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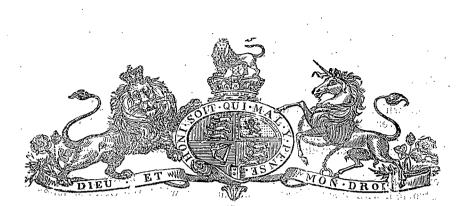
## TASMANIA.

HOUSE OF ASSEMBLY.

# SALMON COMMISSIONERS:

### REPORT FOR 1877.

Laid upon the Table by the Colonial Treasurer, and ordered by the House to be printed, July 16, 1878.



To His Excellency FREDERICK ALOYSIUS WELD, Esquire, Companion of the Most Distinguished Order of St. Michael and St. George, Governor and Commander-in-Chief in and over the Island of Tasmania and its Dependencies.

#### MAY IT PLEASE YOUR EXCELLENCY.

THE Commissioners have the pleasure of reporting that during the year 1877, and that portion of the present year which has already passed, frequent evidences of the establishment and increase of the *Salmo salar* and allied species have continued to be received.

At brief intervals captures of the first-named fish have been noticed in the newspapers of the day.

These captures have generally been made in nets set by the local fishermen in the estuary of the Derwent, in defiance of the law and the various proclamations issued by Your Excellency on the recommendation of the Commissioners, but which have hitherto proved very ineffective for the prevention of illegal fishing and the protection of the fish that have been reared with so much care and at so large a cost to the Colony, in consequence of the inadequacy of the means provided for enforcing the regulations.

In the Upper Derwent, above New Norfolk, shoals of large fish have frequently been seen, as they have been for some years past in various parts of the stream. Of these fish several captures have been made by the rod—that wielded by Your Excellency having, as in previous seasons, proved the most successful. Among the fish thus caught several are believed, after careful inspection and trial by the "Tests of Species" given as an appendix to the last Report of the Commissioners, to be true Salmon.

In the month of July, 1877, a large female fish was observed by the Superintendent's assistant, John Stannard, in the act of spawning on a newly-formed rid in the Plenty, which, on being carefully secured in a landing net, was found to be 20 lbs. in weight, 2ft. 11in. in length, and  $20\frac{1}{2}$  in in girth. She was accompanied by a male, the weight of which was 14lbs. She had already deposited the larger portion of her ova in the natural way. Three hundred of these were collected from the gravel and removed to the ponds, where they were safe from any kind of molestation and risk of admixture with the other species. These ova, in due time, produced nearly an equal number of living fish, of which 100 have been permanently detained as a breeding stock, and have continued to thrive and grow in a very satisfactory manner, destined, it is hoped, to become the parents of many more.

That the parent fish from which the family now securely detained in the ponds was a migratory Salmon can scarcely be doubted. The weight of the female, which before spawning must have exceeded 25 lbs., far surpassing the weight usually attained by the Salmo fario, added to the deep pink colour and size of the ova, leads to no other conclusion. Mr. Read, of Redlands, on whose estate the ponds are situated, in near proximity to his dwelling-house, and John Stannard, the Superintendent's assistant, who have been close observers of all that has been done at the ponds for a period of nearly 15 years, and who saw and handled the original salmon ova on their first arrival until they were hatched, are confident that the ova now alluded to were larger than those brought from England, and considerably exceeded in size those produced from the Salmo fario and Salmo trutta in this Colony. The fry from these ova are being watched with great interest by the Commissioners, as if they assume the deciduous silvery scales, all doubt as to the species of the parent fish will be set at rest.

If it is thus proved that the Salmon have found their way into the Plenty, as was always expected, and adopted it as a spawning-ground, the difficulty of finding the means of stocking other streams besides the Derwent and its tributaries, alluded to in the Commissioners' last Report, will be readily overcome. During the month of March last many small fish were observed leaping over a large surface of the Derwent, which were at first supposed to be young mullet (locally so called), but which Mr. Read, by the aid of his rod and an artificial fly, demonstrated to be *Parrs*, on which the well-known *bars* were clearly marked.

This incident, which took place in the presence of Your Excellency, is regarded by the Commissioners with great satisfaction, being the first occasion on which the fish in that stage of development has ever been observed in the waters of the Derwent, and affording an important link, hitherto missing, in the chain of evidence of the complete success of the undertaking.

The Government having assented to a renewal of the lease of the ground on which the ponds have been constructed, with a small increase of the rent, which the Commissioners had represented to be expedient and necessary, the Solicitor-General has been instructed to prepare a fresh lease accordingly, and with as little delay as possible.

A memorial, addressed to the Governor in Council, praying for an alteration in the boundaries within which net fishing in the Derwent is now prohibited, was forwarded to the Commissioners in November last, with an enquiry whether they would concur in any modification of the existing regulations restricting fishing in the River Derwent, with a view of opening the river up as far as Cornelian Bay, when it was resolved that a deputation from the Commissioners should wait on the Colonial Secretary for the purpose of making known to the Government their views on this point.

A deputation consisting of Messrs. Allport, Seal, Buckland, Giblin, and Captain Langdon had an interview with Mr. Fysh, the Premier, and the Colonial Secretary, Mr. Moore, when the latter requested that the views of the Commissioners should be communicated to the Government in writing.

A long memorandum, signed by Mr. Allport in the absence of the Chairman, was thereupon addressed to the Colonial Secretary, reciting the good effects resulting from the closure of the river, and concluding as follows :—"The Commissioners propose, before the next Session of Parliament, to consider whether such amendments can be made in the Salmon Act as will protect the Salmon till they have once deposited ova, and yet enable the fishermen to work the bays above Hobart Town during some portion of the year."

Previous to this date a letter had been addressed to Mr. James A. Youl, the zealous promoter and active coadjutor in the great undertaking of introducing the Salmon into Tasmania, begging him, if possible, to obtain replies from the English Inspectors of Fisheries, or from any Board of Conservators, to the following questions :---

1st. Should seine nets, with meshes so small as to be capable of taking smolts, be allowed in any part of the estuary of a Salmon river at any season?

2nd. What size of mesh would permit the safe passage of average-sized Grilse?

Mr. Youl, with his usual energetic courtesy, at once put himself in communication with gentlemen qualified to answer these questions; and has forwarded replies given by Mr. Thomas Brady, Chief Commissioner of the Board of Fisheries in Ireland; by Mr. Francis Francis, the well-known writer on Piscicultural subjects and Angling in the *Field*; and Mr. J. Willis Bund, Barrister-at-Law, and Chairman of the Severn Fishery Board.

If the whole world was searched through, Mr. Youl could not have found three men more thoroughly competent to reply to the questions sent.

Under the able guidance of Mr. Brady the Irish fisheries have greatly improved in value during the last few years.

Mr. Francis's books and articles are known to every educated English-speaking sportsman; and Mr. J. Willis Bund is himself a large Riparian proprietor on one of the best breeding tributaries of the Severn—the Teme, and adds to his knowledge of the fish knowledge of the various enactments now in force for their protection in Great Britain.

Mr. Brady says :--- "First let me say that I cannot imagine any Government being so insane as to allow the use of nets which would in any way capture the smolts of Salmon at any time.

"There is a heavy penalty in Ireland on taking the fry or young of Salmon by any means whatever; and in estuaries where there might be some sea-fishing, and damage might arise to the Salmon fisheries by the use of nets capable of taking Salmon, we have the power to make bye-laws to prohibit the use of such nets."

Mr. Brady has forwarded a number of the bye-laws for different rivers issued under this power, the whole tendency of these bye-laws being to restrain the net fishermen.

Mr. Brady concluded by saying :--- "Your great stand-points are now to protect your Salmon until you have a stock sufficient to enable you to use a net freely.

- "1st. Prohibit the use of any net for the capture of Salmon with meshes less than  $2\frac{1}{2}$ inches from knot to knot.
- "2nd. Prohibit in any waters frequented by Salmon use of any net capable of taking fry or young Salmon with meshes less than above.
- "3rd. In the close season prohibit the use of nets as far as possible in estuaries of rivers frequented by Salmon.

"You must be very careful about using nets for the capture of Salmon till you get up a good stock; and in no case should you allow the Smolts to be taken by any means whatsoever."

Mr. Francis Francis urges the use of the same mesh, viz.  $2\frac{1}{2}$  inches from knot to knot, or 10 inches round when wet, and lays great stress on the measurement being made when wet. And then he adds a very useful suggestion that, instead of being guided by weight in fixing what fish it shall be legal to take, we should be guided by length, as the weight can be played with but the length cannot; and urges that it should not be lawful to take any Salmon under 25 inches in length for, say, a term of three years, so that the Salmon might have full time to establish themselves; after which the rank and the salmon destables the same state of the s which the scale might be reduced.

Mr. J. Willis Bund also strongly advocates the 10 inch mesh, and answers the two questions as follows :-

- "1. I certainly think that small-meshed seine nets should not be allowed to be used in the estuary of a Salmon river at any season, as, if they are, numbers of under-sized Salmon will be taken.
- "2. The size of mesh used in England which will let a 5lb. Grilse through is two inches from knot to knot, or 8 inches round the square when wet. 24 & 25 Vict., c. 109, sec. 10. This is the minimum size.

Mr. J. Willis Bund further says :---- "The great evil we suffer from in England is over-netting. This prevents the increase of fish by killing too large a number of the stock."

The receipt of this correspondence at once put an end to all hesitation on the part of the Commissioners respecting the very important question involved in it, and they unanimously resolved :--- "That the information now obtained from the highest authorities in England renders it impossible for the Salmon Commissioners to recommend any alteration in the boundaries within which seine nets are at present prohibited in the Derwent;" and this resolution and expression of opinion have been communicated to the Colonial Secretary.

Subsequent to the receipt of the replies to the questions proposed to them through Mr. Youl from Messrs. Thomas Brady, Francis Francis, and J. Willis Bund, a letter on the same subject was received from Mr. H. R. Francis, well known in this Colony, who, with a general knowledge of fisheries, possesses an intimate acquaintance with the streams of Tasmania, in some of which he has often exercised the rod and line with much success, and to whom Mr. Allport had directly applied for information and advice.

Mr. Francis, in reply to Mr. Allport's enquiries, thus writes :---

#### " MY DEAR SIR,

#### "6, Milne Terrace, London, S.W., 27th February, 1878.

"MY DEAR SIR, "I LOSE no time in acknowledging your interesting 'notes and queries' with regard to the Salmon and Sea Trout in the Derwent and its tributaries. I have never lost sight of the subject since those days of 'hope deferred,' when you, Sir Robert Officer, and I were almost the only persons who thoroughly believed in the success of the great Salmon experiment in the completed ascent of adult fish and descent of native-bred Smolts. And I was delighted to read soon after my return to England of that large capture of half-grown Grilse below Hobart Town, which proved the king of fishes to be fairly established in the Derwent, and (I doubt not) in its tributary streams. I should have been in no degree discouraged—indeed quite the contrary—by the fact that no large Salmon had been brought into the market, even had not a pair of heavy fish, Salmon beyond all reasonable doubt, been taken last breeding season on their rid in the Plenty. The longer the wary old fish escape capture the faster will the breed multiply: the same may be said with regard to the Sea Trout. In fact, the whole question has now confessedly entered on a new phase. It is no longer a question whether Tasmania has acquired, in the two best of the migratory *Salmonidæ*, a valuable addition to her products and attractions, but whether the attempt to secure and improve the acquisition shall be steadily and effectively supported.

"The whole history of our English Salmon fisheries shows that the working fishermen require to be protected against themselves. They have not the knowledge or the self-denial which should withhold them from sacrificing the whole future of their trade to a triffing increase of their immediate profits. Nothing but stringent legislation enforced

by close local supervision arrested the general decay of the British Salmon fisheries, and restored an abundant supply of these noble fish to scores of rivers whence they had almost disappeared. And observe, the wholesale destruction thus arrested was actually depopulating streams which had been well stocked from time immemorial. With you the migratory, breed is in its infancy, and a little want of care now—a little weak yielding to the greed and ignorance of people who cannot see beyond their noses—may postpone *sine die* the complete benefit of an enterprise which has already conferred so much honor on your Colony and promises such ample profit. Thus much of preface ere I answer your four questions. They are as follows :—

"1. Ought any seine nets capable of taking Smolts to be allowed in the estuary of a Salmon river?

"2. Ditto of a Sea Trout river.

"3. What sized mesh would allow average Grilse to pass?

"4. Could a short season be fixed in which small meshed nets might be allowed in the estuary, or any part of it?

"To 1 and 2 I reply absolutely 'No.' Grant such permission and you will never get a 'head' of either fish. The Smolts and Peal would be destroyed wholesale in the brackish shallows.

"To 3 I would say, 'Not less certainly than 21 inches clear between the knots.' But at the present stage of the fishery I should greatly prefer three inches from knot to knot, which would stop nothing under 5lbs. You want to increase not to reduce your stock.

"To 4 my only safe answer is, 'Not at present.' I do not think the seasons of upward and downward migration are well enough known to enable you to define that short period in the early autumn, during which it may hereafter become safe to permit fishing with small meshed nets in the lower part of the estuary.

"These are my own unbiassed views, but, I may add, that they have been confirmed by all persons practically acquainted with the subject whom I have had an opportunity of consulting. I trust your legislators will, above all things, remember that restriction now means abundance bereafter, while a premature relaxation of the rules now in force may entail disastrons and discreditable loss on the Colony. 'You don't cut down your apple-trees to get at the apples. You are quite at liberty to publish this letter if you think it will serve the cause which we both have at heart. I hope yet to see your Salmon and Trout fisheries attracting not only English sportsmen but English capital to your delightful island; which I often revisit in my dreams. Greeting to our many common friends, especially those who are brothers of the angle, "Always, my dear Sir, faithfully yours.

"Always, my dear Sir, faithfully yours, "H. R. FRANCIS.

#### "MORTON ALLPORT, Esq., Hobart Town."

To these high authorities might be added many others who have emphatically denounced overfishing by nets, and pointed out the evils arising from its practice. The Commissioners would especially refer to Mr. Frank Buckland, a gentleman of world-wide renown as a Pisciculturist, and the Chief Commissioner of English Fisheries. In all his able and interesting Reports on this subject Mr. Buckland advocates the same views, and urges the adoption and rigid enforcement of more stringent regulations for the conservation of the rivers under his inspection as the only means of maintaining and increasing their productiveness.

The opinions of the eminent authorities whose names have been referred to are all founded on long experience and close observation, and cannot be disregarded by us without certain loss to the great work which we have in hand in this Colony. The Commissioners earnestly hope that, with the opinions and recommendations of the trustworthy authorities which have been quoted before them, no alteration in the existing law, or the proclamations issued under its authority for the protection of the Derwent, will be sanctioned by either the Government or Legislature.

The Commissioners have on several occasions recommended the appointment of additional bailiffs for the prevention of illegal fishing of every kind, more especially during the close season. It is notorious that fishing, both by net and rod and line, go on throughout the whole year. The enormous value of the whole three species of the *Salmonidæ*, and the prices readily paid for them, prove a temptation to a breach of the law which it will be difficult to repress; and it is not likely that the force of this temptation will soon be allayed. For a single small fish of 4 or 5 lbs., without regard to its species,—provided it has pink flesh—one pound sterling is frequently paid, and sometimes twice that amount.

Amendments to "The Salmon Act, 1865," designed to prevent the ruinous destruction of immature fish, have been prepared, and will, with the new Trout Act settled last year, be submitted to Parliament in the coming Session.

ROBERT OFFICER, Chairman. MORTON ALLPORT. JOHN BUCKLAND. HENRY BUTLER. THOS. GIBLIN. MATTHEW SEAL, ROB. CAR READ. W. A. B. JAMIESON. W. LANGDON.

22nd July, 1878.

RETURN of the Distribution of Ova and Fry from the Breeding Ponds, River Plenty, during the Year 1877.

#### OVA. Salmon Trout. 500 Victoria . . . . Launceston ..... 500 ..... Brown Trout. New South Wales ..... 3000 Victoria ..... 6500 FRY. Brown Trout. 300 Rivers Meander and Liffey ..... 500 250 250Creekton Rivulet, Port Esperance ..... 200Russell River..... 500Streams near Sorell..... 750 Macquarie River..... 320 River Plenty ..... 400

Note.—The Ova supplied to the other Colonies realised the sum of £100. Trout Licences issued during season 1877-8, £105 10s.

PHILIP S. SEAGER, Secretary to Commissioners.

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JAMES BARNARD, GOVERNMENT PRINTER, TASMANIA.