

C.S.

SCIENTIFIC.

MISCELLANEOUS.

1929
1928.

No. 31/29

SUBJECT.

Mr. J. O. Borley.

1928.

16th Oct.

Previous Paper.

PROPOSED INTRODUCTION OF SALMON & TROUT.

See MP 53/1894

MINUTES.

Letter from Mr. J. O. Borley dated 16th October, 1928.

Ag. Nethercliff.

Please see.

2. Please submit at your

convenience your proposals with

which of cost is regard to

are working with limit of the

pool near Nethercliff Creek about

which you have spoken to me.

*Yours truly
16. 1. 28.*

Hon: Col: Secy:

Seen, thank you.

2. The spot in question is known as the "Mile Pond", due South of Stanby 2 miles.

This pond is not deep, but has a large surface, & a very poor outlet to Mullet Creek.

I have long had in mind the possibility of introducing the local Trout (Char) into this pond

I believe that if the outlet was improved by cutting a proper channel & the provision of a "fish ladder" where necessary, that the pond would naturally stock itself in the springtime when the young trout are seeking freshwater from the sea.

The cutting of the channel would cost some £40. This would include trimming up the better parts nearest the sea. The whole is 750 to 800 yards in length.

The necessary cement & labour to complete the work should be well within a further £60 making a total of within £100

Aff Bennett

19/11/1929

ag. Nat.

Govt Naturalist

Thank you.

2. Have you considered

the point, please, of the

124
preservation of the fishing after

stocking i.e. protection against

over-fishing.

Jullien
—
Cl.

19. 1. 29.

Hon. Col. Seay

I had thought of both protection, & also artificial feeding after stocking the pond, & concluded that both items were rather previous.

2. The preservation could be by fishing ticket, restricting the bag, only open for fishing on certain days of the week, or fishing with fly only, or all under a given length to be returned. Staking the bottom in a few spots would prevent netting.
3. I do not know the rate of growth of the local fish, but possibly 3 years of good feeding would be required before any fish was large enough to kill.
4. The outstanding feature of F. D. fresh waters is the very meagre life they contain.
5. I have not seen a trout in the Moody brook over 4 inches long. This I believe is due to want of food.
6. It is also to be observed that most of the streams containing trout flow over sandstone & not quartzite. This is in respect of fish of an eatable size.
7. The question of artificial feeding might be arranged as follows:— Erect on four small piles = sticks, a tray of coarse wire gauze some way out in the water. On this place fortnightly any carrion from August to April. This would attract Blow-flies. The maggots when full fed would drop at once & become food for the

fish below. at the same time reducing the flies.

8. I have spoken with H.E. the Governor & I understand it is desired for me to say something on line ②.

9. I do not think there is even one river large enough to carry Salmon, in the colony. The water is peaty & the bottom generally gravel, both suitable.

On the other hand there is very little food. Around the coast there should be sufficient feeding for the time they are at sea.

agreed to
as not
2.1.27.

y.2. Schit. New proposals are
both attractive but I doubt whether

they are of sufficient "public utility"

to warrant the expenditure of public
in any considerable amount
money or then in present financial

circumstances. At the best they

are of problematical utility

worth and benefit.

2. I might however, add that

benefit other be can support

Inside Minute Paper.

any means, possibly at the cost
 of a few pounds only, of
 improving the supply of trout in
 the North Valley stream.

3. Incidentally as the "White
 Pond" lies on the Common &
 forest difficulties in the way of
 by restrictions
 the proper protection of the fish
 in it, if indeed ever established.

The North Valley stream is in
 a good position, to U.
 Bend, and thus measures for
 its protection are more easily,
 it seems to me, applicable.

just
 27.6.28

Hon. C. S.

1929

I do not wish to spend any
money this year but Mr. Bennett
might be asked for further
suggestions re Para 2 of June
minutes.

(24/29)
1
M.

Ag. Feb. Let.

To you clearly,

please.

J. Bennett

24. 1. 29.

Hon. Col. Seely:

I regret that I cannot see any improvement
to be made in Moody brook. I believe the small
size of the trout there is want of food. The Murrel River
is a much larger stream & what few trout it contains
are even smaller. In both streams artificial
feeding could be tried (as para 7 of mine of 2/11) if anyone
resident near would undertake it.

The cost of the seive would only be a few shillings

J. Bennett
25/1/29. ag. Net.

Inside Minute Paper.

g. 2. Schmitt. W. Bennett might
 write further as may be
 predictable in reputation as to
 artificial feeling at the cost of
 the few shillings mentioned.

W. B.

29
~~26~~ 1. 28
 H

John C. S.
 yes, this might be tried at the a
 small cost say next August.
 Peace at Mr. Bennett see &
 bring up gain in Aug.
 M.

(2027)
 1

Ag. Fort Nat.

Please see.

W. B.
 2

29. 1. 28

Hon. Col. Secy.

Thank you, seen.

W. H. Bennett
3/11/29.

V.S.

7.7.29

Submitted for instructions to 31. 1. 29

W. H. Bennett
A. J. C. S.
8. VII. 29

Hon. C. S.

We have so much on hand that I do not think it is well worth sending at present. V.O. might care to see papers.

$\frac{8.29}{7}$ W.H.

V.O. Herewith

W. H. Bennett
A. J. C. S.
8. VII. 29

Hon. Col. Secy.

I am thank you, — from a conversation on this subject I gathered that an attempt was made some years ago to stock, St. Carlos, but Mr. Norman Cameron was unable to give me details. J.H. V.O.

P.S. Mr. Cameron arrives in the colony next month.

12. 7. 29.

J.H.

PA. 13/11/29

13

3

D/O letter of 9. 11. 31. for
Mr. v. Kell Cameron to Mr. J. R. Hamilton.

4

D/O letter of 23. 11. 31. for
Mr. E. R. Fisher.

J. R. Schattel, with a

draft of a semi-official

letter to Mr. Goodell.

Hon C.S.

I think the letter ^{just}
suggested, will - in the 4. 2. 32.
first instance - be best.

J.G. 5-2-32

5. Letter to J. Goodall, Esq. 4th February, 1932.

G.X. 5. 5. 32

~~Vf. 7. 6. 32~~

~~Just 5. 5. 32~~

~~Just 5. 5. 32~~

b.f.

~~b.f. 11/1/32.~~
~~a. 11/1/32.~~

b.f. 15/9/32.
~~a. 11/1/32.~~

Letter to Mr. J. Goodall, 16/9/32. 6.

J.E. No reply has been
received as yet from Mr.
Goodall. I suggest sending a
"reminder" as prepared.

Hou C.S.
I agree
J.E.
20.9.32

J.E.
14.9.32.

b.f. 10.1.33

P. 19.9.32

7. Despatch to the Consul General, Buenos Aires. 5/11/32.

6/11. 10. 1. 32.

10. 11. 32.

8-17 Letter from Mr. Goodall 5/11/32

Y.E. Schmitt with a draft

d/o letter. 2 refs to Mr. Goodall.

I will refer the to Mr. Schmitt for his consideration.

[Signature]

Hou @ S. 16. 12. 32.

I agree

[Signature]

16-12-32

18. Letter to Mr. J. Goodall. 20/12/32.

Ag. post ltr.

To you, please.

Miller

22 12 32

Hon. Col. Secy:

Read with interest. This correspondence seems to open up considerable difficulties to possible success in the F.I.s.

1. The selection of suitable rivers to stock.
2. Natural food question. In (13 Red) River Enon in I del Fuero is stated to contain quantities of Shrimps, it would seem desirable to obtain these in the first place & see if they could survive in our limeless waters. There is a form of shrimp in some of our coastal ponds, a trial could be made to transplant some of these. It should be noted that the coastal ponds referred to receive a small quantity of lime from the sea pearl roostings there & are the only ponds about this district containing life

Al Bennett
21.12.52 as recd.

Vet. Officer.

I should be glad
of any observation that may
helpfully occur to you in

this matter.

Walker

30. 1. 35.

Non-Com. Secy. Mr. Goodall's letter is
interesting and informative but it is a
pity he did not state more fully his
reasons for not recommending Rainbow
Trout for the Falklands.

The water temperature in the
streams has a strong influence on the
animal and vegetable life present, and
I should imagine that the animal life
in the Sierra del Tuzo streams
would be less than in the Falkland Island
streams. As the streams in Sierra del Tuzo

rise in glaciers? I think so.

Some of our streams abound with Trout.

Dozens can be caught in an hour. There must be lots of feed to maintain such numbers in so small streams, and I think that the same feed would be acceptable to other varieties.

Rainbow Trout are cannibals at certain stages in their life history. They could subsist on the local variety.

The selection of suitable rivers should not be a difficult matter; on the East Trout are present in the San Carlos, The Piedro, the Arroyomalo, Black Rock, Swan Gulch, Fitzroy and Cerros streams, and they are often caught in the Lorenzo Ponds.

These rivers are in my opinion large enough to carry Salmon. Salmon may subsist on the same diet as our local trout, and mature salmon running in fresh water streams for breeding rarely feed. They in very rare cases do salmon feed for sustenance natural, and in those exceptional cases it is usually a minnow that takes them.

J. Thurston.

V. O. 31. 1. 23.

Letter for Brit. Cons. Gen.

7th

19

3. 2. 33.

Bureau Paris

Letter to N. B. C.'s Consul-General, of 2/2/23.

20.

C.S.O. No. 31/29.

Inside Minute Paper.

Sheet No. 9.

Vet. Off. J. Gordon 4. 3. 33.

Ag. post. hat. ag. B. 10. 3. 33

Hon. Treasurer $\frac{m. e. H.}{10. 3. 33}$

The P.A.O. J. M. H. 3. 33

Please see

J. M. H.

4

3, 3, 33.

b. f. 30. 3. 33.

b. f.

12. 3. 33

~~20. 5. 33.~~

~~31. 5. 33.~~

~~b. f. 26/5/33.~~

~~a. d. 22/5/33~~

~~b. f. 30/6/33.~~

~~a. d. 29/5/33.~~

b. f. 12/9/33.

a. d. 30/6/33

Letter from Hon. Consul General, P.A. 27/4/33. 21

Y.H.

Red 21 submitted.

? to P.A. for the present.

C. J. Jones.
24/8/33.

Hon. Col. Lee.

This is most disappointing.
Please write to Mr Goodall
again, re draft letter.

M.C.H., Gov.
24.
5. 8. 33.

Letter to J. Goodall, Esq., 7/8/33.

(22)

Letter to Mr Goodall signed. I
have also written to Mr John
Hamilton of Punta Loyola
asking if he can assist me in
the matter.

M. Miji Karketa
Ag. Gov.
9. 8. 33

P.A.
10/8/33.

Letter from Acting British Consul. Tierra del Fuego. 21/9/33. 23.

Ag. Govt. Naturalist,

to see.

C. J. Jones.
31/10/33.

Hon. Col. Secy

I should greatly welcome anything to increase fish both as a food & as a sport. I fear that the small sum mentioned by Mr Rowe is totally inadequate - The plant for fish hatching is expensive in the first place - and there can be no half measures if success is desired, while the chance of failure seems to me to be great. The worst feature is the almost lifeless waters, ie, containing ^{no} natural foods. A trial or two may produce some quite unexpected results. I endeavoured, some years ago, to increase the life in ponds & streams around Starby & in the camps by importing at my own expense seeds & living roots of the common bullrush (4 species) Reed, & a large sedge; if the millions of seeds planted had not been soon, in the face of this I am at a loss as to what to suggest other than feeding artificially. and this is not possible far from habitations. I do think that Mr Rowe should be encouraged, in a trial

W. Bennett
As. N. H.
31. 7. 55.

h. Submitted. I do not agree on the question of food. Streams where trout or char are found have an abundance of food, at least that is my experience here.

Probably the Ag. Naturalist has not fished in trout streams here, otherwise he would have a different opinion.

2. I think it would be a good thing to give financial support to such an experiment. You will find previous correspondence in this file regarding the proposed introduction of trout.

MCH
 ———
 CS
 J. 8. 35

We must have some clear idea of the cost before support is pledged. I see nothing in this file except that in p. 16. Can an estimate be worked out from Mr. Swidell's letter for say 30000 was including all local expenditure? The Ag. Nat. and his have both seem to have some ideas ^{of cost} but we do not know on what they are based

~~_____~~ 6/8/35-

Yf. I have been able to trace an old file (1894) dealing with experiments which then proved a failure. Shipping facilities are much better now than they were in 1894 and no doubt ova conveyed in the refrigerator of a vessel should arrive in good condition.

2. Mr Rowe quotes the cost of 30,000 ova at £45 - this probably is a near estimate. I notice from a letter in the old file that in 1894 Salmon ova were quoted at 30/- per 1,000 and trout at $7\frac{5}{6}$. Up to the last few years the hatching trays were still in the Govt. Store.

WCH
 CH

31. 8. 25

Mr. Rowe should be impressed that the experiment of introducing duck

was made 40 years ago the utmost care being taken in shipping the ova from a source whence supplies had been sent successfully to New Zealand and other places. The cost to the Govt was £50 but then as now there was no one in the Colony with any experience whatever in raising fish or dealing with the ova on arrival. The experiment was a complete failure and under the circumstances the Government is unable to incur further expenditure on a similar trial.

(It would be very unfair to make the ap. Govt naturalist responsible for an experiment when he himself has no experience and no fault in success. He would with certainty get the full price of the blame for a failure.)

 2/9/35

Letter to E.S. Rowe, Esq., of 2/9/35.

(31)

Yr.

The Hon. G. J. Felton
asked me to send the enclosed
file to Yr. relative to enquiries
made by Mr. Rowe regarding
trouva.

P.A.
3/9/35

MCH
12. 11. 35

Seen

There is nothing to add to what I
have already said and Mr. Felton can
be informed of this. I will not approve
of expenditure for Post Office unless or until there
is someone here capable of handling the work.

~~ttttt~~ 11/21/35

Letter to Hon. G. J. Felton, of 2/2/35.

(32)

P.A.
MCH

Letter from Hon. G. J. Felton 18/1/36

(33-4)

Yr.

Submitted. I do not know if
Mr. Bennett has had experience
of trouva.

2. "A" of Mr. Felton's letter
will be dealt with in the appropriate
file.

MCH
27. 1. 36

HCS

Nothing to add. The proposal was not turned down ^{mainly} in account of the ~~cost~~ "trifling cost"

27/1/36

B.f 3.2.36
MCH 27.1.36

(35)

Letter to Hon. G. J. Selton, of 2/2/36.
Govt. Naturalist

To note.
MCH
et.
3.2.36

Hon: Col: Secy:
Noted, thank you

Bag: Not:
5.2.36

P.A. MCH

(36-39)

Minute from Naturalist of 9/4/37.

Y.E. submitted.

Return the correspondence to Mr. Bennett and advise him that this is a matter of purely private arrangement & does not concern Govt. and that no action should be taken by him in his official capacity

JCS
27/1/37

Hon. C.S.

I concur.

to CH
10. 7. 37

Minutes to Ag Govt. Naturalist of 12/4/37.

(40)

P.A.
13/7/37.

Minutes from Ag. Adviser of 24/4/37.

(41)

Y.E.

The position is as stated by Sir Kenneth Heaton in his minutes of 2/9/35, 11/12/35 and 27/1/36 does not seem to have altered & perhaps the Ag. Adviser could be informed on these lines.

Red
28/7/37

Hon. C.S.

Let the Agric. Adviser see these papers. I feel sure that Sir Kenneth Heaton would welcome the introduction of trout provided the venture was likely to prove successful. The Govt. is not prepared to provide funds unless it can be shown that there is someone with expert knowledge to subsidise the venture.

2. In any case it seems doubtful whether Govt. should pour public funds into private streams. It would be no benefit to the public.

3. Let the R. A. express his

Views hereon

MCA

28.7.37

Agmenelara advise

Do so via minute

but remember express your views hereon.

Res
28/7/37.

Hon. Col, Sec.,

I have the honour to advise as follows:-

It has occurred to many that the stocking of the numerous streams of the Falkland Islands with trout would be most desirable, and some, who appear to be qualified to speak, consider it possible.

The information relative to the likelihood of success or the probable expense entailed, to be gleaned from correspondence on the subject does not seem to be definite enough to convince a Government of the wisdom or otherwise of experimenting with this end in view. Trout were introduced into New-Zealand waters in the early days of the Colony and for at least 50 years, fish hatcheries have been established throughout the provinces and the transportation and liberation of fry seem to present few difficulties there, even when long journeys are necessary.

Although trout fishing, both in lake and stream, brings tourists every year from all parts of the world to New Zealand, primarily the work carried out by the Department of Fisheries was for the purpose of adding to the stock of harmless pleasures enjoyed by the indigenous population, and to supplement the diet especially of those in rural and isolated districts.

I do not know if it would be possible to bring fry from New Zealand to here, but if so, an excellent opportunity seems to present itself in the arrangement for a direct vessel from there in November.

The passage would probably not exceed 14 days, and that month is I believe the one when fry are generally liberated.

The Department of Fisheries would I am sure, be pleased to arrange for a trial consignment, and this should not prove costly. The Department of course, would know whether the experiment was worth while.

It is well known that trout of a kind frequent the streams here, and where they find food, no doubt Brown trout would do so too.

The imported fry could be liberated where the result could be observed.

Banker
Agricultural Adviser.
5th August, 1937.

-1. E.

Memorandum from the Agric. advice submitted for instructions.

Res 5/8/37

Hon. C.S.

This does not assist much. Who would look after the escherichiae. See X of Sir Hemmings Keaton's minute of 11th Nov^{br} 1935. It obviously is useless importing wa unless there is someone here competent to deal with it. I believe also certain apparatus are necessary.

To Ag. Govt. Naturalist for his views, please.

MCH
5. 8. 37

Govt. Naturalist.

To you accordingly.

Res.
for C.S.
6/8/37.

Hon. C.S.

The reply might be that from enquiries made the introduction of Irons would involve considerable expense since the services of an expert would be required and in addition various appliances, buildings etc. ~~would be required~~ and that in view of the financial position of the Colony and other pressing needs such as improvement of grasslands the proposal to introduce Irons cannot at present be considered.

2. Your suggestion re a Club seems the solution.

M.H.
11. 8. 37.

Minute to Agric. Adviser. of 12/8/37.
" from " " " 16/8/37.
" To " " " 18. 8. 37.
Minute to Govt. Naturalist of 29/9/42.

(42)
(43)
44.
45.

PA
12/8/37
PA
19/8/37

(46).

P.A.

4.E.
S.W. Submitted. (45) refers.

K.B.
19/12 ✓

P.A.

Mr. Bennett

12/29

File
1/10/1911

to see.

add.

2, Richmond Terrace,

S.W. 1.

16th October, 1928.

Dear Mr. Hodson,

Had you not been going north we could have seen Dr. Pryce-Tannatt this week. As you say, however, I think it may be useful to write in the meantime.

I have had a telephone conversation with Dr. *Pryce-Tannatt*, and find him rather pessimistic on the subject of introducing salmon into the Falklands. The nearest parallel with the Falkland Islands in latitude, and presumably some other features, is New Zealand. Very energetic and prolonged efforts were made to introduce salmon there, but no success was met with except in one river, and the Atlantic salmon, although introduced there, changed considerably, as it visited lakes, but did not go down to the sea. The rainbow trout was successful, as no doubt you know; it had a curious history, as Dr. Pryce-Tannatt tells me that it did not become a migratory fish until it had consumed most of the available food in the waters in which it was put.

That brings me to the question of conditions for successful ~~acc~~ acclimatisation. He tells me that one of the

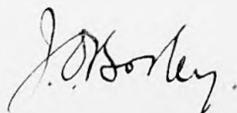
A.W. HODSON, (ESQ.), C.M.G.,
Travellers' Club,
Pall Mall.

chief of these is the presence of food of small enough size. Others, of course, are the nature of the bed of the stream, and the existence of suitable rivers and lakes. While you are away, I will do what I can to look up the question of fresh water in the Falklands; but I think it probable that you may be able to suggest the best topographical accounts and charts, and if so perhaps you will do this. Another important factor in the case of salmon is the presence of suitable food in the sea. Off-hand, I do not see any way to settle this but trying, but it may be that one can get some idea beforehand. I see by the isotherm charts that the waters about the Falklands are colder than those about even the south of New Zealand; bearing in mind the Pacific salmon and the cold temperature of the sea off the North-West American coast, there might be nothing ^{to} ~~the~~ matter in this, but of course it may be the dearth of foods off the New Zealand coasts that kept the acclimatised salmon there in the rivers.

In any case, if you will let me know when you will return to London, I will arrange with Dr. Pryce-Tannat.

I am,

Yours sincerely,



TELEGRAPHIC ADDRESS:
"PORT SAN CARLOS, PORT STANLEY."

Port San Carlos,
Falkland Islands, S.A.

November 9 19 31.

Dear Hamilton,

I had been intending to approach the Government with the suggestion that they should make an attempt to stock the bigger rivers and lakes of the Falklands with rainbow trout imported from Bahia Blanca. I should explain that within a few hours train journey of Bahia Blanca the Argentine Government maintain hatcheries from which they have stocked various rivers and lakes in the Argentine. The fish came originally, I believe, from North America.

I happened to mention this in Stanley and it was suggested that the Scoresby could possibly undertake the task. She has the necessary equipment and the scientific knowledge on board and doubtless she could find the time to do it. I was recommended to approach you on the matter. Anyway there is the idea and you would know how to push it if you thought it worth while. I am told that the Scoresby is employed for research and development. Please remember me to Mrs. Hamilton,

Yours sincerely,

Norman Keith Cameron.

R. R. S. "William Scoresby"

23. vi. 81.

Dear Ellis,

with reference to our conversation

this morning, the Vice Consul in Tierra del Fuego

by name Goodall - but initial forgotten - is a

keen angler and has tried hatchery experiments

with eggs obtained from the Argentine. I should

think it would be well worth while getting into

touch with him before making definite plans

re introduction of fish locally.

Yours ever

R. R. S. Junther.

Kindly excuse the curtness of this note -

but shortly leaves for the Cambes

Colonial Secretary's Office
Stanley, Falkland Islands
4th February, 1932.

Dear Mr. Goodall,

Mr. Gunther of the R.R.S. "William Scoresby" tells me that you are a keen angler and that you have tried hatchery experiments with eggs obtained from the Argentine.

It has been suggested that the Falkland Islands Government might endeavour to introduce fish locally, for example rainbow trout, hatcheries for which, it is stated, are maintained by the Argentine Government within a comparatively short distance of Bahia Blanca.

If I am not troubling you unduly I should be very grateful to benefit by your experience and to have your advice in this matter.

Yours sincerely 

(J. M. ELLIS
Colonial Secretary,
Falkland Islands.)

J. Goodall, Esq.,
British Vice-Consul,
Rio Grande,
Tierra del Fuego,
Argentine Republic.

FALKLAND ISLANDS.

NO. 31/29.

GOVERNMENT HOUSE,

STANLEY.

5th November, 1932.

Sir,

I have the honour to state that this Government is considering the matter of introducing into the Falkland Islands fish such as rainbow trout, hatcheries for which, it is understood, are maintained by the Argentine Government within a comparatively short distance of Bahia Blanca.

2. I should be grateful if you would be good enough to furnish me with any information which you may have available as to the practicability of this Government being able to obtain supplies of fish or eggs from this source for the purpose stated.

I have the honour to be,

Sir,

Your most obedient
humble servant,

HIS BRITANNIC MAJESTY'S
CONSUL-GENERAL,
BUENOS AIRES,
ARGENTINE REPUBLIC.

British Vice Consulate,
Rio Grande,
Tierra del Fuego,
5th. Nov. 1932.

Dear Mr. Ellis,

red
b

Your letter of Sept. 16th. have just received together with copy of letter dated Feb. 4th. 1932, this last mentioned letter I have not received up to now. It is a very common occurrence here to receive letters a year or so after despatch.

Now regarding the introducing of trout into the Falklands I have no doubt this could be easily done, but I do not recommend the introducing ~~the~~ of Rainbow Trout, at least not for our streams in Tierra del Fuego, and I suppose the streams of the Falklands are similar to these. The ova we made the experiment with was Salvelinus Fontinalis or North American Brook Trout, and this ova can be purchased from the Argentine Government Fisheries at Bariloche, Territorio de Rio Negro, but I would advise you to make all arrangements through Buenos Aires. When we made our experiment our water supply was very inefficient at times it was putrid with a most evil smell, and I have no doubt

16

That this water killed the alevins as they hatched out, but we now have a very good water supply. and I had intended hatching out on a much larger scale this last winter, as a certain Government official had promised to supply us with 100,000 eyed ova, after having prepared all the hatching boxes and trays this did not materilize so we did no hatching this past winter. We may try again this coming winter but not on a large scale as I will not be here myself my leave being due, but one of my staff will be able to look after the hatching he having experience through helping me the last time. We had to pay \$15 Argentine pesos per 1,000 for the 6,000 ova wev received in 1931. The ova would have to be ~~tak~~ taken on board in the port of Madryn about the month of June, or if you decide on rainbow trout then about September. Salmo Fario should do very well in the Falklands. but I do not know if the Argentine Fishery could supply same. I am enclosing you copies of the report we made on the experiment we carried out and also copy of a letter I wrote to Mr. Brophy who came out to this country about 25 years ago, when the Argentine Government introduced salmon and trout from the U.S.A. but I have had no reply to this letter. Mr. Brophy is in charge of the Government Fisheries in Bariloche. You will notice from the report that the ova we received was carried in cold storage from Madryn to Magallanes, I cannot understand how the ova arrived in such splendid condition, the ova was beautifully packed, just fancy the eggs were on board about

seven days without water and in a temperature seven degrees cent,
below zero, and only 40 eggs were spoilt. I do not think this (15)
treatment was the cause of the eggs and alevins dying during
incubation, I am positive that the filthy water killed them.
It had been my intention to keep the alevins until they were
five weeks old and then place them in the streams, but when I saw what
was happening we placed all the remaining ova and alevins
in the streams, but I doubt very much if any of them have lived
If we ever hatch out on a large scale it is our intention to
plant half the alevins when five weeks old and feed the remainder
up to fry stage say about five months old before introducing into
the rivers and streams. A book on trout culture which I can
recommend very much is "Fish Farming for Pleasure and Profit" by
Practical and published by Burlington Publishing Co., Ltd.,
You will require very little water to hatch and rear say 30,000
eyed ova, about five gallons per minute would be ample, the ova
could be arranged in three boxes each box containing ten trays of
1,000 eggs each, the boxes placed eight inches below each other
so that the water will fall from box No. 1 to No. 2 and from No. 2
to No. 3.

Trusting the above information will be of use to you, and if I can
help you in any way will you please let me know.

wishing you every success in your venture.

J.M. Ellis Esq.,
Colonial Secretary,
Falkland Islands.

Sincerely yours,

J. Goodall
v

John Goodall

14
Frigorifico

Rio Grande

Tierra del Fuego

Argentina

29th. Aug. 1931.

Dear Mr. Brophy,

Please find enclosed a report on the Trout Ova received from your fishery on July 5th. 1931. You will note that it had rather a rough passage down here, unluckily I believe that our water supply is not pure enough for hatching Trout, the present supply comes from springs dotted about over a Vega and from there it runs through open ditches, through a peat bog and then through about 1,600 yards of 5 inch cast iron pipe with the result, that by the time we get the water it is very impure. We filtered the water through three thicknesses of Turkish towel filter cloth, but with all this there was quite a lot of slime formed on the bottom of the hatching trough but not on the hatching trays, this I believe killed the Alevins as they hatched out. In a few weeks time we are going to shut in four of the springs with concrete walls, roof them in and pipe the water down to the works with 5 inch cast iron pipe about 2,200 yds.

I am sending samples of the water; Two samples of the water we used in hatching out the 6,000 Ova received, and another three samples of water as it leaves the springs. Would you mind letting me know if the water from the springs will be pure enough; it is crystal clear. We should have available for hatching purposes from the middle of May to about the middle of January, roughly, minimum quantity 3,680 litres per hour.

I understand that you had to do with the introducing of Trout in the Santa Cruz, so you will have a good idea of the conditions

down here; of course as a rule the winters are much colder here than Santa Cruz and we should have great difficulty in getting out the Alevins to the different rivers in the Spring as the roads during August, September and most of October are almost Impassable and the rivers are also in flood. Do you think that with 3,600 litres of water per hour we could rear the Alevins to Fry stage and introduce them into the streams sometime in November? What about feeding them, could we buy from your department prepared food? Here we have any amount of frozen ~~XXXX~~ mutton and sheep livers also we could probably procure and freeze a few bullock livers . If you can give me any information regarding the feeding of Fry I will be very grateful. I am enclosing a sketch of the hatching arrangement of the trial we have done, also some particulars of hatching troughs and trays which I made last winter.

Which do you consider most suitable for these rivers Salvelinus Fontinalis or Salmo Fario?

Most of the streams and rivers are full of shrimps and flies for instance last January in the River Euan I picked off the bottom several large stones about the size of a goose egg and on most of them I found several larva of a fly of the Ephemeridae family, and on the quieter stretches of the rivers there are plenty of fresh water shrimps.

I only wish you were able to pay us a visit as I would be very pleased indeed to put you up and show you all the rivers and streams within reach of the road.

Next year I hope we will be able to procure about 100,000 Ova, but I can see that it will be much safer to employ some one to

(12)

bring them down so that they will be looked after on the voyage and if we can get the same person to look after the hatching and rearing so much the better; I only hope my principals will be agreeable to the expense.

In November I am probably going to the Santa Cruz district to try for the Trout there and if you wish I will let you know the results.

If you find it possible to come down here the best time of year for looking at the rivers and streams is in the months of December and January, the roads are then in good condition for cars , and up to the end of January I have plenty of time to go about.

Hoping to have the pleasure of meeting you some day,

Believe me,

Yours sincerely,

Year 1931

Batch

Salvelinus Fontinalis

Date	Centigrade Temp of						Maximum Temp. Atmos	Minimum Temp. Atmos	State of water	Filters	No. of Eggs	Hours of water running through filtering box per minute	OBSERVATIONS	
	Water			Slud										
	10.	3.	9	10	3.	9								
July 5	-	2	2	-	0	2	+ 1/2	- 12	Not very Clean	All Changed		1/2 Gale	Water brownish	
" 6	2	2	2	-3	-1	-2	-1 1/2	- 5 1/4	No Change	Running Steady		"	Several Eggs turning white	
" 7	1 1/2	1 1/2	2	-1 1/2	-1 1/2	-1	- 1.	- 4.	Slightly Cleaner	All Changed		1/4 "	Two eggs hatched out. Many eggs turning white	
" 8	1 1/2	2	2	-1	0	-1	+ 3/4	- 7	Still Clean	Running Steady	1	2 1/2 "	Several show signs of hatching.	
" 9	1 1/2	2	1 1/2	-1/2	-1/2	-1/2	+ 1/2	- 8	Cleaner	All Changed	1	2 1/2 "	Eggs still turning white. No change from yesterday	
" 10	1 1/2	2	1	-3	-1 1/2	-3	- 2.	- 13 3/4	Much Cleaner	Running Steady	106	2 1/2 "	Eggs more steady. Not so many white ones. Water running more even.	
" 11	0	1	1 1/2	-6	-3 1/2	-2	+ 1/2	+ 2 1/2	Very Clean	All Changed	176	2 1/2 "	Fome. falling fast. Eggs still turning white.	
" 12	2	2	2	-2	-1 1/2	0	+3	+ 1 1/2	No change	Running Steady	396	2 1/2 "	Eggs still turning white several hatching	
" 13	2	2	2	0	+2	+1 1/2	+4	- 4 1/2	Water Dirty	All Changed	500	3 "	Water not too good.	
" 14	2	2	2	-1	-1	-1	+1	- 5 3/4	Still Dirty	Steady	58 incl. 2 dead larvae	3	"	Water still discoloured
" 15	2	2	2	-2	-1/2	-2	-1 1/4	- 9	No Change	All Changed	613 incl. 10 dead larvae	2 3/4 "	"	Slight change in water
" 16	1 3/4	1 3/4	1 3/4	-2	-1	-1/2	+1	0	Slightly Cleaner	Running Steady	60 including 3 dead larvae	4 1/2 "	"	Nothing to report.
" 17	1 3/4	2	2	0	0	+1	+3 1/2	0	Slightly Cleaner	All Changed	48 including 2 dead larvae	4 1/3 "	"	Water much better
" 18	2	2	2	0	+1	+1	+2	+ 2 1/2	As yesterday	All Changed	47 incl. 3 dead larvae	4 1/2 "	"	Water same. Mild. Temp.
" 19	2	2	2	+2	+2	0	+3 1/2	- 1 1/2	Clean	Bottom Filter Changed	18 incl. 3 dead larvae	4 1/3 "	"	Water smelling bad.
" 20	2	2	2	0	0	-2	-3	- 4	Clean	All Changed	71 incl. 5 dead larvae	5 "	"	Water coloured
" 21	2	2	2	-2	-1/2	-2	-1 3/4	- 5	Fairly Clean	All Changed	66 incl. 47 dead larvae	5 "	"	Water cleaner
" 22	2	2	2	-1	0	-2	+1	- 3 3/4	Clean	Running Steady	65 incl. 6 dead larvae	5 "	"	No change water. All traps giving good results
" 23	2	2	2	0	+1/2	-2	+4	- 6	Clean	All Changed	63 incl. 15 dead larvae	5 1/2 "	"	Nothing to report
" 24	2	2	2	-2	-2	-4	-2 1/2	- 11 1/2	Clean	Running Steady	49 incl. 44 dead larvae	5 "	"	Water same.
" 25	1 3/4	1 1/4	1 3/4	-4 1/2	-2	-3	-1	- 8	Not so clean	All Changed	48 incl. 44 dead larvae	5 "	"	Water dirtier
" 26	1 3/4	1 3/4	2	-3	-1	-1	+1 1/2	- 4	Same as yesterday	All Changed	118 whilst hatching	5 1/2 "	"	Water still coloured
" 27	2	1 3/4	2	-1	0	-1/2	+4	- 8	Slightly Cleaner	Running Steady	60 incl. 76 dead larvae	5 "	"	Water better
" 28	2	2	2	-3	0	-1/2	+2	- 7 1/4	Cleaner	All Changed	146 whilst hatching	5 "	"	Water cleaner
" 29	1 3/4	2	1 3/4	-2	-1/2	0	+3	- 1	Fairly Clean	Running Steady	104 whilst hatching	5 "	"	400 larvae & 502 Eggs placed in Rio Julio Temp. 0°
" 30	2	2	-	0	0	-	+4	0	Clean	All Changed	80 whilst hatching	5 "	"	2445 Eggs and larvae placed in Rio Condalaris Temp. 0°

Information required regarding the hatching and rearing
of 100,000 Salmon and Trout Ova.

- 1 Water supply minimum quantity 800 imperial gallons per hour (3.680 litres) or 400 gallons per hour for each set of four boxes. Will this quantity be sufficient to hatch and rear 100,000 Ova.
- 2 Do you think it would be an improvement if we used artificial heat in the hatching room, by doing this the water may rise one or two degrees in temperature. It will be noted that the temperature of the water fell to zero on July 11th., with the hard winters we usually have this temperature would be very common, although this coming winter the water will be coming direct from the springs through a 5 inch cast iron pipe three feet below the ground and the temperature of the water at springs during winter is 5 degrees cent., the temperature may not fall below 2 degrees.
- 3 Would it not be advisable to line the hatching boxes with thin Galvanized iron.
- 4 Will the hatching boxes be deep enough to rear the alevins to fry stage say up to November, the depth of water can be raised up to 7 or 7½ inches in the hatching boxes, or will it be advisable to make other boxes or tanks for rearing.
- 5 Will the perforated zinc make suitable screens for hatching boxes.
- 6 Will the hatching room require much ventilation, we propose using an existing concrete tank which is roofed over, but to keep the frost out we will place boards across the walls and cover with sawdust. this sawdust can be taken off after the end of August when there should be plenty of ventilation, and we then can adjust the light to suit the Alevins. We have electric light available up to 10pm.
- 7 Can you give any information regarding the introducing of fry into the streams, they will have to be transported by car or camion over fairly rough roads, the longest distances will be up to 4 hours journey If you could give a sketch of the cans required these could probably be made on the works.

1931. (26)

REPORT ON TROUT OVA RECEIVED FROM BARILOCHE.

The Trout Ova arrived at Magallanes by the S/S "Buenos Aires" on Thursday July 2nd. and was taken off the steamer at 11 a.m. having been carried aboard in cold storage.

Upon opening the box in Magallanes aboard the steamer, all the trays were found to be frozen together, and the thermometer registered one degree below zero. On enquiry, the purser said that they had been carried all the way in cold storage without watering.

They were given water in Magallanes on Thursday afternoon at 3.30 p.m. by Mr Haseman and he left the following morning Friday July 3rd. at 11 a.m. for Porvenir, arriving there at 3 p.m. He left Porvenir on July 4th. at 4 a.m. by car, arriving at Estancia "SARA" at 5 p.m. a distance of about 250 kilometers over frozen and very rough roads. He left the Estancia "SARA" at 9.30 a.m. on July 5th. arriving at Rio Grande at 4 p.m. travelling over hard and bumpy roads. All the above information was given to me by Mr Haseman himself.

Upon opening the box immediately on its arrival, there was noticeable a little frost on the trays, and about 40 eggs were white with fungus on them, the temperature of the box being one degree above zero. The Ova looked quite a healthy colour with the exception of the few eggs mentioned above. The Ova was placed in hatching trays at 8 p.m. the same day (Sunday July 5th.) and at this time there was quite a lot of movement in some of the eggs.

On Monday morning quite a few of the eggs began to turn white, and on Tuesday morning a great many more turned white and a few began to hatch.

The report continues on Log Sheets.

From Log Sheets it will be noted that as the alevins hatched out, most of them died within 24 to 48 hours. Looking at them through a magnifying glass, they appeared to have a white fungus on them, this probably being due to the water not being pure enough.

On July 29th we decided to place the remaining eggs and alevins in the two rivers Julio stream, a branch of the River Bush, and the remainder in the River Candalaria.

From this trial we have learnt that it is quite practical to bring ova from Bariloche, and I have no doubt that once we get the water from the springs which we hope to have next year, we should be able to hatch and rear both salmon and trout.

J. J. Powell

Colonial Secretary's Office,
Stanley, Falkland Is.

20th December, 1932.

Dear Mr. Goodall,

I am very grateful to you for your letter of the 5th
Reds 17-15 of November. It is good of you indeed to take such an
interest in our proposal to introduce trout into the
Falkland Islands and to write so fully out of your own
experience. I notice particularly that you recommend the
North American Brook Trout and advise that we should make
arrangements through Buenos Aires. We have now written to
the Consul-General at Buenos Aires enlisting his aid in
establishing a contact with the proper people.

We are enthusiastic over the project and have every
intention of carrying it through if at all practicable.

I shall be happy to let you know later on how matters
develop. With renewed thanks,

believe me,

Yours sincerely,



J. Goodall Esq.,
British Vice-Consul,
Rio Grande,
Tierra del Fuego,
Argentine Republic.

(11)

BRITISH CONSULATE GENERAL,
BUENOS AIRES.

3rd. February 1933.



Sir,

With reference to your letter No. 31/29 of the 5th. November last, I have the honour to inform Your Excellency that, having ascertained that the Argentine Government have been making experiments in stocking fish in Lake Nahuel Huapi and in the neighbourhood of Santa Cruz, I have twice written to the Fisheries Department of the Ministry of Agriculture, but without eliciting a reply.

I have now handed Your Excellency's letter to the Commercial Department of His Majesty's Embassy, in the hope that they may be more successful.

I have the honour to be,

Sir,

Your Excellency's most obedient,
humble Servant,

A handwritten signature in cursive script, appearing to read "J. H. H. H. H.", written in dark ink.

H.M. Consul-General.

His Excellency

The Governor of the Falkland Islands,

Port Stanley.

VH/AJC.

GOVERNMENT HOUSE,
STANLEY.

3rd March, 1933.

FALKLAND ISLANDS.

No. 31/29.

Sir,

I have the honour to acknowledge the receipt of your letter of the 3rd of February, 1933, and to thank you for the measures which you are taking in the matter of introducing fish such as rainbow trout into the Falkland Islands from the Argentine.

2. I am to say that Mr. J. Goodall, British Vice Consul at Rio Grande, Tierra del Fuego, states that he has himself procured ova of the North American Brook Trout from the Argentine Government Fisheries at Bariloche, Territorio de Rio Negro, and to suggest that this may be a possible source of supply.

I have the honour to be,

Sir,

Your obedient servant,

JAMES O'GRADY.

HIS BRITANNIC MAJESTY'S
CONSUL-GENERAL,
BUENOS AIRES,
ARGENTINE REPUBLIC.

BRITISH CONSULATE GENERAL, ²¹

BUENOS AIRES.

22nd. June 1933.

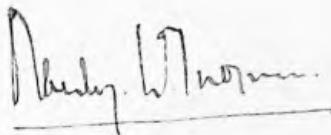
Sir,

With reference to Your Excellency's despatch No. 31/29 of the 3rd. March last regarding the possibility of introducing fish such as rainbow trout into the Falkland Islands, I regret to have to inform you that the repeated steps taken in the matter by the Commercial Department of His Majesty's Embassy, which were foreshadowed in my despatch of the 3rd. February, have so far proved fruitless.

I have the honour to be,

Sir,

Your Excellency's most obedient Servant,



Acting British Consul-General.

His Excellency

The Governor of the Falkland Islands,

PORT STANLEY.

SHG/AJC.

GOVERNMENT HOUSE,
STANLEY.

9th August, 1938.

FALKLAND ISLANDS.

Dear Sir,

With reference to Mr. Ellis's letter of the 20th December, 1938, on the subject of the proposal to introduce trout into the Falkland Islands, I beg to inform you that we wrote to the British Consul-General at Buenos Aires enlisting his aid. The Consul-General has now informed us that the repeated steps taken in the matter by the Commercial Department of His Majesty's Embassy have so far proved fruitless. This is most disappointing. Would it be possible for you to obtain the ova on our behalf? If so we might be able to arrange with Mr. John Hamilton of Punta Loyola to allow one of his vessels to pick it up when proceeding from Punta Arenas to the Falkland Islands. I feel sure that Mr. Hamilton would give us all assistance possible. We should also be extremely grateful for any further assistance you can conveniently give in the matter.

I am, Dear Sir,

Faithfully yours,

M. Luigi Hallett

J. Goodall, Esq.,
H.B.M.'s. Vice-Consul,
Rio Grande,
Tierra del Fuego,
ARGENTINE REPUBLIC.

28

Dear Mr. Henniker-Heaton,

I enclose copies of correspondence exchanged by me with Mr. George H. Edge regarding the getting of trout down here.

Negotiations are not very far advanced because I do not think Mr. Edge is at all keen in helping, but I can overcome that through the Tornquist.

What I want to know now is whether it would be possible to count on any Government support if I put the matter forward officially.

For instance there is the matter of cash. Would it be possible to get up to £25.- or £30.- to help the scheme. In other times Cameron, Greenfields and Felton, I know would help privately, but not under present circumstances. I am prepared to spend £10.- myself but not more.

It seems so difficult to get anything new like this going here, but perhaps if Your Excellency took an interest in the matter greater progress could be achieved.

I am,
Yours faithfully,

H.H. Herbert Henniker-Heaton, Esq., C.M.G.
Government House,
Stanley.

Recd. (undated) / 21 July
Please put up with etc and refer to
Sw. Kalmus list

[Signature] 25/7/35

Copy

C.I.

19th July 1935.

Dear Mr. Edge,

Many thanks for your kind letter of 30th March and the snaps. The one showing the fish makes one keener than ever in trying to get such fish down here.

I think that either ova or fry or both should be got down here and it should not be too difficult from Bahia Blanca as we have 4 or 5 ships per annum from Bahia Blanca to Port Stanley and they only take 2½ to 3½ days in getting here.

I also think it could be arranged for one of the officers to look after the fry or ova properly on the way.

I believe that in regard to fry what is needed is to keep a running stream of fresh water through the carrying tank so that the fry can get plenty of fresh air out of the water.

Your suggestion that something could be done officially through the Argentine Ministry is not practical, because of the long-standing dispute over the possession of the Falkland Is. so the matter must be fixed up privately.

Perhaps you could let me know whether it is possible to get ova or fry later on from you.

I have had a letter from Don Martin Tornquist which seems that he is agreeable to my getting fry and ova from their place.

Again thanking you for your courtesy and kindness, I am,

Yours faithfully,
G.P. Estete Louis Williams.

George H. Edge Esq.,
Estancia "Le Ventana"
Tornquist FCs
Argentina.

Estancia "La Ventana"
Tongquist Fe S

March 30th 1935

Dear Mr. Powe

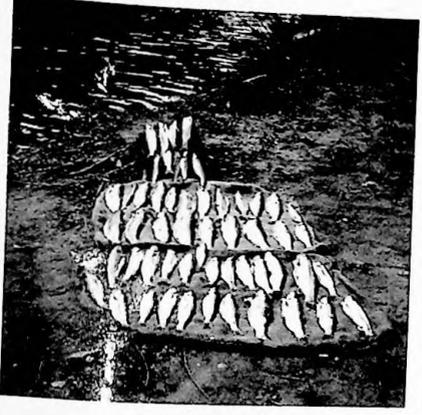
I am very sorry not to have answered your letter of November 19th. I put off doing so until I could give you a definite answer as to whether we were going to hatch some more rainbow-trout here like we did last year; but last week the Tongquists decided not to do so, still if they should change their mind later on, I shall let you know.

Last year we had Tongquismen men here who did the work, & they got very good results, hatching out close on 100,000 fry, these were to have been sent to their hatchery in Bauloche, but due to a mistake at the last moment they lost half of the fry & the rest we had to turn down in the river here to save them.

I should recommend you write to the Argentine Government through our Ambassador or Don Martin Tongquist, & see what they can do for you, they have rainbow-trout & hatch brook trout in their hatchery, either of which ought to do well in your river, & they will also be able to tell you whether the idea of fry are the most practical; I know that fry have been sent great distances in this country, but are accompanied by an expert, they have been packed on horseback five days journey up into the hills of Cordoba.

Thanks very much for the stamps, I look on them as a nice token from one fisherman to another, & in return I enclose some snaps of our trout & fishing here.

Yours faithfully, George H. Edge



Afternoon's catch
on shore

Self fishing

(28)

File EDGE

19th November 1954.

Sir,

I am indebted to the Paymaster of the "Exeter" for your name and address, and also for apprising me of the fact that you have Rainbow Trout under your control, hatcheries etc.

I have been trying for some years past to get trout of some sort brought down to the Falkland Islands, where I feel certain they would do well in some of the streams, but up to the present I have not been able to get into touch with any suitable hatchery.

I therefore take the liberty of now approaching you on the subject, particularly as I understand you are only about a day's railway journey from Bahia Blanca, and there are vessels calling at Bahia Blanca every 3 months or so - these vessels take about 2½ to 3½ days in reaching Port Stanley after sailing from Puerto Galvan or Ign. White.

It is necessary for me to state here that I know absolutely nothing about raising fish, but I know it can be done, and that both ova and ~~spaw~~ are taken long distances at times in order to stock fresh rivers - and therefore it should be possible to get either ova or ~~spaw~~ (or both) down here for the purpose of establishing fish in the rivers here.

We have already a kind of trout - but it is a muddy coloured, miserable little thing and no good as sport - in fact in some streams they are so numerous that the shepherds take them in grosses. In one or two favoured places half-pounders are fished, but they are exceptional, and even these larger fish show no sport.

So would it be possible to get ova or ~~spaw~~^{eggs} from you, and could you give me some instructions as to how to handle the stuff on arrival here. Actually I can get it into suitable streams within 24 hours of arrival here, although it may mean carrying the stuff on horseback? This would strike me as being hazardous.

If there is any question of having to obtain a permit from Messrs Tornquist, I anticipate no difficulty, as I am known to Don Martin Tornquist - he was my guest here for a day in 1925 and I am certain he would do anything to help.

Actually there will not be any vessel coming through Bahia Blanca now until April next year, so if you feel inclined to help me in this project the details could thus be arranged well in advance.

I hope you may see your way to assist in this project and thanking you in anticipation for your courtesy,

2.

I remain,

Sir,

Yours faithfully,

George Edge Esq.

Estancia La Ventana

Tornquist

F.C.S.

Argentina.

P.S. I hope you may find the enclosed Centenary stamps of interest.

P.S.S. Since writing the foregoing I have read a short account of pisciculture in the Harmsworth encyclopaedia and I gather from this that young fry would be the best to get here though probably more difficult to transport - whereas fertilised ova would be easier to transport but would then need special attention here in hatching trays until the fry were ready.

ADDRESS ALL CORRESPONDENCE
TO THE MANAGER

ESTATE LOGGERS WILLIAMS

SUCCESSORS TO CHAS WILLIAMS

ESTD 1863

GENERAL MERCHANTS

CI.

RADIO ADDRESS
"WILLIAMS"

CODES USED:
BENTLEYS
A B C 5TH ED.
A. I.

PORT STANLEY
FALKLAND ISLANDS.

7th August, 1935.

Sir,

With reference to verbal enquiry re possible cost of obtaining 30,000 trout ova, we have no idea of what the cost would be if imported from the Argentine.

However, "The Field" of 15th December, 1934 says the following regarding prices in England:-

"A price list from the Howietown and Northern Fisheries Co. for 1934-35 is a reminder that clubs or owners who have in mind to stock their water with ova or fry would be well advised to calculate their requirements as soon as possible. Prices this year run roughly:- Ryed ova from salmon or sea trout, 30/- per 1,000; trout, brown or rainbow, 15/- per 1,000; three months old trout fry, 40/- per 1,000; yearlings £20.- per 1,000."

On this basis, allowing for the cost being exactly double, say 30/- per 1,000 ova; 30,000 would run into £45.-

Putting this into Argentine paper currency would represent (at exchange \$18.- to the £) \$810.- paper pesos - a very respectable sum of money in Argentine to-day and therefore probably sufficient to induce an owner of a hatchery to agree to supply the ova.

Local expenditure should not be very great. Presumably the services of the Government Naturalist would be enlisted in order to supervise the work locally and the assistance of one or two boys should be obtainable for £4 or £5 per month for a short period.

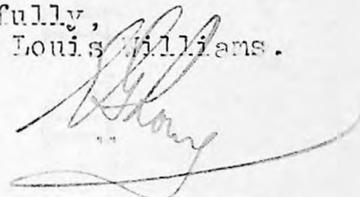
Perhaps the top reaches of the Arroyo Hala, where there is a shepherd's house, would be one suitable place in which to hatch the ova, and there and probably in other places, it should be possible to arrange for assistance from the owners of the land - particularly as they would benefit from the establishment of trout and should therefore give assistance free of charge.

Freight from Bahia Blanca, or elsewhere, to Port Stanley should be almost a negligible item.

FROM ESTATE LOUIS WILLIAMS, PORT STANLEY

We may add that our knowledge of this matter is very slight, but perhaps there are books of reference available in the Colony that would give a fairly good idea of what work would be necessary.

Yours faithfully,
p.p. Estate Louis Williams.



P.S.

We understand that the small brown trout here, go right up into the smallest tributaries in order to spawn - local trout having been fished in such places and found to be full of roe at certain times of the year.

THE HONOURABLE
THE COLONIAL SECRETARY
STANLEY.

31/29.

2nd September,

35.

Sir,

With reference to your letter dated the 7th of August, 1935, and to previous correspondence regarding the introduction of Trout, I am directed by the Governor to inform you that the experiment of introducing Trout was made forty years ago the utmost care being taken in shipping the ova from a source whence supplies had been sent successfully to New Zealand and other places. The cost to the Government was £50 but then as now there was no one in the Colony with any experience whatsoever in raising fish or dealing with the ova on arrival. The experiment was a complete failure and under the circumstances the Government is unable to incur further expenditure on a similar trial.

Red 30

I am,

Sir,

Your obedient servant,

MCH

Colonial Secretary.

E.G. Rowe, Esq.,
STANLEY

Colonial Secretary's Office,
Stanley, Falkland Islands.
13th December, 1935.

Dear Mr. Felton,

With reference to the correspondence regarding trout ova which you handed to me and which the Governor has seen, I enclose for your information copy of a letter on the subject which was sent to Mr. Rowe on the 2nd of September, last. His Excellency will not approve of expenditure from Government funds unless or until there is someone in the Colony capable of handling the ova. I have returned the correspondence to Mr. Rowe.

Yours sincerely,

WCH

The Honourable G.J. Felton,
Teal Inlet,
EAST FALKLAND.

Trout hatchery
Traveling allowance
hatchery

Copy filed
in Mt. 101/30

(20)

Leal Inlet

Jan 18 1936

The Hon.

The Colonial Secretary.

Sir

I have been many years trying to get the Government to introduce Trout into the Islands.

So far I have had the encouragement that was being looked into & would be tried if feasible.

Now the scheme is definitely turned down & mainly because of the trifling cost.

In my opinion Mr Bennett could take charge of the rearing & distribution.

A I suggest the sum necessary for the experiment could be obtained by doing away with the allowances to officials while on visits to the farms.

over

There is little need for them being paid.
The farmers never charge for board,
lodging, horses or guides.

They give of their best & it is an
annoyance or grievance to them
that the Government Official must
be paid a substantial sum for
visiting them & is a slur on the
well known hospitality of the Falkland
Islands farmer.

I am sir
yours truly
C. S. Selby

(36)

B. 364/HC/36.



OFFICE OF THE
HIGH COMMISSIONER FOR CANADA,
CANADA HOUSE,
LONDON, S.W. 1.

22nd September, 1936.

Dear Sir,

I duly received your letter of the 21st instant, a copy of which has been sent forward to-day to the Department of Fisheries at Ottawa for transmission to the Head of the Fishing Culture Service.

I need hardly state that as soon as a reply comes to hand, a further communication will be addressed to you relative to the possibility of transferring eyed ova from Canada to the Falkland Islands for the purpose you have in mind.

I am asking the Department of Fisheries to communicate with you directly at Port Stanley.

Yours faithfully,

Secretary.

A. G. Bennett, Esq., C.M.Z.S.,
35, Wilberforce Road,
N.Z.

PMD/H.

ADDRESS REPLY TO
DEPUTY MINISTER
AND QUOTE
No.

718-1-22



DEPARTMENT OF FISHERIES

OTTAWA, October 23rd, 1936.

Sir,-

The Secretary of the High Commissioner for Canada, Canada House, London, S.W. 1, has forwarded a copy of your letter to the High Commissioner, relative to the possible introduction of brook trout (Salvelinus fontinalis) into the waters of the Falkland Islands.

This Department is not familiar with the water conditions of the Falkland Islands, and consequently it is unable to advise as to their suitability for brook trout. This species is indigenous to clear, cold, spring water lakes and streams. The most favourable temperature range is from 45° to 65° F. Its food consists chiefly of crustacea, mollusca and various forms of all insects and worms, but when pressed by hunger it does not hesitate to devour its kind.

Eyed trout eggs have been transferred from Canada to England and to Japan; Atlantic salmon, sockeye salmon and whitefish eggs to New Zealand, and sockeye salmon eggs to Tasmania, so that as far as distance is concerned it should be quite feasible to transfer eyed trout eggs to the Falkland Islands, but a great deal would depend on the transportation facilities that are available.

The shipments above referred to were in charge of the butcher and were kept in the vegetable room on board ship, which it is understood is usually maintained at a temperature of about 40° F. In addition to being maintained at a moderately low temperature (from 36° to 40° F.) during transit the eggs and their packing are kept moist by daily applications of water.

At this Department's hatcheries in the Maritime Provinces brook trout eggs are spawned from about October

A.G. Bennett, Esq.,
C.M.Z.S., M.E.O.U., M.R.A.O.U., M.A.S.C.P. (Arg.),
H.M. Customs,
Port Stanley,
FALKLAND ISLANDS.

25th to the early part of December. The spawning period is influenced by the temperature of the water and the age of the fish. Some fish and their progeny also have a tendency to spawn earlier in the season than others. The incubation period is also influenced by the temperature of the water and hatching in the Maritime Provinces takes place from approximately March 15th to the first week in May. During the incubation period the water temperature ranges from 32° to from 40° to 45° F.

This Department would be very glad to furnish you with any further information regarding hatching equipment and the care of trout eggs and fry that you may desire.

I am, Sir,
Your obedient servant,



Wm. A. Found.
DEPUTY MINISTER

No. _____

MINUTE.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

9th July 19 37.

From Naturalist.

To

THE COLONIAL SECRETARY,

Stanley, Falkland Islands.

Before going on leave last year Mr Rowe asked me to enquire into the possible introduction of Trout. I had interviews at the Board of Agriculture & Fisheries and they suggested as the best fish to try the American brook-trout from Canada. I went to Canada House and attached is the correspondence; perhaps Mr Rowe could be informed.

I regret that this correspondence has been mislaid for some time.

A. Bennett
Ag: Gov: Nat:

Mr Bennett may inform Mr Rowe of the result of his enquiries. MCH

No. _____

MINUTE.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

27th July, 1937.

From

To The Honourable Acting

Agricultural Adviser,

Colonial Secretary,

Stanley.

STANLEY.

I have the honour to draw attention to a resolution passed at the Second Annual Conference of Farmers at Stanley on 13th/15th May 1937,

"That the Government be approached with a view to considering the question of the introduction of trout into the streams and lakes in the Colony".

I understand this is not the first occasion on which this matter has been brought before the Government.

Undoubtedly the object is a worthy one and has much to commend it, especially in this Colony which is so devoid of the usual amenities of life enjoyed in the Dominions and other Colonies.

If a direct shipment of sheep is arranged, at some future date from New Zealand a splendid opportunity may present itself to have some young trout sent here for the above purpose, at a reasonable cost.

Asanku
Agricultural Adviser.

No. 51/29

(It is requested that, in any reference to this minute, the above Number and the date may be quoted).

MINUTE.

12th August, 19 37.

From Hon. Colonial Secretary,

Stanley.

Stanley, Falkland Islands.

To The Agricultural Adviser,

Stanley.

With reference to your minute of the 27th July, I am directed by the Acting Governor to inform you that from inquiries made, the introduction of trout would involve considerable expense since the services of man expert would be required and in addition various appliances, buildings etc., etc.

2. I am to say therefore that in view of other pressing needs, such as improvement of grasslands, the proposal to introduce trout cannot at present be considered.

Acting  olonial Secretary

(43)

No.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

MINUTE.

16th August, 19 37

From

Agricultural Adviser,

Stanley, Falkland Islands.

To The Honourable Acting

Colonial Secretary,

Stanley.

I have the honour to acknowledge your 31/29 of 12th inst., regarding the introduction of trout to the Colony.

My memo of 27th inst., was intended to bring to your notice a minute embodying the desires and recommendations of a Conference of farmers and was placed before you by me merely in my capacity of Chairman of Conference.

I am not sure from your reply that it is understood that the subject of trout importation did not originate with me.

W. A. Jones
Agricultural Adviser.

(22)
45

No. _____

MINUTE.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

29th September, 19 42.

From

To ~~The Government Naturalist,~~

~~Colonial Secretary,~~

~~STANLEY.~~

Stanley, Falkland Islands.

I have the honour to inform you that His Excellency the Governor has given permission for the importation of an additional consignment of trout ova. Should this cause an excess on the relative sub-head of your vote, a Special Warrant may be applied for when the exact excess has been ascertained.

K. G. BRADLEY
Colonial Secretary.