



The National Anguilla Club

BULLETIN

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EDITORIAL

Last month, I wrote about reason and unreason in the killing of fish, and of the importance of "good husbandry"- that is, good fishery management. The particular place of eels in fishery management has never, it seems to me, been seriously thought about.

Sometimes, when seeking permission to eel-fish in "game" fisheries, we indulge in a harmless deception: we pay lip-service to the notion that the removal and killing of eels from such waters is beneficial. In fact, as we know, such evidence as there is - and it is accumulating - suggests that eels do not much compete with salmon and trout for food, nor prey significantly upon their spawn or fry.

But what of "coarse" fisheries? We know that eels are active and feeding by the time many coarse species spawn, and no doubt eels eat quantities of coarse fish spawn and fry. We might more honestly encourage coarse fishery owners to believe that eel-fishing benefitted their waters, both by reducing predation and by reducing the consumption of larvae, crustacea etc., which eels eat in competition with other bottom-feeders.

I say this might be more honest, because we do not know what the balance of these effects really is. It may well be that eels can and do make a contribution towards preventing fisheries becoming overstocked with hoards of fish which cannot get enough to eat and become stunted as a result. It is sometimes argued that pike do more harm than good in this respect, because they prefer big fish to small fish. I don't know about that, but certain it is that no eel of ordinary size could possibly eat fish big enough to be of any sporting significance. This is even more true of eels than of perch, so perhaps there is a case for regarding eels as the "preferred predators" in coarse fisheries.

Is there a positive case for predators, at all? Or are we to regard them as simply wolves amongst the sheep, doing only harm? I think there is a case for predation, in some kinds of fishery. Prey-species necessarily have enormous powers of reproduction to compensate for the inroads made on their numbers by predation and other causes. If a fishery becomes overstocked, one can net fish out, and take steps to increase the food supply - but one is still left with the fish's excessive ability to reproduce. Without the predation which these powers of reproduction are supposed to cope with, one runs the risk of further population explosions needing repetitive remedial action.

We probably make massive inroads in the population of eels - the bigger ones, anyway - in some of the smaller waters we fish intensively. It would be valuable to investigate whether this has, in fact, any perceptible effect on the other species present. It will also be interesting to see, as our records will tell us in due course, what effect we have on the eel population in various waters. Obviously, we must beware carrying out studies involving the killing of eels for work on growth-rate, diet etc., if the information we finally get refers to an eel population which no longer exists! But let us not exaggerate this danger, for it is not likely to happen in the larger waters we tend to select for these studies.

In these matters, knowledge is all - and the acquisition of knowledge must take a high level of precedence. Is it possible that we might, one day, when we know enough about it, see eels being deliberately introduced into fisheries for the beneficial part they play in helping to maintain a balanced population? Might we even see King Eels being introduced into waters under development specifically as eel fisheries? Ah-ah, you say, we can't breed King Eels! No - but we could quickly pick out the fast-growers from batches of elvers kept in tanks. And why not?

- Terence Coulson.

CANAL TUNNELS

by Ray Brown

There has always been a lot of speculation on the subject of "holding places" for big eels. It is usually assumed that there are, indeed, such places, and that they retain their attraction for eels more or less permanently. Popular hunches about holding places include such positions as undercut banks, deep cuttings, lock gates, canal tunnels, etc. My own preference is for areas in the vicinity of locks and tunnels, but especially tunnels.

Last year, I spent about 270 rod-hours fishing four tunnel mouths near Coventry, and I have been fishing them again this year. I think it is possible to draw some tentative conclusions from the two years' experience, although I would not be too dogmatic in view of the limited number of rod hours.

In a nutshell, it seems to me that certain areas in canals are preferential holding places - but they can easily be "fished out" if the eels are removed, and they do not recover their eel stock for some time. My experience to date suggests that the recovery time is more than a year.

It would appear from last year's results that the first trip to a hot-spot is usually productive: my results last summer bore out this idea, at least to my own satisfaction. On the first night's visit to each of four different tunnel mouths (that is, both ends of two tunnels) I had an eel. These eels averaged 3:1 and the best went 4:9. On subsequent visits to the same tunnel mouths last year, I failed to catch any more eels, although I did have several runs of a dubious nature. Of the whole 270 rod-hours, only first visits were productive in any given pitch.

I think these results are too significant to dismiss as coincidental, even considering the vast amount of luck that follows one around - but which hasn't yet materialised, this year!

I have visited the same canal tunnels for approximately the same number of rod-hours this year, and around the same time of year as last year. The final result was one tiny eel of less than half a pound, from the pitch that produced the 4:9 eel last year. I have used the same bait, which is invariably double-lob injected with pilchard oil, and similar tackle, under similar conditions. It seems to me that there is only one conclusion to account for my lack of success: the eels just weren't there any more.

Personally, I believe this is true, although it may not be the case in rivers or lakes. In these waters, I think the eels have a much wider feeding area than in canals where I believe their travels are limited to fairly restricted areas, at least for certain periods of time. I have shown this to be probable in the past, by flogging one swim all night long, then moving to another nearby swim for the following night - and almost immediately landing an eel. Presumably, this implies that the eel did not leave its selected nearby domain to travel into the previous swim during the first night. Of course, it is also possible that it did enter the first night's swim during the first night, but did not find the bait; or it may have been foraging a mile away in the opposite direction.

However, I think that these experiences, limited though they are, give a shrewd idea of what may be expected in new pitches which are suspected holding places and haven't been previously fished. Namely, that the first night is likely to produce a much better catch than should be expected thereafter. So, if you can find a tunnel mouth that has not been fished for eels for years, then fish it quickly: I reckon the first night you do so, you are quite likely to catch a 3:1 eel - or maybe better!

Notable Eels: KENT

<u>LOCATION</u>	<u>CLASS</u>	<u>WEIGHT</u>	<u>LENGTH</u>	<u>GIRTH</u>	<u>DATE</u>	<u>TIME</u>	<u>BAIT</u>	<u>CAPTOR</u>	<u>SOURCE</u>
R. Medway, Rochester ?	1. ?	34:0 40:0	72 69	25 18) Mentioned by Jonathan Couch, F.L.S., in "A History of the Fishes of the British Isles", 1878.				
A small pond, Snodland	2.	5:12			Oct 62		6" Roach 1b	G.Relph	A.T. 26.10.62, p. 1
A private lake, Cranbrook	2.	5:0			Oct 60		Roach db	A.Chapman	A.T. 4.11.60, p. 13
A private lake, Ashford	2.	5:0			Jun 64		Lobworm	R.Parfitt	A.T. 3.7.64, p. 19
Keston Lake, Bromley	2.1	4:8			Jul 66	night	Roach db	I.Poole	A.T. 5.8.66, p. 27

Notable Eels: LANCASHIRE

Ormsgill Res., Barrow-in-Furness	2.	6:5	42		Jun 61		Deadbait	J.Morgan	A.T. 30.6.61, p. 1
Taylor Park Lake, St. Helens	2.	5:10	44		Aug 58			B.Forreset	A.T. 22.8.58, p. 13
L.Coniston	2.1	5:6			summer 59			S.Picken	F.G. 21.11.59 p 837
Pennington Res., Ulverston	2.	5:4			Aug 64	dusk		H.Tebay	A.T. 21.8.64, p. 2
A small pool, Ashton-u-Lyne	2.2	4:12	39		17 May 67	12.00	2 x Lobworms	D.Dixon	A.T. 1.6.67, p. 7(P)
Bomb crater, Blackpool	2.2	4:4	38	8 $\frac{1}{2}$	Jun 66		Roach db	R.Dietzel	A.T. 8.7.66, p. 10
Poolstock, Wigan	?	4:1 $\frac{1}{2}$			Nov 54		Worm	R.Prior	A.T. 19.11.54, p. 8

Notable Eels: LEICESTERSHIRE

<u>LOCATION</u>	<u>CLASS</u>	<u>WEIGHT</u>	<u>LENGTH</u>	<u>GIRTH</u>	<u>DATE</u>	<u>TIME</u>	<u>BAIT</u>	<u>CAPTOR</u>	<u>SOURCE</u>
R.Eye, Melton Mowbray	1.	6:2			12 Sep 64	12.00	Lobworm	W.King	M.Muse ex captor
Cold Overton Lake, Melton Mowbray	2.1	4:8			? 1928/9			Mr. Clarke	M.Muse
Knipton Res., Melton Mowbray	2.1	8:0					Found dead		M.Muse ex bailiff
		5:4					Rudd tail	?	M.Muse ex bailiff
		4:8					Gudgeon db	?	M.Muse ex bailiff
Belvoir Bottom Lake	2.1	7:8			1932		8 oz Roach db	Mr. Bond	M.Muse ex captor
Eyebrook Res.	2.1	7:4			1948	night		R.Ainsworth	A.T. 14.9.56 p. 4
Nanpantan Res., Loughborough (?Nanpantan)	2.1	6:2	44	9	Jul 62		Minnow db	F.Allen	A.T. 3.8.62, p. 1(P)
		6:0			Jun 62		Minnow db	F.Allen	A.T. 29.6.62, p. 1
		5:4			Jul 60		Worm	?A.Allen	A.T. 15.7.60, p. 1
Grand Union Canal, Fleckney	2.3	4:4			Aug 63		Roach db	F.Emery	A.T. 16.8.63, p. 1

CORRESPONDENCE

From David Marlborough: I must write to comment on a statement in your editorial in the September issue of the Bulletin. In it you say: "...it seems to me indefensible to return an eel with the hook still inside itit is all too likely to die slowly and uselessly from its injuries, or even more slowly from inability to feed or digest its food."

On June 23rd., 1968, I caught a bootlace eel from West Mersea beach, near Colchester, Essex. It gorged a large lugworm on a size 2 or 4 stainless steel 'Canelle' longshank hook to 15 lb. monofil. I cut the line close to its mouth, and put it in a polythene bag, meaning to dissect it for stomach contents and otoliths next day at work, when I reckoned it would have pegged out. It spent from 9 pm on 23rd. to 11 am on 24th in the car boot, in the polythene bag.

When I emptied it out, I found much to my surprise it was still alive. My laboratory technician immediately 'adopted' it, christened it 'Ernie' and set it up in a large sink full of flowing tapwater and pond weeds.

Ernie is still alive as I write - 5th. October - and very fit. He feeds well on chopped worms, maggots and mealworms. He takes teasing by classes of students in his stride (the sink is in a much-used teaching laboratory) and has periodic territorial fights with the rubber hose which circulates his water. He has shown no discomfort from the drastic change from salt to tap water; the only visible change is that his colour has lightened slightly to match the white sink.

He still has a piece of monofil sticking out of his mouth, and one can still detect the slight bulge where the hook point was.

Ernie, in his fifth month of carrying a piece of very hefty stainless steel in his abdomen - and doing well on it - is surely proof that not all eels with hooks in them need die a useless and lingering death.

I would go along with the general tone of the editorial; but I would regard the question of leaving a hook inside an eel as being equivalent to a death sentence as a very moot point. If I cannot see a hook deep in a fish's gut, and I do not wish to kill the fish, I cut the line and leave it in. To my mind, one is likely to do far more damage by clumsy attempts at surgery to get it out than by leaving it in and hoping a fibrous capsule will eventually seal the wound - which is what happens when the far more delicate human body has a surgical bone-plate or bullet in its tissues.

But before we eventually decide on a policy, we must make use of all the evidence - our own experience, scientific work on tag wounds, and the like. I quote the case of Ernie to show that we must not dogmatise: I do not wish to be dogmatic, and I state what I do at the moment. If the balance of the evidence is against leaving the hook in, then I shall change my mind.

I also think it points to what I wrote in the same (September) issue - I do not like our present standard eel-fishing methods, which are dependent on an eel gorging a deadbait. So long as this remains the major method of the NAC, we shall be faced with a decision on what to do with a deep-set hook, and I think we must survey the evidence and make it.

Comment: I am always glad to receive vigorous correspondence for the Bulletin, and I thank David for this contribution. In particular, I am pleased that David agrees with the general tenor of what I wrote - this is the important point. For the rest of it, he is arguing against something I never wrote: this much is obvious even from the quotation he takes from my editorial! I wrote that eels with hooks in their bellies are "all too likely to die" - and if this amounts to saying that all such eels die or that it is "equivalent to a death sentence" well, I'll eat my old fishing hat!

Let's be quite clear about this. There is no question but that a proportion

of the eels with hooks in their guts can and do survive. We have known that much, all along. Arthur Sutton gave an account (Bulletin, October 1965, p. 4) of a 2½ lb. eel he kept with a hook inside it for over 2 years. Many members including myself have kept such eels for long enough to know that some of them can survive. David's "Ernie" is merely another such case.

Equally, there is no question but that a proportion of such eels do not survive. For instance, I have a confidential report of a major scientific investigation of an eel fishery based, in part, upon "long-lining" which showed that about a quarter of the eels died within six days. About half of these took more than 24 hours to succumb. What additional mortality there was after six days is not recorded. Last year, I took three bootlace eels home, at intervals of a few weeks, for my aquarium. The first had only been lip-hooked, and was in fine fettle until lavish use of an aerosol insecticide in the room put paid to it. The other two had gorged the hooks (about 14s). One of these died after a few days, and dissection showed that injury from the hook had caused massive internal haemorrhage. I killed the other after a similar period, because of a discoloured swelling which appeared on its belly, and its evident distress; and dissection showed that the hook had torn the wall of the gut, emptying the stomach contents (including a number of maggots) into the body cavity. Since then, I have been paying particular attention to the position of the hook in all the eels I have examined for stomach contents etc., and even amongst those which had not already died, a fair proportion had sustained injuries which left them little or no chance of survival. I have seen an eel so hooked as to seal the opening to the stomach; if it had been released, I think it would surely have died: very slowly. It is a matter of common experience amongst members who have kept any number of eels in bin or bag for a few hours - say, for weighing and measuring in daylight - that a proportion die even in this short period.

What happens to the human body after injury, or how fish react to tagging-wounds, are quite irrelevant to the question of the survival of eels with hooks in their guts. We know as a matter of direct observation that a proportion of such eels do die, and no amount of indirect "evidence" can affect that knowledge. It may fairly be said that we do not know what the proportion actually is, and it would require an elaborate trial to find out, even roughly. But we may be quite sure, I suggest, that in practice the mortality will be substantial.

I said in my editorial that it seemed to me that eels released with hooks in their guts are all too likely to die. There's nothing dogmatic about that, and I have no hesitation in saying it again: that is, indeed, exactly how it seems to me. Let me also draw attention to the phrase David missed out of his quotation, where I said that the fact that some of the eels might survive is scarcely to the point: it was the wretched brutes that don't survive that I was concerned about. I made the point simply because it is a matter anglers might well give a little extra thought to, when deciding whether to return an eel, or to keep it for project work and/or for the table.

The issue is simply this: are we prepared to return all deeply-hooked eels, knowing that a proportion will die - and some of them particularly nasty deaths, at that - for the sake of those that survive? Or would we rather kill them all in a humane manner, and see that they die to some purpose? The answer to these questions is one which, I suggest, the angler has to make for himself. It is an intensely personal decision, and heaven forbid that anyone should presume to lay down a "policy", as David seems to be suggesting.

I heartily endorse David's view that clumsy attempts to remove deep-set hooks are all too likely to do more harm than good. But I would also recommend that if it is intended to keep an eel for examination of stomach contents, it should be killed cleanly and straight away. One does not want food to be disgorged, nor to undergo any more digestion than is unavoidable to make it harder to identify. It's more humane than carrying the prisoner around in a "condemned cell", too.