

ORIGINAL : ENGLISH

SOUTH PACIFIC COMMISSION

SEVENTH TECHNICAL MEETING ON FISHERIES
(Nuku'alofa, Tonga, 15 - 19 July 1974)

THE PONAPE CAA DORY PROJECT

by

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Summary

The Ponape CAA Dory Project began in 1971 when Mr R. Barry Fisher from Oregon State University designed the project for Mr Edwel Santos of the Ponape Community Action Agency (CAA). The project was funded by a grant of \$150,000 from the Office of Economic Opportunity (OEO).

First year operations included the training of Mr Tashiro Ludwig, the project's lead fisherman, in Oregon, and the establishment of the CAA dory boat works. 1973 saw the construction and launching of eight dory boats, and eighteen more are planned starting in July, 1974. The first dory, LIMWEHTU, is used as the training boat for fishermen, and for experiments with new fishing gear and methods. The fishermen purchase their boats through a loan agreement with CAA.

The 24'6" dory boat is used for tuna trolling and handlining or spearfishing for reef fish. The boats are equipped with gear for trolling, but only the LIMWEHTU has an electronic fish finder or hydraulic machinery. All boats have a CB radio, and an inboard Ford engine with Hamilton jet pump. The HANATOKY has a bait well and has experimented with live-bait; Ponape Marine Resources will continue work on live-bait fishing on its own dory boat in July 1974.

Daily reports are compiled by the Ponape Fisherman's Cooperative Association where the catch is sold. Reports have not been consistently compiled to date. This has made evaluations of the economic success or failure of the project to date difficult. However, the project does seem to be fulfilling its role of developing fisheries and trained manpower in Ponape. The only major setback to date has been the loss of the MARLIN in April 1974, but the crew was rescued.

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The Ponape Dory Project run by the Ponape Community Action Agency (PCAA) was originated in 1971 when the PCAA hired Mr R. Barry Fisher, Associate Professor of Fisheries, Oregon State University, to plan a fishing programme for Ponape similar to the one he had worked on in American Samoa. Mr Fisher drafted the original proposals for the project and submitted an application for a grant from the Office of Economic Opportunity (OEO), Western Region. OEO granted the Ponape CAA \$150,000 for the project which supplemented additional smaller funds from the Trust Territory of the Pacific Islands government. Mr William Travis, Chief Fishery Officer, Government of Western Samoa, was hired as the Chief Training Technologist because of his involvement with the dory project in Western Samoa. His work as a consultant was limited to 45 days during which he assisted the CAA in the selection, training and evaluation of personnel for this project. The planning session for the project was held at Newport, Oregon on August 24-25, 1972, and this session was attended by Mr Fisher; Mr Travis; Mr Edwel Santos, Executive Director of the Ponape CAA; Mr Elliot Smith and Mr Stan Allen, OEO Field Representatives; Mr Tashiro Ludwig, lead fisherman in the Ponape CAA Dory Project; Mr Tom Duncun, Master Boat-Builder for the project; Mr Vic Ferrington, designer and builder of the dories to be used in Ponape; and Dr Richard Wass, Fisheries Specialist for Ponape Marine Resources. The basic objectives, operational plans, time tables, operational procedures and project designs were formulated at this time.

The objectives of the Ponape CAA Dory Project are to:

1. utilizing local Ponapean boat-builders and mechanics, build, rig and equip Pacific City, Oregon-type dories in the CAA boat shop in Ponape;
2. provide all technical capabilities necessary to build, rig and operate these dories by providing the technical personnel necessary to assure that these dories can be built by Ponapeans without outside assistance;
3. to develop and demonstrate certain fishing techniques in Ponapean waters so that the full potential of the dory can be realized, and to identify the techniques which should be adopted as a starting base for further commercial fishery development in Ponape;
4. to establish an appropriate training programme for local fishermen to ensure that the Ponapean fishermen are adequately trained in the handling of new boats and new fishing gear and methods; and
5. to provide practical ongoing commercial dory fisheries development leading to increasing the economic growth of fisheries in Ponape, and the training of technical personnel to direct this economic growth.

The first year of the project saw the training of Mr Ludwig on dory boats in Oregon, and upon his return to Ponape he began to train other local fishermen in the new fishing methods and boat operation that he had learned in Oregon. Mr Duncan went to Ponape to assist local carpenters and boat mechanics in the initial construction of the boats. All of the Ponapean dories were built in Kolonia, Ponape at the CAA Ponape Dory Works. Mr Fisher has made several trips to Ponape since the project began to provide technical assistance and to evaluate progress and make suggestions for improving the project. In addition, Mr Rumio Silbanuz was chosen as the business manager of the dory project.

Following the first phase of the project consisting of training of personnel and shop set-up, the second phase which began in March, 1973 saw the first fishing trip by one of the new dories. The LIMWEHTU, with Mr Ludwig as captain, as the training boat for the crews of future dories, and for experimentation with new fishing gear and methods. During the next eight months, seven additional dories began fishing in Ponapean waters. The third phase of the programme which will begin in July 1974 with additional funds appropriated by the Congress of Micronesia, will see the construction of eighteen additional dories. Currently plans are under consideration for further fishery development.

The Ponapean dory is 24'6" long over-all and is constructed of mahogany frames 13/16" thick gusseted at the butts, and a bottom frame with two pieces of $\frac{1}{2}$ " thick Grade AA Marine Plywood-frames on 16" centers. The dory uses a Ford model 250 C.I.D. 6 cylinder engine equipped with marine conversion rated at 155 h.p. The engine is fresh water cooled and treated against marine corrosion. The engine is coupled to a 2-stage Hamilton jet pump with an estimated speed of 28 m.p.h. at 4000 R.P.M.'s. The engine inboard design, and the boat's flat bottom, allows the dory to travel in waters which may be too shallow for boats equipped with outboard motors (however, some modifications in the boat's design are under consideration at the present time). The boat uses a 12-volt marine battery with 75 amp hours, and a 38 amp alternator. The gas tank is aluminium and corrosion resistant, and has a 40 gallon capacity; several dories have two gas tanks. Each dory also contains other standard equipment such as a fuel gauge, navigation lights, 23-channel CB radio with 7 foot whip antenna, steel pipe A frame and two 24' long trolling poles rigged and installed, anchor and line, mooring lines, three cleats and bow chock, and an awning for weather protection. Several dories have an additional specialized equipment: for example, the LIMWEHTU has an electronic fish finder and hydraulic lifts for fishing lines, and the HANATOKY has a bait well and platform for fishing with bait.

Each dory is purchased by the fishermen who will operate it by a loan and purchase agreement between the fishermen and the Ponape CAA, and each dory costs about \$5600. Payment is made at a percentage decided and agreed upon by the CAA and the fisherman involved, and it is deducted from the value of the fish landed and sold. The money collected as the result of the purchase of the boats is deposited in the local bank as a revolving fund administered by the CAA until the project becomes self-sustaining; however, this fund may be utilized to expand the existing dory project in addition to grant money.

The fishermen who purchase the dories are chosen by a selection committee on the basis of the person's interest in fishing; ability and eagerness to learn and practice new fishing methods; experience and expertise in local fishing methods, demonstrated willingness and ability to maintain the boats; sense of responsibility; ability to make loan repayments; commitment to full participation in the long range training programme of the project; and other requirements as determined by the selection committee.

The first dory, LIMWEHTU, is owned and operated directly by the CAA. The remaining seven dories are apportioned to Ponape Island, but future dories will also be sold to the other islands in the district. The present fleet of boats, date of launching, owner and his residence are listed below:

LISA	May	1, 1973	Mr Olter Poll	Kolonia, Ponape
HANATOKY	June 22	, 1973	Mr Francisco Paulis	Kapingi Village, Kolonia
* MARLIN	July	3, 1973	Mr Boaz Poll	Metalanim, Ponape
LUCK	Aug.	1, 1973	Mr Kohle Luhk	Kitti, Ponape
MARDA	Aug.	1, 1973	Mr Elter Samuel	Uh, Ponape
SEA QUEEN	Oct.	18, 1973	Mr Ukoliho Rosario	Sokehs, Ponape
SUAHNA	Nov.	23, 1973	Mr Ioanis Pardoloum	Net, Ponape

Additional dory boats are expected to be launched at the rate of one per month commencing in July 1974.

At the present time, fishing methods consist of trolling for tuna, handlining for bottom water reef fish and spearfishing for shallow water reef fish. However, plans call for the introduction and experimentation of fishing with live-bait, deep-water pelagic fishing and the use of specialized gear. Preliminary fishing experiments with live-bait were conducted on the HANATOKY in June, 1973, but they have not been continued. However, Ponape Marine Resources, with the help of its Peace Corps Volunteer, Mr Michael Perez, is conducting a bait survey in Ponape at the present time, and it plans to experiment with live-bait fishing techniques on its own dory boat which it will acquire in July 1974.

Fishermen usually fish in the offshore waters around Ponape, and Ant and Pakir Atolls. Fishermen rarely take their dory more than 20 miles from Ponape. Trolling occurs during the day, and generally during the afternoon hours. Handlining and spearfishing may be employed by the fishermen at any time of day or night, but the dories do not generally fish at night.

* The original owner of the MARLIN was Mr Peter Poll who died in Sept. 1973. His brother, Mr Boaz Poll, assumed the responsibilities as owner of the boat. The MARLIN drifted at sea in March 1974, and was rescued in April 1974. The boat was scuttled by the Guam Coast Guard after the crew was rescued.

The attached monthly summaries of fishing by each dory are based upon daily reports of fishing trips by each dory boat. These reports are compiled by the Ponape Fisherman's Cooperative Association which is where the dory fishermen sell their catch. The fishing co-op often failed to fill out the daily reports completely, or failed to submit any reports for a dory, especially during July-Sept. 1973. To obtain a reasonable estimate of the catch and its value per fishing trip, the former fisheries specialist of Ponape Marine Resources, Dr Richard Mass, obtained the daily receipts issued by the fishing co-op to the fishermen for their catch during the months from June to September. Although this latter source of data is also incomplete, it is better than no source at all, and it still gives a fairly reasonable picture of what fishing was like during this period. Since September, the co-op has been generally consistent in completing reports. The CAA compiled the early reports from March and April of 1973, but the CAA was just as inconsistent as the fishing co-op in filling them out, and since May 1973 it has submitted no reports to Ponape Marine Resources.

There have been many occasions when fishermen have gone fishing, but have either caught no fish or they did not sell their catch to the co-op. For several months in the Fall of 1973, the fishing co-op refused to buy fish because it could not store it in the reef. Often, this unsold catch was unrecorded. Therefore, it should be kept in mind that the data listed in these summaries for total catch in lbs. are often underestimates. The "Total Value of Catch" refers to the total amount of money paid to the fishermen for that portion of their catch which the co-op buys. Generally, the weight of fish actually sold is less than the weight of fish caught; fish not sold are considered valueless. This statistic is the only available indicator of the status of the fishing industry in economical terms.

All fish sold by the co-op have been placed into two broad categories. "Tuna" includes skipjack, yellowfin, wahoo, marlin, dolphin, rainbow runner, dogtooth-tuna and any other fish generally caught by trolling in offshore waters. Fishermen sold all of the above fish for 25 ¢/lb. during March and April 1973; for 30 ¢/lb. from June 1973 to Feb. 8, 1974; and for 35 ¢/lb. after Feb. 8, 1974. "Reef Fish" includes groupers, snappers, parrotfish, jacks and other fish caught by either handlining over the bottom or by spearfishing on the reef. With the exception of the jacks, which sell for the same price as tuna, fishermen sold reef fish for 19 ¢/lb. before Dec. 19, 1973, for 25 ¢/lb. from Dec. 19, 1973 to Feb. 8, 1974, and for 30 ¢/lb. after Feb. 8, 1974. No records of sales of other marine organisms, such as turtles, crabs, lobster, octopus, etc. by the dorries have been maintained by the co-op; hence only fish sales are reported.

No attempt has been made to mention which portion of the catch sold to the co-op was resold by the co-op to its customers or exported. It would be extremely difficult to obtain this information because the co-op sells all fish caught by any boat as coming from the same catch source.

The "Total ~~per~~ Fishing Trips" refers to the total number of trips made by a dory each month, and the number of tuna and reef fish fishing trips do not necessarily add up to this value because a dory often fishes for both tuna and reef fish on the same trip. It is impossible to determine the actual expenses/trip for fuel, ice, fishing gear or boat maintenance and repairs because adequate records have not been maintained. For purposes of determining the net return from the catch per trip, only estimates of expenses for fuel and ice have been made. The estimated cost for an average fishing trip by a dory using 40 gals. of gasoline, one quart of oil and 150 lbs. of ice (at \$1.00/100 lbs.) were \$15.50 for the months of March to August 1973; \$17.50 during Sept. and Oct. 1973; and \$25.50 for the months since October. It is quite likely that any one of the eight boats had different expenses per trip. However, these figures do give a fair estimate of the net return and value of catch per fisherman after expenses; yet these calculations do not reflect costs for boat maintenance or repairs, and the net value per fisherman or boat listed in this report should not be considered the actual return. Occasionally this report shows a loss of money per month by a dory, but this may be a statistical error. It should also be noted that the MARLIN, the LUCK and the SEA QUEEN probably lost money the months they were repaired, and hence had zero number of fishing trips. The CAA failed to provide information concerning the activities of the LIMWEHTU, and hence this report shows that dory has having not fished for several months. This is only for comparison purposes because the LIMWEHTU's fishermen are paid for their time by the CAA and do not make their sole income from the fish catch as the fishermen on the other dories do.

The project suffered its greatest problem to date when the MARLIN disappeared on March 16, 1974. The boat drifted to sea because a bearing in the engine came loose, and the crew of four was unable to radio for help. They were rescued near Guam on April 12, 1974. The Coast Guard considered the boat a navigational hazard, and sank the boat because it was unable to tow it to shore.

Fig. 1 shows that the estimated net return from fishing was not always consistent with the fishing effort, and peak values occurred in the summer months with lower values in the winter. Although the catch is influenced by the fishing effort, there may have been a greater effect caused by changes in the fish populations seasonally; but this is undeterminable. Fig. 2 shows that the tuna catch contributes the most value to the net return to the fisherman, and that reef fish is not a significantly important source of revenue to the dory fishermen. The tuna catch sold seems to correspond with the fishing effort, but the tables and figures should be examined with caution because no real determination of the effect of fishing effort and intensity on the catch can be made from the sparse information supplied in daily reports to date. For this reason, it is extremely difficult to interpret the economic success or failure of this project at this time, but plans are being made to improve statistical reports in the future.

The Ponape Dory Project is the first step in Ponape's overall fishery plans. Other projects planned include new shoreside facilities for the dories, new reefer facilities, new ice-making plants, boat slipways and repair yards, new facilities for Ponape Marine Resources, and a new fishery dock complex to handle large fishing vessels. Although these growth plans are longrange, many of these projects have been started, and 1980 should see a thriving fishing industry in Ponape.

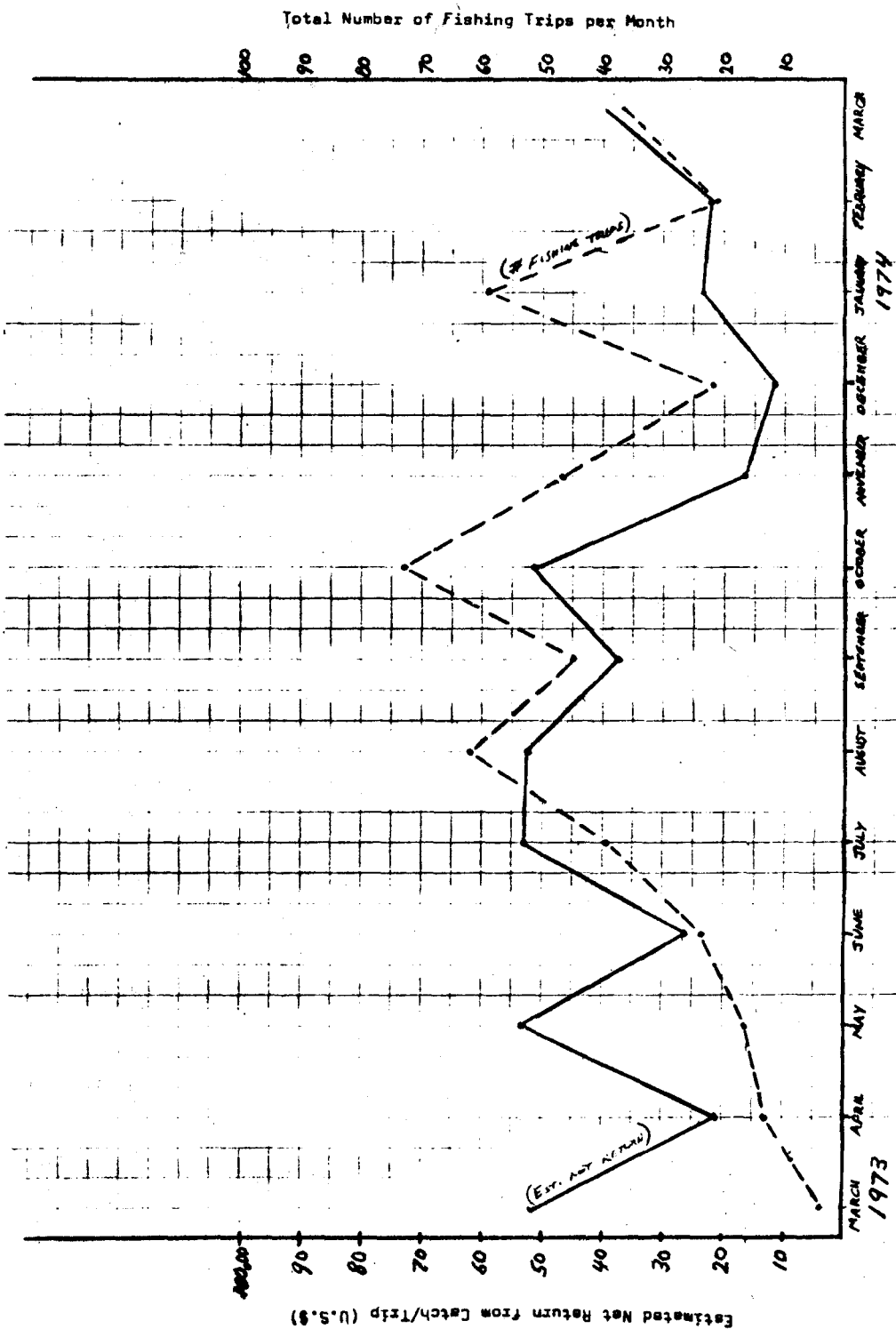


Figure 1. The estimated net return in dollars (U.S.) from catch sales per trip is plotted monthly for the average dory boat. The total number of fishing trips (all types) made by all dory boats for each month is also plotted above.

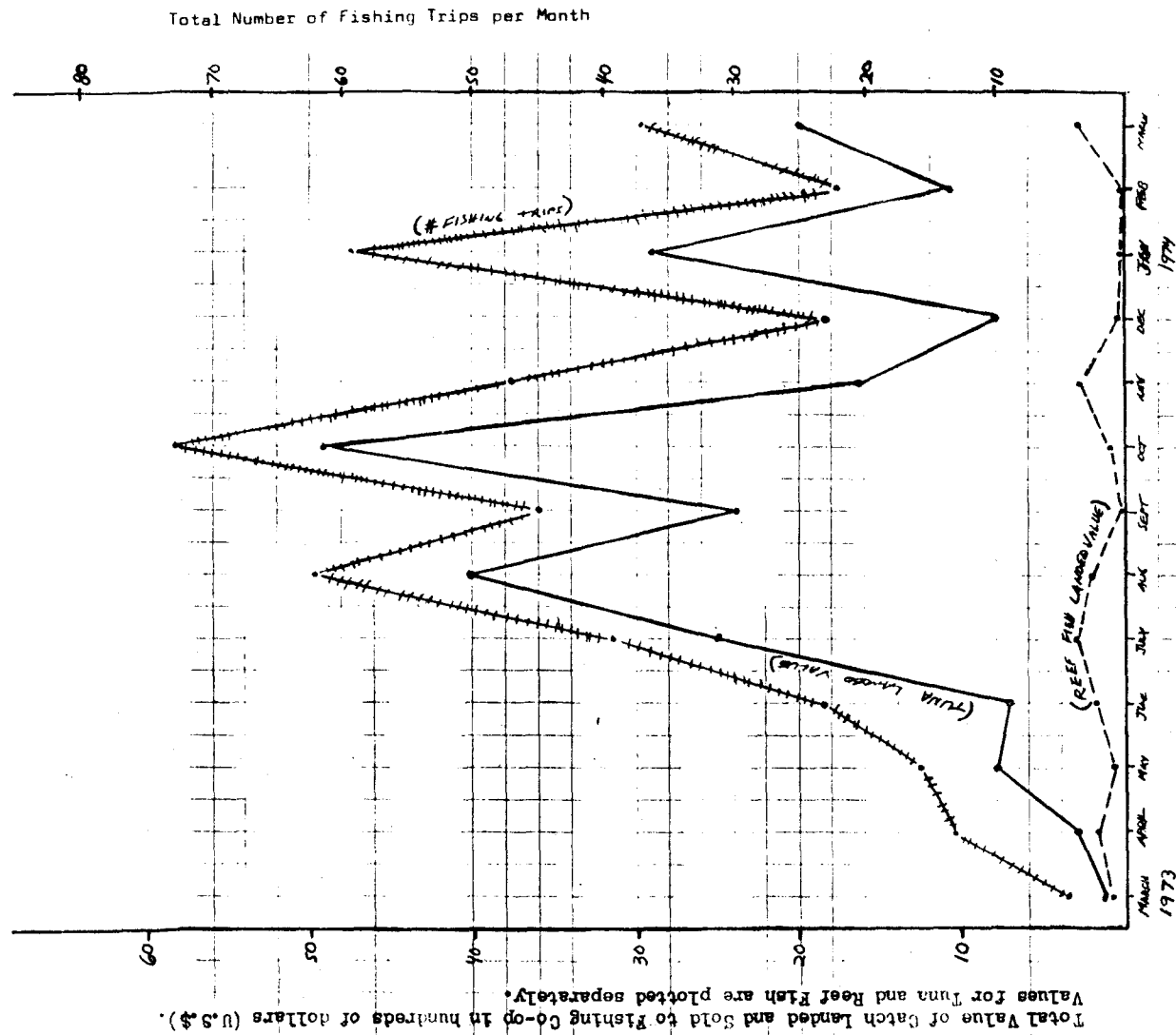


Figure 2. The value of fish landed and sold to the fishing co-op for both tuna and reef fish are plotted above. This value is determined from the total catch sold by all dory boats. The total number of fishing trips (all types) made by all dory boats for each month is also plotted above.

Ponape Dory Catch Data -- Monthly Summary

MARCH 1973

	PCAA LIMIENTU
Total # Fishing Trips	4
Avg. # Fishing Trips/Week	0.9
Total # Tuna Fishing Trips	4
Total Lbs. Tuna Catch	710
Avg. Catch (Lbs.)/Tuna Fishing Trip	77.5
Total # Reef Fish Fishing Trips	2
Total Lbs. Reef Fish Catch	491
Avg. Catch (Lbs.)/Reef Fish Fishing Trip	245.5
Total Value of Catch	270.79
Avg. Value of Catch/Trip	67.69
Estimated Monthly Expenses	62.00
Estimated Net Return from Catch/Trip	52.19

Ponape Dory Catch Data -- Monthly Summary

APRIL 1973

	PCAA LIMBINTU
Total # Fishing Trips	13
Avg. # Fishing Trips/Week	3.0
Total # Tuna Fishing Trips	12
Total Lbs. Tuna Catch	1344
Avg. Catch (Lbs.)/Tuna Fish. Trip	112.0
Total # Reef Fish Fishing Trips	3
Total Lbs. Reef Fish Catch	984
Avg. Catch (Lbs.)/Reef Fish Trip	328
Total Value of Catch	497.51
Avg. Value of Catch/Trip	38.27
Estimated Monthly Expenses	201.50
Est. Net Return from Catch/Trip	22.77
Total # Fishermen (All Trips)	43
Avg. # Fishermen/Trip	3
Value of Catch/Fishermen/Trip	6.90
Value of Catch/Fishermen/Month	89.70

Ponape Dory Catch Data -- Monthly Summary

MAY 1973

	LISA	PCAA LIMWEHTU	TOTAL
Total # Fishing Trips	13	3	16
Avg. # Fishing Trips/Week	2.9	0.7	3.6
Total # Tuna Fishing Trips	13	3	16
Total Lbs. Tuna Catch	2955	171	3126
Avg. Catch (Lbs.)/Tuna Fish. Trip	227.3	57.0	195.4
Total # Reef Fish Fishing Trips	0	1	1
Total Lbs. Reef Fish Catch	-	99	99
Avg. Catch (Lbs.)/Reef Fish Trip	-	99.0	99.0
Total Value of Catch	795.60	70.11	865.71
Avg. Value of Catch/Trip	61.20	23.37	54.11
Estimated Monthly Expenses	201.50	46.00	247.50
Est. Net Return from Catch/Trip	45.70	7.37	53.57
Total # Fishermen (All Trips)	43	9	52
Avg. # Fishermen/Trip	3	3	3
Value of catch/Fishermen/Trip	13.81	2.62	16.48
Value of Catch/Fishermen/Month	179.53	7.87	263.63

The LISA began fishing operations May 1. This is the first privately owned dory boat in Ponape.

Ponape Dory Catch Data -- Monthly Summary

JUNE 1973

	LISA	HANATOKY	FOAA LIMWENTU	TOTAL
Total # Fishing Trips	14	6	3	23
Avg. # Fishing Trips/Week	3.3	1.4	0.7	5.4
Total # Tuna Fishing Trips	13	5	3	21
Total Lbs. Tuna Catch	1799	1360	116	3275
Avg. Catch (Lbs.)/Tuna Fish. Trip	138.4	272.0	38.7	156.0
Total # Reef Fish Fishing Trips	1	1	2	4
Total Lbs. Reef Fish Catch	277	146	131	554.0
Avg. Catch (Lbs.)/Reef Fish Trip	277.0	146.0	215.5	213.5
Total Value of Catch	524.36	320.64	104.54	967.54
Avg. Value of Catch/Trip	57.45	53.44	34.85	42.07
Estimated Monthly Expenses	217.00	93.00	46.50	356.50
Est. Net Return from Catch/Trip	21.95	37.94	19.35	26.57
Total # Fishermen (All Trips)	43	11	10	64
Avg. # Fishermen/Trip	3	2	3	3
Value of Catch/Fishermen/Trip	7.15	20.73	5.86	9.56
Value of Catch/Fishermen/Month	100.10	124.38	17.58	-

The HANATOKY began fishing on June 28.

Ponape Dory Catch Data -- Monthly Summary

JULY 1973

	LISA	HANATOKY	MARLIN	PCAA LIMAKUTU	TOTAL
Total # Fishing Trips	14	13	12	0	39
Avg. # Fishing Trips/Week	3.2	2.9	2.7	-	2.8
Total # Tuna Fishing Trips	13	9	11	-	33
Total Lbs. Tuna Catch	2620	2242	3546	-	8408
Avg. Catch (Lbs.)/Tuna Fish. Trip	201.5	249.1	322.4	-	254.8
Total # Reef Fish Fishing Trips	3	5	2	-	10
Total Lbs. Reef Fish Catch	300	854	472	-	1626
Avg. Catch (Lbs.)/Reef Fish Trip	100.0	170.8	236.0	-	162.6
Total Value of Catch	849.17	828.94	1146.46	-	2824.57
Avg. Value of Catch/Trip	60.66	63.76	95.54	-	72.42
Estimated Monthly Expenses	217.00	202.80	186.00	-	605.80
Est. Net Return from Catch/Trip	45.16	48.26	80.04	-	56.92

The MARLIN began fishing operations on July 4.

Data reports are incomplete for this month; hence it is impossible to compute the average # fishermen/trip or value of catch/fisherman/trip. The above statistics are based on catch receipts from sales to the Ponape Fisherman's Cooperative Association.

Ponape Dory Catch Data -- Monthly Summary

AUGUST 1973

	LISA	HANATOKY	MARLIN	LUCK	FOAA LIMWEHTU	TOTAL
Total # Fishing Trips	18	12	9	23	0	62
Avg. # Fishing Trips/Week	4.1	2.7	2.0	5.2	-	14.0
Total # Tuna Fishing Trips	18	12	9	23	-	62
Total Lbs. Tuna Catch	3057	2273	1762	6669	-	13761
Avg. Catch (Lbs.)/Tuna Fish. Trip	169.8	189.4	195.8	290.0	-	222.0
Total # Reef Fish Fishing Trips	0	0	1	5	-	6
Total Lbs. Reef Fish Catch	-	-	75	498	-	573
Avg. Catch (Lbs.)/Reef Fish Trip	-	-	75	99.6	-	95.5
Total Value of Catch	914.10	681.90	543.04	2095.32	-	4234.36
Avg. Value of Catch/Trip	50.78	56.82	60.33	91.10	-	68.30
Estimated Monthly Expenses	279.00	186.00	139.50	356.50	-	961.00
Est. Net Return from Catch/Trip	35.28	41.32	44.83	75.60	-	12.80

The LUCK began fishing operations on Aug. 1.

Data reports are incomplete for this month; hence it is impossible to compute the average # fishermen/trip or value of catch/fishermen/trip. The above statistics are based on catch receipts from sales to the Ponape Fisherman's Cooperative Association.

Ponape Dory Catch Data -- Monthly Summary

SEPTEMBER 1973

	LISA	HANATOKY	MARLIN	LUCK	MARDA	PCAA LIMWENTU	TOTAL
Total # Fishing Trips	13	6	8	8	10	0	45
Avg. # Fishing Trips/Week	3.0	1.4	1.9	1.9	2.3	-	10.5
Total # Tuna Fishing Trips	13	6	8	8	10	-	45
Total Lbs. Tuna Catch	2448	367	1568	2357	1571	-	8311
Avg. Catch (Lbs.)/Tuna Fish. Trip	188.3	61.2	196.0	294.6	157.1	-	184.7
Total # Reef Fish Fishing Trips	0	0	2	1	0	-	3
Total Lbs. Reef Fish Catch	-	-	89	29	-	-	118
Avg. Catch (Lbs.)/Reef Fish Trip	-	-	44.5	29.0	-	-	39.3
Total Value of Catch	734.40	104.70	482.53	712.61	461.40	-	2495.64
Avg. Value of Catch/ Trip	56.49	17.45	60.32	89.08	46.14	-	55.46
Estimated Monthly Expenses	227.50	105.00	140.00	140.00	175.00	-	787.50
Est. Net Return from Catch/Trip	38.99	0 *	42.82	71.58	28.64	-	37.96

* HANATOKY spent 5¢ more on fuel and ice than it received from catch sales, but this loss is probably a statistical error.

The MARDA began fishing operations at the beginning of September.

Data reports are incomplete for this month; hence it is impossible to compute the average # fishermen per trip or value of catch/fisherman/trip.

Pompe Dory Catch Data -- Monthly Summary

OCTOBER 1973

	USA	HAWAII	MAUI	LUCK	MAUI	SEA QUEEN	LUCK	TOTAL
1. # Fishing Trips	16	11	13	10	15	8	0	73
2. # Fishing Trips/Week	3.6	2.5	2.9	2.3	3.4	1.8	-	16.48
3. # Tuna Fishing Trips	16	11	13	10	15	8	-	73
4. # Tuna Catch	3042	1115	052	3047	3393	3363	-	17312
5. Catch (lbs.)/Tuna Fish. Trip	190.1	128.7	231.8	304.7	226.2	420.4	-	237.2
6. # Reef Fish Fishing Trips	0	4	1	1	0	0	-	6
7. # Reef Fish Catch	-	581	20	112	-	-	-	721
8. Catch (lbs.)/Reef Fish Trip	-	145.3	20.0	112.0	-	-	-	120.2
9. Value of Catch	827.70	482.49	875.92	878.68	975.00	998.40	-	5038.09
10. Value of Catch/Trip	51.73	43.86	67.38	87.86	65.00	124.80	-	69.01
11. Net Return from Catch/Trip	280.00	192.50	227.50	175.00	132.50	140.00	-	1277.50
12. Net Return from Catch/Trip	34.23	26.36	49.88	70.36	17.50	107.30	-	51.51
13. # Fishermen (All Trips)	40	41	38	33	32	22	-	206
14. # Fishermen/Trip	3	4	3	3	2	3	-	3
15. Value of Catch/Fisherman/Trip	13.69	7.08	17.08	21.32	22.30	38.02	-	18.27
16. Value of Catch/Fisherman/Month	219.07	77.95	222.07	213.21	34.51	312.14	-	-

The SEA QUEEN began fishing operations on Oct. 9.

Ponape Dory Catch Data -- Monthly Summary

NOVEMBER 1973

	LISA	HANATOKY	MARLIN	LUCK	MARDA	SEA QUEEN	SUAHNA	ICAA LAKEVENTU	TOTAL
total # Fishing Trips	6	4	8	7	2	13	7	0	47
avg. # Fishing Trips/Week	1.4	0.9	1.9	1.6	0.7	3.0	1.6	-	11.0
total # Tuna Fishing Trips	6	4	8	7	2	11	3	-	41
total Lbs. Tuna Catch	1018	396	1089	1581	699	951	131	-	5865
avg. Catch (lbs.)/Tuna Fish. Trip	169.7	99	136.1	225.9	349.5	86.5	43.7	-	143.1
total # Reef Fish Fishing Trips	0	1	0	0	0	10	5	-	16
total Lbs. Reef Fish Catch	-	19	-	-	-	952	387	-	1358
avg. Catch (lbs.)/Reef Fish Trip	-	19.0	-	-	-	95.2	77.4	-	84.9
total Value of Catch	284.10	121.51	309.60	461.70	207.30	457.79	122.50	-	1964.50
avg. Value of Catch/Trip	47.35	30.38	38.70	65.96	103.65	35.21	17.50	-	41.80
estimated Monthly Expenses	153.00	102.00	204.00	178.50	51.00	331.50	178.50	-	1198.50
Net Return from Catch/Trip	21.85	4.88	13.20	40.46	78.15	9.71	0 *	-	16.30
total # Fishermen (All Trips)	15	11	22	26	4	41	19	-	138
avg. # Fishermen/Trip	3	3	3	4	2	3	3	-	3
Value of Catch/Fishermen/Trip	8.74	1.77	4.80	10.91	39.08	3.08	0 *	-	5.54
Value of Catch/Fishermen/Month	52.44	7.08	38.40	76.37	78.16	40.04	-	-	-

* SUAHNA spent more money on fuel and ice than it received from catch sales, but this was its first month of fishing (fishing began on Nov. 24). It spent \$8.00 more on expenses than receipts or a loss of \$1.14 per fishing trip, however, because this was its first month of operation the loss listed above may be more statistical than actual.

Ponape Dory Catch Data -- Monthly Summary

DECEMBER 1973

	LISA	HANATOKY	MARLIN	LUCK	MANDA	SIA QUEEN	SUAHNA	FOHA LIMANU	TOTAL
total # Fishing Trips	4	2	0	0	1	1	14	1	23
avg. # Fishing Trips/Week	0.9	0.5	-	-	0.2	0.2	3.2	0.2	5.2
total # Tuna Fishing Trips	4	2	-	-	1	0	14	1	22
total lbs. Tuna Catch	538	89	-	-	188.	-	1863	470	3148
avg. Catch (lbs.)/Tuna Fish. Trip	134.5	44.5	-	-	188.0	-	133.1	470.0	143.1
total # Reef Fish Fishing Trips	0	0	-	-	0	1	2	0	3
total lbs. Reef Fish Catch	-	-	-	-	-	181	74	-	255
avg. Catch (lbs.)/Reef Fish Trip	-	-	-	-	-	181	37	-	85
total Value of Catch	155.40	24.30	-	-	51.30	41.98	554.00	51.00	877.98
avg. Value of Catch/Trip	38.85	12.15	-	-	51.30	41.98	39.57	51.00	38.17
estimated Monthly Expenses	102.00	51.00	-	-	25.50	26.50	357.00	25.50	586.50
net Return from Catch/Trip	13.35	0 *	-	-	25.80	16.48	14.07	25.50	12.67
total # Fishermen (All Trips)	12	4	-	-	3	2	37	4	62
avg. # Fishermen/Trip	3	2	-	-	3	2	2	4	3
lbs. of Catch/Fishermen/Trip	4.45	0 *	-	-	8.60	8.24	6.83	6.38	4.69
lbs. of Catch/Fishermen/Month	17.80	-	-	-	8.60	8.24	95.62	6.38	-

* HANATOKY spent more on fuel and ice than it received from catch sales.

It spent \$26.70 more on expenses than receipts or a loss of \$13.35 per fishing trip.

Ponape Dory Catch Data -- Monthly Summary

JANUARY 1974

	LISA	HANATOKY	MARLIN	LUCK	MARDA	SEA QUEEN	SUAHNA	PCAA LIMWEHTU	TOTAL
Total # Fishing Trips	13	5	0	7	7	6	20	1	59
Avg. # Fishing Trips/Week	2.9	1.1	-	1.6	1.6	1.4	4.5	0.1	13.3
Total # Tuna Fishing Trips	13	5	-	7	7	6	20	1	59
Total Lbs. Tuna Catch	2131	478	-	1868	822	1213	3582	41	10136
Avg. Catch (Lbs.)/Tuna Fish. Trip	164.0	95.6	-	266.9	117.4	202.2	179.1	41	171.8
Total # Reef Fish Fishing Trips	0	0	-	0	0	1	0	0	1
Total Lbs. Reef Fish Catch	-	-	-	-	-	42	-	-	42
Avg. Catch (Lbs.)/Reef Fish Trip	-	-	-	-	-	42	-	-	42
Total Value of Catch	614.70	131.10	-	549.60	233.10	356.40	1020.90	12.30	2918.10
Avg. Value of Catch/Trip	47.28	26.22	-	78.51	33.30	59.40	51.05	12.30	49.46
Estimated Monthly Expenses	331.50	127.50	-	178.50	178.50	153.00	510.00	25.50	1504.50
Net Return from Catch/Trip	21.78	0.72	-	53.01	7.80	3.90	25.55	0 *	23.96
Total Fishermen (All Trips)	34	10	-	18	18	18	69	3	170
Avg. Fishermen/Trip	3	2	-	3	3	3	3.45	3	3
Due of Catch/Fishermen/Trip	8.31	0.36	-	20.63	3.04	11.30	7.41	0 *	8.30
Due of Catch/Fishermen/Month	108.03	1.80	-	144.41	21.28	67.80	148.20	-	-

* LIMWEHTU spent more on fuel and ice than it received from catch sales, however unlike the other dories it is subsidized by the PCAA. It spent \$13.20 more on expenses than it received from its fishing trip.

Ponape Dory Catch Data -- Monthly Summary

FEBRUARY 1974

	LISA	HANATOKY	MARLIN	LUCK	MARDA	SEA QUEEN	SUAHNA	PCAA LIMWEHTU	TOTAL
total # Fishing Trips	9	4	1	0	3	0	5	0	22
g. # Fishing Trips/Week	2.3	1.0	0.3	-	0.8	-	1.3	-	5.5
total # Tuna Fishing Trips	9	4	1	-	3	-	5	-	22
total Lbs. Tuna Catch	1396	252	119	-	306	-	1200	-	3273
g. Catch (Lbs.)/Tuna Fish. Trip	155.1	63.0	119.0	-	102.0	-	240.0	-	148.8
total # Reef Fish Fishing Trips	0	0	0	-	0	-	0	-	0
total Lbs. Reef Fish Catch	-	-	-	-	-	-	-	-	-
g. Catch (Lbs.)/Reef Fish Trip	-	-	-	-	-	-	-	-	-
total Value of Catch	461.10	69.10	41.65	-	105.10	-	400.00	-	1076.95
g. Value of Catch/Trip	51.23	17.28	41.65	-	35.03	-	80.00	-	48.95
estimated Monthly Expenses	229.50	102.00	25.50	-	76.50	-	127.50	-	561.00
Net Return from Catch/Trip	25.73	0 *	16.15	-	9.53	-	54.50	-	23.45
total # Fishermen (All Trips)	26	13	3	-	6	-	13	-	61
g. # Fishermen/Trip	3	3	3	-	2	-	3	-	3.
Value of Catch/Fishermen/Trip	8.90	0 *	5.38	-	4.77	-	20.96	-	7.82
Value of Catch/Fishermen/Month	80.10	-	5.38	-	14.31	-	104.80	-	-

* HANATOKY spent more on fuel and ice than it received from catch sales.
It spent \$32.90 more on expenses than receipts or a loss of \$8.22 per fishing trip.

Pouape Dory Catch Data -- Monthly Summary

MARCH 1974

	LICA	HAMATOKY	MARLIN	LUCK	HARDY	SEA QUEEN	SUANA	POCA LIMBERTU	TOTAL
1. # Fishing Trips	5	3	3	1	9	4	12	0	37
2. # Fishing Trips/Week	1.1	0.7	0.7	0.1	2.0	0.9	2.7	-	8.4
3. # Tuna Fishing Trips	5	3	3	1	9	2	10	-	33
4. Lbs. Tuna Catch	697	330	722	648	1299	175	1685	-	5806
5. Catch (lbs.)/Tuna Fish. Trip	139.4	110.0	240.7	648.0	144.3	212.5	168.5	-	175.9
6. # Reef Fish Fishing Trips	0	2	0	0	1	2	4	-	9
7. Lbs. Reef Fish Catch	-	195	-	-	129	457	604	-	1421
8. Catch (lbs.)/Reef Fish Trip	-	97.5	-	-	129.0	228.5	160.0	-	157.9
9. Value of Catch	238.70	174.09	252.70	226.80	493.35	290.60	725.05	-	2401.19
10. Value of Catch/Trip	47.74	58.03	84.23	226.80	54.82	72.65	60.42	-	64.90
11. Net Return Monthly Expenses	127.50	76.50	70.50	25.50	229.50	102.00	306.00	-	936.00
12. Net Return from Catch/Trip	22.04	32.53	58.73	201.30	29.32	47.15	34.92	-	39.40
13. # Fishermen (All Trips)	12	9	7	3	21	13	43	-	108
14. # Fishermen/Trip	2	3	2	3	2	3	4	-	3
15. Value of Catch/Fisherman/Trip	9.48	10.84	25.21	67.10	12.50	24.51	9.75	-	13.49
16. Value of Catch/Fishermen/Month	45.90	32.52	75.63	67.10	113.22	58.04	117.00	-	-