The Aquila Club Bulletin

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EDITORIAL

Well, we are now all Europeans. I suppose that that little fact will make very little difference to us since we have been Europeans for years. I don't mean that in the geographical sense, although I would still be right, but I mean it with regard to our quarry The European Eel. But how will being European (I mean politically now) affect us?

The hue and cry has been over VAT. Fortunately, the turn over of the club's finances is not sufficient for us to have to subscribe to this, the latest way of conning us out of our hard earned cash. Subscriptions then are exempt: but what of our other angling expenses? It would appear that our River Authorities are having to increase the cost of a licence to cover VAT and so too, presumably, will the cost of many day tickets. With regard to tackle, however, the experts tell us that prices will go down slightly. A vain hope if ever their was. It is almost certain that any fall in price will rapidly be swallowed up by a desire for increased profits. Anyway, the fall in price will be only a mere one percent or so. I suppose that we can count it as a small blessing that the price of tackle will remain fairly stable

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How many of you have been winter eeling? I am not saying that to advertise the fact that I have been foolhardy enough to try it, since I have not. It just struck me that most of us pack up at the end of the summer and change our fishing habits. Now, you may say that eels do not feed in winter. That view, I think is a load of poppycock. Paul Wieczorek has caught them in winter (and we've got otoliths to prove it) and there are often reports in the press of eels that have been caught in winter; not big eels, but little buggers about a pound caught during the such and such memorial match etc. Most of these beasts fall to caster or maggot and are caught, of course, during the hours of daylight. It would be interesting to fish for eels during the winter, but I do not have the constitution for it.

I tried this overlooked aspect of the sport some years back and it was alright until I hit my first (and last) midnight frost. I can assure you, its not much fun! It would not have been so bad if I had caught an eel to justify my frostbite, but I didn't even get a run.

I much prefer the present arrangement where I have an odd weekend fishing in the winter to get away from the humdrum routine of daily life, the remaining weekends having a nice lie in bed, warm and snug thinking of the summer when I can lie warm and snug on my bedchair, with a few good eels in the bin. Roll on June!

DAVID SMITH

WHITEMERE REVISISTED

By Alan Hawkins.

There are two well known reasons for attending any sort of group outing. One of these is "the grass is greener on the other side" syndrome, which states that the fish grow bigger the further one travels from home; for eels the equation balances at about one pound per fifty miles. Take me and the Thames, for example. Most summer weekends will find me hunched over the wheel of a battered Morris minor doing my best to get as far away as possible from this river. After all, it is right on my doorstep and I could fish it every night. Therefore, I don't fish it at all. But as I cram the old car along I surely pass better anglers than I going in the other direction, bent on fishing the Thames. Some of them fish for eels, and they generally seem to catch them too, some quite large.

I suppose it is an exaggeration to say I have never fished the Thames. I have had a few half hearted efforts there, mostly blanks apart from the odd pleasure boat straining the tackle. And once I did catch two small eels. But it is the distant lake, with its half remembered tales of monster eels that grips the imagination, not the hundrum local pit where enthusiasm wanes before the onslaught of bootlaces and blanks. So we leap into our chariots, with a few choice phrases from our wives resounding in our ears, and career off into the blue yonder. This time, a six-pounder will be ours.

The second, and more logical reason is the social aspect of the outing. To me, this always makes a trip worth while regardless of results. There is no better mid-season tonic than a group of mates to steal coffee from, to laugh at and be ridiculed in return, to show new gadgets to and to swap ideas with. I invariably return from group trips with renewed enthusiasm, and suspect that many others do too.

But there is a third reason. Historically, it is the most important, though sadly neglected of late. It is this: a club outing should bring a team of experts to a difficult water to amass a solid core of fact and an equally useful body of opinion in as short a time as possible. After the trip is over, the local member should then be able to enjoy greatly improved sport because of this rapid gain in understanding. It all sounds a bit idealistic, but it has worked before - the Grand Union Canal is one shining example of how successive group efforts have sorted out the techniques for specimen eels from a difficult water. And now I believe it has happened again; not, as yet, for the local member but for one of the blue yonder merchants - myself.

Those brave souls who were there will need little reminder of last year's outing to the Shropshire meres. As an exercise in futility it seemed (at the time) to be the ultimate; it could have been used as a training camp for the grand order of Stoics. Not the normal sort of blank, where the odd twitch or abortive run keeps the angler hopeful, but complete and devastating blanks where the line moves not a millimeter from the time it is cast out until it is sadly reeled in again. Added to this was the problem of the local populace of Shropshire, to whom the National Anguilla Club was an event to be compared with the local fair, or the time when farmer Giles' bull ran amok and broke all the shop windows in the high street. (They still talk about it, you know. This year at Whitemere I was politely told that the Anguilla

Club had spent a whole week here last summer. They hadn't caught much, so what chance did I stand!). Anyway, last year it became a matter of some embarrassment. Every morning, a weatherbeaten face with kindly eyes would appear around the brolly entrance and politely enquire about the sport. After the reply that there was no sport, or words to that effect, the eyes generally assumed that look of sorrowing pity shown by the relatives of harmless lunatics. To boost our confidence, the face would then speak of the good old days, when eels were taken to Shrewsbury market by the sackful "right from the spot you are fishing now, sir." The grand finale to all this was the local gamekeeper, who spoke of a certain poacher who came every night in the summer to lay deadlines all along the banks of Crosemere where we had struggled in vain for three nights. "Every night he comes sir. Must have thirty lines. Hundreds of eels he's had, hundreds. But he's crafty, young George is, he'll not be about while you're here."

I thought I had seen a furtive shape sneaking towards me at dusk, and then creeping away again. Now I knew and derived little comfort from the knowing.

It was largely the pressure from the locals that drove us to explore every dark corner of the meres; partly to try and catch something to restore a tarnished reputation, and partly to escape observation if we did not. And this was a thoroughly good thing. Partly by instinct, partly by observation, we began to draw some conclusions about these waters. It seemed that our slow sport might be explained by our being there at the height of the summer, when the water was so full of life that the angler's bait stood little chance of being noticed. Some of the meres were like vegetable soup. The margins were black with fry, and the air black with insects. There and then I decided to return at the back end of a future season, when food may be a little less plentiful.

Further, John Harris and myself became convinced that the water of choice was Whitemere. Now, last summer, there was the most colossal bloom of algae in full swing during our week. The water was just like grey paint. Also, the algae shaded out the bottom weed, which promptly floated to the surface in pursuit of the sun; great mats of the stuff drifted round the lake, either sailing before the wind or tacking sideways in response to an eddy current. Fishing in such conditions was not much fun. No matter how we tried, the weed sailed in at sunset, and laid seige to us all night. On my first night, one rod was completely buried by the stuff, and at dawn I thought it had been stolen. It lost me the only run of the week: for the rod tip was submerged beneath a ton of the stuff when I struck, and did not move even though the butt came up to the vertical. Amazing really that the rod didn't break. But John being John, had several runs on giant dead bait every night: he did not actually catch anything, but in comparison with the other meres, sport at Whitemere was fast.

There was also a personal score to settle with Whitemere. I fished it on the last night - the night of The Storm. More need not be said for those who were there. I had resolved on one final grand effort, and so carted all my tackle round to the furthest corner of the lake; here the bank was steep and wooded, and the deep water inshore made the pitch quite distinct from any other swims on the Mere. To the left, the only lily bed on the lake added to the illusion of the perfect eel swim. This is a night I shall never forget. For

a start, the sweltering heat and mile walk, laden like a pack horse, had left me quite incapable of anything but swearing at the flies around my head, at least for the first hour. (Dave Smith had most selfishly purloined his tackle trolley for his own use that night). So it was quite dark when my tackle was finally assembled.

By this time there was an almost continual growl of thunder from over the horizon, and every now and again, a bright flash of lightning would show up the surrounding branches in grotesque and frightening shapes. Between flashes, the darkness seemed intensified, and the great trees came pressing in upon this unwelcome stranger. So I steeled myself for an interesting night, blew up the air-bed and settled down with the flask of coffee. Then I heard the Thing in the bushes. Something was sneaking about behind me, in a series of short dashes with irregular pauses between. Gradually, the rustlings and snapping of twigs got closer and closer. It was quite clear to my unsettled mind that something fancied me for dinner: something rather large, that was doing its best not to be observed, but which was too heavy not to make a noise every time it moved. After pondering this interesting conclusion for a while, and studying the slender defences of a polythene sheet around the brolly, it seemed that action was called for. So I unshipped the landing net from the pole, and telescoped the three sections down to one. Rather too heavy to be much use as a landing net handle, this pole of mine, but what a club! Many are the swans that know about my landing net handle! Armed with this club I crept from my shelter, and took refuge behind a large tree-trunk prepared to do battle if need be. Nothing happened for quite a while, and I was just beginning to put the whole thing down to an over active imagination when the bushes in front of me began to part as some thing heaved its way through. You know the old saying about one's hair standing on end. It's true, believe me. I raised the pole aloft, and let out a vast shout, mainly out of sheer terror. Whether it was the sight of me and the pole, or my yell, or the combination of both with a lurid flash of lightning, I don't know, but the Thing panicked and fled. I could just see the bushes thrown into violent motion as it departed and could hear its progress through the wood as it went. It sounded like a bull rhino, but I doubt if it was. Indeed, I have no idea at all what it was, but the evidence of its departure was quite obvious next morning in trampled under growth and broken branches.

So I retired trembling to the brolly, and chain smoked a while. Eventually, I calmed down, and settled upon the air-bed. Then the rats came. Giant rats that rushed down the bank to trip over the oscillator leads and scrabble at the polythene sheeting. Once again I had to sally forth with the landing net handle, this time to a quarry more my own size. But I am not afraid of rats, and gradually learned to live with them. After all, there would be no rats if the Thing returned. Indeed, I eventually dosed off, whereupon the thunderstorm sneaked up on me and then let rip right over my head. The first clap saw me several feet in the air - horizontally - off the air-bed, believing that the end of the world was, at last, at hand. It was easily the most impressive storm I have ever seen, and I believe I did not have even the worst of it. It seemed to centre on Blakemere a few miles away, and the two members there had an experience not to be forgotten. However, the rain was definitely centred on Whitemere. The trouble with air-beds is that they tend to float, especially when there is about an inch and a half

of water pouring down a 45 degree bank. I was treated to the eric sensation of constantly drifting out of the front of my brolly, and having to paddle back in again. This lasted until about 2am, when the rain settled down to a nice gentle torrent; exhausted I went to sleep, and did not wake up again until about 8am.

The storm had gone, the sun was shining, and the wood seemed peaceful and friendly again. No point in staying in such boring surroundings, so I packed up. In came the first rod. One completely unmarked dead bait. Likewise the second. But when I reeled up the third rod, which originally held a worm, there on the end was a bootlace of 4 ounces. Not nearly big enough to move the line, indeed, if the sun had not been out, I would have thought my worm was still on the end.

What an insult! A night straight out of a novel by Edgar Allen Poe, followed by the smallest eel of the season. As though the lake said: "Take that, you silly bastard, and don't come here again." So I put the eel in a polythene bag, put the bag in my trouser pocket and left

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I returned to Whitemere on Saturday August 26th, 1972. The change in the water was quite astonishing; gone were the great mats of weed and instead of looking like paint, the water was almost clear. Although the previous week had been hot and sunny, it was now heavily overcast and very humid. Fish were rising and splashing about all over the lake and it seemed, even to my pessimistic soul, that prospects might be quite reasonable.

My wife was with me, and so was an enourmous mass of tackle and camping gear. It was fairly obvious that long walks to distant swims were out of the question, and in any case, I had no evidence to suggest that the spot 10 yards from the car was anywhere else. So 10 yards from the car it was - all week in fact, apart from one night off at Colemere.

At five o'clock, Ernie Orme appeared, complete with a bucket full of bait, a two gallon tank of water and daily papers to keep us in touch with the outside world. Throughout the week, Ernie was about the most thoughtful and generous companion a fisherman could wish to have; despite having to work nearly every day, he made the 50 mile journey on several nights, even though he often had to pack up at midnight. Towards the end of the week, in fact, I did not want to catch any more eels; I wanted Ernie to get amongst them. There is no question but that those meres owe him a fish of over six pounds, and I most sincerely hope it will not be too long before it happens.

The first night we had bleak, rudd, roach and lob worms in our armoury, and we cast a variety of riches out in to the mere. Darkness slowly crept over us, and we sat down to a long chat and a succession of warming brews. To be honest, it would not be true to say that either of us was particularly optimistic: Ernie was convelescing from nine successive blanks at Blakemere, while I had only logic to say there would be sport and a lot of experience to say there would not. So it was a bit of a surprise to hear my oscillator sounding off at 22.00hrs. I was at the rod in a flash to find something twitching and jerking at three large lob worms.

After a prolonged dithering session, both by the fish and myself, I struck into an eel of about a pound. It came in fast, as eels of this size are liable to do, and was deposited in the bin with the minimum of fuss. After all, I had caught rather a lot of eels about this size, and admit to a certain lack of enthusiasm for them. I was astonished, therefore, to see Ernie showing symptoms of great delight. It seemed, however, that this was the first eel he had witnessed from the meres this year, and one does not quibble about size when one sees something thought to be extinct!

After this event, things went awfully quiet for a long time. The initial period of expectation had long passes and we were both beginning to feel the need of kip. As a last move before sleep, I wandered down to Ernie's peg, to exchange a final cigarette (his are bigger than mine) and a few last words. As we stood talking, I became aware of a steady hissing noise in the background. I knew it was not raining, and became so puzzled that I eventually asked Ernie if I might flash a torch round his swim to try to find the source of the noise. Permission granted, I began to look round. Nothing horrible under the brolly, first rod OK, second rod bouncing up and down in the rests as the line poured off into the mere! We both charged into the water to get at it. Something was hell-bent on reaching the far bank with Ernie's bleak. It must have taken at least forty yards of line before it stopped dead, and we settled down to that awful period of tension trying to decide whether the fish had dropped the bait or was swallowing it. Ernie was quite incoherent by this time muttering things like: "Never seen a run like it. Must be five pounds. Probably six."

My comments were a shade more to the point.

"Eat it, you bugger", said I.

Then it started off again, at the same breakneck pace. Ernie leaned forward to get the bale arm on before striking, and I looked round for the bin. Ernie struck, there was a mighty jerk on the rod tip, and then all went slack. The line, apparently a perfectly sound 15lb monofil, had parted some thirty yards from the hook. Possibly it had passed through a sharp mussel shell, or round a rock. I don't think I have ever been more disappointed at loosing a fish and poor Ernie was heartbroken; indeed, if I had waited for nine sessions before getting a run, and then lost it, I suspect I might have flung all my tackle in the mere and stomped off home. As it was, we slunk back into our brollies in utter dejection and waited for dawn.

The cloud persisted all next day and the second night promised to be even better. I trickled off to the local farm pond and extracted a dozen rudd and prepared my tackle with some expectation. The bleak I had brought with me were no longer in a useable state, but the rudd seemed a perfectly good bait. From the runs of the previous night, I had worked out that the fish were probably feeding about forty to sixty yards out in about 12 feet of water, the other side of a dense bed of soft weed. So two rudd went there, and the third was placed inshore. I then assembled a worm tackle, using a lightweight rod about the strength of a Mk IV, and an ancient Intrepid Supreme reel which has seen much better days. The line was only 10lb: anything stronger would surely have broken the reel into a thousand tiny pieces.

The first run came just before dark, and produced another 1lb effort on worm. Shortly after midnight, the worm was off again and, with strange grinding noises from the reel, I eventually beached an eel of just over two pounds. All the time the rudd sat there untouched. Then at dawn the oscillator sounded off again. I was hard on, and my wife prodded me into action to switch the b.... thing off. The worm was off again. As usual, a hesitant, twitching run that seemed unable to make up its mind. I left it for about a minute, pulled off a couple of yards of line, and struck hard as the line eventually tightened. The reel made a sound of antique machinery in torment, and the rod tip whipped smartly round towards the water. A long, hard battle followed. Knowing my tackle, I did not credit the eel with anything over about 3lb; indeed, I had no time to think of this as I tried to pursuade the winch into some sort of activity. Eventually the fish came to the edge. Unlike the others, it did not come out of the water on the first heave, there was still quite a lot of eel in the water with two ft on the bank. Then it was that I recognised a four pounder, a fact that was rammed home by the struggle to confine it to my dustbin. It eventually turned the scales at 4:3½.

The day was heavy and overcast as before. I had a certain impatience to display the catch to Ernie when he turned up for the next night. In the meantime, three roach fishermen turned up and started hammering fish out one after the other; they eventually took about 20lb away in buckets and sacks to stock a local pond they owned. So to pass the time, I tried to join in on the act. Single maggot tactics at thirty yards range is not my strong point, but I did manage to catch about five fish before it became dark. The roach were somehow much softer and succulent than the stunted rudd out of the farm ponds around, and I decided to use them as bait during the coming night, despite the fact that they were rather bigger than I normally use, about 6½-8 inches.

Ernie arrived, settled down in the same spot as before and the kettle went on. This time, however, there was a sense of expectation in the air. Not long after dark there was another run on worm, and in came another modest fish of about a pound. As on the previous night, all went quiet. The night brooded on and the tension mounted; something had to happen before it was over. Then, at 22.40 the oscillator sounded again. A quick inspection led me to the rod holding the biggest dead bait, fully sixty yards out into the mere. The line was peeling off in a steady purposeful manner; Ernie and I hovered above it, chain smoking, and trying to make sure that not the slightest obstruction occured. It went on and on, never slackening pace nor speeding up, just deliberate and purposeful. Then it stopped dead. Ernie hesitated, wandered up and down a few times and then sat on the bin.

"I'm in that weed bed too," said Ernie. "Swallowing the bait with the eel."

"This one's going to be big," said I. "The way it took that roach, seemed as though nothing could stop it."

Ernie said nothing, but lit another cigarette from the stub of the old one. The seconds dragged by and turned

into minutes. I walked away and came back; I fiddled with the inert line and smoked. Eventually I was convinced the fish had dropped the bait after all, so I reached into my pocket for a piece of silver paper, folded it into a loop and hung it on the line. No sooner was it on than it leapt a foot into the air. The line was flying off the spool as fast as I have ever seen it go. Somehow the rod was in my hands: a few feet of line was pulled free, the bale arm slammed home and I leant forward to strike. As I swung into action, the line tightened hard, and all I could do was raise the rod tip about a foot. For an appreciable time, the fish was taking as much line as I was gaining; then by dint of heavy pumping I started to win. Suddenly the line went completely slack. That sickening feeling of loosing a great fish swept over me as I reeled in frantically hoping to find the eel again. About twenty yards came in before the rod tip swung over again, and stayed down. Obviously, the fish had given up its attempt for the opposite bank and run towards me as far as the weed bed, where it had stuck. Eventually, I worked it clear and steadily brought it ashore. Ernie fell upon it like a man possessed and started to cram it into my bin. There was a brief and nasty battle, and then the lid slammed home and Ernie sat down on it hard. I had not participated in the encounter between man and beast, for fear of severe personal injury, and so had not seen what I had caught; eventually, when Ernie had recovered sufficiently to rise shakily to his feet we opened the lid and peered in. Great fat coils of eel glistened inside, and I knew this was a personal best. Indeed it was, at five pounds six ounces.

After that we had no more runs and dawn came in peace and tranquility. That day, the cloud broke and the sun came through. The mere went dead and all sense of atmosphere disappeared. We left too, and spent a dismal cold night at Colemere, under the glitter of a thousand stars. Not a touch of course. So we returned to Whitemere again. The roach were almost uncatchable by now, and I took only one; for the rest I had one perch and a few rudd. Inspection of the tin revealed the remains of a few moribund worms.

The night was cold, clear and blank: but if one shone a light on the water, it rose in a glittering shower of small roach leaping out of the water right in my margin. Alas, the eels did not follow them in, only the pike - and my thoughts on pike at night are not to be printed.

So I took my boots off and went to bed. Just at dawn the oscillator sounded, and I rushed forth, quite forgetting about boots until a nasty cold feeling crept about my feet. So I charged back in and forced them on - on to the wrong feet as it happened - which made my progress down the bank erratic, to say the least. It transpired that the rod containing the roach dead bait was in action. Just about the spot where I had cast a great gaggle of water-fowl was charging about. I have been had like this before, and carefully watched the surface for the grebe when it surfaced. But the line stopped, and moved off again with no sign of the bird, so I struck and landed an eel of something over three pounds.

And that, apart from a few abortive runs on worm was the last sign of action for the week. The weather was perfect for my wife, which means lousy for fishing. After I returned, Ernie maintained the seige, but has so far not got amongst the fish again. I am sure that had the weather

lasted, an eel of over six pounds would have come out, but I am equally sure that without exactly the right conditions this mere is a very difficult water indeed. It is possible that conditions will only be right on only two or three weekends during the whole season; I shall do my best to be there on those nights next year, and I hope, Ernie, that you will be there too.

PS Ernie informs me that his continued seige resulted in the capture of just one more eel. Another beast of a pound that came on September 24th at 01.15 to double lob.

WHYKE LAKE: AN UNUSUAL WATER

By Brian Crawford.

Whyke lake is one of a trio of lakes belonging to the Chichester & District Angling Society, and is situated on the north side of the A27, a heavily used dual carriage way, normally called the Chichester by-pass. On the south side of the by-pass lie a series of lakes (nine) belonging to the Southern Angling Centre, which charges 50p per day to fish. These lakes are connected to Chichester harbour and swarm with eels having an average weight of a little over a pound. However, the three lakes on the north side of the by-pass are completely isolated by roads and there is no access for eels. During the past decade only fourteen eels have been recorded; the smallest 2:0 and the largest 6:0 - only two have been below 4:0.

Whyke lake looks to be a good "specimen-type" of water. It is heavily weeded and reeded, mainly shallow, and full of natural food. Needless to say, it is very hard to fish. It contains carp and pike in excess of thirty pounds, and a very large head of tench with specimens in excess of six pounds.

The unusual feature of the lake is that it is the only water I know to have been deliberately stocked with eels, as part of the water management policy, to control the large numbers of small tench. This is the idea of the fishery manager, Roger Willians, now a firm friend of mine. He is a very keen carp fisherman and a member of the BCSG. He has had four eels from the lake, 5:6, 4:14, 4:10, and 4:3. He has also lost one at the net witnessed to be in excess of seven pounds. Over the past two years he has stocked the water with 200 eels between one and two pounds and 20 between three and six pounds. These came from a small pond that has since been filled in. A dead eel of eight pounds was found at that pond and Roger had nine other eels to 5:7 before it was finally filled in.

The lake is electro fished every close season to remove thousands of small tench and other species. Many large eels are sighted while this work is in progress, several specimens in excess of seven pounds. But the larger ones recover quickly and escape being netted. I have been

invited to attend these sessions this year and look forward to it very much. I will be armed with a large landing net and hope to capture a few for accurate weighing and possible tagging.

I have tried everything possible to attract and interest eels in my baits, but with the vast amount of food present, the eel fishing is ver hard. Roger warned me of this. He put in 21 sessions for his four fish. I have used countless tins of catfood; with and without groundbait; baits injected with pilchard oil; and even a swimfeeder filled with cotton wool soaked in pilchard oil and other additives. I have always used another rod without groundbait or additives as a control. Neither rod was touched for the first eleven sessions. My first eel came on the twelfth session. It was 00.30 on September 9th. After a stormy weekend followed by a clear sky and calm night, the water temperature was down to 59 degrees. The eel took the plain bait, a four inch roach, in the non-groundbaited area. It was, perhaps, one of the smaller eels present in the water, turning the scales at 3:12, but, of course, a pleasing one and, I hope, bodes well for the future.

It is, I believe, a psychological advantage to fish a water knowing that eels in excess of seven pounds are present; although many blanks are to be expected, it is a great incentive. After all, more than half the problem in catching big eels, is to first locate a water that might hold one. Well, now I have, and although I do not know whether or not I shall be able to carry on fishing there next season, depending upon where I live and work, I hope I am preparing the groundwork for any other angler who may take over my swim there one day.

ELECTRICITY POOL: CORNWALL

By David Smith.

It would be very easy for me, writing an article on my experiences in Cornwall, to simply repeat all that Paul Wieczorek said in his excellent article (Vol. 9 No 1), so I shall try to confine my writings to concern only one water, the Electricity pool.

My decision to go to Cornwall was made this time last year. It was based on two things: Paul's exhuberent enthusiasm, as illustrated by his articles, and an invitation from him to share in the glories and delights of his waters. At that time, arrangements were, to say the least, somewhat flimsy, but nearer the time a firm date was set and July 15th saw me Westward bound.

Paul met me at St Austell station. Although we had never actually met, Paul easily spotted me getting off the train amid a chaotic mass of holidaymakers since I was the only one brandishing a rod holdall and struggling with a vast quantity of fishing tackle. He made his acquaintence known and soon we had my gear stowed in his car. After a brief exchange of pleasantries and cigarettes, Paul took me on a swift tour of his waters.

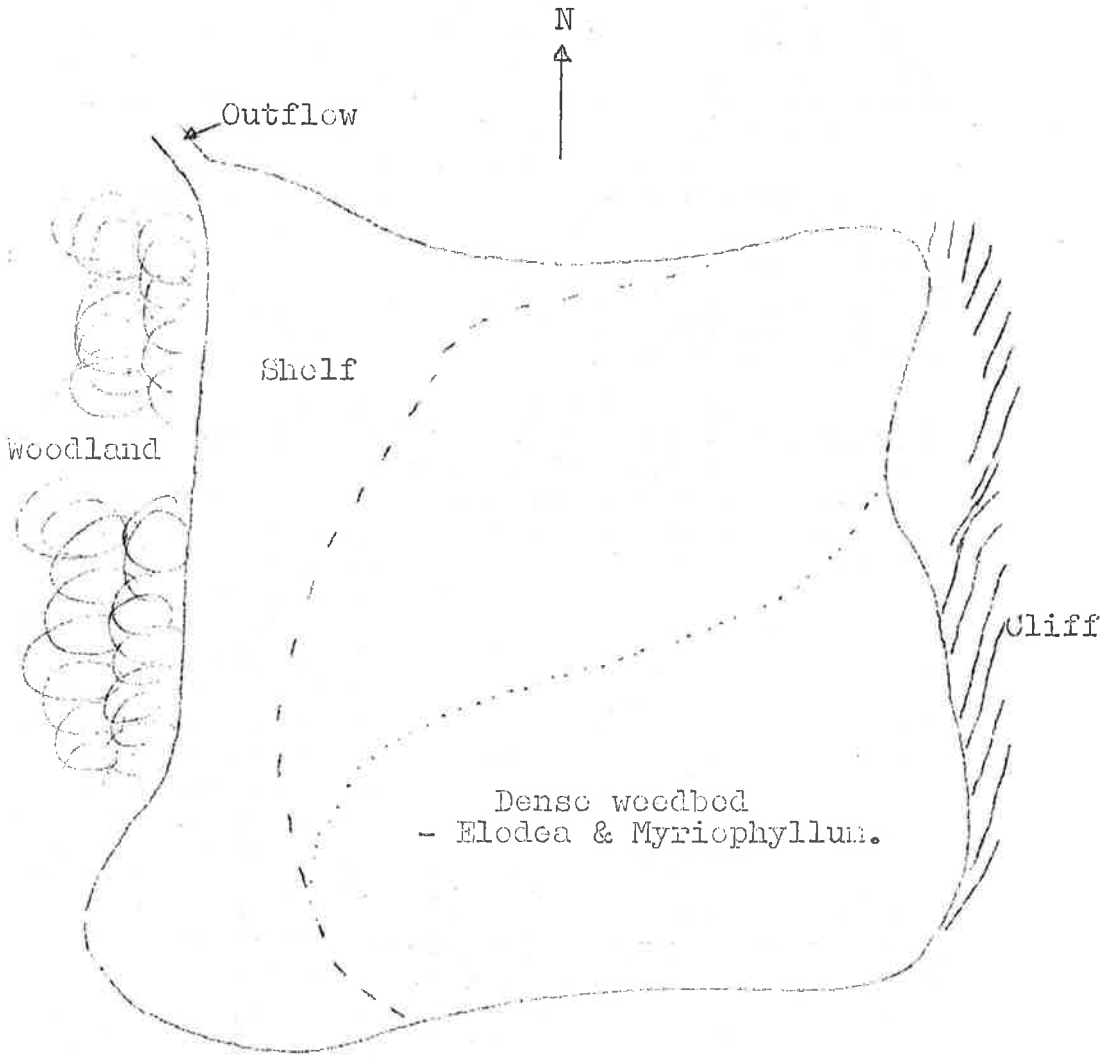
We visited gravel pits which were incredibly overgrown and China clay pits that have a magical atmosphere of their own. But the waters that created the greatest impression were the stone quarries. In my part of the world we have gravel pits, we also have clay pits but we have no stone quarries. There they were with sheer cliffs dropping down into as much as twenty feet of water. The water in most of them was gin clear and one could see down to a depth of about eight feet with no trouble at all. It was difficult to see any further because of the lack of light; these pools were almost always surrounded by high cliffs which prevented the sun shining onto the water. Of these, the one that gripped the imagination more than most was the Electricity pool and made it clear that I wanted to fish this water.

Before telling you of my adventures there, I shall digress and tell you of my first night. We decided to fish one of the gravel pits, situated on Goss moor. These are heavily overgrown, but one of the pits is fairly weed free. We chose a suitable pitch by this pool where the weed was not close to the bank and tackled up. Bait for the occassion was to be minnow DB, mounted on size 10 hooks. Before casting out, we set up our respective abodes for the night. I, in normal Anguilla Club manner, produced a brolly plus polythene screen. Into this brolly-tent I put my bed-chair, air-bed, sleeping bag and blankets. Meanwhile, Paul had set up his brolly and chair, and was now staring in blank amazement at this decadent method of fishing. To add insult to injury, my oscillator leads were taken into this shanty and the oscillator placed in a position that would approximate the position of my left ear 'ole once I was snug inside. Paul used Watchman bite alarms attatched to his rod butts. As it turned out, I did not make full use of my bedding since most of the night was spent drinking endless cups of coffee, smoking each other's fags, talking, and swatting pesky mosquitos. But by the end of the week, Paul had a camp bed, polythene screen and plenty of blankets.

The second night saw us fishing the Electricity pool. We spent the afternoon there during which time we caught plenty of rudd. They were not very big, between six ounces and twelve ounces, most being about half a pound. I also whiled away half an hour livebaiting for perch, using minnow, and had three of about a pound. We also caught plenty of bait in the form of small perch and minnows. For me, the minnow was an alien bait, but the perch were familiar: for Paul it was the other way round since he'd not used perch before.

The Electricity pool is about two acres in size and is roughly square. There is an outflow in the north western corner that joins with the river Fal a few yards away. The eastern shore does not exist. Aprecarious path is suspended on the top of a cliff twenty feet or so above the surface of the pool, and this drops into about twenty foot of water and is the deepest part of the lake. The western shore is much shallower since there is a shelf extending some twelve feet covered by about eight foot of water at its deepest point. Beyond the shelf the water drops off to about twelve feet. However, this bank is inaccessible because of dense woodland. Thus the only fishable shores are to the north and south of the pool.

Electricity Pool



Un fortunately, the southern shore is adjacent to a massive bed of rooted weeds. There are several breaks in this weed, but it would be difficult to extract an eel from there, let alone get a bait down to the bottom. This left only one swim that could be fished located on the north shore. It was to this swim that we moved all our gear, having to negotiate that dangerous little path in so doing.

The swim was bordered by a shelf about one foot below the surface and extending out about three feet. This shelf was a hive of activity, there being many small frogs and vast shoals of minnows in their breeding colours. The frogs were so numerous that one could not help but crush several underfoot with every pace no matter how careful one was. Beyond the shelf, the water dropped off to about twelve feet.

With great difficulty and much abusive language, I managed to pursuade my rod rests into fizzures in the solid rock. I gave up trying to push my brolly pole into the rock and, instead, suspended the brolly from a tree. Paul was more fortunate in that he had a nice soft piece of ground for his brolly. Two rods were put on to the rests and the bait, one minnow and the other perch, was simply lowered over the edge of the shelf. A third bait, another perch, was cast into the centre of the pool, close to where the weed bed began.

Paul, using only two rods, had one bait just over the shelf and the other cast into the centre.

We had set up our pitch early, so it was still some time to go before dark. We sat down to relax and enjoy the solitude of this water. We had been there nearly all day, and we were yet to see another sole. We drank coffee and smoked a cigarette. Paul told me the history of this water. Apparently it was this one that his friend had seen the two 5lb+ eels in. He also told me that both he and a friend of his had been smashed by eels. As the shadows began to lengthen, we fell silent, and that strange feeling telling me of impending action crept through my veins. Could tonight see the capture of a really good eel?

My thoughts were brought to an end abruptly. I was on my feet before the fact that Paul's buzzer was sounding off registered. The rod with the bait in the center of the pool was bouncing up and down, and the line was peeling off rapidly. It stopped. After a short pause the line started twitching its way out. Bale arm closed and whan. Paul was into a fish. By the sight of his rod doubled over, and the whistling sound made by the overstretched 12lb line, a good fish.

"It's solid," he yelled. "It wnn't budge!"

Then the rod moved and the line went slack. Paul reeled in furiously.

"Have you lost it?" I asked pessimistically.

"No," came his reply as he made contact again. Then the water ten yards out began to boil, but the fish dived once more. Paul applied full side strain and again the line whistled. It worked, and the fish was again returning to the surface; but not slowly, it was going like a train. The water surface was thrown into a seathing mass of foam and out of the middle of this, like the phoenix arising out of the flames, came a magnificent trout. For our benefit it went through its full repertoire of antics including a magnificent tail walk as it tried to throw the cumbersome steel from its jaws. It was, however easily beaten on such tackle, and it was not long before it was lying on the bank. It turned the scales at 4:4.

Despite the thrill of seeing the capture of such a good fish, and the magnificent performance it had given, my heart sank. Were the fish responsible for breaking Paul and his friend on previous occassions large trout? Optimism gave way to pessimism. I had another cigarette and a coffee and then retired to bed.

I was awoken with a start by a strange noise that kept interfering with my dreams. It was my oscillator. The time was 23.30. I gathered my senses and trundled out into the open. The rod bearing the perch suspended over the shelf was bouncing about. It was running steadily. It stopped. I pulled off a few yards of line and closed the bale arm and waited. It moved off again. The line tightened. I struck. Paul was on hand with the net and I soon had the eel in the bucket. I rebaited with perch and dropped it once more over the shelf.

Perhaps I was wrong, and that the breakers had

been eels. Once more we drank coffee. Paul was pleased to hear that the bait had been perch. I don't know why he'd not used it before, perhaps it was because of their spiny nature, a feature that used to put me off. But at least I had shown Paul that perch catches eels. I had a final cigarette and decided to get my head down again. I crawled into my pit and had just climbed on to my bed to begin my fight with the blankets when the oscillator sounded of again. White bulb: same rod.

I crawled out of my hovel (Alan Hawkins could tell you a tale or two about it) to find Paul, net in hand, bent over the rod. Line was still streaming off. It was the same procedure and soon there was another eel in the bin.

I was now, I must admit, getting quite excited: two eels, both easily over two pound, and the night was still young. Little was I to know that the next few hours were to be the most hectic of my eel fishing career. We went through the same after capture procedure with coffee and fags. As a slight variation, we ate sandwiches. One thirty. I observed that if I keep having runs at hourly intervals, I ought to have another about now. As if in reply, my oscillator went into action once more.

This time it was a twitchy run, and the line inched slowly out. It stopped. I waited for ten endless minutes during which time the line moved not a fraction. I was then faced with the decision of whether or not I reel in, or hope that the quarry is just taking a long time to eat its prey. I dithered for a moment and then reeled in. I rebaited and once more placed the bait just over the shelf. The old bait was severely mauled. I started walking back to Paul for another round of fags and coffee. Without thinking, I assumed that the rod I had just rebaited was the offender, believing that the line had slipped out of the contacts. I tried to reset it but it wouldn't work without any light. I turned on the torch and realised that it was the other margin rod, with minnow as the offering, that was causing the noise. The line was belting off faster than I have ever seen before.

The line stopped and by now Paul was on hand, as ever, bearing the net. We agreed that it was probably either by, or worse, in the weed bed. It moved again, slowly at first, but it soon picked up speed. In one swift action I closed the bale arm and struck hard. The rod doubled at the sudden strain put on it. I could feel the line tearing through the soft weed and also realised that the fish was running diagonally towards the north east corner. Applying all the side strain I could muster, I pulled the fish round so that it was now running at me. Reeling as fast as possible I could barely keep contact with it. Then it changed direction once more.

"Oh, no," I shouted. "It's pulling off line!"

Suddenly all locked solid. The fish had anchored itself by the ledge. It was then that the tug 'o war began. For over half an hour the rod was bent double. Every now and then, either the eel or myself would gain a little line. I seemed to be winning slowly. My arms ached and the sweat poured from me in a continuous stream. Thoughts raced through my head and my mind was muddled. Was I snagged on a rock? No. I could feel my fish, and I could feel it shaking its head not far from where I stood. At last the leviathan made, what must have been, a

final bid for freedom. I could feel it trying to tear line of the spool. I gambled and locked solid, trying to make use of the eel's movement to winkle it out of its hole. Alas, the strain imposed on the line and it parted at the link swivel.

I collapsed in a heap, very dissappointed and very exhausted. But the gods would show no mercy and my perch in the margin was off yet again. This was another abortive run. I decided that the bait had been dropped and hauled in another marked perch. I had just got my rod on the bank when Paul had another run, again on the margin fished perch. Soon our third fish was in the bin; another 2lb+ fish. Despite all our activity, all we had to show were three fish.

Before I had picked up the net to go to Paul's assistance, I had lowered my marked perch back into the water. Paul's fish had just been dropped into the bin when it was off again. This time there were no mistakes and number four, a fish slightly smaller than the others, was also in the bin. At last we could have a smoke and a coffee. We also tucked into our sandwiches. We were just about to turn in again when Paul had another abortive run, on perch, closely followed by a twitch on my perch. We turned in and were not disturbed again that night.

In the morning, our first task was to inspect the catch. They weighed in at 2:8½, 2:4, 2:0½ and 1:11½. The small fish apart, they were in excellent condition. I could see from these why yellow eels are so called, since there was no grot in the pool to affect their colour. We also had a post mortem on the night's activity. Why should all the runs come from the margin, and on perch? Why were half the runs confident and the other half twitch bites that aborted? Since the minnows were shoaling in the mouth of the outflow, I thought the eels were coming in after them, and, since our baits were there, they were quite willing to put perch on the menu. As for perch being accepted in preference to minnow, we did have two perch baits inshore and only one minnow, so one could expect perch runs to come twice as fast as minnow runs.

When we opened the fish up, it became clear that the eels were indeed coming inshore to feed, but not on minnow. Their quarry was small frog.

As for the difference in bites, and I can assure you that there was a distinct difference, I have no logical explanation. The possibilities are that they were caused by mini-bootlaces of the size I am accustomed to catching; or they may have been the cautious bites of big eels; or finally they may have been the result of investigation by trout. There are no pike present, so they certainly were not to blame. If anyone could cast any light on to this I should be grateful.

We returned to the Electricity pool three nights later. Again we stocked up with perch. But sport was not as brisk as the first visit and we only had three runs for two fish of about a pound. We stayed put the following night and this time only had one fish, a little monster of just under a pound. Why had the sport gone dead? Had we fished out the swim? Answers to these questions could only be gained by another visit.

In a little over a month, I was back on the banks of the Electricity pool. A friend of mine, with a week to spare, fancied the idea of hunting big eels for a few days in the pleasant surroundings of Cornwall.. So, on August bank holiday we drove West. It was almost dark when we arrived at Paul's, and he was out fishing. We spent the evening chatting to Pam, Paul's wife, waiting for him to return. We were invited to spend the night on Paul's floor, which sounded much better than bed and breakfast, and it was Tuesday before I saw the pool again.

There were several changes since my previous visit. Gone were the frogs. And the minnows, having recovered from their nuptual rites had returned to deeper water. It was also strange to see someone else fishing the pool. He turned out to be a Londoner and had two nets full of rudd. These fish were no longer making their presence known and were now lying several feet below the surface. It was reassuring, however, to see the shoals of small perch still hiding in the weed by the margins, and we proceded to catch some for bait. With sufficient small perch and a few minnows in the bait bucket, we made the perilous journey over to the swim. Since Ivor, my companion, had no brolly tent, we shared mine. We were soon all set up and the same bait distribution as before was employed: perch and minnow off the shelf and perch in the middle.

It was dark before we settled down to eat. We cooked our frugal meal of egg and bacon, and then, with nothing else to do, decided to get some sleep. Have you ever been eel fishing with an occassional fisherman? It is a strange experience when your companion, after arranging his bed, gets out his pyjamas and the puts them on!

There was something else different too. There was a full moon, and the sky was clear. My previous visit was under an overcast sky with a new moon. Paul wandered around about midnight and shared a coffee. He left after a chat and I soon fell asleep. I awoke in the morning to the twittering of birds. Not a touch all night.

I was a little purturbed by the lack of activity. In the margins I had noticed some dead fish, so I wandered off to investigate. They were roach. But why had they died? An answer to this may provide an answer to the lack of eels.

We packed up our gear and moved round to Paul's. We were greeted by Pam and Paul and were soon enjoying a cup of coffee. Paul, too, was disappointed at our lack of success. The dead fish, I was told, were part of a batch of roach transfered from another water. Some of these fish had died shortly after introduction.

The next night saw us installed back in our swim. Since there were no frogs or minnows in the margins, there was little to attract an eel, so all my baits were distributed along the edge of the weed bed. But again there was no activity. The next night Paul fancied a session, but rather than flog away at the Electricity pool, he prefered to fish a clay pit that he thinks will yield a big eel. But the night after saw us back, suffering another blank. Then, with tail between my legs, we returned to London.

Overall, Electricity pool has yielded seven eels in six sessions. The biggest were caught the first session

and the size and number diminished each session so that the last three sessions were total blanks equalled only by those of Shropshire the previous year. Why should this be so? Had we fished it out? I think not, since we had more runs than fish over all. If the eels had deserted this swim, it was because it had lost its attraction for them rather than us having caught them all.

I suppose it is easier to make excuses for the lack of eels during the second spell. There was a full moon, and this combined with the clarity of the water may have put the eels off. The large number of dead and dying fish may have provided the eels with sufficient food to tide them over. But I believe that the eels had vacated this swim altogether and had taken up feeding in the weed. On my first visit the swim was alive with small frogs and minnows which were attracting the eels. Our baits were much easier for the eels to get than the active living groundbait.

I shall endeavour to return to the Electricity pool again next season. If my visit coincides with the shoaling of the minnows prior to breeding and with the emergence of the frogs, I shall fish the old swim in the margins. But if there is little activity in the margins, I shall endeavour to fish in the dense weed from the south bank.

Finally, I was very dissappointed to hear of Paul's departure from the club. He would have been a very valuable member of the club. He is very sociable and is willing to share his knowlege with anyone. Although it is business comitments that prevent him from fishing so much now, I hope I can pursuade him to join me on a session or two on that pool.

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OTOLITH READING RESULTS: I. THE AGE OF EELS

By Geoffrey Swailes and Alan Hawkins.

As older members will know, analysis of growth rate has been one of the long term projects of the National Anguilla Club for a number of years. Eventually, we hope that this may benefit our fishing by helping us to choose better waters - on the assumption that the faster eels grow, the bigger they get. For the sake of newer members, it is perhaps worth while saying a few words on how we go about this. Eels differ from many other fish in not laying down scales with annual rings, and so we cannot use scale readings as a basis for growth rate studies. Instead, we have to rely on otoliths - small stones on either side of the brain within the eel's skull - which do show a pattern of annual rings. These otoliths are ground flat on a fine carborundum stone and examined under a low power microscope using reflected light; the rings can then be seen and counted to give the age of the fish.

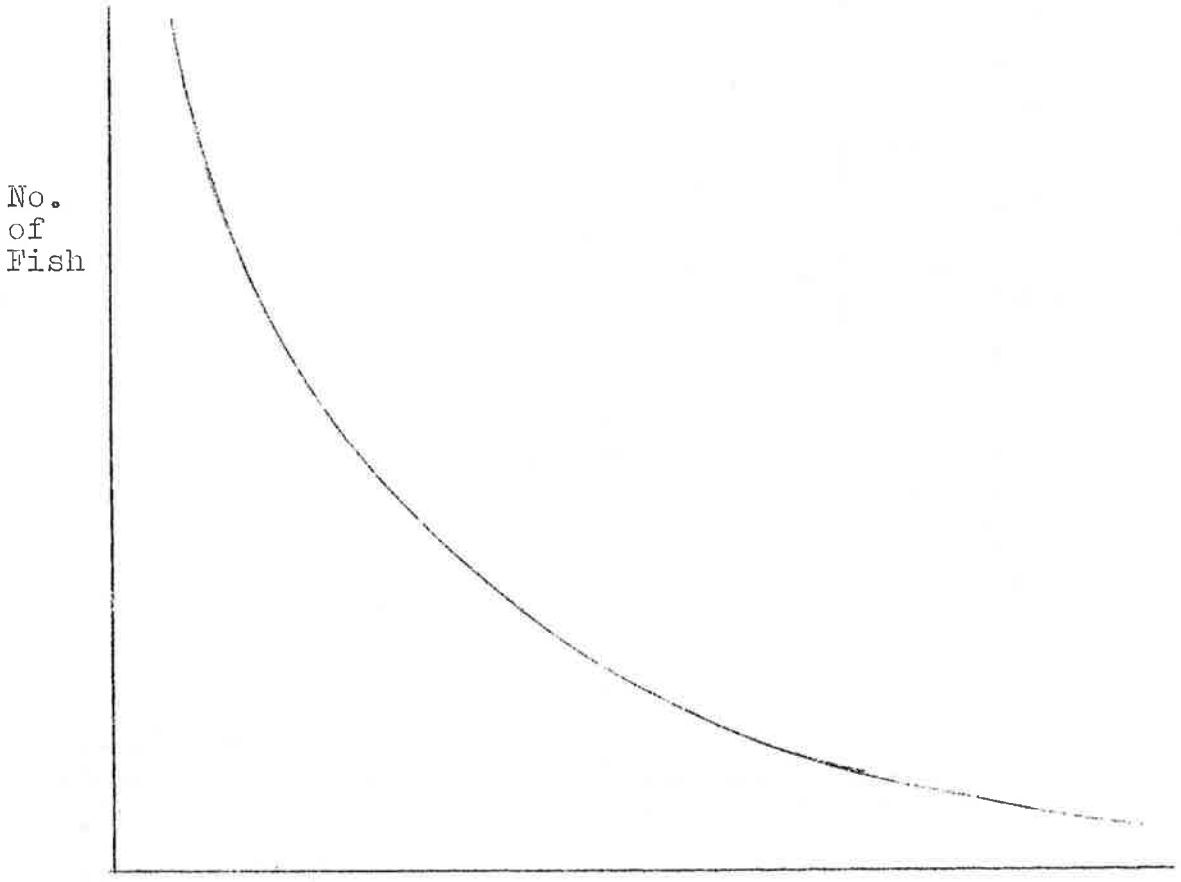
Members have been collecting otoliths on a formal basis since 1968, while some collections date from much further back. Until he decided to pursue bigger eels in New Zealand, Geoffrey Swailes had overall charge of this project, set up an excellent storage and records system and also did most of the work on reading the stones. In fact, Geoff has now read some 598 otolith pairs; when you realise that each reading takes on average about 20 minutes, you can see that this represents about 200 hours effort on his part - to say nothing of time taken to administer the scheme. Clearly the club owes him a great deal. In view of his imminent departure, the collection and results have been passed to me, and I am pleased to be able to present the results of this work to you. Again, Geoff has done much of this, and has already assembled the data into a useful form. My part, therefore, is simply to put it all down on paper, to do a bit of statistics and try to show what it all means. By comparison with what Geoff has done, my contribution has been very small.

I propose to present these results in two Bulletin articles. In this, the first, I shall be concerned with the age of the fish we catch, and leave the much more difficult subject of growth rates in different waters to the second article. There are several good reasons for doing this. For one thing there is much too much information for one article. Also, there are a number of difficulties, both practical and theoretical, to be cleared out of the way before we can get down to a discussion on growth rate. Finally, I believe that the age of the fish without the complication of growth rate has much to teach us about our eel fishing; some of these lessons may not at first sight appear to have much to do with fishing, but others, especially when we come to examine the "Prison Water Theory" in the light of our results, are of the greatest importance.

To start this article on age, I would like to introduce a bit of theory - necessary, I am afraid, if we are to understand our results fully. Let me ask a question. If we caught the whole population of, say, roach, from a lake, and made scale readings of every fish, what sort of age distribution would we expect to find? In other words, how many fish would be less than one year old, how many of age one, two and so on? I think it is pretty obvious that we might expect an answer like that shown in figure 1. The most numerous fish are the newly hatched fry of age 0. As time goes on, predation, disease, and possibly in the older age groups, old age, all take their toll, so that each successive year-group contains less fish than the one before. You will notice that the graph is drawn as a curve of a particular shape (an exponential) rather than as a straight line. There are several reasons for this. One is that very small fish can be eaten by more things than can older and bigger fish. Thus the drop in numbers is much steeper in the early years than in later ones. Another is that in decay curves of this sort, the drop in numbers in successive years tends towards a constant fraction of the population, rather than a constant number. For example, if we started with sixteen fry, and half perished each year, then the numbers in each year-group would be 16, 8, 4, 2 and so on - again giving a curve rather than a straight line.

Alright, what about eels? Our roach model assumes constant conditions in the sense that we imagine the same

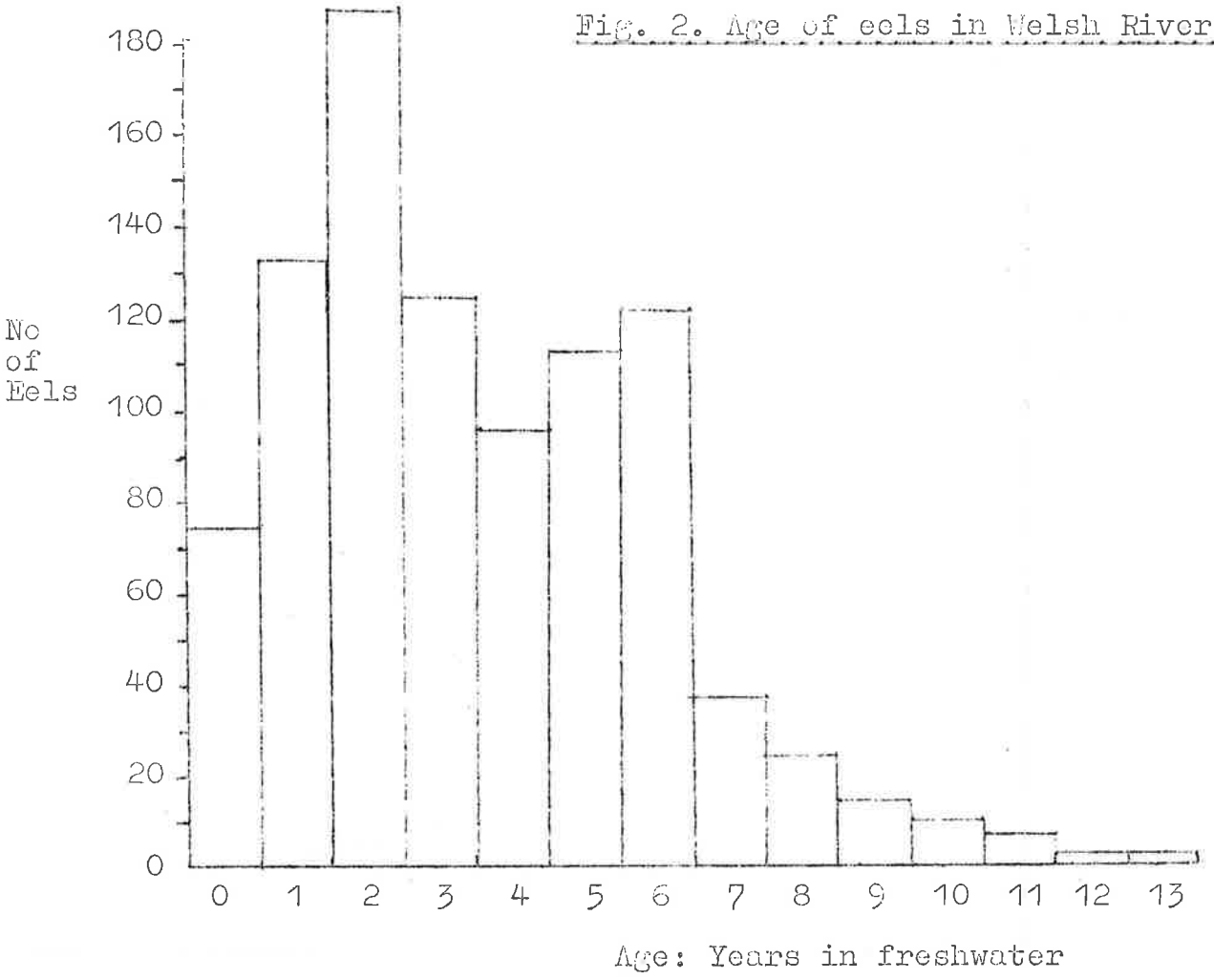
Fig. 1. Theoretical Age Distribution



the same numbers of fry to hatch out each year, and that predation and disease are essentially the same from year to year. We all know that this is not necessarily true; that some years are much better for breeding than others, and that predators are much more numerous in some years than others. Such factors will make our graph less perfect; the graphs will still probably have the same overall shape, but there will be wide deviations above and below the line.

For eels, though, we have an important difference in that they hatch out in the sea, not in the freshwater system where they finally come to live. The most frequent age group is not 0 - these are still in the Sargasso! - but the age when the majority arrive at their destination. Even if we accept the convention that we start counting the age of an eel from the time it arrives in freshwater (like other workers), an eel may still spend one or more years in rivers and estuaries before running upstream to some of our more distant lakes and canals. So our peak in the population is unlikely to be age 0, but in the early year classes. Let us see how this might work out in practice, by looking at the age distribution of eels in Welsh rivers as found by Sinha and Jones (1967). As you will see from Fig. 2, the numbers rise to a peak around age two, and then tail off rather slowly until about age 6, after which they drop more sharply. In other words, our simple curve is masked in the early years by the fact that eels arrive at different ages in these Welsh rivers.

Fig. 2. Age of eels in Welsh Rivers



But there is another far more important way in which our distribution may come to differ from the expected, and this arises from the methods we use to catch our eels. If we return to the paper of Sinha and Jones, we find that they caught their sample of eels by a mixture of electric fishing, long lines and fyke nets. Now, only electric fishing might be expected to catch all eels. Long lines can only take eels big enough to swallow the hooks, while fyke nets can only take eels which are too big to escape through the mesh. Thus, part of their sample must have been biased towards the bigger eels, which, one assumes, are also the oldest. So another explanation for the rather low numbers in the very early year groups of Fig. 2 may be put forward; the very young eels are too small to catch.

You will realise that this is likely to be very much more important in the Anguilla Club eels, when, generally speaking, we do our very best to catch only big eels. The baits and tackle we use are too much for the very small eels to get hold of, despite the fact that these tiny efforts may be the most numerous eels in the water. As eels get bigger (and older) their chances of being caught must also increase. In other words, if we assume that the bigger eel is the more likely to take our bait, we have another factor, called, for want of a better word, "catchability" to add to our graph. As numbers decrease, so "catchability" increases (Fig. 3).

The actual age distribution of our eels, therefore, must be the interaction between two opposite trends - decreasing numbers with increasing age, and increasing catchability with increasing age. The result of all this is

Fig.3. Relation between eel numbers and 'Catchability'

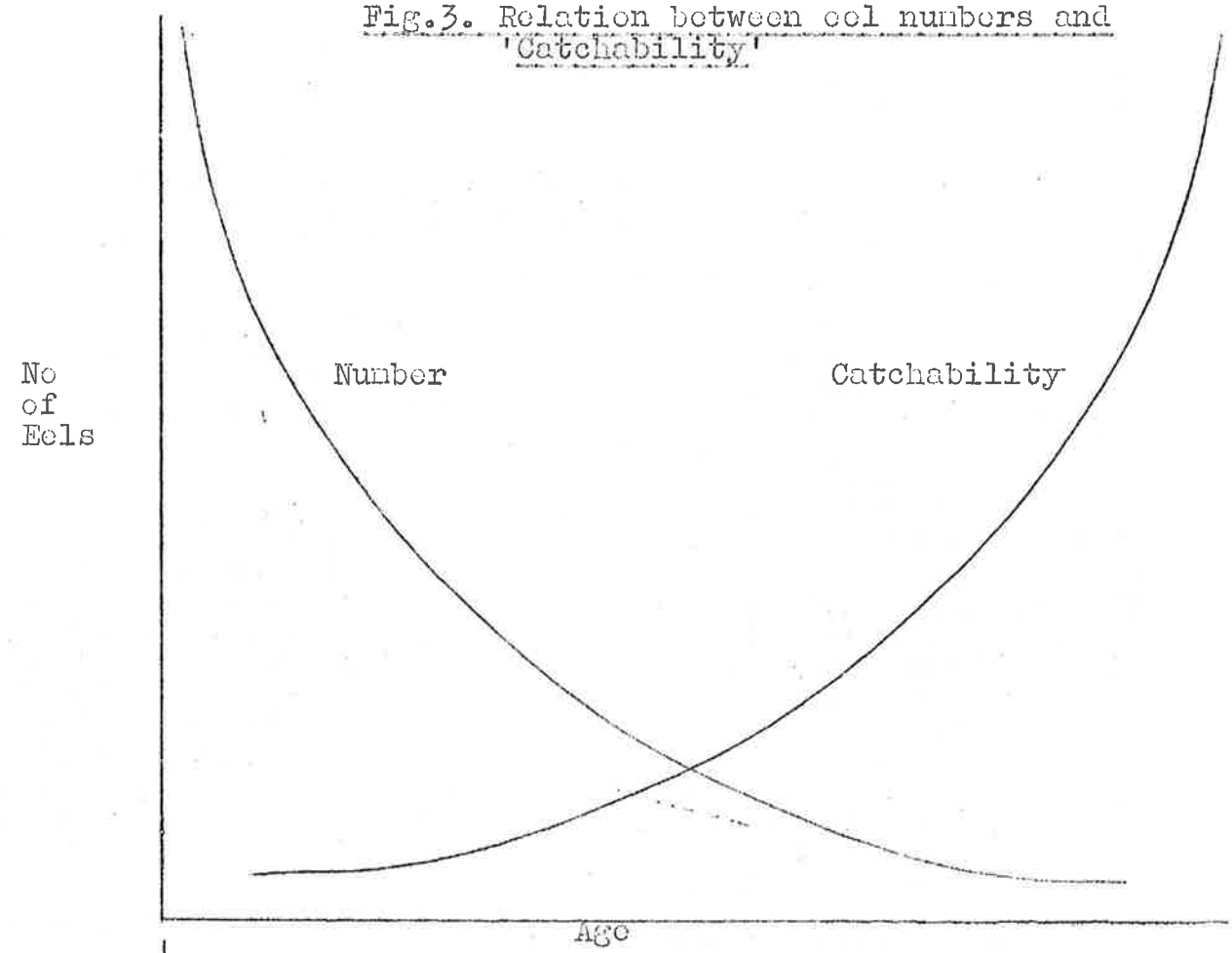
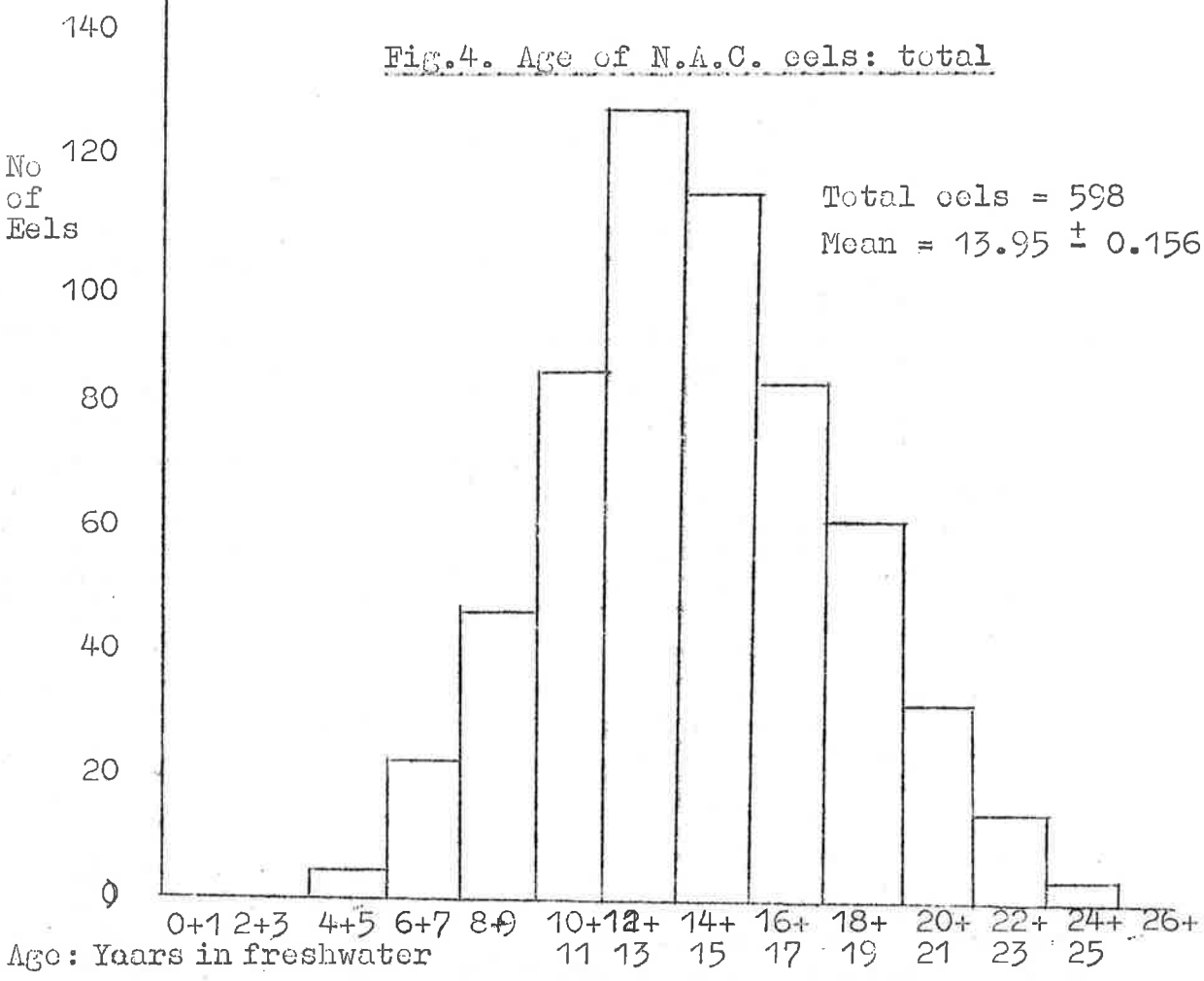


Fig.4. Age of N.A.C. eels: total



is plotted in Fig. 4, showing the grand total results for all 596 otoliths. The sample includes both 2:1 & 2:2 lakes, canals, tidal and non-tidal rivers.

Fig. 4 shows us that the average (mean) age of the eels we catch is fractionally under 14 years. Without wishing to stray into growth-rate discussions, it is worth pointing out that the average weight of 14 year old eels is only about 1lb 10 ounces. Eels grow very slowly!

Another important thing about Fig. 4 is the overall shape of the curve. It has a bell shaped outline, and corresponds remarkably well with a very useful mathematical distribution, called the Normal, or Gaussian distribution. This is ver fortunate, because it allows us to make some interesting predictions from our data, and also lets us make tests of significance to see if there are differences between different classes of water. Let us first tackle the subject of predictions. To do this we makes use of a number called the "standard deviation" (s.d.) which measures the spread of any Normal distribution; in this case, the s.d. is 3.77 years. With this number, we can calculate the percentage of eels we might expect to find above (or below) any given age group in our sample. This has been done in the following table for eels of over 16 years (16+) right up to eels of over 30 (30+). In fact, our sample contains eels up to the age of 25 years, so for the lower age groups, we can check our predicted values against the actual ones - this gives us some sort of check on how good our predictions are.

Table 1. % of eels above given age values

	Age. Years							
	16+	18+	20+	22+	24+	26+	28+	30+
Predicted	30	15	6.7	2.0	0.5	0.1	0.02	0.003
Measured	34	19	8.9	3.3	0.67	-	-	-

As you can see from the table, the correspondence between the predicted values and the actual values are remarkably good. They are not exactly the same, we would not expect them to be, but the difference is only a few percent in each case. Because of this, we can have some confidence in extending our predictions beyond the values we have actually mensurred and ask how many eels we might expect to catch older than 26, or 28, and so on. Naturally, the certainty of such predictions gets smaller the further we go from our actual measurements, but I would be quite confident that we can arrive at a quite meaningful estimate at least up to the age of 28. We can see that the percentage of eels above this age is about 0.02, or two eels in every ten thousand we catch.

Well, I have heard Club members talk about special waters which contain ancient eels of over 30 years old. I have heard people say that what they are after is an extremely old fish that will doubtless weigh up into double figures. My advice is "Forget it!" The evidence says that this is simply not on. Unless, of course you are prepared to sit down to catch many thousand eels on the off chance. We have all heard of that Irish eel of (I think) 11lb which was supposedly 34 years old. This sort of thing may well happen in Ireland - a lot of odd things happen there - but it is not likely to occur

in the more sedate waters of England!

If it's very big eels that you are after, therefore, it's no good looking for the odd ancient eel. What we need is a water where eels grow exceptionally fast, so that an eel of (say) 20 stands a good chance of being a specimen. From our table, we can see that about 7% of our eels, or about one in fifteen reach the age of twenty. The odds are still long, but not impossibly so.

Let us now turn from prediction to differences between different types of water. More specifically, let us look at a familiar hobby-horse of Anguilla Club members called the "Prison Water Theory". According to this theory, waters may exist where elvers can get in, but mature eels cannot get out of. Therefore, (the theory says), the mature eels turn back from silver to yellow, start to feed again and live to a great age, growing to an enormous size in the process. We have also seen that this cannot be wholly true in that very old eels are so rare as to not be worth the effort as an angling proposition. What I want to consider, however, is not the extremes of this theory, but the more general idea that a restricted outlet may delay the migration of eels by one or two years, so that eels in this type of water may be just a bit older on the average, than in other waters with a definite outlet.

In other words, if there is anything at all in this theory, then eels from class 2.2 waters (with no outlet) should be older than eels from 2.1 waters (with a definite outlet). Therefore, I have plotted age distributions for these two water types in Fig. 5; rivers are also included for comparison.

Ignoring rivers for a moment, we can see that the average age of eels from 2.1 waters is 11.6 years, whereas from 2.2 waters, the average age is 14.3 years. Further, using the mathematics of the normal distribution, we can say that this difference is very highly significant indeed; the probability of acheiving so big a difference merely by chance are many thousand to one against. So, on the face of it, our prison water theory may have something in it - at least in a watered down form.

Before we accept this as gospel, however, there is just one thing we ought to check. Our samples of otoliths have not been taken on a strictly scientific basis, but from waters that our members happen to enjoy fishing. It is possible, therefore, that our sample from 2.1 waters might be biased by having a very large number of otoliths from one or two waters with an exceptionally young population of eels, while our 2.2 sample might be biased by one or more waters containing exceptionally old eels. So let us look at the facts.

For lakes with an outflow, our sample of otoliths came from 14 waters giving a grand total of 205 readings. The largest single sample came from Castle Howard with 45 sets of otoliths (22%), while Butler's with 38 and Roswell with 35 also contributed relatively large proportions of the total. None of the other 11 waters represent more than 10% each of the total, so any bias from an exceptional water is likely to come from the first three. Now, the average age of eels in the Castle Howard sample is 15.4 years, the average age from Roswell is 13.4 years, while that from Butler's is 11.2 years. So from our three waters where bias

might be expected, no less than two have an average age above that of the grand total, while Butlers, with an average age of 11.2 is only slightly below the grand average. In fact, if we took the Butlers sample away altogether, we would raise the average age to only 11.75 years (from 11.65). Thus, there is no evidence that the surprisingly low average age for 2.1 waters is caused by the presence of a large number of otoliths from one or two freak waters. At the present time, we should regard it as a genuine result.

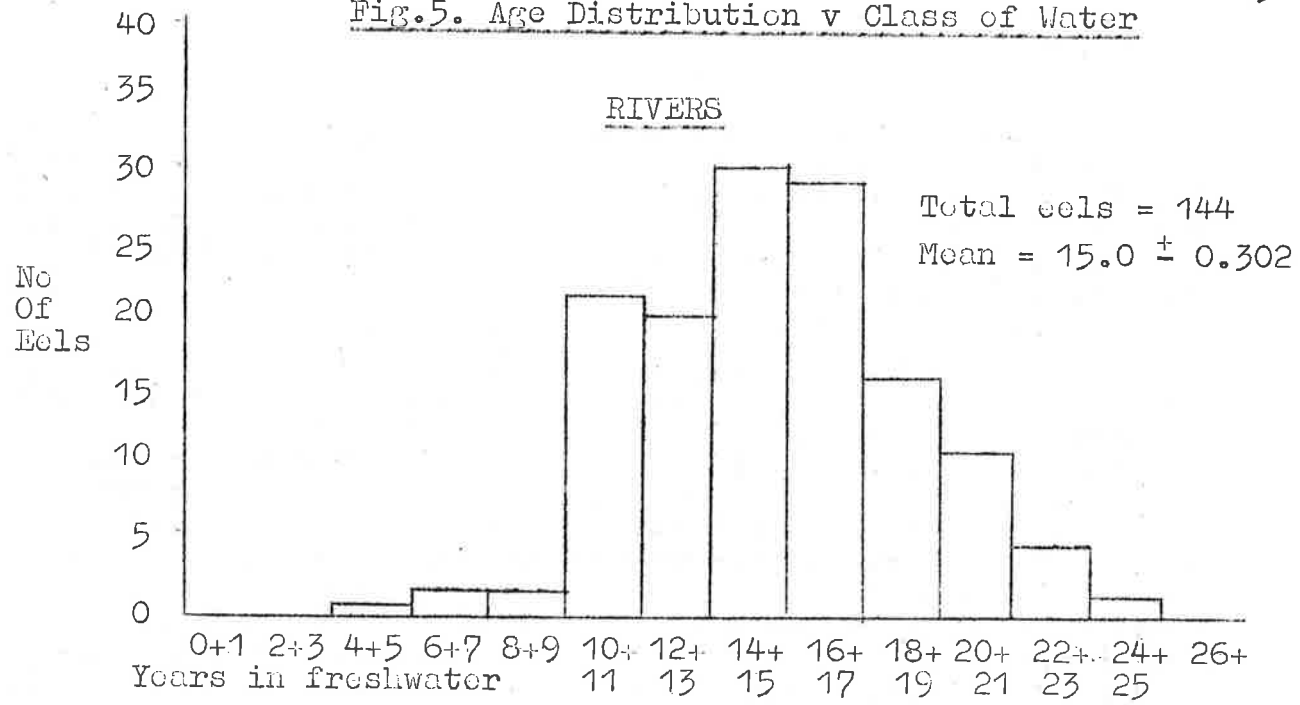
Turning to lakes with no outflow, no less than 26 waters contributed to our sample of 213 otoliths. Unlike the 2.1 waters, however, no single waters stand out as contributing a relatively high proportion of the total; the largest sample (25 from Fenhouses) is not much more than 10% of the total. As for 2.1 waters, there is not much chance of our result being biased.

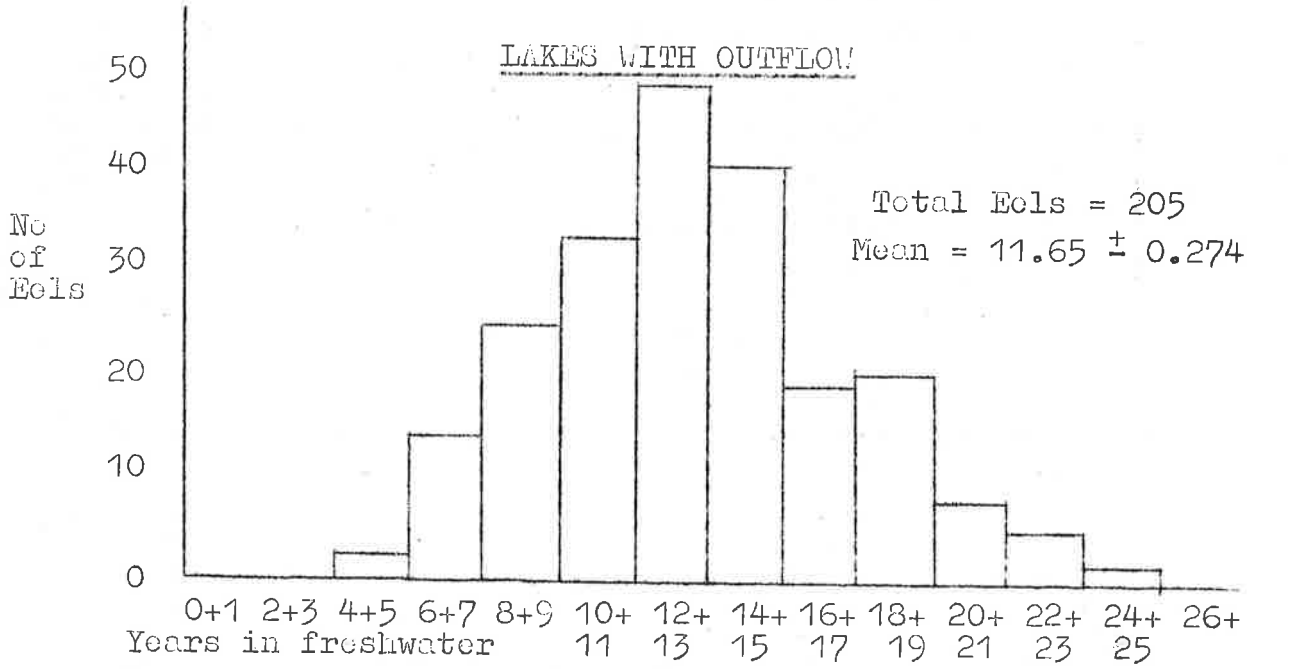
Thus, we must conclude (on present evidence) that the eels we catch from 2.2 waters are nearly three years older than those from 2.1 waters on average. The most likely explanation for this is a modified version of the Prison water theory. Clearly, this difference in age may explain the fact that we seem to catch bigger eels from 2.2 waters than from 2.1 waters - if the eels are older, they are almost bound to be bigger. You will notice that this is an entirely new idea. Up till now, we have tended to explain the difference between the two types of lake in terms of a rather vague notion that there will be rather fewer eels in 2.2 waters; those eels will not compete so much for food or living space, and so will grow faster. I have always doubted whether many of our lakes contain so many eels that competition between them is an important factor (indeed, most of our lakes seem to contain far too few eels!) and it is gratifying to come up with another possible explanation.

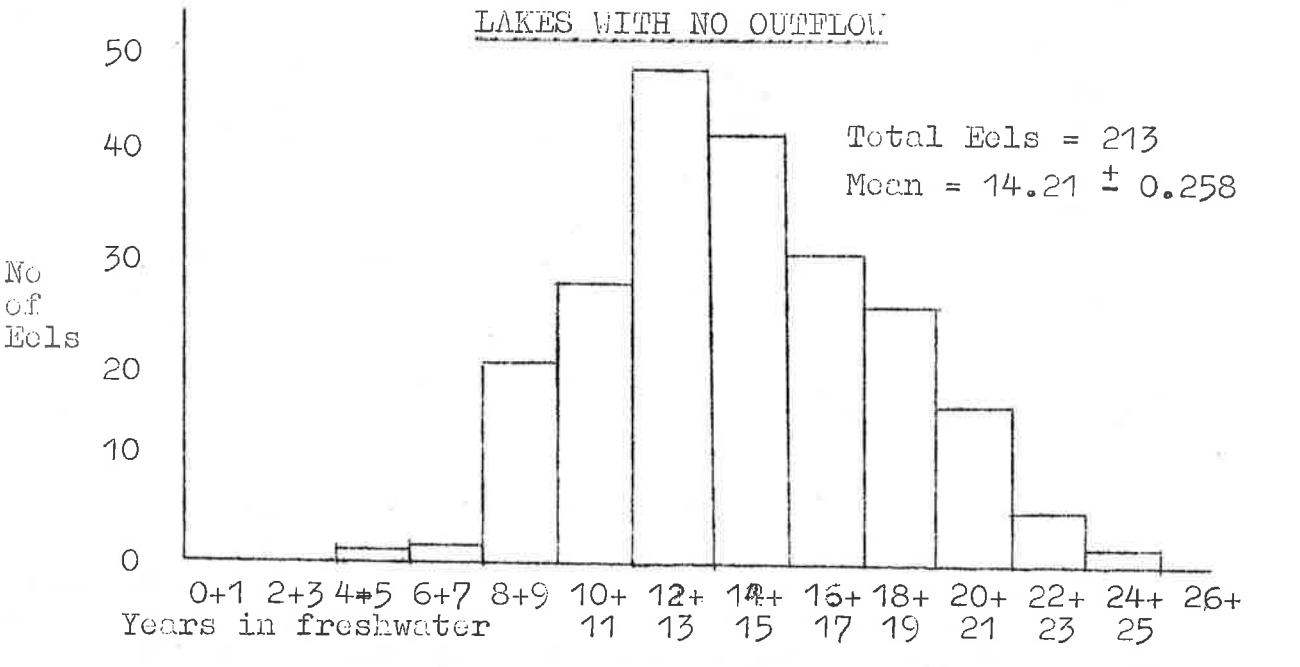
Let us now turn fromthe age of eels in lakes to their age in rivers. On our modified prison water theory, we may reasonably expect eels from rivers to be the youngest group, since there can be no possible obstructions to migration as soon as the fish mature. But look at Fig. 5. We find that the reverse seems to be true; our sample of river eels has an average age of 15.00 years and is thus older than either class of lake!

As before, we must enquire whether the sample is biased before accepting it as a genuine result for river eels. And in this case, I believe there is a very strong chance that our sample is quite strongly biased towards old fish. Looking at our otolith collection for river eels, we find that practically all of them came from just two waters, the Great Ouse and the Yorkshire Ouse. Now, I know for a fact that almost every fish from the Great Ouse was taken on dead-bait - to avoid being plagued by bootlaces on less selective baits. So, whereas most waters have been fished on both worm and dead-bait, the Great Ouse has only been fished on one; this has almost certainly resulted in catches biased more strongly towards bigger (and therefore older) eels. Much the same argument applies to the Yorkshire Ouse, where fishing with worm is courting disaster from vast packs of tiny things. The only time that worm has been used on this river is to catch silver eels above the weirs - and these are the oldest eels in the river by definition.

Fig.5. Age Distribution v Class of Water







So I would hesitate to accept our result for river eels until we have data from other waters fished in a similar way to lakes. Alternately, we could look at the ages of fish caught from lakes on dead bait only; unfortunately, there is no way of doing this yet because the bait used to catch the fish is not part of the records scheme, but it may be possible to cross check our records at a later date.

So far, we have been looking at factors common to groups of waters. To end this piece, therefore, I would like to turn to the opposite extreme, and consider the age of eels in individual waters. Looking through the records, we find that the majority of waters with 10 or more otolith pairs show much the same distribution as the average for that water class, with a cluster of eels around the average, and increasingly fewer eels the further one goes from the mean. But there are one or two lakes where the age distribution is strikingly different. Perhaps Elvington pond - a small Yorkshire pit which has produced quite a number of exceptionally large eels and which comes very high on our list of good waters.

Twelve sets of otoliths have been collected from Elvington, and the age distribution is plotted in Fig. 6. In fact, some of these fish were caught in 1970 while others were taken in 1971; for the purpose of this section, therefore, one year has been added to the age of the 1970 fish to bring them up to what would have been their age in 1971. The reason for doing this will (I hope) become clear below.

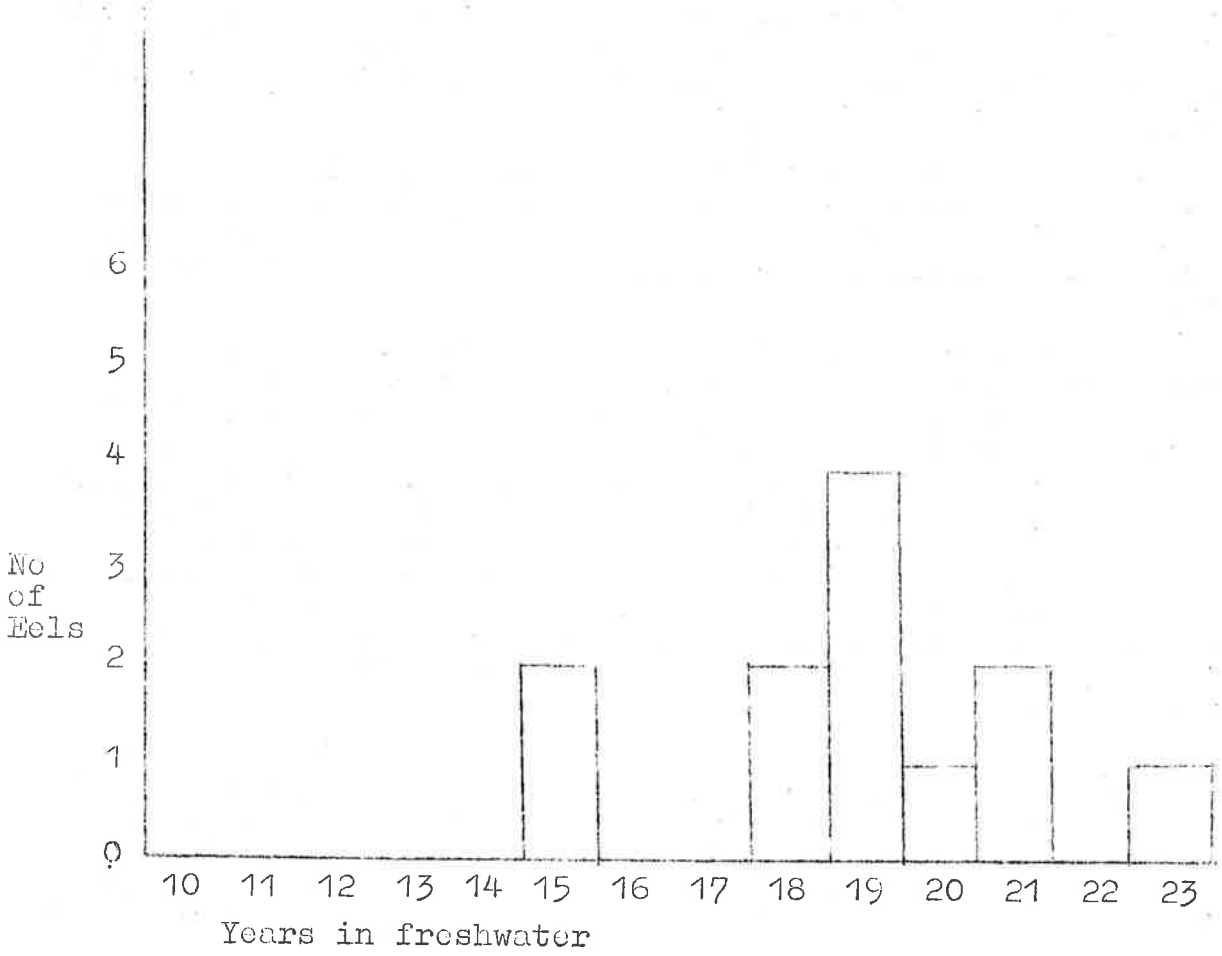
As you will see from the graph, the eels from Elvington had an average age of nearly 19 years - almost five years more than the grand average for 2.2 waters in general. In fact, because otolith reading is only accurate to about two years either way, for fish over about 15 years old, no less than nine of our twelve fish could be the same age; i.e. 19 years old in 1971.

What is the explanation for this? Since we only had twelve otoliths - rather a small sample - the first thing to do is to ask whether it could be a chance effect arising from the inadequacy of the data. But, by applying the statistics of the Normal distribution again, we find the probability of so big a difference arising by chance is extremely small, many thousand to one against, so once again we must conclude that this is likely to be a genuine result.

Perhaps, then, Elvington is a classic "Prison Water". I don't believe this for two reasons. Firstly, having fished the place, I can say with confidence that there is nothing to stop the eels getting out; the banks are not steep, there is grassland all around, and ditches with water are to be found within an hundred yards or so of the pit. On a damp night, silver eels could escape with ease. Secondly, a prison water is supposed to let eels in, but stop them getting out. If this is so, where are the small (young) eels of Elvington? We cannot, I think, dismiss this as a result of very selective angling; worm has been used, without much result, and the dead baits used could have been taken by much smaller eels than those actually caught.

To my mind (and this is opinion only), most probable explanation is that Elvington is a water that is exceptionally difficult for elvers to reach. Thus, an influx of young eels may only occur in occassional especially favourable seasons - such as periods of heavy flooding, for example*. Now, looking at our Elvington eels, we find the majority had spent about 19

Fig.6. Age Distribution: Elvington



years in freshwater by the summer of 1971. In other words, they must have entered freshwater around 1952 - just the time of the most severe East coast floods for centuries!

Of course, such a correlation may be no more than coincidence. I suspect it may not be, however, and suggest that this example illustrates another way in which otolith reading can help us understand our fishing results. In Elvington, I suggest, we have the lingering remnants of a once large population which entered during the freak floods of the early fifties. Most have now matured and left, or died, but a few remain. And because of their relatively advanced years, these eels are mostly of a pretty fair size.

To conclude, then, I think it will be clear by now that just a simple study of the age of eels can teach us a great deal. When we add in information on growth rate in the next article, I feel sure that we will have made a great step forward in our understanding of eels; a gain that can only result in further improvement in our fishing results. I would emphasise once again that the real donkey work in all this has been done by Geoffrey Swailes, and the Club is greatly in his debt. After we have examined all the present results, we must reconsider how to pursue this scheme in the future. At this time, I am holding the present otolith collection, and would be pleased to receive any new specimens

that members may have collected. I cannot, however, guarantee to read them at present, at least until the rest of the club's analytical work is over.

In the meantime, I expect several of you will have questions to ask about the present article. I shall, of course be delighted to answer them, and could probably do this best by a piece in the next Bulletin - setting out the most frequent questions and the answers to them.

* In the discussion on Elvington, I have made some assumptions about the migration of eels which may not accord with the views of everyone. Before I am bombarded with letters on this, therefore, let me state my thoughts on this subject here.

As far as migration of elvers is concerned, I have never believed that they get into our more remote lakes by clambering out of the nearest source of flowing water and then wandering about in the moonlight on the random chance of dropping into a pond or lake. Such a process would be highly inefficient, so many elvers would surely die as to exterminate the species! In biological terms, I find it impossible to believethat such a wasteful process could exist in nature. To get to any water (in my opinion) elvers must follow some sort of water course. However, this water course need only be minute - no more than a damp furrow - or it could be underground.

The same does not apply to the migration of mature silver eels back to the sea. Here, the survival of the species depends on their escaping from freshwater and heading back down river. Thus it would be more profitable for the species (and therefore more likely) for silver eels to move out of landlocked waters and cast around for the nearest ditch or water course to escape into. Some may die, but some may get through (an eel can live almost indefinitely in damp grass, and can travel a long way through it). Biologically, it is better for the species that silver eels should make an attempt to escape, and perhaps die in the attempt, than for them not to try at all, if an obvious outlet is lacking.

Thus, in my opinion, it is quite possible to find a water which is difficult for elvers to penetrate, because there is no trail to follow. Even if the water is only a few yards from a river or stream. At the same time, such waters may present no barrier to the departure of mature silver eels - the few, that is, which ever get in. Such a water may be Elvington.

THE PREDATOR

By Brian Crawford.

Stealthily, quietly, the dark grey form slithered through the soft silty mud.
Its senses were fully alert.
Vibrations felt caused it to suddenly pause.

Perceiving a small fish hurt.
The old powerful eel moved cautiously on through the water still and quiet.
Clouds hid the stars and moon.
With a stomach empty for several long days,
Its next meal should come quite soon.

SNAP, CRUNCH, a tiny life quickly expired in the stygean gloom.
Still hungry, the eel swam on,
Ignoring the taste of steel in its mouth,
Freedom would soon be gone.

The solitary angler was patiently perched on the stony bankside.
Line began streaming off his reel.
Prepared for a battle of strength,
He hoped to catch a big eel.

Swiftly and with great strength the rod was lifted upwards and back.
The predator felt the pain of the hook.
Struggling, squirming, the battle began,
All caution and stealth forsook.

The eel pulled and twisted in deadly anguish and extreme fright.
The angler reeled her in.
In the net the end of a battle,
The angler hoped he would win.

Hunter and hunted, one greatly elated, one deep in remorse lying still.
Alone in the quiet night scene,
Gazing with pride at his five pound prize,
The achievement of his life's dream.
