

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	1468	Press Mis.
596-600. Dated	27-5-	1868.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

Read the following papers:—

No. 596. From the Acting Collector of Nellore, to the Secretary to Government, Revenue Department, Fort St. George, dated Nellore, 26th November 1867, No. 1,545.

1. I have the honor to reply to Government Order dated 11th September 1867, No. 2,140, and Government Order dated 7th October 1867, No. 2,348.

2. The Pennair anicut is constructed with a slope on both sides, and affords no obstacle whatever to fish ascending from the sea when the river is in flood. Many fish thus ascend the river about 20 miles, and are caught in the pools of the river when the water subsides. The Pennair is not a river which flows continually all the year round. On an average the water rises to the crest of the anicut only sixty-one days in the year. For the greater part of the year the bed is quite or nearly dry.

3. The Sable fish, to which Government allude, is apparently the *Pollaku*, *Pollam*, or *Ullam* of the Telugus. These fish ascend the river Pennair, and are captured as I have described, but the capture and sale of this fish does not form a branch of trade of any importance, nor do they seem to be taken in any numbers. The fishermen are unaware of what is the spawning season, and do not seem to make any particular use of the roes. The fish can only ascend the river when it is in fresh. At other times there is not sufficient water for them, it is not that they are obstructed by the anicut.

4. I doubt if the fishing in the river is of sufficient importance to make it desirable to forbid fishing during the spawning season. The following is a list of the different species of fish found in the river, from such information as the fishermen give.

Sea fish.—1 Roya, 2 Sura-minu, 3 Moya, 4 Pandu-minu, 5 Pullakur or Pullam, 6 Kannangular, 7 Komumu.

River fish.—1 Korra-minu, 2 Valaga, 3 Tamboji, 4 Malugu, 5 Mutsangi, 6 Rati-bommadayi, 7 Bommadayi, 8 Kuntamukku, 9 Ulasa, 10 Narazalli, 11 Natlazalli, 12 Akuzalli, 13 Mottagudiche, 14 Valika-tatta, 15 Chittrapallam, 16 Pulliritsu, 17 Kalliritsu, 18 Kakiyendam, 19 Roya, 20 Konangulu, 21 Illapa, 22 Bediche, 23 Paksham, 24 Potihakke, 25 Akupakke, 26 Nisukodupu, 27 Morapakke, 28 Isuka-dontu, 29 Itrakasam, 30 Banka Jitrakasam, 31 Kanuga, 32 Gende.

5. When in the Vizagapatam District, I made a collection for the Madras Museum of the different salt and fresh-water fishes, attaching the Telugu names to each, so that if it were wished these names could probably be identified by the Superintendent of the Government Central Museum.

6. I have the honor to enclose copy of a letter from the Assistant Engineer, Major A. D. Clay, with reference to his experience of the Vellaur in South Arcot.

From Major A. D. CLAY, Assistant Engineer, N. Range, to the Collector of Nellore dated Camp at Budanam, 17th October 1867, No. 252.

With reference to your letter No. 1,018, dated 10th instant, I have the honor to observe that my experience is limited to the Vellaur in South Arcot. In 1854 and 1855 I was engaged on the anicut across that river at Shatia Top, about 20 miles from its mouth at Porto Novo.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

On the commencement of freshes, large fish, including the Sable, used to ascend the river in considerable quantities. The Sable takes both fly and spinning bait freely, and affords good sport. Eels were also very numerous below the apron. When the floods ran down, many fish were left in the deep pools and holes below the anicut, and were then captured (but not in any great numbers) by the natives, for their own consumption, and not, I am of opinion, for trade. I feel unable to speak with certainty in answers to questions 1 to 4. With regard to question 5, I think a fish-ladder might easily be constructed at every anicut, and that it would tend to improve and preserve the fisheries in the various rivers. In answer to question 6, I reply, most certainly; certain months, as in England, should be "*Fence months*," and all fishing prohibited under penalty.

No. 597. Proceedings of the Board of Revenue, dated 28th January 1868, No. 656.
Read the following letters:—

From the Collector of the Godavery District, to the Secretary to the Board of Revenue, dated Cocanada, 7th October 1867, No. 274.

In forwarding my replies to the questions contained in the Proceedings of Government, No. 2,140, dated the 11th ultimo, communicated with the Board's Proceedings of the 20th September, No. 6,058, I have the honor to report, for the information of Government, that they are founded on information obtained from the Tahsildar of Rajahmundry and the fishermen of Cocanada. A copy of the Proceedings has been sent by me to the Superintending Engineer who is now at Dowlaishweram.

Replies to questions contained in the Proceedings of Government, No. 2,140, dated 11th September 1867.

Q. I. The Sable fish, called Pulasa in Telugu, are caught in nets in the vicinity of the Godavery anicut in small boat-fulls at a time. The fishermen dispose of the same on the spot to others, who carry the fish to Samalcotta, Peddapur, Cocanada, and other places for sale. This forms a trade.

II. They are taken during the months the Godavery receives freshes, while the roe is in them.

III. The roe is not sold apart from the fish, nor is there any export trade in either. The value of a fish is between three and six pice.

IV. The Sable are caught during the months of August, September, and October, when the Godavery is in fresh. In those months, the water is red and foul. After these months, they go back to the sea, and are not to be found.

V. They are caught especially below the anicut, by which they are stopped when the water is low. When water is running over the anicut, they go up the river freely and are not to be caught. (*Not being a resident at Dowlaishweram, nor often there, I cannot from my own experience say much of the habits or mode

* Remark by Collector.

of catching these fish, but I can remember, when I lived at Bezwarrah, seeing these fish in great numbers during the cold weather. They used to play in the stream of water escaping through the under-sluice shutters at either end of the anicut, and evidently were anxiously looking for these shutters to be opened to make their way up the river. Fishermen standing over the under-sluices used to catch them in numbers with casting nets; five and six, and sometimes more, at a throw. Unless these under-sluices were opened periodically for a certain time, I do not see how otherwise the passage of the fish up water can be provided for in the low-water season.)

VI. It would be possible to forbid fishing during the spawning season, *i. e.*, August, September, and October, and the prohibition can be enforced, but in effect this would almost annihilate it.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

VII. Before the construction of the anicut, there was none of this fishing in the vicinity of that spot, or in the river generally; but it has become a trade since then. The fishermen say that they do not catch the Sable in such abundance now as they used to do immediately after the anicut was built.

The period of the fishery at the anicut lasts during the months of August, September, and October, and in all these months the fish are caught with roe in them. Therefore to interdict fishing during these months because the fish are thus caught, would simply annihilate the trade, unless the people were allowed to use their nets on certain days in each week only. This would give the fish a holiday; and when the water tops the anicut considerably so as to reduce the difference of level between the water above and below it, no doubt the fish can run up. The fishermen seem to think that the depth of water coming over must be so great for the fish to run up that the ripple caused by the crest of the anicut should be obliterated. I suspect that, like the Salmon at Home, the fish can and does spring or rush up some height.

(Signed) J. FRASER,
Collector.

7th October 1867.

From the same Officer, dated Cocanada, 17th October 1867, No. 288.

In continuation of my letter, dated 7th instant, No. 274, to the Board, I have the honor to forward copies of notes furnished by the Acting Superintending Engineer and Sub-Engineer Viranna, R. B., regarding the Sable fishing in the Godavery at Dowlaishweram.

From Captain T. BECKLEY, R. E., Acting Superintending Engineer, 1st Division, to the Collector of the Godavery District, dated Camp at Dowlaishweram, 12th October 1867, No. 190.

1. I have the honor to enclose a few notes furnished me by Sub-Engineer Viranna Rai Br. regarding the Sable fishing in the Godavery District. From the inquiries I have made, I conclude the following to be facts:—

(1.) As the anicut stops most of the fish from passing up stream, there are now fewer fish high up the river than formerly.

(2.) Some fish pass the anicut during freshes, and perhaps through the under-sluices.

(3.) The anicut facilitates the catching of enormous number of fish just below the fall.

(4.) Fish with roe are caught in September and October, and I think it advisable that during these two months they should be considered out of season and protected; but I would recommend that the prohibition against fishing should, as an experimental measure, be at first confined to the month of October.

2. There can be no possible room for doubt, but that by means of properly constructed ladders the fish would pass the anicut and ascend the river.

3. I request that Rupees 500 may be placed at my disposal for making temporary fish-ladders, and I should be glad to receive any suggestion regarding the most approved mode of constructing them.

Memorandum.

1. Does the capture and sale of the fish form a branch of trade of any importance?

No. Godavery fish cannot be preserved, but sold on the spot immediately they are brought out for daily use.

2. Are the fish taken in the spawning season when the roe is in them?

Fish are taken at all seasons, and not particularly when the roe is in them, as they are not taken on account of roe.

3. Are they taken mainly for the sake of the roe, and is the roe used and sold, or exported apart from the fish?

No. The roe is not used nor sold for exportation, as it cannot be preserved as well as fish.

*Proceedings of the Madras Government, Revenue Department,
27th May 1863.*

4. Do the fish come up at regular seasons, and are those seasons co-incident with the low-water or with the freshes in the rivers?

Yes. The season is co-incident with freshes in the river.

5. Would it be possible to contrive any means of passage by which the fish could ascend above the anicuts in the low-water season?

I think it would not be possible now to form a passage in the body of the anicut.

6. Would it be desirable to forbid fishing at the anicuts altogether during the spawning season, and would it be possible to enforce the prohibition?

It would not be desirable to forbid fishing at the anicuts during the spawning season, as the eggs are usually carried down to sea with the current, where fish formed, but not in the river. The fish remaining in the shallow water after the freshes are over, soon perish if they are not captured; it would be possible to enforce the prohibition, but no good.

7. Is the taking of these fish on this large scale an old practice in the Godavery and Kistna rivers, or has it sprung up since the construction of the anicuts, and has the abundance of the fish perceptibly decreased in consequence?

The practice of catching fish in large scale has sprung up since the construction of the anicuts, as the fish that come up usually from sea during freshes cannot ascend the river to a great distance as before, but detained at the anicuts in lots. The abundance of the fish in the river above the anicuts is somewhat diminished since the construction of the anicuts; in all seasons fish are available in the river for daily consumption.

The fish procured at the anicuts in great numbers formed a great part of food to many poor classes of people in the late famine years; therefore the prohibition of the capture of fish is not desirable, as it in no way effects the increase of its abundance.

12th October 1867.

(Signed) V. VIRANNA, R. B.,
Sub-Engineer.

From G. L. MORRIS, Esq., Collector of Tanjore, to the Secretary to the Board of Revenue, dated Vallam, Tanjore talook, 15th November 1867, No. 222.

Govt. Order, dated 11th Sept. 1867, No. 2,140.
Do. " 7th Oct. " " 2,348.
Do. " 21st do. " " 2,469.
1. With reference to the orders of Government noted in the margin, I have the honor, after communication with the Superintending Engineer of the 6th Division, as directed, to report on the following points relating to the capture of fish at the Lower Coleroon Anicut, at certain times of the year when ascending in shoals from the sea.

2. Before answering *seriatim* the questions asked, I beg to make the following general remarks. There appears to be no doubt that large shoals of the Sable fish ascending from the sea are stopped by the Lower Coleroon Anicut, when the river is in flood from the 15th June to the 15th August. These fish come up in shoals four or five times during the season, and are from 1½ to 1½ feet in length, 9 inches broad, and 2½ to 3 inches thick. They are full of forked bones and are called *seewadi* in Tamil or "Sable fish" in English—vide Rottler's *Tamil Dictionary*, page 230. Previous to the construction of the Lower Coleroon Anicut in 1836, the Sable fish was caught in the neighbourhood of Trichinopoly, but since that year it has, according to general report, disappeared. The natives are of opinion that the Sable is a sea-fish, and that it comes up the Coleroon from the sea, not for the purpose of

*Proceedings of the Madras Government, Revenue Department,
27th May 1863.*

breeding, but because it "likes the taste of the fresh water" which comes over the anicut at the time of high freshes, or from June to August. I confess that I am of opinion that the natives are mistaken on this point; but as I have no means of ascertaining for certain what are the real facts, I think that it would be worthwhile if an officer like Dr. Day, who has studied this subject deeply, was ordered to hold a strict examination on the spot, and thus be able to arrive at conclusive facts:—

1. Does the capture and sale of this fish form a branch of trade of any importance?

The value of the Sable fish caught near the Coleroon Anicut and sold each season is about 1,700 Rupees. The fish is opened and salted, and sent into the neighbouring districts of South Arcot, Trichinopoly, and Madura.

2. Are the fish taken in the spawning season when the roe is in them?

Yes.

3. Are they taken mainly for the sake of the roe, and is the roe used and sold, or exported apart from the fish?

The fish is not taken for the sake of the roe, which appears not to be exported, though sometimes pickled and preserved for local consumption.

4. Do the fish come up at regular seasons, and are those seasons co-incident with the low-water or with the freshes in the rivers?

The fish come up in shoals against the stream during the floods from about the middle of June to the middle of August.

5. Would it be possible to contrive any means of passage by which the fish could ascend above the anicuts in the low-water season?

No. The rivers are dry, or have a very small stream running during the dry season.

6. Would it be desirable to forbid fishing at the anicuts altogether during the spawning season, and would it be possible to enforce the prohibition?

No, as the fish disappear when the river is low, only a few fish remaining in deep holes formed at points where the current sets against the bank and the bed has been scoured out.

7. Is the taking of these fish on this large scale an old practice in the Godavery and Kistna rivers, or has it sprung up since the construction of the anicuts, and has the abundance of the fish perceptibly decreased in consequence?

The capture of the fish is facilitated, owing to the existence of the lower anicut which now arrests their progress up stream; they formerly are said to have found their way up the river above Trichinopoly; the fishing then extended over 80 or 100 miles of the river instead of being concentrated, as it was at a single spot; and it is not possible to ascertain whether the fish have diminished or not: it is believed not.

*Proceedings of the Madras Government, Revenue Department,
27th May 1863.*

From the Acting Collector of the Kistna District, to the Secretary to the Board of Revenue, dated Masulipatam, 12th November 1867, No. 400.

With reference to Board's Proceedings, No. 6,058, dated 20th September 1867, 11th September 1867, No. 2,140. communicating Proceedings of Govern-

ment noted in the margin, I have the honor to enclose copy of a letter No. 225, dated 21st October 1867, received from the Head Assistant Collector, and a Memorandum dated 5th November 1867, from the Executive Engineer in charge of the anicut at Bezwada. From the former of these it appears that the chief fish found in the Kistna near the anicut are—

1. Commu Sora (Sword fish.)
2. Noti Sora.
3. Tsakkulu.
4. Pandu Goppalu.
5. Goraka.
6. Meva or Bonta, the Mullet.
7. Vullasalu or Vullappu Chakkalu or Yekkudu Chakkalu.
8. Tik (Ray.)

Mr. Vibart makes mention only of the seventh, probably, because far the most characteristic and numerous of all large fish found in the river. None of those mentioned by Mr. Stuart is the "Sable fish" which is known in this district as the "Oolapee Chepa" (అల్పేచేప) not "Oolakoo Chepa" (అల్లకూచేప) as mentioned in Brown's Dictionary. This according to my information is a sea-fish, and is found in the Kistna in the vicinity of the anicut, at the same time as are those mentioned by Mr. Stuart. Of these, Nos. 1, 2, 4, 5, 6, and 8 are certainly sea-fish, which ascend with the low-water to spawn, and return with the first freshes. The third I do not know, and cannot learn anything of. The seventh, commonly known as the Hilsa, we have in this district, always regarded as a sea-fish, which come up the river to spawn, as Salmon do at Home.

With these preliminary remarks I proceed to answer categorically the questions proposed by Government in the first of their Proceedings under reply.

(1.) The quantity of fish taken yearly below the anicut may be estimated at 3,300 cavady loads, valued at Rupees 7,800. The trade is partly local, partly export; the fish exported are sent to the Godavery.

(2.) The fish are generally in roe when taken.

(3.) The roe is not the main object of the fishery: the roes are sold separately it is true, but they are necessarily removed in the process of curing: the roes are to be had both fresh and cured.

(4.) The fish always come up with the low-water in the month of November, remain till March or April, and disappear with the first freshes.

(5.) There would be no difficulty whatever in constructing temporary ladders; but as a better way, considering the requirements of the anicut during the low season of November to the end of January, it is suggested that an establishment of fishermen for catching the fish below, and putting them into the river above, would be the best way of providing for the passage. The Hilsa, Mr. Stuart remarks, has got from the fishermen the name of "Yekkudi Chakka" from its determined efforts to ascend: these must have been very unsuccessful as a rule to attract notice.

*Proceedings of the Madras Government, Revenue Department,
27th May 1863.*

(6.) Mr. Stuart reports that the fishermen are unanimous in saying that the fish never spawn below the anicut; it would therefore, as a means of propagation, be useless to prevent fishing. Mr. Vibart concurs in deprecating, at least for the present, the stopping of fishing: if there were any prohibition, there would be no difficulty whatever in enforcing it. In his letter No. 236, dated 6th November 1867, received this day, Mr. Stuart proposes, should the method of conservancy referred to in (5) be adopted, to stop the fishery during his operations.

(7.) The catching of the Hilsa on the scale that now yearly occurs, dates from the construction of the anicut; the abundance of the fish cannot be said to have decreased perceptibly, for the trade, if anything, is greater than before.

Should Government approve of the proposals for conservancy of Messrs. Stuart and Vibart, I have the honor to request that sanction for a sum of not more than Rupees 200 may be given for the purpose. This I think will suffice.

From A. J. STUART, Esq., Acting Head Assistant Collector, to the Acting Collector of the Kistna District, dated Bezoarah, 21st October 1867, No. 225.

1. With reference to Government Proceedings No. 2,143, dated 10th September 1867,

11th September 1867, No. 2,140.

I beg to submit the following information derived from the fishermen of Bezoarah, and

which I believe to be substantially correct. Several different kinds of fish come up from the sea every year to Bezoarah, the Telugu names of which are as follows:—

1. Commu Sora.
2. Noti Sora.
3. Tsakkulu.
4. Pandu Goppalu.
5. Goraka.
6. Meva or Bonta, the Mullet.
7. Vullasalu or Vullappu Chakkalu or Yekkudi Chakka.
8. Tik.

Whether any of these, or which of them, is the Sable fish I do not know.

2. These fish come up after the Kistna freshes are all over, when, as the natives express it, the black water, i. e., the clear water flows.

This is about the month of November; they continue to increase in number until the months of January, February, and March, when they are most numerous, after which they become fewer.

3. Before the anicut was built, few if any fish were caught in Bezoarah; the fishermen say that fish passed up in large numbers to places fifty miles and more higher up when they spawned, and remained all the hot weather, coming down again with the first freshes of the next year. They state that the river is so shallow after the fish have gone up, that they cannot come down again until the next year.

4. In direct consequence of the anicut, there are now caught below it, according to the estimate of the fishermen, about 3,300 cavady loads of fish in the year, valued at Rupees 7,800. Some forty fishermen come yearly from Dowlaishweram and that neighbourhood in November or December, and catch about 1,000 cavady loads of fish in January, February, and March; about 1,500 cavady loads in November, December, April, May, June, and July; the Bezoarah fishermen catching 200 and 600 cavady loads in the same months respectively.

5. Of the whole quantity caught, about 2,500 cavady loads are said to be exported towards Dowlaishweram, and the remainder sold in Bezoarah and its neighbourhood at Rupees 2 to 2½ per cavady load. The yearly weight of fish thus caught is estimated at 1,600 maunds.

6. The Bezoarah people use small nets, but the fishermen from Dowlaishweram bring nets said to be 3 or 400 yards long, and 12 to 14 feet deep.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

The greatest quantities of fish are caught in the deep pools below the anicut, the net being first fastened at one end, then taken round in a wide sweep, and gradually drawn in. At one haul these large nets will bring to land five cavady loads, and five or six hauls appear to be the usual day's work.

In each haul containing say thirty-six cavady loads, there will be some dozen or two of the other kinds mentioned in paragraph 1, almost the whole haul consisting of kind No. 7, the Vullasalu or Vullappa Chakkalu or Yekkudi Chakka.

7. This fish is always full of roe and has its last name Yekkudi Chakka, from the perseverance of its struggles to ascend the river (from the Telugu word Yekku, to climb). It is described as about a foot-and-a-half long, its belly and sides white with a dark stripe down the back. I can testify that it is an excellent fish when cooked, but exceedingly full of long and very fine bones. It is commonly called, whether rightly or wrongly I cannot say, the Hilsa fish.

8. It evidently comes up in large numbers for the purpose of spawning, but being for the most part unable to get past the anicut, or, after wasting time there, to get back again, the whole shoal is caught at Bezoarah with the roe in them.

9. A few, however, do get up through the under-sluices when these are open, and I have seen many fish caught up by simply hanging baskets from the rear of the anicut, so as almost to touch the water, when the fish ascending and jumping out of the water fall into the baskets. It is impossible to estimate how many get up in this manner, or how many come down as they come with the early freshes, and are never then seen or caught. But it is not impossible that a very few fish successfully passing the anicut and spawning higher up would keep up the numbers of the tribe to which they belong, since each fish is known to have many thousands of eggs, the hatching of which, and the safe rearing of the young, must in great measure depend upon the quantity of food available, so that a few fish successful in spawning, may possibly be as effective in keeping up the breed as a great many in the narrow space of a single river, or rather the pools which remain through the hot weather.

The fishermen are unanimous in asserting that these fish never breed below the anicut; I cannot quite understand why. Their reason is, that there is too much wind, but possible the soil and depth may not be suitable.

10. These fish are not taken specially for the roe, nor, as far as I can learn, is the roe separated from the fish before sale.

11. It will be observed that the arrival of the fish takes place with the low-water, and their return to the sea with the next year's freshes six months after. But I think but few return from below the anicut where they are in a manner ponded up and caught at pleasure.

12. I do not think it would be possible to contrive any means to enable the fish to ascend without interfering into the damming up of the river water which in November and December is necessary to ensure the rice crop. But this is a question for the Engineers.

13. I do not think it would be of much use to forbid fishing, at least if it be true that the fish do not spawn below the anicut as asserted by the fishermen. It would be easy to enforce the prohibition if made, but it would deprive a great many persons of their chief means of subsistence and profit.

14. It is possible that before the anicut was built, these fish may have been taken in large quantities higher up the stream. I will make inquiries and report in future on this point, and beg to recommend that the same inquiry be made higher up the river than my division extends.

15. Lastly, I would draw attention to the fact that large numbers of a small whitish fish are taken in the canals at the Calingulals. These I suspect may be the young fish coming down the Kistna to the sea and carried into the canals; but the fishermen all deny this, saying that they are bred in the river Kollairu which is connected by the old Pulkairu with the canals, and that they ascend the canals to get into the Kistna river. I do not think this so probable as my own supposition, and if the latter is true it proves that a large number of young fish are bred every year, notwithstanding the anicut, by fish getting past it.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

Memorandum relative to the fisheries on the river Kistna.

- | <i>Questions.</i> | <i>Answers.</i> |
|-----------------------------------|--|
| With reference to Question No. 1. | The trade does not appear of any great importance. Chiefly local and with neighbouring districts. |
| „ 2. | Yes. |
| With reference to Question No. 3. | As far as I can learn, the fish is not exported except to the Godavery. The fish are not taken chiefly on account of the roe, but the roe makes the fish more valuable. |
| „ 4. | The shoals of Palasa come up from October to April while the river is low. For the last five or six years, parties of fishermen from the Godavery have been in the habit of catching about sixty cavady loads daily just below the anicut. It appears that after a month of these operations, the fish become much less numerous chiefly by being scared away. |
| „ 5. | The fish could easily pass through the under-sluices, but when the river is low, it is of importance that these should be kept closed during the Irrigation season. Doubtless, temporary ladders might be formed to allow the fish to pass over the anicut, but during the months of November, December, and January, a stone-bund is placed across the anicut, and water, as far as possible, prevented from flowing over the anicut. It has been suggested to me that the Government should institute an establishment to catch the fish below the anicut and place them in the river above if it is found that the supply of fish is really largely diminished by the fisheries below the anicut. I think Government should rent out the fisheries annually, and put a stop to them altogether, should it, after further observation, be deemed necessary. There would, I think, be no difficulty in enforcing a prohibition against fishing. |
| „ 7. | The practice is of old date; but since the construction of the anicut, the fishermen have enjoyed greater facilities. |

(Signed) H. M. VIBART, Lieutenant, R. E.,
Executive Engineer, Kistna District.

BEZOARA,
5th November 1867.

1. Resolved, that the foregoing letters be submitted for the information of Government, with reference to their Order, dated 11th September 1867, No. 2,140.

2. The reports from Godavery and Tanjore refer only to the Sable fish; the Collector of the Kistna District names eight different kinds of fish as being caught below the anicut in the Kistna rivers. Of these, however, one only, described as the Hilsa fish, appears to be found in any great numbers, and as the description of this fish given by the Head Assistant Mr. Stuart tallies exactly with that given by the Collector of Tanjore regarding the Sable fish, it is most probable that the two are identical.

3. In reply to the questions contained in the Proceedings of Government calling for these reports, the Collector of Godavery District reports that the fish are disposed of on the spot, and are not cured. The Collectors of Kistna District and Tanjore report that the fish caught in the Kistna river and at the Coleroon anicut are cured and sent to the neighbouring districts, the annual value of the fish thus caught in the Kistna river being estimated at Rupees 7,800, and in the Coleroon at Rupees 1,700.

4. It appears that in all three districts the fish are taken when the roe is in them, but that they are not taken for the sake of the roe, which, however, is some-

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

times, in the Kistna District and Tanjore, sold separately, as it has to be removed when the fish is cured.

5. In Godavery District and Tanjore, the fish come up the river against the stream in the freshes, in the former district in the months of August, September, and October, and in the latter from June to August.

6. In the Kistna river, the fish are reported to come up from the sea while the river is low, and to be carried down by the freshes in March and April.

7. With regard to the adoption of means to enable the fish to pass the anicuts which at present bar their progress up the rivers for the purpose of spawning, the Collector of the Godavery District suggests that the sluices might be opened from time to time to let them through. He believes that some do find their way beneath the sluices, and states that when the water tops the anicut they get up easily.

8. The Collector of the Kistna District remarks that the construction of fish-ladders would be easy, but recommends instead a proposal of his Head Assistant, Mr. Stuart, that an establishment of fishermen should be employed to catch the fish below the anicut, and transfer them to the river above it.

9. It appears from Mr. Morris' letter that in Tanjore the rivers are so low in the dry season as to be almost empty; that the fish are confined to the deep pools; and that no means can be suggested for enabling them to pass the anicut.

10. As regards any prohibition to fish below the anicuts, the Collectors are, on the whole, opposed to such a measure.

11. The Collector of the Godavery District observes in his letter, dated 17th October, that after the freshes, when the river is low, the fish can neither get up beyond the anicut nor back to the sea, and being left in shallow water soon die if not caught.

12. The Head Assistant, Kistna District, states that the fish never spawn below the anicut, and that in former times they used to go fifty miles further up the river for the purpose of spawning. He considers it certain that a few fish manage even now to get up, and believes that, considering the immense number of eggs produced by a single fish, and the dependance of the young fish on a plentiful supply of food, a few fish spawning successfully may be as effective in keeping up the supply as a much larger number in the comparatively limited space. Mr. Wilson concurs with him in deprecating any actual prohibition of fishing below the anicut, but agrees with the proposal mentioned above, to entertain an establishment of fishermen to assist the fish in passing the anicut, and requests that Rupees 200 may be sanctioned for this purpose.

13. All three Collectors are agreed in stating that the extensive fishing now carried on below the anicuts did not exist previous to their construction; and the Collectors of Kistna and Tanjore observe that, notwithstanding the large number of fish caught, the supply has not diminished.

14. The Collector of Godavery, however, considers that the number now caught is not so great as in the first few years after the building of the anicut.

15. It will be seen from the letter of the Superintending Engineer, Godavery District, enclosed in the Collector's letter of 17th October, that Captain Beckley proposed to construct ladders for the fish, and requests that Rupees 500 may be placed at his disposal for that purpose.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

16. The Board are inclined, however, rather to favor the plan proposed by Mr. Stuart, and communicated by the Collector of the Kistna District, namely, the entertainment of an establishment of fishermen for catching the fish below the anicut and putting them in again above.

17. The Collector requests that Rupees 200 may be sanctioned for this project, and as the fishermen may become otherwise useful, should any system of conservancy be hereafter deemed desirable, the Board recommend that the grant may be sanctioned, and they would suggest that the plan be proposed to the Collectors of Godavery and Tanjore for their remarks.

No. 598. From the Collector of South Arcot, to the Chief Secretary to Government, Madras, dated Cuddalore, 1st February 1868, No. 12.

- | | |
|--|---|
| 1. In reference to the Orders of Government noted in the margin, calling for | reports relative to the destruction of |
| 11th September 1867, No. 2,140. | fisheries in rivers caused by the anicuts |
| 7th October " " 2,348. | constructed near their mouths, I have |
| 21st " " " 2,469. | the honor to forward copy of a letter |

from my Sub-Collector and another from Captain Howard, the Assistant Engineer in charge of the 3rd Range in this district, on the subject.

2. The former relate to the Coleroon and Vellar rivers, and the latter to the Ponnar. The anicuts in the former are, as the Government will know, situated much nearer the sea than the latter.

3. It will be observed that both the officers named are of opinion that the construction of the anicut has not perceptibly affected the supply of fish in the rivers.

4. I have been unable to glean any more valuable information or opinion in this matter than are contained in the enclosures, although I have applied to several others, who I thought might have it in their power to throw some light on the subject.

From Captain M. HOWARD, Assistant Engineer, No. 3 Range, South Arcot, to the Collector of South Arcot, dated Camp at Thayaenoor, 18th October 1867.

1. I have the honor to acknowledge the receipt of your letter of the 10th instant, No. 161, giving cover to the Proceedings of Government, under date 7th October 1867, and in reply to state, that the anicut across the Ponnar river, near the village of Trikkalur, does not offer that impediment set forth in Colonel Haly's letter to the fish inhabiting its water. There are three sets of sluices in the body of this dam, which sluices are invariably opened during flood-time, consequently, the fish can freely pass up and down the river during freshes. I say during freshes, as you must be aware that the Ponnar is perfectly empty of water during the other season of the year, and of course any fish coming down at the close of the fresh has no possibility of getting back again until the appearance of another fresh. I have noticed no large fishes at or about the anicut during floods; there are innumerable small fishes, such as are to be met with in almost every tank or pond in the district. These small fishes are netted at the anicut, just as the fresh gets very low, or is about disappearing altogether, by the villagers; not, I believe, for the sake of any roe that the fish may have, but for immediate consumption. There is no difficulty in prohibiting this practice; an order to the contrary by the proper authority is all that

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

is necessary ; but whether such a prohibition would be the means of increasing the quantity of the fish, or prove in any other ways advantageous is indeed very doubtful.

2. The Proceedings of Government is returned, as requested by you.

From the Sub-Collector of South Arcot, to the Collector of South Arcot, dated Virdachellam, 16th November 1867, No. 411.

1. With reference to the Proceedings of Government of the 11th September 1867, received with your Memorandum 951, of the 25th ultimo,* I have the honor to report as follows.

* Returned.

2. The only sea-fish that come up the Coleroon in any numbers worth mentioning are the Shad or Sable fish (Tamil, Ullam) and the Mullet, *Mugil Cephalus* (Tamil, Madavai). The former come up at the time of the freshes in May, June, July, and August, their spawning time being May and June. They are stopped by the lower anicut when the water is not sufficiently high for them to pass, and consequently are caught there. It is presumed that when the anicut is entirely submerged, they pass it; but the floods then are so heavy, that this point cannot easily be ascertained. The best way of discovering how far the fish ascend, would be by endeavouring to trace them along the Kavari in the districts of Salem and Coimbatore. I cannot, however, get any information, if the fish go up the river past the anicut, as to what time they come down again, nor about the young fish.

3. The Sable fish are caught at the anicut by fishermen, who sell them in the local markets here, and also salt them for other parts; but the whole take is not large, and in no way the immense quantities mentioned by Sir Arthur Cotton, so that the capture and sale cannot be called an important branch of trade. They are salted down with the roe in them, and therefore are not caught merely for the sake of the roe. The right to fish is rented out annually to the highest bidder, and never reaches any very large sum.

4. The fishermen state that the fishing in the river has been going on for a long time, and that they have not noticed that the amount taken is either more, or less by reason of the anicut, nor have the sea-fisheries of this fish in any way fallen off since the construction of the anicut. I am of opinion, however, that it would be easy enough to prevent fishing at the anicut itself during those two spawning months, if it were thought worth while, and preserve the water to the distance of a mile or two below the anicut.

5. The Madavai fish (*Mugil Cephalus*), on the other hand, spawn in the latter part of the year, October to December. They are in much less numbers, and are not thorough sea-fish, as they are merely found in back-waters and the mouths of rivers, such as the back-water at Cuddalore, the Adyar at Madras, &c., all the year round. They are found coming up the Coleroon from September to April.

6. Fish-ladders for the fish to cross the anicut might be constructed, but would be greatly damaged each year, and the outlay for their annual repair would probably be large. The chief point for consideration, however, is whether the water that would be required for running over them is not too valuable for expenditure in that way. It is simply a matter of whether a gallon of water at the anicut is worth, and whether it is better to use it in irrigating the land, or if the use of these fish-ladders for the sake of the fish to pass. I say "use," because it is plain that the water has been got into a fish-ladder, it is entirely under control, and can either be used for the land or used for any other purpose, and it is simply a pecuniary matter as to which is the most profitable expenditure. It is possible too that the present stock is kept up by the fish spawning in the shallows and creeks below the anicut, without requiring to go up past it for the purpose, and in any case, they would be unable to pass the falls of the Kavari. The same fish are also found in the Vellar, but in much smaller quantities.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

No. 599. Proceedings of the Board of Revenue, dated 4th March 1868, No. 1,550.

Read the following letter from the Collector of the Godavery District, to the Secretary to the Board of Revenue, dated Kotipalli at Ramichendrapoor talook, 7th February 1868, No. 37 :—

1. I have the honor to acknowledge receipt of Board's Proceedings, of 28th January 1868, No. 656, regarding the fisheries in the Godavery and Kistna rivers.

2. I beg to forward the names, written in the Telugu character, of the fish which constitute the bulk of those caught below the anicut at Dowlaishweram. I know that Nos. 4 and 6 are sea as well as fresh-water fish, that is, they frequent and are caught in both.

3. The grey Mullet is caught in great quantities along the sea-coast at Cocanada, full of roe during the early part of the cold season, and after the freshes in the river are over. That it does spawn in fresh water I feel sure, from having often seen and caught shoals of young mullet not more than three or four inches long, high up in the river at Chicacole; whether it also spawns in the sea I cannot say, but imagine not. I believe that the bulk of the fish caught below the anicut is the Sable "Pulasa."

4. I do not think the idea of employing fishermen to catch spawning fish below the anicut, and put them into the river above it, a good one. I think that the fish will very probably be injured in so doing by the fishermen, unless they are most carefully overlooked; and even if not, the working the nets will, I believe, tend to frighten the fish back from the anicut. I know that, at Home, working a net in a pool containing Salmon, tends to frighten away fish that are not caught; and I have often seen fish that are so taken hurt by the rope of the net. I think Captain Beckley's idea of fish-ladders a much better one, and more likely to be successful, and there is no chance of injuring the fish. Drawings of fish-ladders, such as are successfully used at Home, could be got, and I believe that their construction here would cost less than at Home, from the greater cheapness of wood. As I am going Home myself immediately, to return soon, I should be happy to make inquiries about these, and their probable cost, and bring out plans, or even a small working model of one.

5. I observe a mistake in quoting from my letter of 17th October. It was not I, but Viranna, who said "fish could not get back to the sea when the river is low." Any one who knows the Godavery knows this to be nonsense. There is at all times of the year ample water in it for any fish that frequent it to get up to the anicut from the sea and back again.

1. Valugu వాల్గు Cat-fish (English name.)
2. Gāndu Menulu గాండుమెనులు.
3. Bockelu బొక్కలు.
4. Jella జెల్లా.
5. Vonzu వంజు.
6. Pulasa పులాసా.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

No. 1.—Is a large scaleless fish, with long feelers from the sides of the mouth. In shape, its head is like a Cod's, but the mouth enormously large. It has a fin running all along the back, and all down the belly to the tail. I have seen it caught of 15 lbs. weight; but it is said to attain an immense size about six feet in length. It takes a bait freely, a live-bait best. Is caught at all times of the year, and is believed to be entirely a fresh-water fish.

Nos. 2 and 3.—Large flat fishes, very much alike in shape and appearance. Swims like the Pomfret, upright or edgewise; believed to be exclusively fresh-water fish; are found in tanks too, which have communication with the Godavery; grow to a large size; are eaten by the gentle-folk at Rajahmundry, and are well flavored. No. 2 is not caught while fresh or red water is coming down the Godavery, but when it is clear only, in the cold and hot weather. No. 3 caught at all times in small numbers.

No. 4.—Caught at all times of the year. It is a scaleless sea and fresh-water fish, with feelers from the mouth, and has in each pectoral and the dorsal fin a spike or prolongation of one of the fin-rays, the prick of which is very painful, and poisonous in some degree, for the wound throbs and smarts for long after being inflicted, and is difficult to heal—(*experto crede*). I have seen it caught in the sea of 3 and 4 lbs. weight. It takes a bait freely.

No. 5.—Caught now and then in small numbers; is like No. 4 in appearance, and has like poisonous fin-rays, but not so bad as those of No. 4. Believed to be exclusively a fresh-water fish.

No. 6.—The Sable, caught most abundantly of all as already described, and is the only fish caught with roe in it in any numbers.

(Signed) J. FRASER,
Collector.

1. Submitted to Government in continuation of the Board's Proceedings, dated 28th January 1868, No. 656.

2. The Board adhere to their former recommendation, but they request Mr. Fraser to make such inquiries on the subject, when in England, as he conveniently can, and to obtain a good plan for a fish-ladder, in case his anticipation, as to the injury likely to be sustained by the fish under the system proposed by the Board, should prove to be correct.

No. 600.

ORDER THEREON, 27th May 1868, No. 1,468.

Miscellaneous.

1. There seems to be no question, from the above papers, that in all the great rivers which flow out on the East Coast, there are one or more kinds of valuable fish which run from the sea to spawn in the head-waters of the rivers, but are intercepted by the anicuts when the water falls, and are then captured and destroyed in vast numbers with the roe in them.

2. It stands to reason that the number of the fish must have been, or will be, greatly diminished by the method of fishing, and the devising of efficient means to arrest an evil, which must eventually diminish the food-supplies of the people, is worthy of the attention of Government.

*Proceedings of the Madras Government, Revenue Department,
27th May 1868.*

3. The proposal to employ an establishment of fishermen to transfer fish from below to above the anicut, does not commend itself to the judgment of Government, but they will be prepared to sanction reasonable expenditure for the purpose of furnishing the fish with means of surmounting the obstacles in question, and of reaching their breeding waters.

4. As the Board have requested Mr. Fraser, the Collector of the Godavery District, to enquire, while in England, as to the best means of effecting this, and to obtain the plan of a good fish-ladder, it will be advisable to await his return before undertaking any works, more especially as the south-west monsoon is at hand, during which the rivers are more or less often in fresh, and the fish can pass the anicuts without difficulty.

5. But the Government think the subject of sufficient importance to warrant them in deputing Dr. Day to enquire and make a comprehensive report on it, in all its bearings, and they resolve, therefore, to request the Inspector General, Indian Medical Department, to make arrangements for relieving him of his duties at the Presidency, so soon as he thinks it desirable to start for the districts.

6. While employed on this special duty, Dr. Day will continue to draw his full pay and allowances as at present, and will be reimbursed his actual travelling expenses, this being the arrangement proposed by him in his letter of 11th October 1867. The Government think it desirable that he should arrange to inspect the actual position of things at either the Godavery or Kistna anicut, shortly before the first freshes of the season may be expected, and ascertain, if possible, what the effect of the freshes is in the matter, that is, whether the fish at that time ascend the river above the anicut in any numbers to spawn. He should again visit the same locality after the river has fallen below the crest of the anicut, so that the obstruction is renewed, and compare the two sets of circumstances.

7. The Government would wish him to visit the anicuts on the Godavery, Kistna, and Cavery rivers, and compare the several sets of facts, before sending in his report.

(True Extract.)

(Signed) W. HUDLESTON,
Secretary to Government.

To the Board of Revenue.
" the Accountant General.
" the Examiner of Claims.
" the Inspector General, Indian Medical Department,
" Dr. Day, with file of whole correspondence.
" the Collector of Godavery District.
" the do. Kistna. do.
" the do. Tanjore. do.

Erd. S. T. Angustin.

Reve DEPARTMENT.

No. 348.

From Proceedings of the Board of Revenue

Dated 28th January 1868.

FOR ORDERS.

I gather from these papers, that in all the great rivers which run to the East Coast there are one or more kinds of fish which run from the sea to spawn in the head waters of the rivers, that these fish are arrested in great numbers at the Anicuts and that they are caught by the people and destroyed in the spawning season.

although the evidence is not very
general in conclusion on the subject
it stands reason that the number
of fish has either been diminished
or must eventually be diminished
by this method of fishing.

The object of gov. ought to be to
protect the fish with means of
harmonizing the obstacles in question
and of reaching their breeding waters.

As the fish do not show
where the ancient I am not
disposed to stop the capture

of the fish until means can be
found for enabling them to pass the
barriers for there would be no
use in keeping numbers of fish
alive what do not multiply.

It is proposed to have an establishment
of fishermen to catch the fish
where they are in again above.
This is rather inconsistent with
a liberty in others to capture the
fish. You would have one
party catching, killing and
another party catching and
keeping alive. I don't know how
this establishment could be conducted

so as to perform their duty honestly. They
would be apt to suspect the catch the fish
and sell them or hand them over to the
destroyers. Such an establishment could
only work properly in connection with a
prohibition of fishing for a certain period.
I would decline to appoint this
establishment for the present. I would
give Capt. Buckley the 5000th which
he asks for to make for the ladders
which if accepted would be much
prejudicial to the establishment in my
opinion.

I would also nominate S. Day to make
a comprehensive report on the subject. There
is enough in these papers to justify the
Gov. in doing so and the subject is one which
will continue to agitate at home. We had
all entered to do it eventually. I would do it
at once. N. S. comes by

25 Feb 1868

Mr. Day may properly be ordered
to report on the subject after his
personal survey along the river;
but whether he first goes to the
^{Can} ~~pro~~ ^{ducing}, to the Purina, or to the
Indiana, it will be scarcely worth
while to keep Mr. Day away as
this day, until about the ^{commencement}
of May, so that he may be on the
spot in time for the first freshen-

The proposal to have an Inst.
of first light is certainly open to
indisposition caused by the Honorable
Mr. President.

6.2.68.

W.D.

121
Revenue DEPARTMENT.

No. 368

From

The Collector of South Arcot.

Dated 1st February 1868.

FOR ORDERS.

I would read them before the
present keeps - view the more
important letters - the same
subject elsewhere.

W. A.

Revenue Department

N^o 1468.

Proceedings of the Madras Government
Under date the 27th May 1868.

Read the following

Papers.

From the St^l. Coll^r of Nellore.

Giving certain information re.
regarding the fisheries at the Pennair
Anicut Nellore with reference to
Gov^t. Proceedings N^o. 2140 of 11th Sept^r
✓ N^o. 2348 of 7th October 1867.

(Here enter 26th Nov^r / 67
N^o. 1545)

From the Board of Revenue.

Sub^d. for information of Gov^t.
reports of Coll^r of Godavery, Kistna
and Tanjore districts on the fish
caught in Coleroon Anicut, and
recommending the grant of Rs. 200
for the entertainment of an establish-
ment of fishermen in Kistna Dist^r
for catching the fish below the
anicut and putting them in again
above.

(Here enter 28th Jan^y / 68
N^o. 1546)

From the Coll^r of S. Arcot.

Forwards copy of a letter
from the Sub Collector and one

from

from Captain Howard in
charge of the 3^d Range on the
subject of the destruction of
fisheries in rivers caused by
the anikuts constructed near
their mouths.

(Here enter 1st Feby/68 No. 12)

Pro: of the Board of Revenue.

Sub: to Gov^t report of Col^l
of Godavery Dist. on the fresh
water fish caught below Godavery
Anicut at Dowlaishweram and
requesting him to make inquiries
when in England, as to the best
mode of transferring spawning fish
from the anicut to the river, and
to obtain a good plan for a fish
ladder.

(Here enter 4th March/68
No. 1550)

There seems to be no
question from the above pa-
pers that in all the great
rivers which flow out on the
East Coast there are one or more
kinds of valuable fish
which run from the sea to
spawn in the head waters.

of the rivers - but are in-
tercepted by the anikuts
when the rivers fall - and are
then captured and destroyed
in vast numbers with the
roe in them.

It stands to reason
that the number of the fish
must have been or will be
greatly diminished by the
method of fishing - and the
devising of efficient
means to arrest an evil
which must eventually
diminish the food supplies
of the people is worthy of
the attention of Government.

The proposal to em-
ploy an establishment of
fishermen to transfer fish
from below to above the anic
does not commend itself
the judgement of Government.

but they will be prepared to sanction reasonable expenditure for the purpose of furnishing the fish with means of surmounting the obstacles in question and of reaching their breeding waters.

As the Board have requested Mr. Fraser the collector of the Godavery district to enquire while in England as to the best means of effecting this and to obtain the plan of a good fish ladder it will be advisable to await his return before undertaking any works - more especially as the S.W. monsoon is at hand, during which the rivers are more or less often in fresh, and the fish can be trapped the entire without difficulty.

But

But the Govt think the subject of sufficient importance to warrant them in deputing Dr. Day to enquire and make a comprehensive report on it - in all its bearings - and they resolve therefore to request the Inspector-General of Indian Medical Department to make arrangements for relieving him of his duties at the Presidency so soon as he thinks it desirable to start for the districts.

While employed on this special duty, Dr. Day will continue to draw his full pay and allowances as at present, and will be reimbursed his actual travelling expenses - being the arrangement proposed

by

by him in his letter of 11th
 October 1867. The Govern-
 ment think it desirable that
 he should arrange to inspect
 the actual position of things
 at either the Godavery or
 Krishna anikut shortly before
 the first freshes of the season
 may be expected and ascertain
 if possible, what the effect of
 the freshes is in the matter
 that is whether the fish at
that time ascend the river
 above the anikut in any
 numbers to spawn. He should
 again visit the same locality
 after the river has fallen en
below the crest of the anikut
 so that the obstruction is re-
 moved - and compare the
 two sets of circumstances.
 The Government
 would

would wish him to visit
 the anikut on the Godavery
 Krishna and Cavery rivers
 and compare ^{actual with} the facts
 before sending in his report

LB

- 4 Copies Board of Revenue. Sept 28
 6 — Secy General ✓
 3 — Examiner of Claims ✓
 2 — Insp. Genl. Indian Med. Dept. ✓
 1 Dr. Day. with file of whole
 correspondence ✓
 1 Collr of Godavery District ✓
 1 — — — Krishna ✓
 1 — — — Tanjore. ✓

60

10

Smith & Co

Reported to England
18/14th Dec in 1839 of 1800.

Recieve 1800s of 1800
No of 1000 for 1800

1800/468

How the situation of
1800/1800

From England - 1800
1800/1800

1800 No. 194
11/9/67
138-39
7/10/67

1800/6000