to alleviate this issue.



Reef flat monitoring surveys were conducted in the village marine protected areas of Fagaalu and Amanave on the 7th and 9th February. Fish visual census and benthic surveys were conducted in Fagaalu. Due to strong wave action in Amanave on that day, surveys were cancelled and timed swims carried on for a general assessment of the area. From this, 8 coral colonies of the Montipora genus were observed to have the Black-band disease. The ongoing BBD monitoring work with CRAG, as aforementioned, continues also with the sightings in Amanave. Raw data from the monitoring surveys in Fagaalu are documented and will be analyzed together with more area coverage in the MPA sites in the upcoming quarter; to reflect benthic composition and fish abundance and distribution.



CFMP, Key Reef and CRAG staff participated in an online virtual training on the 15th February. The training was delivered by NOAA Coral Reef Monitoring Program (NCRMP), in reminder of the different survey methods to be used when conducting monitoring surveys on the reef flats and on the reef slopes.

The fish count visual census, transects and photo quadrats methods were discussed in the training. Following this training, there was consensus amongst the participants to have a joint monitoring team for CRAG, Key Reef and CFMP for surveys on corals and fish when needed, with respect to each program's monitoring objectives and survey methods Consideration is also given to the Department's current dive monitoring protocol that guides the overall work of the field monitoring team.

CFMP staff attended the Aua watershed management project meetings on the 21st and 23rd of February at NOAA PIRO conference room, with the *Horsley Witten Group* as contracted to carry out this work spearheaded by CRAG. The meeting served to identify Aua's watershed issues and restoration potential, management approach and priority projects for advanced design.



The contractors will be visiting American Samoa in the near future for monitoring ground work, with relevant assistance from CFMP and CRAG teams. This work follows the NOAA Coral Reef Conservation Program training for Aua watershed project that was conducted on October 21st 2022; CFMP and CRAG staff were present. A field assessment report was also published by the contractor during their Aua ground visit on the 17th-25th October 2022. Further updates will be provided as more work on this develops.



towards the end of April 2023.

A village meeting with Amanave was held on Saturday, 25th February at the village fale Samoa. To ensure smooth implementation of village Marine Protected Area (MPA) objectives, the village council and the youth group were informed of the upcoming activities for the program.

The village advisory group, monitoring and enforcement groups were also established on this day in the presence of DMWR CFMP and Education/Outreach teams. A follow up meeting is scheduled with the Advisory committee in the development of the

village fisheries management plan

In efforts to raise continuous awareness on the importance of the Community-based Fisheries Management program in American Samoa's coastal fishing communities, CFMP team joined 93KHJ radio on the morning show for an interview session on the 1st of March.

The team talked about the goals and benefits of CFMP and raised awareness on the fishing zone restrictions in the current village MPAs of Amanave, Sa'ilele and Fagaalu.

Two CFMP staff, Ailua Tauala and Blazusky
Tupuola, participated in the PADI scuba divers
training courses in Apia from March 2nd-March
13th, joined by one Key Reef Species staff
Faleselau Tuilagi. The training included a two-day



online theory class followed by five days of practical skills in the pool and out in the open ocean water. All staff passed their online exams together with practical skills. The training was conducted by PADI

Dive Instructor Oliver Sandford of Pure Ocean Samoa based at Sheraton Hotel Samoa. The main objective of the certification training is to have fully equipped and qualified divers for assisting with biological monitoring surveys where needed within the reef slopes of the MPA sites.



Diver	Certification
Blazusky Tupuola	Open Water
	Emergency First Response
Ailua Tauala	Open Water Advance
	Emergency First Response
	Rescue Diver
Faleselau Tuilagi	Open Water Advance
	Emergency First Response
	Rescue Diver

CFMP staff and DMWR Director attended the 15th SPC Head of Fisheries Meeting from the 20th-24th March in Noumea, New Caledonia. The main objectives of the meeting were to:

 discuss impacts of climate change and mitigation measures and recovery efforts as PICTs recover post Covid-19, on management of sustainable fisheries and aquatic resources (National statements to be delivered by 22 SPC members)

- discuss socio-economic value and economic potential of aquaculture while addressing issues of aquatic biosecurity
- focus on guiding FAME's strategic direction and priorities and consider strategic regional policy and governance issues to be transmitted to Regional Fisheries Ministers Meeting and to Pacific



Islands Forum Leaders meetings where relevant

The key outcomes of the meeting included

- New Song for Coastal Fisheries and Regional Roadmap for Sustainable Fisheries to review by 2025
- Regional Aquatic Biosecurity Framework for mid-term review after covid-19 delay
- American Samoa established interest and support in the development and review of the Regional Aquatic Biosecurity Framework for national policy development
- American Samoa, including all other 21 SPC members, delivered national statements, on national climate change activities/initiatives that are underway to manage and adapt to impacts of climate change
- American Samoa enquired the eligibility and open window for application to new round of Green Climate Fund (GCF) assistance to SPC members, clear conditions and terms for application are still pending with fund administrators; to be clarified further
- CFMP online portal launched for SPC members to update literature and efforts on national CFMP activities
- 5th Regional Technical meeting on Coastal Fisheries and Aquaculture and Community-based Fisheries Dialogue continued in 2022, American Samoa established interest in dialogue next session towards end of 2023 (to be confirmed)
- CFMP regional framework for action development (to be implemented by end of 2023)

Some key recommendations derived from the meeting include initiation of CFMP collaboration with SPC CFMP FAME team on updating CFMP online portal for American Samoa and the development of a CFMP strategy with SPC assistance (technical and finance support available), for a smooth upcoming implementation of the CFMP regional framework. This would also assist with the implementation of the Jurisdictional Coral Reef Fisheries Management Plan that is currently underway including the review and updating of Fisheries regulations relevant to CFMP purposes.