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1928 1928

REPORT

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OF THE

Board of Commissioners of Agriculture and Forestry

OF THE

TERRITORY OF HAWAII

FOR THE

Biennial Period Ended December 31, 1928

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1929

Division of Fish and Game

REPORT OF THE CHIEF TERRITORIAL WARDEN

Board of Commissioners of
Agriculture and Forestry,
Honolulu, Hawaii.

Gentlemen:

I have the honor to submit the following report covering the activities of the Division of Fish and Game during the period of eighteen months, from July 1, 1927, to December 31, 1928.

INTRODUCTION

This report covers only a period of eighteen months as prior to that time this work was being carried on under the Fish and Game Commission, which was abolished by the Legislature of 1927. On July 1, 1927, the work of the Fish and Game Commission was transferred to the Board of Agriculture and Forestry, and the Division of Fish and Game established.

PERSONNEL

The staff at present is composed as follows:

H. L. Kelly ..... Chief Territorial Warden
Irwin H. Wilson ..... Asst. Chief Territorial Warden
Joseph Tavares ..... Asst. Territorial Warden at large
Hugo Kanae ..... Asst. Territorial Warden—Oahu
Roland E. Isreal ..... Asst. Territorial Warden—Kauai
E. K. Montgomery ..... Asst. Territorial Warden—Maui
John N. Perez ..... Asst. Territorial Warden—Hawaii
George Tucker ..... Asst. Territorial Warden—Hawaii
Helen N. Fuller ..... Stenographer
James Goo ..... Assistant at Game Farm
A. C. Goo ..... Assistant at Game Farm

EXPERIMENTAL FISH AND GAME STATION

The Territory's Experimental Station at Mokapu, Oahu, covers an area of 345 acres. At present only a portion of this property is being used for our work. However, this work is only in its infancy, and from now on will expand far more rapidly than it has during the last few years.

Plans have been made to set a large area to trees of various kinds, and this work will demonstrate what may be accomplished by scientific tree culture on those almost barren lands of windswept Mokapu. A park can be created there which will be enjoyed by people for generations to come, and provisions can be made for keeping deer, pheasants, quail, wild ducks, etc. They can be held here by the food and protection given them, and not by pens or cages, virtually in a wild state, where people can have the pleasure of seeing them, and studying their ways and habits.

We have at Mokapu an ideal location for a training station, where men can be instructed in the rudiments of commercial fishing. Sooner or later this work will have to be undertaken by the Territory, if we are to have our own nationals capable of harvesting the ocean crops and keeping our markets supplied with fresh fish.

In addition to the mullet pond, and fish feeding enclosures, some forty acres in all, we also have approximately six acres under wire for game bird propagation. This game work is incidental to the regular work of the men employed to look after the fish ponds and assist in the fish cultural work, and the materials have all been purchased from money subscribed from the county game funds. Not from the general appropriation.

LICENSES ISSUED 1928

For the year ending June 30, 1928, the licenses issued and moneys collected for same are as follows:

Commercial fishermen:	Citizens	169	
	Aliens	1361	$8,805.00
Renewal	"	1	.50
	Sampans	451	3,645.75
	Rowboats	498	498.00
	Mullet	115	575.00
	N. Angling	177	1,770.00
	Angling	1	.50

The total amount of license money collected, $13,294.75, was deposited with the following county treasurers:

City and County of Honolulu	$ 7,412.75
County of Hawaii	2,736.00
County of Maui	1,977.00
County of Kauai	1,169.00
	$13,294.75

VALUE AND AMOUNT OF FISH CAUGHT

The varieties and weights of fish reported by the fishing companies of Honolulu and Hilo, and the prices paid by the fishermen are as follows:

Name	Weight	Value	Price per lb.
Aku—for markets	2,878,366	$199,326.98	6.9c
Aku—for canning	1,547,000	30,939.00	2c
Opakapaka	105,613	25,904.29	24c
Opakapaka	2,704	price not obtained	
Ulua	125,838	33,320.79	25.5c
Ulua	38,222	price not obtained	
Uku	213,941	43,460.95	20c
Oio	100,937	26,367.76	24c
Ula	35,118	16,143.39	45.9c
Ahi—for markets	1,909,645	181,863.11	9c
Ahi—for cannery	82,250	6,990.00	8c
Moi	22,386	8,986.15	40c
Moi	27,931	price not obtained	
Ulaula	35,433	11,638.94	33c
Akule	445,166	93,547.15	21c
Mahimahi	125,340	21,068.22	17c
Mahimahi	1,475	price not obtained	
Weke	98,911	30,231.13	30c
Opelu	230,901	48,969.42	21c
A'u	576,317	82,827.25	14.3c
Ono	88,123	14,843.89	16c
Ono	281	price not obtained	
Hapuupuu	29,640	10,650.33	35.8c
Kawakawa	40,358	5,374.52	13.3c
Kahala	190,925	33,841.33	17c
Mullet—sold by companies	96,014	25,107.03	26c
Miscellaneous fish sold by companies	862,011	199,808.92	23c
Mullet sold by pond men	106,441	37,092.49	35c
Miscellaneous fish sold by pond men	26,321	price not obtained	
Miscellaneous fish sold by fishermen direct to consumers (these figures received after annual report was made up)	41,183	10,362.12	24c
	1,643,012	211,423.42	
	11,727,833	$1,410,061.58	

BOATS AND GEAR USED

The number of fishing boats and other gear used, and values of same are as follows:

Sampans	451	$98,099.00
Rowboats	498	7,728.00
Seines	183	5,007.39
Gill Nets	500	25,081.00
Throw Nets	104	1,414.00
Hand Lines	1,022	4,436.00
Lobster Nets	22	160.00
Crab Nets	11	168.00
Drag Nets	36	265.00
Traps	48	110.00
Canoes	9	.....
	2,828	$142,468.00

PATROL SERVICE

A summary of the work performed by the wardens is as follows: 213 arrests; 176 convictions or 82.7%; 27 forfeited bail or a total of 95.3% paid a penalty for violating the law; $2,673.00 in fines were collected and $645.00 bail, or a total of $3,318.00.

The wardens traveled a total of 93,529 miles, at an average cost to the Territory of 3c per mile. According to the best advices I have been able to obtain, cars cannot be operated at an average of less than 5c per mile. Therefore it seem pretty conclusive the wardens have been operating at a loss to themselves, or were virtually penalized a total of $1,870.50 for the work they have been doing. It is hoped that this can be remedied the coming biennium, by either securing sufficient appropriation to provide the wardens with cars, or else grant them an allowance that will pay the entire cost of operating them.

The following figures give a clearer understanding of the character of work performed by each warden:

Arrests		Percentage Convicted and Forfeiting Bail	
Tavares	84	Israel	100 %
Perez	42	Montgomery	100 %
Israel	33	Tucker	100 %
*Manu	17	Smith	100 %
Montgomery	22	Manu	94 %
Tucker	10	Tavares	92.85%
*Smith	4	Perez	92.85%
*Kanae	1	Kanae	.....

*Kanae was employed most of the time to gather statistics. Smith was hired for three months only, and Manu is a forest ranger.

Average number of miles per month

Tavares	2073
Israel	1468
Montgomery	1411
Kanae	1091
Perez	1003
Manu	986
Smith	654
Tucker	414

Average fine or bail forfeited by those arrested

Perez	$27.80
Israel	22.00
Montgomery	21.60
Smith	18.75
Manu	12.94
Tucker	11.50
Tavares	6.74
Kanae	.....

Average cost to Territory per arrest—Salary plus expenses

Tavares	$ 33.09
Perez	55.85
Israel	69.98
Manu	81.61
Montgomery	95.40
Smith	133.54
Tucker	237.27
Kanae	1,678.35

Accuracy, promptness and information of reports

Israel	1st
Perez	2nd
Tavares	3rd
Manu	4th
Kanae	5th
Tucker	6th
Montgomery	7th
Smith	....

With the above figures as a basis, also taking into consideration their capabilities and good judgment, as shown by their reports, and an investigation of each man's work coupled with the sizes and difficulties of the different fields, I believe the following percentages for general efficiency are reasonably fair:

Tavares	95
Israel	94
Perez	94
Manu	90
Kanae	85
Tucker	80
Montgomery	80
Smith	80

GAME BIRD PROPAGATION

During the year, 1191 Chinese pheasants, 10 weeks old, have been sent out from our game farm; 299 were liberated on Oahu, 292 on Kauai, 310 on Maui, 290 on Hawaii.

According to the replies to the questionnaires sent the sportsmen, there were less game birds of all kinds on Oahu this year than formerly. On the other islands the majority of the replies indicate an increased number of pheasants, doves, and quail, but a decrease in all other varieties. Many of the hunters have recommended that the shooting of all varieties of ducks be stopped for at least two years, and I believe this should be done.

Of the questionnaires sent out, only about 10% were returned, not enough to enable one to definitely state whether certain spe-

cies are decreasing or not. Nevertheless it is pretty safe to assume the men who did answer are representative of the whole group of sportsmen, and that their estimates and recommendations are worthy of consideration.

IMPORTATIONS

While on the mainland last fall, the Chief Territorial Warden sent over a shipment of berries, such as salal, huckleberry, raspberry and cranberries for planting in the mountains as an additional food supply for the birds. It is recommended that more of these be secured, and I have placed orders with the Deputy Forester of Oregon for another shipment. If we are successful in establishing only one variety, the cost of the experiment will be returned manyfold by the good the people will get out of the berries, as well as the birds.

In addition to the berries, a shipment of fresh water crayfish was sent down, and these were planted in the streams up at Kokee. There were also shipments of abalones, pismo clams and cockles brought over from California, and several shipments of Samoan crabs, which were planted here on Oahu.

One shipment of salmon eggs was sent to Kauai, and the resulting fry were liberated in the Wainiha and the Hanalei streams. There were also two shipments of trout eggs and these were used to stock the following streams—Wainiha, Hanalei, Waialua and tributaries of these streams; the Makamakaole and Ukumehame and the Kahakuloa on Maui, and two streams on Molokai; the Waiahole and Sacred Falls streams on Oahu, and two streams on Hawaii.

FEDERAL AID

While on the mainland, the Chief Territorial Warden was authorized to make a trip to Washington to assist Delegate Houston in securing an appropriation to enable the Bureau of Fisheries to send men here for making surveys, and studying our fishery problems. With the cooperation of Commissioner O'Malley, and also the approval of Secretary Hoover, the Delegate introduced a bill asking for $25,000.00 a year for the next four years. This bill was not passed, due, it was stated, to the President's financial program.. However, a letter from Mr. Hoover to the Delegate lends hope to the belief that the Bureau will secure the necessary appropriation to include this work in the islands as part of its routine duties.

However, Washington should not be allowed to forget our needs, and it is therefore recommended that a letter be written to Mr. Hoover, requesting that he have Commissioner O'Malley visit the islands to look the field over whenever his duties permit.

DYNAMITE CAMPAIGN

The advertising campaign against dynamiting, which was carried on by this Division, was a new departure in conservation work. Just how far the effect of this work will extend, and how much good will be accomplished can hardly be estimated. But it is safe to say that much good did result, and the effect of this good will be felt for years to come.

If one may judge from the increased size of the fines imposed by the courts, it is believed enough extra money has already been paid into the county general funds to more than offset the $500.00 which the campaign cost.

Nevertheless, as the fishermen and their people will probably soon forget, I believe we should do more such advertising if the money can be spared for this work. The number of young fish saved by means of this publicity will undoubtedly pay the cost many times over. In addition to this it might prevent some man losing a hand or arm—or life. The suffering and loss to the man and his family, as well as the economic loss to the community, due to man's inability to work, or do a full day's work, are also important factors to be considered in connection with this matter.

LICENSES ISSUED AND FISH REPORTS—1928

During the last quarter, or the six months ending December 31, 1928, the following licenses have been issued and moneys collected:

Commercial fishing:			
	Citizens	183	
	Aliens	1165	$5,825.00
Renewal			
	Aliens	1	.50
	Sampans	350	2,791.50
	Rowboats	270	270.00
Renewal			
	Rowboats	1	.50
	Night Angling	134	1,340.00
	Mullet	58	290.00
			$10,517.50

The take of fish as reported by the fishing companies for this period is 4,022,369 pounds, costing $540,646.19, or an average of 13c to the fishermen.

Fifty thousand fifty (50,050) pounds of mullet were supplied by the pond operators at an average of 40c and 38,544 pounds of miscellaneous fish at an average of 27c.

GAME BIRD PROPAGATION—1928

The brood pheasants held at the game farm laid 3,377 eggs during the present season. From these we have hatched and liberated 1201 pheasants to date—310 to Kauai; 297 on Oahu; 300 on Maui, and 294 on Hawaii. There are still several dozen more of these birds to be liberated after the brood stock for the coming season has been selected.

In 1928 we held 78 brood hens. For the coming year, 120 hens will be kept for breeding. With this number it is hoped we will be able to turn out 2,000 birds, or 500 for each county.

Senator Robert Hind donated two pair of nene to the farm. In November, five eggs were laid. These all hatched, and we now have on hand four old birds and the five goslings as the nucleus of a flock. It looks very hopeful now that we will be able to get a start of these, and be able to make distribution in a few years to the different islands where they will be protected, and thus help to perpetuate this very valuable Hawaiian bird.

IMPORTATIONS—1928

436 valley quail have been purchased for distribution on Kauai an Oahu; 96 quail and 49 green pheasants were gotten from Japan for an additional brood stock at the farm; 50 pairs of mountain quail and 100 African ringneck doves were ordered, and part of these arrived and have been distributed on Oahu.

More abalones, cockles and Pismo clams have been brought over from California, one shipment of Samoan crabs and one lot of oysters from Australia. The last was planted in our fishery at Mokapu in October. When looked at during the latter part of December, about half of these were still alive, and had made considerable shell growth—this would indicate the conditions here are suitable for them.

Also a shipment of 15,000 Chinook salmon eggs were received from the Bureau of Fisheries, and these are being hatched at

Kokee on Kauai by Warden Israel for planting in the Hanalei and Wainiha Rivers.

PATROL SERVICE—1928

During the past six months the wardens have made 107 arrests, and $1,803.50 has been collected in fines or forfeited bail.

The average number of miles traveled per month by the wardens was 1100, at a cost to the Territory of 3c per mile.

As stated in previous reports, this travel cannot be made at less than 5c per mile. In Oregon, the wardens receive 8c and 9c per mile, and in California, 6c and 8c, depending on the character of roads and country to be patrolled. In other words, our wardens are being penalized 2c per mile at the very least calculation, and it probably is nearer 4c.

Furthermore, our men have a far greater coast line, in addition to nearly as many square miles of country to patrol as mainland wardens. Notwithstanding this, they have been averaging a greater number of arrests and heavier fines, than the most efficient of the mainland patrol service, according to reports received.

Another thing I wish to call to your attention, is that the wardens who are doing the most traveling are the ones who make the greatest number of arrests. Therefore you will see by our present system of a regular monthly allowance for the wardens, the ones who do the least traveling are being paid a premium for taking things easy, whereas the workers are being penalized for their efficiency.

Let me illustrate this with just one example taken from the last six months' work. Tavares, who averaged 1730 miles per month, made 39 arrests with fines amounting to $335.00. Tucker, who averaged 548 miles, made only four arrests and $66.00 in fines.

Tavares is allowed $40.00 a month for travel while Tucker received $30.00. This means that the former, who has received the highest rating for efficiency the past three years, is paid 2.3c per mile for his travel while Tucker, who has been at the bottom of the list for the same three years, received 5.47c per mile.

There is still another penalty the efficient warden has to pay —and that is the more arrests he makes the more there are to criticize him.

In the case cited above, it is safe to assume the warden making 39 arrests has made ten times as many enemies as the one making but four.

Although this is merely an assumption, yet past experiences has verified the fact that complaints are rarely entered against men who spend their time making good fellows of themselves, while many are registered against wardens making numerous arrests. In one instance, on the mainland, law violators and their friends spread so many tales and enlisted so much influence to support them, that the Board dismissed two of the most efficient men in the service in spite of my protests—while two others without an arrest to their credit and recommended for dismissal because of drunkenness, neglect of duty and falsifying reports, were retained.

Considering the wardens have this sinister influence working against them, also in view of the fact that efficient wardens must be men of initiative, plus an exceptionally high grade of honesty, the government should provide them with the equipment necessary to do their work and reimburse them to the last fraction of a cent for all expenses incurred in line of duty. This is absolutely essential to insure the success of the conservation work.

RECOMMENDATION FOR EXPANSION OF WORK

I feel it incumbent upon me to again call attention to the fact that at least 90% of the fish brought to the markets is caught by aliens.

All credit is due these men for the service they are rendering, a service entailing long hours of arduous work—the risk of life and property, and this for a wage that is barely enough to keep themselves and families from starving.

However, it is not to our credit to have to admit that we are dependent on aliens for our fish supply. This alone should be a sufficient stimulant for us to make an effort to get our own nationals interested in the work. But regardless of that, we are going to be compelled to do this. Within the month, six of these men have been lost. The men now engaged in this work are wearing out—dying out, and it is going to be necessary to train others to take their places.

The government has experimental stations, schools and courses to stimulate interest in, and prepare men for cane and pineapple

culture, and other industries of the land. Why not the same thing for the sea?

We not only are in need for a training station to encourage young men to engage in the fishing, but this would be a great help for the fishermen now employed in the work. The boats being used are not as seaworthy as they should be. They are not provided with the comforts and conveniences the men should have, and they are not equipped to deliver the fish to the market in the best possible condition.

This is work in which the government should take the initiative.

At our Mokapu station there is an ideal location for the establishment of such a school. It will take time to properly equip this, and get qualified men for the work—even after an appropriation has been made. It is therefore recommended that steps be taken to interest the legislators and enlist their support at the coming session.

Respectfully submitted,

H. L. KELLY,
Chief Territorial Warden.