

it was neat and simple, and would suffice for a still larger flow of water. A Muntz-metal disc was made during the voyage and fixed with an indicator over each inlet brine cock, and this greatly facilitated the task of maintaining a steady temperature during times of sudden variations. Throughout the voyage I was most kindly allowed the services of Mr. T. J. Harrison, a former second refrigerating engineer of the vessel, whose assistance proved of the utmost value.

In conclusion, I need hardly express my own keen disappointment with regard to the loss of the herring-ova when success was almost within sight. The expenditure on the expedition has been more than justified by the large increase in the breeding-stock of lobsters and crabs—from twenty-seven to 111—and by having demonstrated that it is possible to carry them in about one-half the space that was formerly allowed. It has also proved the possibility of transporting one of the finest of the European flat fishes to this country, and has resulted in the introduction of two hundred turbot to form a breeding-stock from which it is considerably hoped to establish this valuable fish into these waters.

The thanks of the Department are due to the Shaw, Savill, and Albion Company for the free use of the required space, pumping and cooling of the water, and for allowing the vessel to call into Plymouth for the shipment; to Captain Noal, Mr. McCallum, and Mr. Adams, superintendents of the company; to Captain Burville Holmes, and Mr. Arthur, Chief Engineer of the "Waimana"; to Dr. Allen and his staff for collecting and storing the fish, &c.; to Mr. T. Dance and Messrs. Peacock and Co., of Lowestoft, for providing facilities for securing the herring-ova; and to Dr. H. C. Williamson for collecting and supervising the shipment of herring-ova.

The Secretary, Marine Department.

I have, &c.,
T. ANDERTON.

TABLE OF TEMPERATURES IN DEGREES FAHRENHEIT.

Date, 1913.	Position.		Herring-ova Tanks.					Sea.		Remarks.	
	Latitude.	Longitude.	Max.	Min.	Ave- rage.	From	To	From	To		
Jan. 12	English Channel		40	35	37.5	53	53	53	53	Received stock, Plymouth, 7 p.m. Put on cooler for fish-tanks.	
13	47° 55' N.	6° 6' W.	38	32	36	53	53	53	53		
14	43° 45' N.	9° 30' W.	38	33	36	53	54	53	54		
15	39° 54' N.	11° 14' W.	36	33	35	54	55	54	55		
16	35° 35' N.	13° 10' W.	39	33	35	55	55	55	55		
17	30° 49' N.	15° 25' W.	37	34	35.5	55	58	55	60		
18	25° 44' N.	16° 40' W.	36	33.5	35	63	63	65	67		
19	20° 31' N.	17° 26' W.	37	32	35	63	63	67	63		
20	15° 12' N.	17° 34' W.	35.5	34.5	35	56	57	63	73		
21	10° 1' N.	16° 25' W.	37	34	35.5	56	56	73	79		
22	5° 47' N.	13° 0' W.	37	35	35.5	56	58	79	84		
23	1° 53' N.	9° 45' W.	37	35	35	55	58	84	80		
24	1° 56' N.	7° 14' W.	35	33	34.5	57	57	81	81		
25	5° 45' S.	4° 11' W.	35	33	35	57	57	80	77		
26	9° 49' S.	1° 10' W.	39	35	36	56	56	77	77		
27	14° 4' S.	2° 10' E.	36	33	35	55	56	73	72		
28	18° 10' S.	5° 13' E.	35	33	34.5	55	56	72	71		
29	..	..	35	33	35	55	56	70	70
30	..	..	35	33	35	55	55	70	70
31	..	..	35	33	35	55	56	69	66
Feb. 1	Cape Town		39	34	36	56	57	66	57		Cape Town harbour water 57°. Left Cape Town, 4 a.m. Aghulas current.
2	34° 46' S.	19° 1' E.	38	35	35.5	56	53	71	53		
3	37° 40' S.	24° 11' E.	36	34	35.5	56	54*	70	63		
4	40° 13' S.	30° 40' E.	37	33	36	54	53	72	62		
5	42° 13' S.	36° 52' E.	36	34	35	53	50	58	50		
6	43° 39' S.	43° 35' E.	37	33	35.5	50	46	50	46		
7	44° 52' S.	50° 17' E.	38	34	36	46	44	46	44		
8	45° 37' S.	57° 24' E.	39	34	36	47	43	47	43		
9	45° 24' S.	65° 20' E.	37	34	36	50	46	50	46		
10	45° 51' S.	73° 10' E.	37	33	34.5	45	43	45	43		
11	46° 31' S.	80° 45' E.	36	34	35.5	43	43	43	43		
12	46° 55' S.	88° 48' E.	37	34	36	47	45	47	45		
13	47° 9' S.	96° 29' E.	38	35	36	46	42	46	42		
14	47° 26' S.	104° 57' E.	37	36	36	44	45	44	45		
15	47° 29' S.	112° 39' E.	..	..	..	46	48	46	48
16	46° 50' S.	119° 53' E.	..	..	..	49	52	49	52
17	45° 11' S.	127° 11' E.	..	..	..	52	53	52	53
18	42° 41' S.	133° 47' E.	..	..	..	54	56	54	58
19	40° 11' S.	140° 11' E.	..	..	..	56	56	58	61
20	Off Melbourne Heads		..	..	..	56	57	62	63
21	New South Wales Coast		..	..	..	57	56	62	75
22	Sydney Harbour		..	..	..	55	56	69	71
23	..	..	..	..	..	55	56	73	71
24	..	..	..	..	..	56	57	75	75
25	..	..	..	..	..	56	57	75	76
26	..	..	..	..	..	56	56	71	64
27	..	..	..	..	..	55	56	63	57
28	Foveaux Strait		..	..	..	55	56	57	56.5
Mar. 1	Port Chalmers		..	..	..	56.5	56.5	56.5	56.5

* Reducing temperature of tanks to meet colder currents. Shut off coolers from fish-tanks.