

**THE DEPARTMENT OF MARINE AND WILDLIFE RESOURCES**  
**Report to the Western Pacific Regional Fishery Management Council**

*This report briefly describes the activities undertaken by the DMWR-Fisheries for the period July to Sept. 2021.*

**AMERICAN SAMOA SPORTFISH INVESTIGATION AND CONSERVATION PROJECTS**

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

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

Staff has been working with staff of the Coral Reef Advisory group in the field coral reef restoration pilot studies and activities in Aua. The goal is to develop an appropriate coral restoration technique that can be applied to program villages. Staff is also reaching out to Fagamalo to assist in village clean up and assist in Fagaalu activities. Both Fagaalu and Aua are CRAG sites but will eventually be integrated to this program.

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

The Shore-based Creel Survey completed a total of 287 runs, accomplished 87 sampled surveys in Tutuila and Ta’u, Manu’a within 66 Weekdays and 13 Weekend/Holiday for this final quarter. The monitoring team recorded 105 Participation counts and 39 Interview data including opportunistic interviews that calculates an estimate of catch and effort data from July to September. The data accumulates and generates an expansion total that expresses the estimated fish catch landings by gear type of the near shore fishery.

**Note:** COVID-19: Shorebased Creel survey continues to implement every necessary precaution and safety measure to avoid any risk of exposure to Covid-19. In addition, due to unforeseen circumstances the technician placed in Manu’a was on leave from August to September as a result no survey was recorded during that time period.

Below are the results generated from the data collected this last quarter. Total expanded catch increased for this quarter at an estimated 11,677lbs; the total expansion for Gear/Hr totals to 3,825lbs; and the expansion total for Catch/ Gear-Hr is 3.05lbs.

The expanded catch/ effort summary by gear methods:

2021	Spear-Snorkel	Rod and Reel	ThrowNet	Gleaning	GillNetActive	Handline
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July to September	5,651lbs	3,841lbs	1,286lbs	807lbs	60lbs	32lbs
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The catch summary also provides a list of species composition in total landings with pooling. The four dominant species for this quarter are listed below.

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|---|-----------|
| 1. Cone snail/Aliao                                       | 3,445 lbs |
| 2. Groupers/ <i>Serranidae</i> /Gatala                    | 2,007 lbs |
| 3. Octopus/Fe'e   | 973 lbs   |
| 4. Fringelip mullet/ <i>Crenimugil crenilabris</i> / Anae | 951 lbs   |

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

Reef flat and reef slope surveys were scheduled to be conducted in 4<sup>th</sup> quarter however one of the staff divers had an incident. It was advised by DMWR safety officer to put all of the surveys on hold until all of the divers were tested and to be seen by a medical physician for physical fit to be a diver. Project staff have been in contact with Dr. Tuiolosega of Vida clinic and LBJ clinics to conduct blood work, chest xrays, PFT, audiograms and vision screening. Currently staff will be physically examined and have their results reviewed by Dr. Tuiolosega.

The Chief of Fisheries analyzed 10 variable microsatellite markers of the surgeonfish *Acanthurus lineatus* samples collected from Tutuila, Upolu and Savaii. These markers were adopted from other surgeonfishes' population genetic studies. Genetic distance was calculated of all markers and distance data analyzed using population fixation indices and multivariate analyses. Both analyses indicated a single genetic population of *A. lineatus* in the three islands. Staff plans to expand the analyses of samples collected from Manua and Rose Atoll

Staff is coordinating with the Australian Genome Research Facility in developing microsatellite markers for the soldierfish *Myripristis berndti*. A microsatellite discovery project was also conducted and developed species-specific primers for the parrotfish *Scarus rubroviolaceus*. The microsatellite discovery project for *S. rubroviolaceus* developed 18 new microsatellite markers. The data are currently being analyzed.

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

Staff has been assembling FAD C using materials shipped from New Zealand. Staff fabricated a marker buoy. Program lost FADs A and C to vandalism.

Staff also participated in the Manua Flag Day Fishing Tournament. A total of 10 alia boats participated and landed 437 lbs of pelagic fish and 63 lbs of bottomfish. The catch breakdown is indicated below:

<b>Species</b>	<b>Weight ( lbs)</b>	<b># of Fish</b>
<i>Sphyreana barracuda</i>	128.6	19
<i>Acanthocyblum solandri</i>	75	3
<i>Katsuwonus pelamis</i>	63.2	6
<i>Thunnus albacares</i>	59.8	4
<i>Istiophorus platypterus</i>	56.4	1
<i>Gymnosarda unicolor</i>	28.4	4
<i>Elagatis bipinnulatas</i>	11	1
<i>Sphyreana forsteri</i>	10.2	3
<b>Grand Total (wt.)</b>	<b>436.8</b>	

<b>Species</b>	<b># of Fish</b>
<i>Variola alblmarginata</i>	27
<i>Cephalopholis argus</i>	3
<i>Lethrinus rubrioperculatus</i>	3
<i>Aphareus furca</i>	2
<i>Lethrinus xanthochilus</i>	2
<i>Lutjanus rufolineatus</i>	2
<i>Parupeneus cyclostomus</i>	2
<i>Parupeneus multifasciatus</i>	2
<i>Pristipomoides zonatus</i>	2
<i>Caranx melampygus</i>	1
<i>Cephalopholis formosa</i>	1
<i>Eplinephelus coloides</i>	1
<i>Lutjanus bohar</i>	1
<b>Grand Total (#)</b>	<b>91</b>
<b>Grand Total (wt.)</b>	<b>63</b>

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

Chief of Fisheries: (1) assisted the DMWR Director in finalizing and submission of the American Samoa Marine Conservation Plan; (2) organized and coordinated the bottomfish fishermen consultation meetings for Tutuila (Aug. 6) and Manua (Sept. 2); (3) assisted in drafting the American Samoa Territorial Bottomfish Management Plan and Community Development Plan; (4) is working with NOAA-PIRO in reviewing data and developing process for the American Samoa Territorial Coral Reef Fisheries

Management Plan; (5) attended the monthly Coral Reef Fisheries Working Group meeting of the US Coral Reef Task Force; (6) attended the data review meeting organized by NOAA Protected Species Division for the development of the coral critical habitat map; (7) attended the Council’s 141st Science and Statistical Committee Meeting (Sept. 14 to 16); (8) attended the 187<sup>th</sup> Council Meeting (Sept. 21 to 23), (9) the Archipelagic Plan Team meeting on Aug. 16; (10) attended the 17<sup>th</sup> Science Committee Meeting of the Western and Central Pacific Fisheries Commission and related US delegation meetings (Aug. 10 to 17);

## 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 7 active alia that have contributed to the landings from longline, bottomfishing, trolling, mix bottomfishing/trolling and spearfishing activities from July 2021 to September 2021. Throughout this quarter, these vessels have landed a total of 13,218 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 79 fishing trips with fishing effort recorded from 22 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.**

There were two active fishing vessels, out of the eight that have been trolling, that caught an estimate of 8,292 pounds of pelagic fish species this quarter which includes longline fishing activities. The most dominant fish caught was the Skipjack tuna (*Katsuwonus pelamis*). Table 1. Lists the pelagic species caught from alia boats this quarter.

**Table 1. Pelagic catches from alia boats throughout July 2021 to September 2021:**

2021	Longline	Trolling	Total
Skipjack tuna	25.30	4,715.70	4,741.00
Albacore tuna	3,550.90	-	3,550.90
<b>Total</b>	<b>3,576.20</b>	<b>4,715.70</b>	<b>8,291.90</b>

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

Unfortunately, there were no recorded landings for the single vessel that made a trip this reporting period. Therefore, there is no data of bottomfish landings from our local alia fleet.

**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 1,425 expanded pounds of nearshore marine species. Spearfishing activities are conducted 4-5 days a week and includes the weekend. There were 9 interviews collected from 34 fishing trips recorded. The most dominant species caught is the Redlip parrotfish (*Acanthurus lineatus*) which accounts for 22% 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	Scientific Name	Samoan Name	Total (lbs.)
Redlip parrotfish	<i>Scarus rubroviolaceus</i>	Fuga/Laea	312.7
Blue-banded surgeonfish	<i>Acanthurus lineatus</i>	Alogo	163.9
Steephead parrotfish	<i>Chlorurus microrhinos</i>	Fuga/Laea	147.6
Redtail parrotfish	<i>Chlorurus japanensis</i>	Fuga/Laea	135.0
Bluespine unicornfish	<i>Naso unicornis</i>	Ume/Umelei	131.7
Spiny lobster	<i>Panulirus sp.</i>	Ula	127.0
Rudderfish	<i>Kyphosus sp.</i>	Gague	45.4
Dark-capped parrotfish	<i>Scarus oviceps</i>	Fuga/Laea	36.9
Greasy grouper	<i>Epinephelus tauvina</i>	Gatala tane	36.6
Bigeye bream	<i>Monotaxis grandoculis</i>	Filoa matalapo'a	32.5
		Others	256.0
		<b>Total (lbs.)</b>	<b>1,425.3</b>

**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 33 community members.

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

- a. The department issued 10 commercial fishing licenses for local fishermen this quarter. Two were renewals and eight newly issued fishing licenses.
- b. Commercial Invoice Collection is scheduled on/or before the 16<sup>th</sup> of every month. The team was able to collect commercial invoices from 60 vendors this quarter.
- c. The Enforcement Division conducts random checks at 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.