

# American Samoa Department of Marine and Wildlife Resources Report

## 182<sup>nd</sup> Western Pacific Regional Fishery Management Council Meeting

*This report briefly describes the activities undertaken by the DMWR Jan to March 2020*

**MOST ACTIVITIES OF THE FISHERIES DIVISION AFTER MID-MARCH HAVE BEEN AFFECTED BY COVID-19 AS STAFF TIME HAS BEEN STAGGERED FOR SOCIAL DISTANCING.**

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### AMERICAN SAMOA SPORTFISH INVESTIGATION AND CONSERVATION PROJECTS

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**Marine Protected Area Program:** Restore a viable sportfish stock through village-based fishery management and monitoring;

Staff has been working with the Chief of Fisheries and the Education and Outreach Division to organize a village clean-up of Fagamalo as priority village. Trash is the common problem among villages and a clean-up is hoped to be an opportunity to re-engage communities. Fagamalo MPA has also been nominated as NOAA-Coral Reef Conservation Program Priority MPA. Unfortunately, all activities have since been suspended with the impact of COVID-19. Staff is now working on village profiles and management plans.

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

From January to March, the Shore-based Creel Survey completed a total of 185 Runs in 65 Weekdays and 13 Weekend/Holiday for this second quarter including the Manu'a islands. The monitoring team recorded 53 Participation counts and 26 Interview data including opportunistic interviews to calculate an estimate of catch and effort data. The data accumulates expansion totals that express the estimated landings by gear type in the near shore fishery.

Total expanded catch for this quarter is estimated at 8,365lbs; the total expansion for Gear/Hr amounts to 3,382 gr-hrs; and as a final point the expansion total for Catch/ Gear-Hr is 2.47lbs.

The expanded catch/ effort summary by gear methods:

2020	Gleaning	Spearfishing	ThrowNet	Rod/Reel
Jan to March	3,654lbs	2,855lbs	1,023lbs	832lbs

The catch summary also provides numbers for species composition in total landings with no pooling. The five dominant species for this quarter is listed below.

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|--|----------|
| 1. Sea grapes seaweeds/ <i>Caulerpa lentillifera</i> / Limu    | 2,636lbs |
| 2. Blue-banded surgeonfish/ <i>Acanthurus lineatus</i> / Alogo | 2,152lbs |
| 3. Cone snail/ <i>Conus spp.</i> / Aliao                       | 601.4lbs |
| 4. Redlip Parrotfish/ <i>Scarus rubroviolaceus</i> / Fuga      | 423.3lbs |
| 5. Diamond Scale Mullet/ <i>Liza vaigiensis</i> / Agae         | 372.3lbs |

Staff survey times have since been affected by COVID-19 as staff time has been staggered.

**Key Reef Species Program:** Evaluate the status of sportfish;

Staff is working with Chief of Fisheries in developing statistical framework/model to determine relative importance of bio-physical and anthropogenic drivers on coral reef slope dynamics in American Samoa.

**Fish Aggregating Device Program:** Provide an alternative resource access by enhancing sportfishing through fish aggregating devices;

Until March, staff conducted some visual checks of FADs and also assessed the damage inflicted by the damage on the FAD storage. Staff has ordered 3 pre-assembled FADs from New Zealand. Activities has been delayed due to staff turn-over and processing of staff assignments. Data from sports fishermen continue to be collected twice a week.

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## MONITORING FISH STOCKS

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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 US Fish and Wildlife Restoration Grant. The pelagic fisheries reported here are from alia longline, trolling and mix bottomfishing/trolling operations in American Samoa. This report briefly describes the activities undertaken on this cooperative project between DMWR and PIFSC in the period October 1, 2019 to March 31, 2020.

There were 16 active alia that have contributed to the landings from longline, bottomfishing, trolling, mix bottomfishing/trolling and spearfishing activities from October 2019 to March 2020. Throughout this reporting period, these vessels have landed a total of 8,685 pounds of fish. Surveys were conducted randomly throughout the month for at least 3 weekdays/week and 2 weekends per month with a coverage of 5 to 16 hours a day. Throughout this period, there were 293 fishing trips with fishing effort recorded from 83 interviews.

The Commercial Invoice System has a registry of 69 local commercial vendors that vary from retail stores to restaurants. Receipts are submitted monthly and have reported a purchase of 71,022 pounds of fish at the value of \$213,073.79. The project team collects invoices on or before the 16<sup>th</sup> day of every month from at least 64 fish dealers as part of the creel survey data collection. Before the monthly Commercial Invoice Collection, the team conducts a Vendor Pre-Visit. The Vendor Pre-visit allows the team to review invoices and assist or train vendor representatives on how to properly fill out invoices. Compliance issues with vendors are forwarded to the Enforcement Division for further action.

Numbers between port sampling and commercial invoices vary due to many factors: 1. Only one alia conducts longline fishing activities and this catch information is considered confidential; 2. Longline catches in commercial invoices include sales from local longline fleet into the local market; and 3. spearfishing activities in commercial invoices may include nearshore spearfishing activities. In addition, the delay in commercial invoice submissions has an implication on pounds and value of fish purchased. We are currently working on getting a total number of commercial vendors from the American Samoa Department of Commerce so we could get an idea of how much information we are gathering from the commercial invoice system.

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

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

There were 9 active vessels in the alia fleet that landed a total of 6,819 pounds of pelagic fish from October 2019 to March 2020. Most of the pelagic species were landed by trolling fishing activities. Skipjack tuna (*K.pelamis*) and Yellowfin tuna (*T.albacares*) were the most dominant species caught this reporting period.

**Table 1. Pelagic fish catch of alia boats from October 2019 to March 2020**

Species	BTM/TRL Mix	Trolling	Total (lbs)
Bigeye Barracuda	17	0	17
Bigeye tuna	0	212	212
Blue marlin	0	278	278
Dogtooth tuna	19	10	29
Mahimahi	0	123	123
Skipjack tuna	17	2828	2845
Wahoo	0	69	69
Yellowfin tuna	6	570	576
<b>Total (lbs)</b>	<b>59</b>	<b>4,089</b>	<b>4,148</b>

Table 2 lists pelagic species that have been sold to local commercial vendors. If a vendor purchases their fish from another vendor, it would be accounted for in the ‘Resold’ category. Throughout this reporting period, local commercial vendors purchased \$97,282.12 worth of pelagic species from an estimated 33,796 pounds.

**Table 2. Pelagic species reported in the Commercial Invoice System from October 2019 to March 2020**

Species	Longline	Troll	Resold	Total (lbs)
<i>Albacore</i>	3,080	80	-	3,160
<i>Bigeye tuna</i>	620	-	-	620
<i>Mahimahi</i>	2,754	82	-	2,836
<i>Marlin</i>	2,779	-	5,607	8,386
<i>Sailfish</i>	270	-	12	282
<i>Swordfish</i>	2,804	-	2,561	5,365
<i>Wahoo</i>	1,765	140	6,053	7,959
<i>Yellowfin tuna</i>	4,217	778	193	5,188
<b>Total (lbs)</b>	<b>18,289</b>	<b>1,080</b>	<b>14,427</b>	<b>33,796</b>

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

A total of 176 pounds of bottomfish were caught from nine vessels fishing in October 2019 to March 2020. Redgill snapper (*L.rubrioperculatus*) account for most of the catch (38%) and is the dominant species caught in bottomfish landings.

**Table 4. Total Bottomfish landings by Species from October 2019 to March 2020.**

Common Name	Scientific Name	Samoan Name	Total (lbs)
Redgill emperor	<i>Lethrinus rubrioperculatus</i>	Filoa pa'o'omūmū	66
Tomato grouper	<i>Cephalopholis sonnerati</i>	Gatala mūmū	27
Longtail snapper	<i>Etelis coruscans</i>	Palu loa	25
Bluefin trevally	<i>Caranx melampygus</i>	Malauli	17
Gray jobfish	<i>Aprion virescens</i>	Asoama	14
		Others	28
		<b>Total (lbs)</b>	<b>176</b>

Most of the bottomfish species recorded in commercial receipts were from local fishing activities throughout October 2019 to March 2020. There was a recorded 865 pounds of bottomfish sold in the local market at the value of \$3,064.60.

**Table 5. Bottomfish species recorded from Commercial Invoice Receipts from October 2019 to March 2020**

Species	Locally caught	Resold	Total (lbs)
<i>P. filamentonus</i>	126	-	126
<i>Etelis carbunculus</i>	383	-	383
Bottomfish (misc.)	-	32	32
Mackerel	-	324	324
<b>Total (lbs)</b>	<b>509</b>	<b>356</b>	<b>865</b>

- Monitor catches of nearshore marine resources caught by spearfishing activities within American Samoa's EEZ by means of documenting market sales and port sampling.*

There are 5 alias of the local alia fleet actively participating in spearfishing activities 3 – 5 days a week with an average of 4 fishermen per vessel. A total of 1,376 lbs. was landed from spearfishing activities from October 2019 to March 2020

2020  
**Table 6. Total Spearfish landings by Species from October 2019 to March**

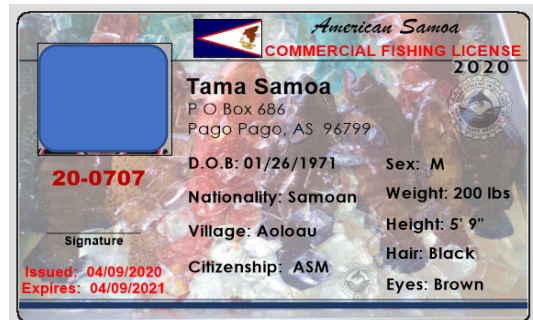
Species	Scientific Name	Samoan Name	Total (lbs)
Blue-banded surgeonfish	<i>Acanthurus lineatus</i>	Alogo	255
Bluespine unicornfish	<i>Naso unicornis</i>	Ume / Umelei	122
Dark-capped parrotfish	<i>Scarus oviceps</i>	Fuga / Laea	83
Steephead parrotfish	<i>Chlorurus microrhinos</i>	Fuga / Laea	48
Bluefin trevally	<i>Caranx melampygus</i>	Malauli	48
Peacock hind	<i>Cephalopholis argus</i>	Gatalauli	37
Orangespine unicornfish	<i>Naso lituratus</i>	Ume / Ili'ilia	34
Yellow-edged lyretail	<i>Variola louti</i>	Papa / Velo	30
Redtail parrotfish	<i>Scarus rubroviolaceus</i>	Fuga / Laea	23
Redlip parrotfish	<i>Chlorurus japanensis</i>	Fuga / Laea	20
		<b>Others</b>	676
		<b>Total (lbs)</b>	1376

**Table 7. Nearshore species landed from spearfishing activities conducted from October 2019 to March 2020 were estimated at market value of \$108,318.11 from a purchase of 35,077 pounds of fish. The following lists the top 10 recorded in the commercial invoices.**

Species	Locally caught	Resold	Total (lbs)
<i>Acanthurus lineatus</i>	7,416.55	44.00	7,460.55
Pompano	-	4,414.22	4,414.22
Parrotfish (misc)	2,837.14	659.65	3,496.79
Pollock	-	40.00	40.00
Reef fish (misc)	5,050.37	15.00	5,065.37
Swai	-	967.00	967.00
Tilapia	-	2,769.11	2,769.11
Unicornfish (misc)	2,723.08	47.25	2,770.33
Wrasses (misc)	7.00	440.00	447.00
<i>Ctenochaetus striatus</i>	3,920.08	-	3,920.08
<b>Total (lbs)</b>	<b>21,954.22</b>	<b>9,396.23</b>	<b>31,350.45</b>

4. ***Disseminate information of American Samoa's Fisheries and Data Collection efforts***
  - a. Monthly reports regarding fishing activities conducted by alias are filed for public access.
  - b. The order of reef fish, bottomfish species and pelagic fish posters have finally arrived and have been distributed to all 69 commercial vendors upon submission of their invoices.
5. ***Fund Enforcement activities related to interjurisdictional fish species.***

- a. The department has issued 13 commercial fishing licenses to fishermen this reporting period and keeps a database of their names. The Enforcement Division randomly checks on active fishing vessels when they are selling their catch. Commercial vendors have also been assisting with the check of fishing licenses at their vendors to ensure quality of products being sold at their businesses.



2020 Commercial fishing licenses

- b. Vessel inventory this reporting period include 21 (CF) commercially registered alia and one (PU) personal use alia. Personal Use vessels sometimes sell their catch and the fishermen are required to get a Commercial Fishing License. Not all vessels are actively fishing.
- c. The Enforcement Division conducts random checks on local commercial vendors to see if they are selling fresh and/or frozen local fish. Any new vendors are referred to the survey team for registration. The survey team enrolls the dealers into the commercial invoice system and then conducts training for the vendor representative(s) on filling out vendor invoices. Representatives are informed of any regulations regarding commercial invoices and the scheduled pick up of commercial receipts. There are currently 69 vendors enrolled in the commercial invoice system.



*Posters printed to assist commercial vendor representatives to identify species listed in the invoice logbooks. These posters are also distributed to fishermen, community members and the general public for educational purposes.*

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## RE-STOCKING OF GIANT CLAMS IN AMERICAN SAMOA

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DMWR reached out to potential sources of giant clam juveniles for restocking: Samoa, Palau, Marshall Islands, and Philippines.

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## DATA PORTAL FOR CLIMATE CHANGE VARIABLES IN AMERICAN SAMOA

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Fourier, generalized linear and generalized additive models were used to analyze trends in climate data from American Samoa. Data analyses confirmed that sea surface temperature and sea levels have been increasing in American Samoa at least for the last 30 years. The analyses also indicated that sea level and wave energy were significant predictors of El Nino and La Nina events. Sea levels decreased while wave energy increased with the Multivariate El Nino Index (the inverse with La Nina). Rainfall level was a minor predictor of El Nino. The long-term increase in sea surface temperature and sea levels have potential negative impacts on the nearshore subsistence fisheries in the Territory. A study on the impact of climate variability on octopus gleaning has been completed and current analyses cover other nearshore fisheries, spearfishing and bottomfishing. The hypothesis is that climate variability will have highest impact in nearshore fisheries with impact declining with depth.



## **COVID-19 Funding Support for American Samoa**

In March, Governor Lolo Moliga announced an emergency declaration to address the coronavirus situation. Multiple samples from suspected cases were sent off island for testing, but all came back negative for COVID-19. Before flights were suspended, incoming travelers were subject to two weeks of quarantine – either at their homes or at one of the designated facilities. All quarantined passengers have since been released and none have tested positive for the coronavirus.

The emergency declaration has been difficult for local seafood vendors. Under the declaration, there have been measures implemented to promote social distancing and deter social gathering to prevent COVID-19 spread in the event that local cases are confirmed. Among those measures, is a restriction on the number of customers allowed to be in a restaurant at any one time (limit 10), and a 6:00 AM to 6:00 PM hours of operation enforcement for all local businesses. This has affected many seafood vendors, and many of them have applied for those COVID-19 funding sources through the Small Business Administration (SBA). Further straining the businesses on island has been the suspension of flights from Honolulu, which businesses relied on for airfreight. With all tested samples coming back negative for the virus, there have been calls from the business community for ASG to remove those business restrictions. This was made in the form of a recommendation to the Governor by the local Chamber of Commerce. Further straining the businesses on island has been the suspension of flights from Honolulu, which businesses relied on for airfreight. There is currently only a single cargo flight to carry mail and airfreight, which has caused shipping delays. The Governor granted a waiver to StarKist Samoa from the emergency declaration restrictions on businesses due to its vital role in the economy. StarKist will be allowed to operate its normal hours of operation and the transportation restriction limits for buses has been waived for the company's employees, allowing the continuation of operations.

The Congresswoman for American Samoa, Aumua Amata Radewagen has been vocal about the need for additional funds to support American Samoa's businesses. Congresswoman is the vice ranking member on the House Small Business Committee. Congresswoman Amata also made a request to the Secretary of the Interior David Bernhardt to provide relief to American Samoa's commercial fishing fleet. On a call with the Interior Secretary, she addressed the unavailability of observers on fishing vessels and requested a waiver for that requirement to allow fishing to continue. The congresswoman also spoke about the need to reopen the Marine National Monuments for commercial fishing. These requests were made to ensure that the American Samoa tuna industry is allowed to continue operating. The cannery in American Samoa not only supplies food to school lunch programs and military personnel, it is the most vital component of the local economy.

Among the funding options for local businesses to cope with the impacts of the shutdown measures are the Economic Injury Disaster Loan (EIDL) advances and Paycheck Protection Program (PPP). Unfortunately there is only a single lender on island that is allowed to issue funds from SBA and that is ANZ Amerika Samoa Bank. The governor has called on the local Development Bank of American Samoa (DBAS) to look

into the possibility of supporting funding opportunities for local businesses, citing the unique circumstances they are facing. He suggested streamlining existing lending programs, developing new emergency business loans or deferring existing business loan payments to provide relief for a struggling private sector. Governor Lolo also requested that FEMA waive the required 25% match to receive FEMA disaster funds. The governor pointed out that American Samoa has been hit with a measles outbreak late last year, back-to-back storms in February, and now the coronavirus emergency declaration.