### AMERICAN SAMOA MOTU RIPOTI

This report briefly describes the activities undertaken by the Fisheries Division of DMWR from Oct. to Dec. 2019

## 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;

Staff worked with the Chief of Fisheries to draft the annual performance report. Chief of Fisheries worked with staff in reviewing village management plans and planning focus of work for FY20.

<u>Inshore Fishery Documentations Program</u>: Determine the performance of the near shore sport fish fishery;

The Shore-based Creel Survey completed a total of 140 Runs in 66 Weekdays and 13 Weekend/Holiday for this first quarter including the Manu'a islands. The monitoring team recorded 32 Participation counts and 24 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 6,171lbs; the total expansion for Gear/Hr amounts to 3,446lbs; and as a final point the expansion total for Catch/ Gear-Hr is 1.79lbs.

The expanded catch/ effort summary by gear:

2019	Rod & Reel	Gleaning	Spearfishing	ThrowNet
October - December	4,083lbs	199lbs	1,826lbs	62lbs

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.

1.	Bluefin trevally/ <i>Caranx melampygus</i> / malauli	2,241 lbs
2.	Blue-banded surgeonfish/ Acanthurus lineatus/ alogo	925 lbs
3.	Barred flagtail/ Kuhlia mugil/ safole	666 lbs
4.	Scrawled filefish/ Aluterus scriptus/ ume-alavea	564 lbs
5.	Octopus/ Octopoda/ fe'e	364 lbs

### **<u>Key Reef Species Program</u>**: Evaluate the status of sportfish;

Staff in coordination with The Nature Conservancy (TNC) and the Poseidon Fisheries Research completed the collection of fish life history data for 3 species (*Naso lituratus*, *Chlorurus japanensis* and *Lethrinus rubrioperculatus*). The life history data indicate that these fishes have high population turn-over given high growth rates and short to mediumrange life span (7 to 15 years). All three fish species mature at around 2 years of age. A fisheries workshop was conducted to present the data to staff and fishermen. The workshop provided a framework to develop fish size limits for target fish in the Territory.

Staff worked with the Chief of Fisheries to draft the annual performance report.

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

Staff organized the data to estimate fish landings from recreational troll fishery and the fishing tournaments. A total of 13,000 lbs of fish was landed by recreational fishery and tournaments last year. South Bank was the top fishing ground. The FADs were not significant source of fish as department lost deep-water FADs and just replaced 2 FADs in October 2019. Staff worked with Chief of Fisheries to draft the annual performance report.

#### 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 12 active alias that have contributed to the landings from longline, bottomfishing, trolling, mix bottomfishing/trolling and spearfishing activities from October 2019 to December 2019. Throughout this quarter, these vessels have landed a total of 27,766 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 152 fishing trips with fishing effort recorded from 37 interviews.

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.

Seven active fishing vessels caught an estimate of 20,128 pounds of pelagic fish species this quarter which includes longline fishing activities. There are currently 2 vessels that are longlining in the EEZ of American Samoa. The most dominant fish caught was the Albacore tuna (*Thunnus alulunga*) by longline fishing activities. Table 1. Lists the pelagic species caught from alia boats this quarter.

Table 1. Pelagic catches from alia boats throughout October 2019 to December 2019:

Species	Bottomfish	BTM/TRL	Longline	Troll	Total (lbs.)
Albacore tuna	-	_	10,792	-	10,792
Skipjack tuna	-	68	753	4,212	5,033
Bigeye tuna	-	-	1,982	-	1,982
Mahimahi	-	-	497	143	640
Yellowfin tuna	-	-	588	-	588
Blue marlin	-	-	-	463	463
Barracudas	31	-	345	-	376
Wahoo	-	51	-	97	147
Dogtooth tuna	16	19	-	16	51
Kawakawa	28	-	-	-	28
Oilfish	-	-	22	-	22
Rainbow runner	-	5	-	-	5
Total (lbs.)	75	143	14,979	4,931	20,128

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

There were four alias that contributed to the total landings of 5,524 expanded pounds of bottomfish species this quarter. Silverjaw jobfish (*Aphareus rutilans*) was the dominant species caught this reporting period with an estimated 1,506 pounds which accounts for 27% of the bottomfish species caught. The following table lists the ten most common species caught this quarter which accounts for 85% of the total bottomfish species landings.

Table 2. Total bottomfish landings by species/group from October 2019 to December 2019

Common Name	Samoan Name	Scientific Name	Total (lbs.)
Silverjaw jobfish	Palu gutusiliva	Aphareus rutilans	1,506
Humpback snaper	Savane	Lutjanus gibbus	585
Longtail snapper	Palu loa	Etelis coruscans	547
Gray jobfish	Asoama	Aprion virescens	504
Redgill emperor	Filoa pa'oomumu	Lethrinus rubrioperculatus	502
Black jack	Tafauli	Caranx lugubris	326
Spotted grouper	Gatala	Epinephelus maculatus	245
Giant trevally	Ulua	Caranx ignobilis	174
Bluelined snapper	Savane	Lutjanus kasmira	144
Bigeye trevally	Malauli matalapo'a	Caranx sexfasciatus	143
		Others	1,185
		Total (lbs.)	5,524.3

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

There were three alias actively spearfishing this quarter with a recorded catch of 1,949 expanded pounds of nearshore marine species. Normally, there would be one boat a day leaving for spearfishing activities since there were spearfishing activities 4 days a week. There were 11 interviews collected from 60 fishing trips recorded. The most dominant species caught is the Bluelined surgeonfish (*Acanthurus lineatus*) which accounts for 21% of total landing of nearshore fisheries caught. The following table lists the most common species caught this quarter.

Table 3. Total of nearshore fish species landed by boat-based spearfishing activities.

Common Name	Samoan Name	Scientific Name	Total (lbs.)
Bluelined surgeonfish	Alogo	Acanthurus lineatus	410
Fringelip mullet	Agae	Crenimugil crenilabis	205
Japanese parrotfish	Fuga / Laea	Chlorurus japanensis	190
Redlip parrotfish	Fuga / Laea	Chlorurus rubroviolaceus	158
Bluespine unicornfish	Umelei	Naso unicornis	156
Dark-capped parrotfish	Fuga / Laea	Scarus oviceps	106
Lowfin drummer	Gague	Kyphosus cinerascens	76
		Others	647
		Total (lbs.)	1,949

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

- a. There was a Fishermen's meeting on October 16, 2019 to discuss regional agenda items regarding Fisheries Data Collection. This meeting was attended by all of the local fishermen of Tutuila and Manu'a at the Pago Plaza Conference Room. The Director made an emphasis on the need to participate in Fisheries Data Collection efforts by the department for effective management of the territory's fisheries.
- b. "Supporting our local fishermen strengthens our economy" was the theme at the Seafood Vendors Forum held at Famous Seafood on October 17, 2019.

  Presentations by the team included the Local Fisheries Regulations, Importance of Commercial Invoices and Overview of Invoices Collected. Comparative data for the past 2 years allowed vendor representatives to get an idea of the behavioral changes in fish purchases.
- c. Posters on local fish species caught by Spearfishing, Longline, Troll and Bottomfishg were printed. There were 200 English brochures on Local Fisheries Regulations printed and distributed for public distribution. These brochures are also distributed to fishermen during their Regulations briefing when issued a Commercial Fishing License.

#### 5. Fund Enforcement activities related to interjurisdictional fish species.

- a. The department issued 7 commercial fishing licenses for local fishermen this quarter. Three were renewals and the rest were newly issued fishing licenses.
- b. Two days prior to scheduled Commercial Invoice Collection days are dedicated to Vendor Pre-Visits. Vendor Pre-Visit days allow team to train new vendor representatives, enroll newly reported vendors, remind vendors of scheduled invoice collection dates and review of commercial invoices before submission. Commercial Invoice Collection is scheduled on/or before the 16<sup>th</sup> of every month. This quarter, there was one vendor that was closed and was replaced with a newly

- registered business. The team was able to collect commercial invoices from 51 vendors this quarter.
- 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 back to the 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.

#### LEONE RESTORATION GRANT

Funding source: U.S. Fish and Wildlife Service

The DMWR-Leone staff completed this grant on rehabilitating the mangroves and coral reefs in Leone. Staff submitted the final report.

## DATA PORTAL FOR CLIMATE CHANGE VARIABLES IN AMERICAN SAMOA

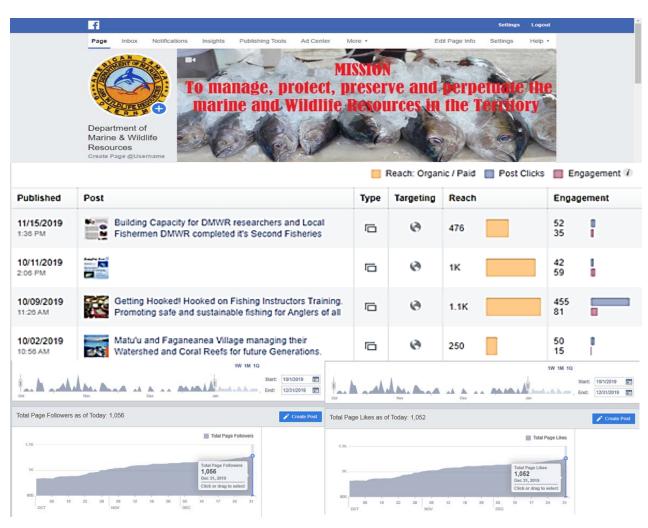
Funding source: U.S. Fish and Wildlife Service

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). Sea surface temperature has a complex relationship with El Nino, an unexpected finding. 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 is being completed.

### AQUATIC INFORMATION AND EXCHANGE DIVISION

Staff maintains DMWR Facebook with minimum of 2 posts per week. Information collection and updates on ongoing studies and programs. Ensure internet connection, computer and staff is available to assist at all times for timely updates and response to request if any.

Status: Facebook Followers - 966 to 1056 – 90 new followers Likes – 963 to 1052 – 89 likes



**Twitter: 3 Following and 5 Followers** 

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### **Instagram: 17 Followers 5 Following**

