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REPORT

OF THE

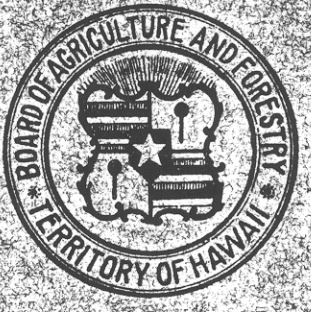
Board of Commissioners of Agriculture and Forestry

OF THE

TERRITORY OF HAWAII

FOR THE

Biennial Period Ended December 31, 1934



DIVISION OF FISH AND GAME

REPORT OF THE DIRECTOR

February 12, 1935.

Board of Commissioners of Agriculture and Forestry,
Honolulu, T. H.

Gentlemen:

I have the honor to submit for your consideration a report of the major activities of the Division of Fish and Game for the biennium ending December 31, 1934.

Charged with the responsibility of fostering the fish and game of the Territory, this department has endeavored to enforce the laws with strictness and impartiality; introduce new species when this was deemed advisable, issue licenses, collect moneys and gather statistics to aid in the framing of new laws.

LICENSES AND STATISTICS

The total licenses issued and moneys collected for the years ending June 30, 1933, and June, 30, 1934, and for the six months ending December 31, 1934, are as follows:

COMMERCIAL FISHING

	June 30, 1933		June 30, 1934		Dec. 31, 1934	
Citizens	499	.....	710	.....	532	.....
Aliens	615	$ 3,075.00	597	$ 2,985.00	455	$ 2,275.00
Alien Employers	877	4,385.00	798	3,970.00	651	3,255.00
Sampans	455	3,673.50	528	4,012.00	477	3,663.00
Rowboats	521	521.00	381	381.00	353	353.00
Night Angling	399	1,995.00	356	1,780.00	376	1,880.00
Throw Nets	82	820.00	58	580.00	51	510.00
Mullet	91	455.00	127	635.00	103	515.00
		$14,924.50		$14,343.00		$12,451.00
Boat Numbers		488.00		453.50		415.00
License Tags		247.00		252.20		206.40
Sale of Fish		200.00		175.00		75.00
Sale of Law Books		.....		23.65		8.70
		$15,859.50		$15,247.35		$13,156.10

The license money deposited with the various County Treasurers for June 30, 1933, is as follows:

City and County of Honolulu	$ 7,897.25
County of Kauai	1,714.25
County of Maui	2,442.75
County of Hawaii	2,870.25
	$14,924.50

Receipts for boat numbers and tags for year ending June 30, 1933	$ 935.00
Deposited with the Territorial Treasurer in accordance with Act 174, S. L. 1933—June 30, 1934	15,247.35
Deposited with the Territorial Treasurer in accordance with Act 174, S. L. 1933—Dec. 31, 1934	13,156.10
	$29,338.45

Varieties, weights and prices of fish caught and sold by fishermen for years ending June 30, 1933; and June 30, 1934:

	1933		1934	
Kind of Fish	Weight	Value	Weight	Value
Ahi for market	1,598,094	$124,464.10	1,783,065	$128,363.00
Ahi for cannery	435,388	18,806.60	156,004	4,618.05
Aku for market	2,892,120	133,148.70	2,981,727	141,542.85
Aku for cannery	2,669,255	53,637.85	4,942,486	113,761.30
Akule	427,523	56,916.75	299,513	45,260.80
Au	741,407	52,207.65	732,480	51,807.90
Hahalalu	58,090	8,114.30	195,030	21,257.25
Hapuupuu	48,039	7,020.85	60,872	7,726.35
Kahala	142,622	15,360.90	87,707	10,279.85
Kawakawa	8,876	899.75	26,743	1,909.00
Mahimahi	207,049	16,665.90	312,750	21,240.25
Moi	9,223	2,299.00	17,269	4,402.55
Mullet sold by companies	115,241	22,224.35	136,661	25,375.55
Mullet sold by dealers	66,040	11,422.45	94,710	17,994.90
Mullet sold by pond-men	37,636	9,081.20	47,402	9,009.10
Misc. sold by companies	863,981	120,393.75	701,101	104,134.20
Misc. sold by companies	.....	1,221.75	.....	2,866.65
Misc. sold by individuals	47,461	6,742.30	34,195	6,155.10
Misc. sold by pond-men	20,092	3,242.45	42,127	7,713.25
Misc. for cannery	42,714	1,296.15	58,242	1,720.30
Oio	41,535	7,753.85	70,150	12,810.35
Ono	81,557	6,387.65	37,936	5,906.35
Opakapaka	117,008	17,562.75	105,196	17,625.70
Opelu	321,770	31,184.00	216,337	20,944.25
Uku	98,930	13,662.00	121,061	17,707.10
Ula	35,468	7,566.85	30,641	7,491.70
Ulaula	38,306	7,956.40	48,590	10,052.20
Ulua	131,015	16,468.50	128,676	15,658.50
Weke	96,130	18,648.35	136,529	26,549.10
Total	11,392,570	$792,357.10	13,605,180	$861,883.45

Kinds and value of gears used for the years ending June 30, 1933, and June 30, 1934:

	1933		1934	
Items	No.	Value	No.	Value
Akule nets	86	$ 5,164.00	40	$ 2,100.00
Canoes	104	1,220.00	72	1,522.00
Crab nets	188	89.00	162	59.00
Drag nets	23	5,715.00	10	1,250.00
Gill nets	1,951	39,159.00	1,672	33,893.00
Hand lines	3,570	20,410.00	3,280	20,953.00
Hand nets	2	25.00	3	75.00
Hukilau nets	.....	.....	8	627.00
Lobster nets	664	4,344.00	709	3,999.00
Motor Dories	.....	.....	3	1,000.00
Nehu nets	7	1,950.00	13	11,950.00
Oio nets	28	888.00	39	3,398.00
Opae nets	23	64.00	45	224.00
Opelu nets	140	2,280.00	38	1,845.00
Pua nets	6	17.00	3	15.00
Row boats	521	27,124.00	379	12,400.00

Row boats (with motor)	33	6,176.00	113	13,845.00
Sail boat	.....	.....	1	50.00
Sampans	420	670,308.00	411	703,184.00
Schooner (motor)	.....	.....	1	12,000.00
Seines	111	26,705.00	80	28,816.00
Shark nets	24	85.00	13	100.00
Throw nets	91	875.00	67	678.00
Traps	164	494.00	258	1,161.00
Turtle nets	6	70.00	17	85.00
Total		$813,162.00		$855,229.00

According to reports of the wardens of the different districts, as well as men connected with the fishing industry, increased supplies of fish have been brought in by fishermen. This is particularly true of the ahi and aku packed by the Hawaiian Tuna Packers, Ltd., during the past two years. For the year ending December 31, 1933, the pack was 107,000 cases, or approximately 40,000 more than the previous year. The returns were so encouraging a new cannery was constructed on Kewalo Basin at a cost of nearly $100,000.00; a modern plant in every sense of the word, and whereas there are larger plants on the mainland, it is doubtful if there are any better equipped or more sanitarily conducted. For the year just ended, December 31, 1934, the pack was 131,148 cases, an increase of about 25,000 over last year.

FISH CULTURE

Scylla serata, commonly known as the Samoan crab, has become sufficiently abundant to warrant establishing a six months open season each year, from October 30 to March 31. We have not been able to get the exact figure, but it is estimated that approximately a ton was sold by the commercial fishermen during the season ending March 31, 1934, and probably twice that amount for the half-season ending December 31, 1934. T. Tsutsui, a pond operator at Puuhale, reported having caught a crab weighing 16 pounds last season. The total value of these crabs taken to date, figured at twenty cents per pound, the minimum price paid fishermen, is more or less ten times what it cost to bring them here, and it is logical to believe the yield will increase as they become better established.

Shipments of trout eggs have been received from the U. S. Bureau of Fisheries in both 1933 and 1934. These were used for stocking streams on Kauai, where the sportsmen report some very excellent fishing.

A battery of three more mullet feeding pens has been installed in the pond at Mokapu station; also the pond wall has been repaired and made higher and the pond deepened in places to make refuge pools for mullet during the cold spells.

PROPAGATION OF OYSTERS

The rapid growth made by mother-of-pearl oysters at Mokapu station indicates that the waters of Kaneohe Bay are exceedingly rich in the plankton which oysters require for food. It therefore seems practically certain that a pearl industry can be developed there as well as in other bays and harbors of the different islands. The revenue from sale of pearls and pearl shell might prove sufficient to carry on the entire work of this department.

Negotiations are being conducted to obtain seed of the Japanese pearl oysters. If these will thrive in our local waters, arrangements can then be made for an expert pearl culturist to carry on the work.

PROPAGATION OF GAME BIRDS

New pens have been built and necessary repairs made to old ones for the propagation of the Chinese pheasants and the flock of nene at Mokapu station.

For the year ending December 31, 1933, a total of 1,302 pheasants were raised and liberated as follows: Kauai 324, Molokai 60, Maui 264, Hawaii 326, and Oahu 328.

The total liberation for the year ending December 31, 1934, was 1,693; Kauai 428, Molokai 80, Maui 342, Hawaii 406, and Oahu 437.

For the season ending June 30, 1933, we succeeded in raising eleven nene, which brought our flock up to 28 birds. The birds laid very few eggs the following season, also the percentage of fertilization was low, and we increased our flock by only seven birds, making a total of 35 nene. However, eleven eggs have been laid and with prospects of other hens laying, it looks favorable for an increase of ten or more birds the present season.

Considering the fact that our present flock has resulted from the two pairs of nene donated by Senator Robert Hind in 1927, it has been demonstrated that with proper care these birds can be successfully propagated.

The total number of arrests made by the wardens for the year ending June 30, 1933, was 314, and for the following year was 368. This is an average of 48.5 arrests per warden. The average percentage of convictions is 85. The number of miles averaged per month by each warden approximates 1,200, and at a cost to the Territory of a fraction over three cents per mile.

WARDEN SERVICE

Some of these records may have been duplicated by a mainland patrol service during certain years. However, we have never seen a report indicating that their record for a single year equals the average our wardens have maintained for the past nine years.

Conditions, of course, vary, and comparisons are not always an accurate criterion with which to decide the greatest efficiency, but one thing is certain: our wardens have performed their duties in a most efficient manner.

RECOMMENDATIONS

In addition to the development of a pearl fishery, there are eight government fish ponds on Molokai, as well as some on the other islands, which should be rehabilitated; there is need of research work to determine the location of the greatest abundance of the pelagic fishes during the different seasons of the year, as well as helping to increase the local bait supply, and we are in need of a school or station for training men to engage in the fishing industry.

The Federal government is interested in each of these projects, and some or all the money undoubtedly can be secured by petitioning the governor to secure the cooperation of Delegate King in presenting the Board's recommendations re these matters to the proper officials in Washington.

Respectfully submitted,

H. L. KELLY,
Director, Division of Fish and Game.