

REMARKS UPON THE FORMER ABUNDANCE, AND
THE PRESENT NON-EXISTENCE OF SALMON
IN THE RIVER THAMES.

BY GEORGE VENABLES, *Incumbent of Christ Church,
Friezeland, Manchester.*

(Continued from page 84, Vol. II.)

The son of the writer of these Memoranda informs me that he has often heard his father say, that he remembers seeing one Hobbs (a noted fisherman) take twenty salmon in a net, at one haul, in Chelsea Reach; and he also informs me that 800*l.* a year were paid to one net-maker alone, in Fenchurch-street, for salmon nets for the River Thames.

Salmon hatches existed in the neighbourhood up to 1780.

It is possible that other Journals might be found which fishermen have kept at other fisheries on the Thames, and if so, a comparison of notes would be useful. It is probable that a gradual diminution in the quantity of salmon may have taken place from the time when Queen Anne made laws about them; but I think we may fairly assume that salmon began to diminish sensibly both in number and in size in the Thames from about the middle of the last century.

“Our figures would have run much higher, both in respect to numbers of fish and weight,” says our faithful chronicler.

It remains to enquire—what is the cause of this? Such is the usual and seemingly very proper question—and yet I think we shall fall into an error unless we amend it, and ask rather, what are the probable *causes* of this? For I am persuaded that no *one* cause will account for it, and I am inclined to believe that many of the causes might, if the matter were taken up with energy and prudence, be removed.

But before “coming to closer quarters” upon this subject, I may be allowed to diverge to the question of trout fishing, since a slight examination upon this subject may do much to facilitate our general enquiry. It is argued

by some persons that the cessation of salmon in the Thames arises from local causes *entirely*, and amongst other causes, from the chemicals used in factories upon the river. That this is not altogether correct is certain from the well-known circumstance that more fish are found around the mills than in any other spots in the river; and, if chemicals were the cause of the destruction of salmon, it seems curious that all the other fish are not killed also.

Trout are not so abundant in the Thames as they once were, yet they cannot be called a scarce fish. I have evidence of some large trout being in a fine condition within a quarter of a mile of the noted "Boulter's Lock," but a few weeks ago.

Nevertheless, chemicals do exercise a very pernicious influence in the rivers upon fish, and doubtless might do so in the Thames, unless care were taken to prevent this, which can be easily done. Instances have occurred on the Thames itself, in which fish have been killed by an accidental introduction of chemicals into the waters; but I contend this cannot be the cause of the destruction of salmon, since every kind of fish, *and trout in particular*, frequent the tails of the mill streams as much as ever.

The Wycombe stream, indeed, affords a lamentable proof of what can be done by indifference, in reference to this matter. Mr. Hofland, in his charming little work on fishing, tells some pleasing tales about the Wycombe stream, and speaks of catching twenty brace of trout in four hours—a feat which I have no doubt was performed, and with less difficulty than there would be now in catching as many in four years. Indeed, if my information be correct, there is not a trout left in the stream. I saw a small one, five years ago, but have heard of none since then; and yet it is not twenty-five years since a gentleman upon granting a lease of his mills on the Wycombe stream, stipulated that a certain number of trout should be sent him annually from the part of the river which belonged to him, but this became impossible before seven years were over—and although I have repeatedly seen eight to ten good trout caught in one mill tail, none under 2lbs. in weight, and some over 6lbs., this is now impossible, owing almost entirely to the chemicals used in the mills, and which are emptied, without any attempt to render them innocuous, into the little river. Poachers too,

regardless of the future, would occasionally use a few pounds of *bleach* (chloride of lime), and putting this into the water to render the trout incapable of escape, destroyed all sizes together.

It is singular (if the assertion be true, as I believe it to be) that though chemicals are not used towards the top of the stream, there are very few, if any, trout *even there*.

Trout are, as to their habits, *salmon on a small scale*; and, after spawning, migrate downwards for a time. This, at least, is my impression. Thus then, all the little trout streams which run into the Thames would furnish it with an importation of trout annually, many of which would return presently to their native stream, while others might remain and become at length almost too large to return to the home of their birth in the narrow streamlet.

But if this be so, it is easy to see how the Wycombe stream should have no trout, or at least very few even at its beginning, because having gone downwards towards the Thames, they could not return, being met on their way by the overpowering bleach, and thus destroyed.

And thus too, the Thames would in the loss of its tribute, reduce the number of its trout, though it would not become entirely destitute, since many breed in the Thames.

If every gentleman working mills upon the little "Wyk" would determine so to arrange the use of his chemicals as to hinder their being poured wholesale and undiluted into the waters, I believe that presently, at least "ten brace might be taken in four hours" again.

What I have said here shows how thoroughly destructive chemicals are to fish; but I contend that at present this has not operated to any important extent *in the Thames*; and I adduce as a proof the number of large and small fish, and of trout in particular, which may be seen around the mills on the Thames; possibly more care has been taken there than elsewhere; but the great quantity of water rushing through the mills would speedily dilute any but a very strong dose of chemicals. Great care certainly ought to be taken in this particular, but I feel confident that no local cause has driven the salmon from the Thames—indeed they were gone *before chemicals were used*—and I again repeat, the presence of large trout now shows that the *chief cause cannot be local*. Assuming this to be correct, it remains to enquire what difference exists

betwixt the trout and the salmon, which may suggest the solution to our enquiry. The trout may migrate after spawning, a few miles down stream, and perhaps (probably) into a larger river. The salmon migrate down to the sea to return in due season.

What changes then have arisen in the course of travel which the salmon must pursue in its way down the Thames to "breathe" the saline draughts of the Nore? Assuming that salmon began to diminish since 1750, what changes may be suggested as unitedly ending in its banishment from the Thames?

There are no places of sufficient size upon the banks of the Thames to injure it *very much* by sewage until it reaches London: but having swept along its graceful way, clear and sparkling—a fitter river for the King of Fish than any other in Great Britain—it is received at the grandest city in the world—by constant salutes of filth and sewage—of immense value if men would learn cleanliness and economy from God's book, which shows that the one and the other go really together, and which shows too that filthiness is abhorrent in His sight. (Deut. xxiii. 12, 14.) These constant streams of filth flowing into the river, and thrown back continually by the tide, reduce the Thames from a fine salmon river into a mass of moving mud, tossed about and prevented from ever depositing itself by the constant agitation of steam-boats.

This is, I am persuaded, the chief of all the causes which reduced our friend's diary from 1124 lbs. of salmon in 1801 to *nil* in 1820! And, being a *slowly increasing evil*, scarcely felt until the population became larger than it was a century since, it may be assumed to have begun to operate *somewhere about* 1750, and to have gradually reduced the number as well as the quality of the salmon, until they ceased altogether.

A great authority (Lardner's Naturalists' Library), speaking of the salmon in America, states that they have ceased in most of the American rivers owing to the steam-boats—if this be correct, no hope remains of restoring them in the Thames; but I can scarcely think that the action of steam-boats alone could prove destructive. I should rather suspect that it will be found upon close examination that the American towns, even if they do not

pour streams of filth, such as we see in London, into their rivers, do yet permit deleterious and poisonous mixtures to find vent in their rivers, such as will destroy any fish in the neighbourhood.

The mere action of steam-boats upon large rivers could not, I submit, be destructive, if it were not for the accumulation of filth which they are constantly stirring up.

The question of the effect of steam-boats ought however to be well investigated—but we may remark here that the salmon had ceased in the Thames before steamers plied much upon it. I am persuaded that if the subject be thoroughly enquired into, it will be found that during the last century a large number of circumstances have arisen on the banks of the Thames, every one of which has exercised a pernicious influence against the existence of salmon, and indeed of any other fish. Perhaps the Locks may be reckoned among other injurious causes, and many persons so regard them, although I cannot see how they act injuriously upon a *flowing* river, since in any case, an open water-way remains. Nevertheless, the Lock at Teddington (Tide-end-Town) is popularly regarded as a great obstruction both to salmon and eels. I have not had an opportunity of inspecting the state of the river there, but I conceive that no real obstruction to the ascent of salmon need exist there. Nevertheless, it is the common opinion that “Eel-fairs” have ceased for the last sixteen years owing to Teddington Lock. “Eel-fairs” used commonly to occur about every seventh year, when thousands of little eels worked their way up the river, climbing over many obstructions, even surmounting the Lock-gates if they were wet, and being caught by every boy in the neighbourhood. I have heard of the same phenomenon in the Cherwell, from one who fished in that river, and cropt the rushes upon it more than a century ago.

I suggest, however, that the emptying of all sorts of injurious matter into the Thames is the chief and increasing source of evil—and amongst these, *none so bad as the gas-works*: indeed a few facts connected with gas-works tally with remarkable accuracy with the records of salmon fishing at Boulter’s Lock.

Thus, gas-works began to be used in London about

1813, and the very next year the salmon are diminishing in size as well as number!

In 1815 an action was brought against a Gas Company, near Salisbury-square, because the effluvia from its works were conducted into the Thames. *If the salmon had supported the action*, probably the evil, and many like it, would have been entirely stopped, and salmon would still have flourished in the Thames!!

In 1819, the Annual Register tells us—"they are now laying down gas-pipes adjoining Covent-garden, preparatory to the whole of the parish being illuminated with gas." Two years after this the salmon are extinct, and if gas-works do in only a few cases pour their effluvia, or any of their lime which is used in cleansing the gas, into the river, it would prove fatal to all kinds of fish for a long distance around.

I gather then, from all that I have been able to learn upon the subject, that the extinction of the salmon in the Thames above London is owing to few, if any, *local causes* existing at the time of their extinction, although some things may now exist in the localities they formerly frequented, which, unless removed, would be *unfavourable* to their flourishing there again; though I repeat it, trout (and some of them very fine fish) are still far from scarce in the neighbourhood referred to.

If I am right in my conclusions, I may venture to offer a few suggestions by which it is highly probable that salmon could be restored to the Thames. The first of these, however, is entirely dependent upon the Board of Health. So long as the Thames, instead of being the noble river of London, continue to be the common filthy sewer of that wonderful city, no hope whatever remains. The horrible condition of that river illustrates with fearful accuracy the results of vice upon a community—it is felt in its influences where it is little suspected, and where it even seems impossible. The absence of salmon at Windsor and Taplow, and Henley, and perhaps to Oxford, is the silent testimony to the condition of the water at London.

There is much reason to hope, however, that this state of things will not long continue, and it is in the hope that a grand effort worthy of the City of London will be made to carry right away from its river the sewage of its streets—that I have ventured in my hours of recreation—to con-

template the suggestions which are now offered with much diffidence, *because when the Board of Health begins is the time for the Naturalist to begin also.* If the Thames once again continue its course to the sea with the clearness it still possesses before it approaches London, all other difficulties may with patient perseverance be overcome.

Let only a body of gentlemen residing on the banks of the Thames take a little interest in the matter, and in a few years the results would be all they could desire. *Presuming the river to be freed from the sewage of London,* I really think that all other needful circumstances may be obtained.

I.—Every possible precaution should be taken to secure an *open running stream* wherever a Weir, or Pound-lock, or Factory, causes a pen in the natural flow of the river. Through a great portion of every year there would be no difficulty in obtaining this; but occasionally, when through a long drought the waters fail, every mill-owner is naturally anxious to make use of all the water which comes down, to drive his machinery. A small "hatch," however, might be so contrived as to run over at the high-water point, or perhaps a little below this (with consent), and the water might, I think, be so concentrated below as to enable the fish to swim up it and to ascend. Unless a facility for this be secured, it is quite hopeless to calculate upon having salmon in the Thames. "There is that scattereth and yet increaseth." The miserable policy which would catch every salmon on its upward march to deposit spawn, would soon ruin any attempt to obtain them. Salmon cannot be "preserved" by keeping them within certain limits. *A free open passage up the river must be secured,* and all would reap the benefit. The salmon is emphatically a free-trader, and must have no restrictions in his travels. I believe that in a great portion of the year a very large hatch, giving a *clear* passage, may be always running; at other times it could be arranged in the manner I have suggested, and on every Sunday it would run to a much greater extent. A law in nature can no more be neglected with impunity than a law in morals. *Salmon must have "free ingress, egress, and regress" throughout their rivers, or they will never flourish.*

II.—It need hardly be added that there must be an introduction of salmon, but this demands no remark, since

the scheme lately put into operation in the North, appears to be very successful, although, as already mentioned, a very similar plan is recorded in the Annual Register for 1764.

III.—And there is no doubt also, that active precautions will be very necessary to enforce the observance of such laws as are really conducive to the preservation of salmon and other fish, and to the prevention of poaching and other clandestine means of taking them. Moreover, every effort should be made to prevent the introduction of deleterious matter into the river—from tan-yards, from paper-mills, from gas-works, from sewage, and from whatever source. And if in addition, the gentlemen whom I will presume to be the Committee of Management, would extend their influences to those smaller spring-streams which are naturally adapted for trout—and seek to carry out the same principles in these which I have suggested for the Thames, there is no doubt that a large addition to the number of *trout in the Thames* would be secured. Perhaps also it might be wise to restrain an abundance of very large pike in the river; though I am far from believing that game or fish are increased by an entire destruction of those animals, or fish of prey, which are known occasionally to attack them.

IV.—And certain spots ought to be left entirely free for salmon. Places should be ascertained which are likely to be favourite places with them, and these should be carefully guarded against ballast-engines and gudgeon-rakes, so that the spawn might be safely preserved. When we consider the quantity of spawn which even one salmon produces, it must be plain that with common care the race might soon become abundant. The spawn of one large salmon would replenish the river. I repeat it, however, ALL LAWS MUST BE BASED UPON THE COMMON SENSE PRINCIPLES OF NATURE; and since it is well known now that the salmon requires a free passage up the river, and presently a free passage down it to the sea—any scheme for the propagation of salmon which fails in this particular will surely pay the penalty which always follows a neglect of nature's laws, (a hint to us, this, of a great moral truth) and will be unsuccessful so long as her requirements are denied. If others shall derive any pleasure from perusing these remarks, or feel encouraged

in an endeavour to restore to the waters of our Royal River the finest fish that can adorn it, I shall be well repaid my labour in penning down the result of my researches. They were made during some happy hours of recreation, at a time when I greatly needed it; and, although my privilege and calling as "a fisher of men" have attractions for me which render such seasons very limited, I think it no impropriety to study the beauties and the phenomena of nature, persuaded that all creation is only a coarse engraving of those higher and sublimer truths which the spiritual kingdom possesses, and which are thus identified as coming from the same Hand.— Science has made great strides during the past century, and unhappily it has, in too many instances, obliterated the beauties of nature, so that one says of it—God made nature, but man made machinery. I humbly conceive that another effort only is wanting, and that then we may enjoy all the benefit which science and the fertile genius of man have produced, *without the destruction of those matchless beauties of Creation*, the study of which is so refining and healthful, and which rightly understood, is so heavenward in its tendency.

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