

## FEDERATED MALAY STATES.

### REPORT ON THE FISHERIES DEPARTMENT FOR THE YEAR 1920.

#### SUMMARY.

1. The total revenue for the three Western States derived from fishing and fishing-boat licences for the year 1920 amounted to \$34,325.35, being \$1,975.35 more than originally estimated, \$30.35 more than the revised estimate, and \$1,585.90 more than that collected in 1919.

2. Revenue shows an increase in Perak and slight decreases in Selangor and Negri Sembilan: the details are as follows:

State.	Revenue.			Approximate number of fishermen.			Taxation, per head.		
	1918.	1919.	1920.	1918.	1919.	1920.	1918.	1919.	1920.
	\$ c.	\$ c.	\$ c.				\$ c.	\$ c.	\$ c.
Perak ... ..	18,018 25	18,346 75	20,007 50	2,470	2,597	2,826	7 29	7 06	7 08
Selangor ... ..	15,269 25	14,201 00	14,149 00	2,350	2,131	2,158	6 50	6 67	6 56
Negri Sembilan ...	227 10	191 70	168 85	97	85	82	2 34	2 28	2 06
<b>Total ...</b>	<b>33,514 60</b>	<b>32,739 45</b>	<b>34,325 35</b>	<b>4,917</b>	<b>4,813</b>	<b>5,066</b>	<b>6 82</b>	<b>6 80</b>	<b>6 78</b>

3. The year as a whole is described as not prosperous in Krian and Matang, fairly good in Lower Perak, the Kuala Selangor district and Klang and poor in Kuala Langat and Negri Sembilan.

The new arrangements made with the Forest Department have worked satisfactorily and since March there have been no complaints from the fishermen regarding the supply of fishing stakes and other timber.

4. The total sum of the loans made during the year was \$12,460: repayments were made of \$4,070 and \$582 was collected as interest: \$8,390 remained outstanding at the end of the year. The year has been an unfortunate one for some borrowers who invested their loans in fish-traps for a number of these were destroyed by storms in the second half of the year.

5. Mr. H. C. Robinson, Director of Fisheries, Federated Malay States, went on leave on August 28th and Mr. C. Boden Kloss, Assistant Director of Museums, was appointed Acting Director in his absence.

The post of Inspector of Fisheries remained vacant until the arrival of Captain J. F. Crichton, R.C.N. on November 25th: until that date the duties of the appointment were carried out by the Director and Acting Director in addition to their own.

6. The total expenditure on Personal Emoluments was \$12,246 against an estimate of \$14,824 and an expenditure of \$9,719 in 1919 and \$8,738 in 1918.

The expenditure on Other Charges, Annually Recurrent and Special Expenditure, was \$13,573 against an estimate of \$20,850. In 1919 the total expenditure was \$12,590, in 1918 \$9,832. Owing to lack of staff it was impossible to carry out certain investigations of the Fishing Industry the cost of which was to be defrayed by special provision.

7. The cost of running and maintaining the s.l. "Shark", exclusive of payments made by other departments to which it was lent occasionally, was \$5,632. The launch was less used by the department than in 1919 when charges amounted to \$5,981; but cost of fuel and stores was higher.

The total cost of the department was, therefore, \$25,819 or 73 per cent. of the gross revenue against 63 per cent. in 1919 and 54.3 per cent. in 1918.

8. Investigations were made with a *jermal* off the Kuala Selangor Coast. A trap was built at Jeram at a cost of \$398 for materials and labour and was run eight times between August 17th and November 27th. During this period were caught 9.2 pikuls of first class, 2.15 of second class and 8.09 pikuls of third class fish. The catches were very uneven in quantity, the maximum and minimum amounts obtained per run being: first-class fish 2.53 and .46 pikuls; second-class fish .53 and .1 pikuls; third-class fish 2.21 and .3 pikuls. The best run returned \$96.60 and the poorest \$11.20. The three qualities of fish were sold at the rates of \$32, \$20, and \$8 per pikul respectively and the total sum realised was \$402.12.

Even when \$31.50 for the hire of a boat is deducted this would appear to be a very satisfactory return: but as the trap was new none of the heavy costs of repairs and upkeep were incurred. Various risks also have to be taken into consideration: during the stormy weather at the end of November the *jermal* was completely destroyed and washed away with many others.

### PERAK.

#### EXPORTS AND IMPORTS.

9. Exports from the State of Perak amounted to \$43,547 against \$64,688 in 1919 and \$41,827 in 1918. *Blachan* amounted to \$19,239 against \$9,824 in 1919 and \$12,314 in 1918. Salt fish was \$25,466 against \$16,429 in 1919 and \$7,570 in 1918. Fresh fish from Krian to Province Wellesley and Penang was \$24,395 against \$36,622 in 1919 and \$20,211 in 1918.

Imports show an increase to \$766,088 against \$586,581 in 1919 and \$530,284 in 1918. Salt fish was \$603,009 against \$475,309 in 1919 and \$427,756 in 1918. Fresh fish from the Dindings was \$148,439 against \$95,305 in 1919 and \$85,789 in 1918.

#### FRESH FISH TRADE

10. Forty three thousand one hundred and ninety seven pikuls of fresh fish were consigned from Stations in Perak to other places in the same State during 1920 against 47,657, in 1919 and 62,252 in 1918, being the lowest amount since 1914. The figures rose from 41,850 in 1914 to 77,373 in 1917 and have since dropped steadily.

Imports by the Telok Anson route to Kinta accounted for 25,518 against 26,602 in 1919 and 32,676 in 1918. Those from Port Weld continue to decrease amounting only to 1,427 against 1,543 in 1919 and 2,788 in 1918.

The amount of fresh fish imported into Perak from Province Wellesley was 2,200 pikuls against 700 in 1919 and 835 in 1918 and 2,313 in 1917.

### SELANGOR.

#### EXPORTS AND IMPORTS.

11. The value of fisheries products exported from the State of Selangor, amounted to \$99,187 against \$85,564 in 1919 and \$69,913 in 1918 and \$55,797 in 1917. Of this amount, *blachan* accounted for \$60,369 against \$18,644 in 1919 and \$11,279 in 1918 and \$29,177 in 1917. Salt fish is recorded as \$24,520 against \$30,069 in 1919 and \$56,272 in 1918, and fresh fish as \$11,889 against \$35,439 in 1919.

The value of the fisheries products imported again rose the figure being \$728,539 against \$570,399 in 1919 and \$449,899 in 1918 and \$427,653 in 1917. Imported fresh fish accounted for \$18,699 against \$19,808 in 1919 and \$12,157 in 1918 and \$17,960 in 1917.

#### FRESH FISH TRADE.

12. From Port Swettenham 33,712 pikuls of fresh fish were transported by rail to the inland districts against 37,605 in 1919 and 38,733 in 1918. From stations between Kuala Selangor and Connaught Bridge Junction 21,180 pikuls were despatched against 16,964 in 1919 and 9,867 in 1918.

### NEGRI SEMBILAN.

13. For Negri Sembilan the exports of the year are returned as \$496 in value against \$148 in 1919 and \$289 in 1918.

No fresh fish was consigned by railway from Port Dickson to other places in the Federated Malay States.

The imports of fish products for 1920 are returned as \$258,618 in value against \$287,252 in 1919 and \$186,227 in 1918.

Fish manure was returned as \$3,482 in value against \$1,926 in 1919 and nil in 1918.

The fishing industry of Negri Sembilan is very small and steadily decreases in value. The coast is less suited for fishing stakes than that to the North and their absence shows what a large part they play in the fisheries industry of the Straits of Malacca.

### CONSERVATION.

14. Cockle gatherers in Krian still continue to evade the regulation that none of these shell-fish are to be taken of less than an inch in diameter and several fines and prosecutions have been necessary.

15. Early in the year it was decided by the British Resident that *ambai* should be abolished on the coast of Perak and steps were taken to eliminate this method of fishing by degrees for it was out of the question to throw large numbers of men out of employment at one time: by the arrangements made *ambai* should cease to exist at the end of 1922. Drastic action will probably be necessary soon for the fishermen, who are all Chinese, are very conservative and in spite of warnings endeavour to maintain their traps after licences for them have been refused. Only a few of the *ambai* fishermen have taken up other methods of fishing; a few have gone to Sumatra, a few have moved to Selangor and others state that if *ambai* are abolished there is nothing for them but to return to China. Still others give trouble by endeavouring to fish illegally.

This Inspector of Fisheries is of opinion that 75 per cent. of *ambai* catches consists of immature food fish: most of these are so young, however, that in my opinion a small proportion only would, if not interfered with, escape their natural enemies and mortality and survive to reach maturity.

*Ambai* catches are mainly used as pig food and it appears to me a debatable point whether the flesh value thus produced is not as great as the extra fish value which might be caught if the fry killed by *ambai* were left undisturbed.

#### GENERAL.

16. The best months in Perak for *kelong* were October and November, for seine nets April and August to November; and for *ambai* September and October.

17. The fish *terubok*, a migratory herring, made their appearance in Perak in September and roved about the district for the rest of the year: but they were not caught in large numbers owing to their very wild habits. Much ice was obtained in anticipation of big hauls but the boats more often than not returned empty. *Kedra* were caught in large numbers from August onwards: and *bawal hitam* were plentiful during June, July and August.

18. Prices have remained high for nets and other fishing apparatus which, with the exception of timber, bamboo and rattan are imported. Wages of rowers rose from 50 cents in pre-war days to \$1.50 a day. The high price of fish has not compensated for the high cost of materials.

In the last quarter of the year when the price fell considerably fishermen in some districts obtained money with difficulty from the buyers and often hardly made their daily expenses.

Three fourths of the Chinese fisherman are pig rearers and have been hard hit by the falling price of pork during the second half of the year.

19. Bad weather was experienced on the coast during the last quarter: fishermen were unable to work at times and a great many fish traps were damaged or destroyed.

The following returns are appended:

- A. Total amount of Salt and Fresh Fish carried over the Federated Malay States Railways in 1920.
- B. Comparative Quarterly Return of Exports of Fisheries Products from the State of Perak during 1919 and 1920.\*
- C. Comparative Quarterly Return of Imports of Fisheries Products into the State of Perak during 1919 and 1920.\*
- D. Summary of Fishing-Boats and Fishing Licences issued quarterly in the State of Perak during 1919 and 1920.
- E. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Krian during 1919 and 1920.\*
- F. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Matang during 1919 and 1920.\*
- G. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Lower Perak during 1919 and 1920.\*
- H. Comparative Quarterly Return of Exports of Fisheries Products from the State of Selangor during 1919 and 1920.\*
- I. Comparative Quarterly Return of Imports of Fisheries Products into the State of Selangor during 1919 and 1920.\*
- J. Summary of Fishing-Boats and Fishing Licences issued quarterly in the State of Selangor during 1919 and 1920.
- K. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Kuala Selangor during 1919 and 1920.\*
- L. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Klang during 1919 and 1920.\*
- M. Summary of Fishing-Boats and Fishing Licences issued quarterly in the District of Kuala Langat during 1919 and 1920.\*
- N. Comparative Statement of Fishing Licences issued quarterly in the State of Negri Sembilan during 1919 and 1920.
- O. Comparative Quarterly Statement of Exports of Fisheries Products from the State of Negri Sembilan during 1919 and 1920.\*
- P. Comparative Quarterly Statement of Imports of Fisheries Products into the State of Negri Sembilan during 1919 and 1920.\*

C. BODEN KLOSS,  
Acting Director of Fisheries, F.M.S.

\* District returns not printed.

APPENDIX A.

FEDERATED MALAY STATES.

Quarterly Statement of Salt and Fresh Fish Forwarded to Stations in the Federated Malay States during the year 1920.

Stations.	Salt Fish.				Fresh Fish.				Total.	
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Salt Fish.	Fresh Fish.
	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.
Penang ... ..	48 30	36 83	11 35	54 21	...	...	...	...	150 69	...
Prai ... ..	...	...	41 20	...	...	...	...	15 50	41 20	15 50
Nibong Tebal ... ..	316 89	892 18	978 29	734 23	280 73	652 23	687 43	563 90	2,921 59	2,184 29
Parit Buntar ... ..	44 97	...	...	...	728 00	180 00	81 69	49 55	44 97	1,039 24
Simpang Lima ... ..	46 10	61 62	59 49	8 50	5,573 10	1,395 52	1,646 25	2,026 83	175 71	10,641 70
Bagan Serai ... ..	984 68	361 55	225 74	221 84	88 56	103 82	133 55	755 63	1,793 81	1,081 56
Bukit Merah ... ..	85 69	83 90	140 36	78 43	435 20	582 80	583 16	434 82	388 38	2,035 98
Port Weld ... ..	321 42	304 82	278 45	336 36	333 99	284 90	420 53	387 88	1,241 05	1,427 30
Telok Anson Town ... ..	...	...	...	...	390 00	404 50	363 30	295 30	...	1,453 10
"    Wharf ... ..	7,525 64	8,672 29	7,089 01	5,453 90	7,157 02	6,721 39	6,150 98	5,488 74	28,740 84	25,518 13
Connaught Bridge Junction ... ..	...	...	...	...	...	...	...	...	...	...
Klang North ... ..	...	...	...	...	...	...	...	...	...	...
Vallambrosa ... ..	...	...	...	...	20 52	24 28	7 80	80	...	53 40
Kapar ... ..	...	...	...	...	109 95	64 25	738 90	127 01	...	1,040 11
Sura ... ..	10 13	5 65	1 00	...	32 30	4 60	59 60	69 46	16 78	165 96
Jeram ... ..	...	...	...	...	1,298 95	1,188 22	1,140 57	934 01	...	4,561 75
Sasaran ... ..	...	...	...	...	1,573 70	1,343 54	952 95	1,104 48	...	4,974 67
Assam Jawa ... ..	...	...	...	...	127 66	115 23	78 60	82 01	...	403 50
Teluk Piai ... ..	...	...	...	...	...	...	...	...	...	...
Kuala Selangor ... ..	532 34	1,011 96	1,456 82	1,484 62	2,642 12	2,749 28	1,957 87	2,631 24	4,485 74	9,980 51
Klang ... ..	2,729 10	3,341 90	2,918 20	1,831 74	...	...	...	...	10,820 94	...
Port Swettenham ... ..	5,868 85	7,011 24	6,057 68	4,943 40	11,010 28	9,023 02	9,177 69	4,501 47	23,881 17	33,712 46
Seremban... ..	386 66	379 54	192 22	238 73	...	...	...	...	1,197 15	...
Mambau ... ..	...	...	...	...	...	...	...	...	...	...
Kuala Sawah ... ..	...	...	...	...	...	...	...	...	...	...
Siliau ... ..	...	...	...	...	...	...	...	...	...	...
Sirusa ... ..	...	...	...	...	...	...	...	...	...	...
Port Dickson ... ..	1,851 84	300 05	1,349 05	364 08	...	...	...	...	3,865 02	...
Malacca ... ..	1,149 00	1,220 00	1,262 00	969 00	110 90	120 80	121 00	87 00	4,600 00	439 70
Total ... ..	21,901 61	23,683 53	22,060 86	16,719 04	31,912 98	24,958 38	24,301 87	19,555 63	84,365 04	100,728 86

## STATE OF PERAK.

## Comparative Quarterly Statement of Fishing Licences Issued for 1919 and 1920.

Heading.	1st Quarter, 1919.	1st Quarter, 1920.	2nd Quarter, 1919.	2nd Quarter, 1920.	3rd Quarter, 1919.	3rd Quarter, 1920.	4th Quarter, 1919.	4th Quarter, 1920.	Total, 1919.	Total, 1920.
1. Fishing Boats ... ..	1,748	1,894	357	372	275	261	135	151	2,515	2,678
2. Nets—										
(a) Drift Nets ... ..	320	368	324	315	331	338	358	307	1,333	1,328
(b) Seine Nets (large) ...	212	187	236	201	211	249	187	244	846	881
(c) „ Nets (small) ... ..	26	5	23	49	47	52	13	37	109	143
(d) Sungkor ... ..	...	10	...	8	...	4	6	10	6	32
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	73	77	67	88	54	77	62	80	256	322
(b) Inshore Stakes ... ..	769 <i>a</i>	895 <i>b</i>	804 <i>c</i>	956 <i>d</i>	833 <i>e</i>	916 <i>f</i>	904 <i>g</i>	807 <i>h</i>	3,310 <i>i</i>	3,574 <i>j</i>
4. Lines—										
(a) Rawei ... ..	16	31	21	39	24	47	34	44	95	161
(b) „ umpan (baited)	229	226	196	155	200	197	220	192	845	770
Total Revenue ... ..	\$4,718.00	\$5,212.50	\$4,476.25	\$5,016.00	\$4,446.75	\$5,096.25	\$4,705.75	\$4,682.75	\$18,346.75	\$20,007.50

*a.* Includes 709 ambais, etc.  
*g.* Includes 848 ambais, etc.

*b.* Includes 826 ambais, etc.  
*h.* Includes 737 ambais, etc.

*c.* Includes 744 ambais, etc.  
*i.* Includes 3,078 ambais, etc.

*d.* Includes 862 ambais, etc.  
*j.* Includes 3,265 ambais, etc.

*e.* Includes 777 ambais, etc.

*f.* Includes 840 ambais, etc.

## APPENDIX J.

## STATE OF SELANGOR.

## Comparative Quarterly Statement of Fishing Licences Issued for 1919 and 1920.

Heading.	1st Quarter, 1919.	1st Quarter, 1920.	2nd Quarter, 1919.	2nd Quarter, 1920.	3rd Quarter, 1919.	3rd Quarter, 1920.	4th Quarter, 1919.	4th Quarter, 1920.	Total, 1919.	Total, 1920.
1. Fishing Boats ... ..	1,790	1,547	309	318	201	141	80	130	2,380	2,136
2. Nets—										
(a) Drift Nets ... ..	711	612	611	546	583	580	616	550	2,521	2,288
(b) Seine Nets (large) ...	110	83	89	82	94	79	95	90	388	334
(c) „ Nets (small) ... ..	87	75	94	127	161	135	78	160	420	497
(d) Sungkor ... ..	202	121	38	165	138	255	91	169	469	710
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	155	157	110	87	54	67	76	105	395	416
(b) Inshore Stakes ... ..	461 <i>a</i>	410 <i>b</i>	463 <i>c</i>	482 <i>d</i>	514 <i>e</i>	452 <i>f</i>	393 <i>g</i>	422 <i>h</i>	1,831 <i>i</i>	1,766 <i>j</i>
4. Lines—										
(a) Rawei ... ..	22	17	20	17	24	14	14	13	80	61
(b) „ umpan (baited)	35	37	25	29	30	38	20	20	110	124
Total Revenue ... ..	\$4,494.50	\$3,912.75	\$3,344.25	\$3,456.50	\$3,422.25	\$3,415.25	\$2,940.00	\$3,364.50	\$14,201.00	\$14,149.00

*a.* Includes 382 ambais.  
*h.* Includes 355 ambais.

*b.* Includes 348 ambais.  
*i.* Includes 1,551 ambais.

*c.* Includes 390 ambais.  
*j.* Includes 1,503 ambais.

*d.* Includes 415 ambais.

*e.* Includes 441 ambais.

*f.* Includes 385 ambais.

*g.* Includes 338 ambais.

APPENDIX N.

STATE OF NEGRI SEMBILAN.

Comparative Quarterly Statement of Fishing Licences Issued for 1919 and 1920.

Heading.	1st Quarter, 1919.	1st Quarter, 1920.	2nd Quarter, 1919.	2nd Quarter, 1920.	3rd Quarter, 1919.	3rd Quarter, 1920.	4th Quarter, 1919.	4th Quarter, 1920.	Total, 1919.	Total, 1920.
1. Fishing Boats ... ..	111	63	28	30	3	16	10	17	152	126
2. Nets—										
(a) Drift Nets ... ..	46	38	42	20	40	51	32	45	160	154
(b) Seine Nets (large) ... ..	8	11	6	5	9	4	12	8	35	28
(c) Seine Nets (small) ... ..										
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	2	2	2	2	...	...	...	...	4	4
(b) Inshore Stakes ... ..	9	11	6	7	7	8	11	9	33	35
4. Lines—										
(a) Rawei ... ..	6	...	2	...	1	1	...	1	9	2
(b) „ Umpan (baited)										
Total Revenue ... ..	\$85.85	\$65.05	\$42.80	\$32.00	\$29.80	\$34.85	\$33.25	\$36.95	\$191.70	\$168.85