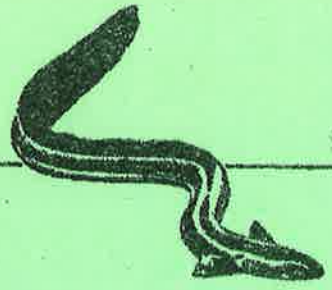

The National Anguilla Club

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SPECIAL REPORT ISSUE.

PART: I. THE OVERALL RESULT. (1978)

A Report On The 1978 Reporting Scheme Kevin Richmond

Part One - The Overall Results

The 1978 scheme continues with a modified session report form. The inclusion of median weights in the scheme again means that a much higher level of significance can be attached to the conclusions drawn from available data.

The report is split into two, the overall results and the report on individual fisheries. Twenty members took part in the 1978 scheme and reported 363 eels. The number of eels caught ranged from 1 to 121 per member. The median number caught was 6, the lower quartile (LQ) was 4 and the upper quartile (UQ) was 23. The five (25%) most successful members accounted for 275 (76%) of the eels whilst the five least successful members caught 16 (4%). Members performances and annual trends are set out in Tables 1 and 2.

Thus, members as a whole were less active than in previous seasons and participation in the reporting scheme was unevenly spread. As far as the number of eels per members is concerned, the median has dropped dramatically, the 1977 median number of eels being 2.3 times that of 1978. The UQ has fallen to a level similar to that of 1976, whilst the LQ has stayed constant. Whilst it seems that 1978 was a poor year as regarding numbers of eels the results can be seen in their true perspective in Table 3. Although median weights are not available for 1977, a comparison can be made between 1967 - 1976 and 1978. As can be seen we have acheived our highest median weight, our second highest UQ and the highest LQ. The quality of the results are most encouraging, 28 four pound eels being our highest ever total. This is highly significant and show that we could, with extra effort, rapidly improve our results.

Table 3: Average eels per member 1967 - 1978.

Year	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1978
1 plus	4.89	6.22	9.30	10.2	9.04	13.9	14.1	11.8	7.45	14.1	14.7
2 plus	2.21	2.54	2.42	3.70	4.66	5.27	6.05	5.50	4.42	7.85	8.50
3 plus	0.94	0.81	0.77	1.30	1.70	1.72	2.53	1.80	1.96	2.60	3.35
4 plus	0.15	0.22	0.35	0.25	0.45	0.50	0.79	0.37	0.52	0.63	1.40
5 plus	0.05	0.09	0.08	0.10	0.13	0.11	0.16	0.10	0.13	0.20	0.25

Table 4 : Monthly Trends.

Weight Range	Jan/Mar	April	May	June	July	August	Sept	Oct	Total
0 - 1	11	3	8	14	15	9	5	4	69
1 - 2	2	-	36	39	18	15	12	2	124
2 - 3	2	1	12	37	31	15	4	1	103
3 - 4	-	1	4	11	15	6	1	1	39
4 - 5	-	-	3	6	8	5	-	1	23
5 - 6	-	-	-	1	2	2	-	-	5
Total	15	5	63	108	89	52	22	9	363
Median	0:09	0:05	1:08	2:00	2:07	2:01	1:06	1:05	1:11
UQ	0:10	2:08	2:04	2:06	3:01	3:00	2:13	2:00	2:10
LQ	0:05	0:04	1:05	1:05	1:01	1:05	1:00	0:07	1:02

The 1978 monthly trends are set out in Table 4. The most successful month was July, with 10 eels of over four pounds and the highest median weight and upper quartile. The least productive month was April with 5 eels. Once again the months of January to march are seen to be the least successful. Whether this is due to the eels not feeding or the membership not attempting to land them is another matter entirely!

Table 1. Performance of Individual Members - 1978

Member	S	E	1+	2+	3+	4+	5+	Median	UQ	-	LQ
Jefferson	20	3	2	1	-	-	-	1:08		-	
Smith D	13	4	-	-	-	-	-	0:08		-	
Nunn	25	31	29	20	3	-	-	2:00	2:08	-	1:10
Sutton		5	5	3	3	3	2	4:05	5:08	-	1:07
Holman	27	30	24	16	10	6	-	2:08	3:07	-	1:00
Mann	16	32	29	11	1	-	-	1:10	2:05	-	1:01
Hollerbach	12	15	15	14	11	5	1	3:06	4:03	-	2:12
Crawford	17	11	7	1	-	-	-	1:00	1:04	-	0:12
Croxall	4	8	8	2	1	-	-	1:11	2:03	-	1:06
Sykes	20	6	6	6	6	5	2	4:05	5:11	-	4:03
Derrington	29	61	56	39	10	2	-	2:06	2:13	-	1:05
Lister	18	8	5	2	1	-	-	1:02	2:05	-	0:11
Orme	10	4	4	3	1	-	-	2:10		-	
Richmond	73	121	82	36	8	2	-	1:07	2:02	-	1:01
Lee	12	5	4	4	3	1	-	3:06	4:04	-	1:15
Davy	3	1	1	-	-	-	-	1:07		-	
Smith A	6	4	4	3	2	1	-	2:14		-	
Hope	5	5	4	3	3	-	-	3:03	3:08	-	1:02
Hansen	16	5	5	4	4	3	-	4:02	4:07	-	2:09
Stephenson	2	4	4	2	-	-	-	2:00		-	
Total		363	294	170	67	28	5	1:11	2:10	-	1:02

Table 2. Members Performance and Annual Trends

	1969	1970	1971	1972	1973	1974	1975	1976	1977 ↓ 1978	1979
Members	19	20	24	18	19	30	31	35	20	20
Median E	7	13	11	11	10	16	9	15	6	
UQ	12	24	20	29	35	26	13	23	23	
LQ	3	2	6	3	5	9	5	10	4	
Weight Range										
0 - 1	111	131	118	60	109	216	96	144	69	38
1 - 2	51	129	105	96	152	189	94	220	124	44
2 - 3	24	48	71	64	67	111	76	184	103	40
3 - 4	15	21	30	22	33	43	45	69	39	20
4 - 5	2	3	8	7	12	8	12	15	23	7
5 - 6	1	2	3	2	3	3	4	7	5	5
										+1 of 7lb.
Total	204	334	363	251	373	570	328	639	363	
Median	0:13	1:02	1:05	1:09	1:07	1:04	1:11	1:10	1:11	
UQ	1:12	1:14	2:05	2:07	2:04	2:02	2:12	2:05	2:10	
LQ	0:08	0:11	0:11	1:01	0:14	0:12	0:14	1:00	1:02	

Note: the relevent data for years 1968 & 1969 can be found in Bulletin Vol. 7 No.4 (A report on the 1970 reporting schemes). Lack of space meant that these years had to be omitted.

October produced nine eels to 4:14 from only a handful of sessions and it must be stressed that a concentrated effort during the late autumn/early winter period could provide some very large eels.

Table 4b shows the pooled data for 1967 - 76 and 1977 - 78.The results show what can be considered as being reasonably representative of the pattern of results to be expected in an average year.Prospects seem to improve from April to July,and then start falling off from August to October.When only the larger eels are considered there is in fact a levelling off during July and August,falling in September. Of course this may reflect no more than the memberships' extra effort during the months of June to August.Indeed from the analytical view--point the addition of rod hours once again in the 1980 scheme will mean that far more significant conclusions may be drawn from the data available.

Table 4b Monthly Trends: 1967 - 76/1977 - 78.

Weight	J/M		April		May		June		July		August		Sept.		Oct.	
Range	N	CF%	N	CF%	N	CF%	N	CF%	N	CF%	N	CF%	N	CF%	N	CF%
0 - 1	17	68	25	50	90	36	187	35	178	32	147	36	71	32	42	38
1 - 2	5	88	14	78	110	80	184	69	171	63	141	71	91	72	54	86
2 - 3	3	100	7	92	32	93	106	89	135	87	69	88	41	90	9	95
3 - 4	-	-	4	100	10	97	45	98	52	97	32	96	14	96	5	99
4 - 5	-	-	-	-	6	99	9	99	14	99	10	99	7	99	1	100
5 - 6	-	-	-	-	1	100	3	100	4	100	5	100	1	100	-	-
Total	25		50		249		534		554		404		225		111	

EEL Analysis: colour,condition,fate,head shape,tagging.

Table 5a sets out the colour distribution of all eels taken during 1978.Light brown eels dominate this table - almost 1.6 times more than the other three catagories together.However,if the weight ranges are considered we see that "dark brown" eels were the larger fish in all weight classes.

Table 5a: colour distribution. 1978 data

weight range	light brown	dark brown	black silver	other
0 - 1	50	4	1	11
1 - 2	79	17	2	22
2 - 3	62	22	1	18
3 - 4	18	5	1	14
4 - 5	9	9	-	5
5 - 6	3	2	-	-
Total	221	59	5	70
Median	1:11	2:08	1:09	2:02
UQ	2:06	3:01	2:06	3:01
LQ	1:01	1:11	1:04	1:02

Table 5b: colour distribution 1977/78 data

	light brown		dark brown		black silver		other	
	N	CF%	N	CF%	N	CF%	N	CF%
0-1	132	26	19	9	5	25	19	15
1-2	196	64	75	43	7	60	49	52
2-3	122	88	83	80	6	90	37	81
3-4	45	96	31	94	2	100	17	94
4-5	14	99	10	98	-	-	8	100
5-6	4	100	3	100	-	-	-	-
Tot	513		221		20		130	

Table 5b shows the 1977/78 results for eel colour.As can be seen, the weight distribution is similar to that of table 5a - dark brown eels being of a larger size than the other two catagories.However, the difference could be due to to the results from one very productive fishery that has produced eels of this colour in large numbers to our membership.Although if dark brown eels are of a higher median weight the writer would be very interested to hear of any suggestions on how to isolate these particular eels from the overall eel population!

Table 6a deals with the 1978 data for 'head shape',being catagorised into Broad,Pointed and "Other".Both broad and pointed produced a similar number of eels although the broad headed eels were of a larger size.However when the 1977 results are added we see a rather different picture.(Table 6b)

Whilst there were less small headed eels in the 1 - 2lb weight ranges, if we consider 2 - 6 pound eels broad and small (pointed) headed eels had a similar % amongst their totals. Obviously more detailed consideration will be given to this factor when individual fisheries are analysed for only then can constructive use can be made with such information.

Table 6a: Head shape.

weight range	1978 data Broad	Pointed	Other
0 - 1	37	27	-
1 - 2	57	65	-
2 - 3	54	48	1
3 - 4	20	18	-
4 - 5	13	10	-
5 - 6	3	2	-
Total	184	170	1
Median	1:14	1:08	(2:04)
UQ	2:10	2:09	-
LQ	1:04	1:03	-

	1977/78 data Broad		Pointed		Other	
	N	CF%	N	CF%	N	CF%
0 - 1	90	22	83	17	0	-
1 - 2	150	58	179	55	0	-
2 - 3	100	83	147	86	2	67
3 - 4	49	95	51	96	1	100
4 - 5	18	99	14	99	-	-
5 - 6	4	100	3	100	-	-
Total	411		477		3	

At this point it would be approriate to consider the condition of the eels taken during 1978. As can be seen from table 7a the majority of the eels were considered to be 'normal', 268 against 88 'others' Short eels were generally the heaviest and long eels the smallest. Whether this is due to the short eels being very good conditioned fish taken from a very fertile fishery and long eels being the opposite is something that will be looked into in the second part of this report.

Table 7b shows the 1977/78 data for eel condition and as would be expected shows a very similar pattern to that of table 7a, the only thing that altered was that long eels were of a similar size to the light brown fish. Short eels were once again the better stamp of eel.

Table 7a: Eel condition

weight range	1978 data Normal	Short	Long	Other
0 - 1	55	2	7	0
1 - 2	94	14	14	0
2 - 3	74	22	6	1
3 - 4	25	12	2	0
4 - 5	16	5	2	0
5 - 6	4	0	1	0
Total	268	55	32	1
Median	1:12	2:07	1:08	(2:10)
UQ	2:11	3:02	2:02	-
LQ	1:02	1:12	1:00	

	1977/78 data Normal		Short		Long		Other	
	N	CF%	N	CF%	N	CF%	N	CF%
0 - 1	154	22	7	6	12	15	0	-
1 - 2	252	58	39	41	37	62	1	33
2 - 3	191	86	38	74	18	85	2	100
3 - 4	73	96	20	92	9	96	-	-
4 - 5	22	99	8	99	2	99	-	-
5 - 6	5	100	1	100	1	100	-	-
Total	697		113		79		3	

Table 8 sets out the results for tagging and the fate of all eels caught during 1978. Owing to the fact that it was felt that (a) the Anguilla club would have problems with the regional water authorities over tagging eels and (b) that tagging could seriously injure the eels caught it was decieded to stop all tagging. As a result only 11 eels were tagged during 1978. The second part of this table shows the numbers of eels that were returned, died or killed. It is a very good reflection on the Anguilla club that only eight eels were either killed or died soon after capture.

Table 8: Eel analysis - fate, tags.

weight range	returned	died	killed	eels tagged
0 - 1	62	0	4	0
1 - 2	120	1	0	0
2 - 3	102	0	0	2
3 - 4	37	1	0	5
4 - 5	21	2	0	3
5 - 6	5	0	0	1
Total	347	4	4	11
Median	1:13	3:09	0:08	3:12
UQ	2:10	-	-	4:04
LQ	1:01	-	-	3:00

Bait Analysis/Time of day.

Results for 1977/78 on worms, deadbaits, livebaits and 'other' baits are shown in Tables 9a/b and 10. During 1978 over 45% of the eels taken on deadbaits were over two pounds (Table 9a) whereas using worms nearly 48% of eels taken were over two pounds. The combined data for 1977/78 (Table 9b) show that the % of two pound plus eels taken on worm and deadbaits are virtually the same; 43% for worms and 44% on deadbaits. Alternative baits have been given only a limited trial by the membership. Even though only 25 fish were taken five of these were four pound plus eels.

Table 9a/b: Bait Analysis.

	1978 Data			1977/78 data			
weight range	Dead baits	worm	other	dead bait	worm	other	live bait
0 - 1	35	28	6	72	94	12	0
1 - 2	66	56	2	150	172	4	5
2 - 3	53	47	3	114	131	3	1
3 - 4	19	19	1	45	56	1	-
4 - 5	9	10	4	13	15	4	-
5 - 6	3	1	1	5	1	1	-
Total	185	161	17	399	469	25	6
Median	1:11	1:10	2:02	-	-	-	-
UQ	2:08	2:09	4:00	-	-	-	-
LQ	1:02	1:03	0:14	-	-	-	-

Table 10 gives a detailed breakdown of baits used during 1978. The most productive bait was 2 x lobs, which in fact produced eight four pound plus eels. Three lobs, maggots and roach deadbaits produced three 'fours' each.

The most interesting data in this table is the use of alternative baits. Maggots, 'amino acid specials', mussels and slugs were all found to be effective. Out of a total of 17 eels nine eels were over two pounds, five of these being four pounders. The information available show that a concentrated effort using alternative baits would produce a number of large eels. Carp angler have realised the value in changing their baits as soon as they 'blow out'. Is it not possible that eels also become wary of such baits as worms and deadbaits? It does seem that the modern day eel angler must push hinself out of his self imposed rut when using baits in order to progressivly improve his catches.

Table 10: Detailed breakdown of baits used(1978)

weight range	roach	roach section	minnow	rudd	trout section	bream section	Gudgeon	perch	bleak
0 - 1	11	6	2	-	12	-	1	-	-
1 - 2	13	10	-	1	32	1	1	1	-
2 - 3	15	11	-	-	18	2	1	2	1
3 - 4	5	6	-	1	4	-	2	-	1
4 - 5	3	1	-	1	1	-	1	-	1
5 - 6	-	-	-	-	-	-	-	-	1
Total	47	34	2	3	67	3	6	3	4
Median	1:14	2:00	0:13	3:12	1:11	2:00	3:02	2:06	4:03
UQ	2:07	2:14	-	-	2:05	-	3:11	-	-
LQ	1:05	1:03	-	-	1:03	-	1:03	-	-

weight range	sprat	rudd sect.	perch sect.	dace	bleak sect.	1 x lob	2 x lobs	3 x lobs	4 x lobs
0 - 1	-	3	-	-	-	12	8	8	-
1 - 2	6	-	1	-	-	6	12	33	5
2 - 3	1	1	-	1	-	32	9	36	-
3 - 4	-	-	-	-	-	2	4	12	1
4 - 5	-	1	-	-	-	-	7	3	-
5 - 6	-	1	-	-	1	-	1	-	-
Total	7	6	1	1	1	52	41	92	6
Median	1:03	1:04	1:00	2:01	5:13	2:04	2:00	2:02	1:08
UQ	1:06	4:11	-	-	-	2:11	3:08	2:12	1:11
LQ	1:00	1:08	-	-	-	1:01	1:00	1:04	1:01

Table 11: Bait Addatives

weight range	maggot	specials	mussel	slug	Yes	No	cod l.oil	p.oil emulsion	glycine
0 - 1	4	2	-	-	1	68	-	1	-
1 - 2	-	2	-	-	13	111	-	12	1
2 - 3	-	3	-	-	7	96	1	3	3
3 - 4	-	-	-	1	4	35	3	1	-
4 - 5	2	-	2	-	7	16	1	3	3
5 - 6	1	-	-	-	2	3	-	-	2
Total	7	7	2	1	33	329	5	20	9
Median	0:14	1:03	4:02	3:03	3:02	1:10	3:00	1:12	3:04
UQ	4:06	2:05	-	-	3:14	2:09	4:01	2:09	4:09
LQ	0:12	0:10	-	-	1:11	1:01	2:14	1:09	2:08

The use of addatives in eel angling are a constant source of argument amongst anglers, some maintaining that they should be used at all times, others proclaiming them unecessary. Table 11 gives the 1978 data on bait addatives and as can be seen treated baits did in fact give a much higher median weight; 3:02 on treated baits to 1:10 on untreated baits. The conclusions from these reults are rather obvious! A detailed breakdown of the addatives show that Glycine (an amino acid) accounted for five of the nine four pound eels. A number of very successful eel anglers now share the opinion that small food items (such as maggots) with an amino acid addative are the breakthrough that has been needed in modern day eeling. However one or two of the anglers who contributed to this report did go to extremes on the Grand Union during the clubs spring trip when they were seen sticking numerous small snails onto a size 1/0 fine wire hook!

When we consider the time of capture (Table 12) we see a very similar picture to that of 1977. Night produced the most eels, 1.8 times more than the other catagories together. Once again the dawn results are worse than might have been expected although the dawn period did give the highest meduan weight.

Table 12: Period taken - 1978 data

weight range	Dawn	Day	Dusk	Night
0 - 1	1	2	16	50
1 - 2	8	21	20	75
2 - 3	18	14	9	62
3 - 4	8	3	5	23
4 - 5	2	1	3	17
5 - 6	-	-	-	5
Total	37	41	53	232
Median	2:11	1:12	1:05	1:12
UQ	3:00	2:00	2:03	2:11
LQ	2:01	1:05	0:14	1:01

Table 13: Groundbaiting, Prebaiting.

	Groundbait		Prebait	
	Yes	No	Yes	No
0 - 1	22	47	2	67
1 - 2	38	86	12	112
2 - 3	31	72	9	94
3 - 4	11	28	4	35
4 - 5	13	10	3	20
5 - 6	2	3	2	3
Total	117	246	32	331
Median	1:14	1:10	2:02	1:10
UQ	2:11	2:09	3:00	2:09
LQ	1:05	1:01	1:06	1:01

Table 14: Bait Position.

Weight range	Bottom	Mid Water	Surface
0 - 1	69	-	-
1 - 2	123	-	1
2 - 3	102	-	1
3 - 4	38	1	-
4 - 5	20	3	-
5 - 6	5	-	-
Total	357	4	2
Median	1:11	4:04	2:02
UQ	2:09	-	-
LQ	1:02	-	-

The results for groundbaiting and prebaiting are delt with in Table 13. Groundbaiting and prebaiting both produced a higher median weight which does suggest that the larger eels are in fact attracted to a constant supply of groundbait. Birmingham angler John Sidley maintains that a great deal of his success is due to his baiting swims with dead animals. Whilst it is not suggested that we go to such extremes, a concentrated prebaiting campaign by members on their fisheries could provide some very good bags of eels.

Bait position is delt with in Table 14 and as can be expected bottom fished baits produced nearly all of the eels taken during 1978, although this could be due to the membership putting in the greatest effort on this method. Six eels were taken off the bottom, three of them being four pound eels. The greatest suprises were the capture of two eels from the surface by the writer. These were taken by accident after very poor weather conditions made serious eeling impossible. The baits were reeled in and left hanging half in, half out of the water. The two eels were found to be hanging onto the deadbaits the next morning.

Swim Analysis - Bank fished, distance cast, depth fished, snags, weed growth, water colouration and surface activity.

Obviously data on swim details need to be analsed by individual waters although a preliminary analysis of the 1978 data is set out in Table 15. These results may be of some use to a member 'fishing blind' on a new water.

As can be seen most eels were taken from a North bank, the least from a South East. The highest median weights were taken from a South West bank. When the distance cast is considered we see that 10 - 25 yards and 25 yards plus each produced approxmatly the same number

of eels of a similar size.Whilst margin fishing produced similar sized eels only about half as many eels were taken.This could be due to the membership putting hardly any effort into this tactic.

The 'depth fished' results were as expected,the 5 - 20 feet catagory producing nearly all of the eels.Shallow and deep waters did not seem to be very productive.There also seems to be no need to fish near snags if numbers of eels are required although eels of a larger size were taken from baits fished near snags.

Weed growth did not make a great deal of difference to the results -all three catagories producing approxmatly the same number of eels. This is also the pattern evident in the 1977 results.Water clarity did seem to make a difference,very clear water producing only 20 eels,whist clear and cloudy water conditions split the remainder between them.There was only a slight difference in median weights between clear and cloudy conditions although'very clear water' gave the highest median weight.

Surface disturbance is something that will have to be taken into consideration for nearly all of the eels were caught during periods of either nil or slight surface disturbance.Moderate and heavy surface activity produced just 43 eels,only one of these fish being a four pounder.The causes of these suface disturbances are most interesting for we see that most of the eels were taken whilst other species were also feeding.There does seem to be some justification for believing the idea that eels frquent the same 'hotspots' as other species and also feed when they feed.

Table 15: Swim details - 1978 data

weight range	Bank Fished								Distance cast (yards)		
	S	N	E	W	S/W	N/E	S/E	N/W	0 - 10	10 - 25	25 plus
0 - 1	6	33	13	1	4	12	-	-	12	35	18
1 - 2	22	46	29	9	4	11	2	1	21	34	69
2 - 3	13	38	18	6	14	12	-	2	12	27	64
3 - 4	5	14	8	-	2	8	2	-	6	17	16
4 - 5	4	8	3	3	2	1	-	2	11	6	6
5 - 6	-	1	1	2	1	-	-	-	1	3	1
Total	50	140	72	21	27	44	4	5	63	124	172
Median	1:14	1:5	1:11	2:0	2:1	1:15	2:5	2:15	1:12	1:10	1:13
UQ	2:06	2:10	2:10	2:4	2:12	2:09	-	4:05	3:07	2:10	2:07
LQ	1:05	1:1	1:3	1:8	1:9	0:14	-	1:14	1:04	0:15	1:01

weight range	Depth fished (ft)			Snags		Weed		
	0 - 5	5 - 20	20 plus	Yes	No	Nil	Sparse	Dense
0 - 1	11	52	2	12	53	22	33	10
1 - 2	21	102	1	48	76	26	55	43
2 - 3	14	87	2	31	72	32	27	44
3 - 4	11	27	1	14	25	10	20	9
4 - 5	8	14	1	15	8	10	9	4
5 - 6	-	4	1	2	3	2	3	-
Total	65	286	8	122	237	102	147	110
Median	2:00	1:09	2:14	2:00	1:08	2:00	1:09	2:01
UQ	3:04	2:07	4:00	2:14	2:10	2:14	2:09	1:08
LQ	1:04	1:01	0:13	1:06	1:00	1:01	1:01	1:03

Table 15 (cont.)

weight range	Water clarity: very clear	clear	cloudy	Surface Activity: Nil	Slight	Moderate	Heavy
0 - 1	1	37	27	35	25	-	6
1 - 2	8	64	52	55	48	2	19
2 - 3	5	59	39	60	32	1	10
3 - 4	3	19	17	22	12	1	4
4 - 5	3	10	10	11	11	-	1
5 - 6	-	4	1	3	2	-	-
Total	20	193	146	186	130	4	44
Median	2:07	1:11	1:09	2:02	1:09	2:01	1:09
UQ	3:04	2:10	2:09	2:10	2:09	-	3:00
LQ	1:09	1:01	1:01	1:03	1:01	-	1:04

Surface Activity (cause)

weight range	wind	fish	birds	boats
0 - 1	9	21	1	-
1 - 2	18	48	-	3
2 - 3	16	27	-	-
3 - 4	5	9	3	-
4 - 5	4	5	2	1
5 - 6	-	2	-	-
Total	52	112	6	4
Median	1:14	1:09	3:08	1:10
UQ	2:08	2:10	4:00	-
LQ	1:00	1:01	3:00	-

Weather Analysis: wind strength, wind direction, cloud %, rain.

The results for weather details are set out in Table 16. Once again no wind or very light winds produced the majority of eels. As in 1977 fresh and strong winds only provided a small number of eels, six of over four pounds. There does seem to be a high level of significance to these results as it seems that high winds make serious eeling a very difficult proposition, although it must be remembered that very windy conditions did in fact produce the highest median weight. Wind direction also follwed a similsr pattern to that of 1977 with N/E winds producing the most fish. Obviously this is due to these winds causing long periods of dry, warm weather, whilst the winds from the opposite direction (SW) produced four 4lb plus eels owing to the generally cloudy, mild conditions It will be interesting to see if any fisheries produce their best catches from various wind directions.

Results for cloud cover were somewhat different to those of 1977. Although 50 - 100% cloud cover produced the most eels (and of a higher median weight) the difference was not as significant as the results during 1977. 318 eels were caught under heavy cloud during 1977 and 196 from either conditions of no cloud or 0 - 50% cover. During 1978 181 eels were caught under heavy cloud and 180 under either nil or 0 - 50% cover.

Rain did in fact influence catches, periods of no rain producing far more eels than during either showers or continuous rain, althogh the eels caught were of a larger size when rain was falling.

Therefore it seems that ideal conditions are that of light N/E or S/W winds with 50 - 100% cloud cover and no rain - a most uncommon thing indeed! However, it is felt that far more attention needs to be paid to weather conditions for only if we manage to acheive a complete understanding of the variables that affect the eel. will we start improving our results to a level that should be expected from one of the leading specimen groups.

Table 16: Weather Details.

weight range	Wind Strength. Nil	Light	Fresh	Strong	Wind Direction. N	N/E	E	S/E	S
0 - 1	28	16	11	10	4	9	1	7	-
1 - 2	54	36	15	18	3	22	-	15	1
2 - 3	33	29	16	25	2	27	5	17	-
3 - 4	12	14	2	10	2	5	3	4	-
4 - 5	11	6	2	4	1	1	-	2	1
5 - 6	1	4	-	-	-	-	-	-	1
Total	139	105	46	67	12	64	9	45	3
Median	1:12	1:13	1:08	2:01	1:12	2:02	2:10	2:01	4:04
UQ	2:07	2:12	2:07	2:11	3:01	2:08	3:01	2:09	-
LQ	1:02	1:04	1:00	1:01	0:14	1:03	2:02	1:02	-

(cont.)

weight range	Wind Direction. S/W	W	N/W	cloud% Nil	0 - 50	50 - 100	rain Nil	Shower	Cont.
0 - 1	9	2	5	26	15	28	56	10	5
1 - 2	15	6	7	34	26	63	78	35	10
2 - 3	6	9	4	27	33	43	70	29	4
3 - 4	3	5	4	10	5	23	26	9	3
4 - 5	2	2	3	3	-	20	15	5	3
5 - 6	2	1	-	-	1	4	3	1	1
Total	37	25	23	100	80	181	248	89	24
Median	1:08	2:01	1:14	1:09	1:14	1:14	1:10	1:14	1:13
UQ	2:10	3:04	3:00	2:05	2:08	3:00	2:07	2:10	3:06
LQ	1:01	1:08	1:01	0:15	1:04	1:03	1:01	1:05	1:02

Tackle Details: Hook size, trace type, trace b.s., line type/B.S. weight used, indicator used.

Table 17: Tackle Details.

weight range	Hook Size 14	12	10	8	6	4	2	1	1/0
0 - 1	3	-	-	12	6	28	19	-	1
1 - 2	-	-	1	11	4	36	67	-	5
2 - 3	-	-	3	7	2	31	57	3	-
3 - 4	-	-	-	2	2	7	21	5	2
4 - 5	1	1	-	4	3	2	5	4	3
5 - 6	1	1	1	-	1	-	-	1	-
Total	5	2	5	36	18	104	159	13	11
Median	2:09	5:01	2:5	1:6	1:11	1:11	1:9	3:15	1:09
UQ	-	-	3:12	2:9	3:04	2:05	2:9	4:04	4:04
LQ	-	-	2:11	:12	0:14	0:14	1:1	3:00	1:07

Tackle choice is a very critical factor in modern day eeling. The average eel angler is a much more sophisticated angler than his counterpart of 15 years ago. With the pressures on our fisheries and fish stocks rapidly increasing, it is obvious that our presentation must be much more effective. Table 17 deals with the tackle used during 1978 and as can be seen most members have different ideas of what is considered to be the ideal tackle set up. Obviously the tackle must

suit the conditions for it is of no use to fish a large bait on say, a size 2 hook to 10 lb b.s. line when the eels are 'hook shy'. Under such conditions a size 10 hook to 6lb b.s. line would be far more appropriate.

Table 17 (cont.)

weight range	Trace Type					Line Type
	None	Nylon	S.Steel	M.S.Wire	N.C.M.S.Wire	Mono.
0 - 1	42	16	2	4	5	69
1 - 2	48	55	5	10	6	124
2 - 3	33	34	16	17	3	103
3 - 4	13	12	-	9	5	39
4 - 5	9	8	1	1	4	23
5 - 6	2	2	-	1	-	5
Total	147	127	24	42	23	363
Median	1:10	1:11	2:00	2:06	2:01	1:11
UQ	2:06	2:08	2:07	3:00	3:11	2:10
LQ	0:14	1:05	1:10	1:10	1:02	1:02

weight range	Trace breaking strain (lbs)				Line breaking strain (lbs)		
	5 - 10	10 - 15	15 - 20	20 - 25	0 - 5	5 - 10	10 - 15
0 - 1	7	13	6	1	7	52	10
1 - 2	11	37	26	2	4	79	41
2 - 3	8	31	31	-	3	55	45
3 - 4	7	11	6	2	1	20	18
4 - 5	5	4	2	3	2	13	8
5 - 6	2	1	-	-	1	4	-
Total	40	97	71	8	18	223	122
Median	2:01	2:08	2:00	3:05	1:07	1:08	2:06
UQ	3:02	1:14	2:08	4:03	2:06	2:04	2:13
LQ	1:04	1:02	1:05	1:08	0:14	1:00	1:07

Weight range	casting weight used										
	None	2BB	2SSG	4SSG	¼	⅜	½	¾	1	1½	2
0 - 1	5	2	4	-	1	4	2	14	5	-	9
1 - 2	8	3	9	-	-	10	6	27	7	7	32
2 - 3	6	3	7	-	-	6	5	22	2	7	39
3 - 4	10	-	1	1	-	3	1	7	-	1	9
4 - 5	6	1	1	-	1	-	2	2	-	-	1
5 - 6	2	-	-	-	-	-	1	-		-	-
Total	37	9	22	1	2	23	17	72	14	15	90
Median	2:03	1:14	1:13	3:12	2:15	1:12	2:01	1:12	1:02	2:00	2:02
UQ	3:10	2:02	2:06	-	-	2:03	2:05	2:07	1:13	2:07	2:10
LQ	1:06	0:15	1:04	-	-	1:03	1:11	1:03	0:08	1:10	1:01

Please Note: 51 sets of data not submitted.

As can be seen from the information in Table 17 most eels were taken on either size 2 or 4 hooks(possibly a case of members using such sizes to the exclusion of everything else), using the hook either direct to the mainline or nylon traces of 10 - 15 lbs breaking strain connected to aline of between 5 - 10 lbs b.s. Weights used varied between 2BB and 2 oz bombs - both accounted for eels. Indicators used (next page) also were varied ranging from conventional anntenae type audible bite alarms to floats with beta-light inserts.

Table 17 (cont.): Indicators used.

weight range	beta light grips	audible alarms (anntenae)	audible alarms (grip)	silver paper	bobbins	spools on floor	float
0 - 1	24	20	-	5	3	1	3
1 - 2	33	38	1	17	3	9	-
2 - 3	23	29	-	30	4	7	-
3 - 4	5	22	-	1	6	1	-
4 - 5	3	11	-	-	4	-	2
5 - 6	-	2	-	-	1	-	1
Total	88	122	1	53	21	18	6
Median	1:09	2:00	1:08	2:05	3:00	1:14	2:10
UQ	2:11	2:09	-	2:09	3:15	2:09	4:11
LQ	0:15	1:05	-	1:01	1:03	1:02	0:11

weight range	rod tip	touch leger	line grips	audible alarm (anntenae plus grips)
0 - 1	1	2	-	10
1 - 2	2	1	9	11
2 - 3	-	-	2	8
3 - 4	-	-	-	4
4 - 5	-	-	1	2
5 - 6	-	-	-	1
Total	3	3	12	36
Median	1:00	0:12	1:08	1:06
UQ	-	-	2:00	2:08
LQ	-	-	1:05	0:15

It must be stressed that once a constant such as rod hours are reintroduced into the reporting scheme, much higher levels of significance can be attached to our results.

Even so, 1978 was a very successful year when we consider the quality of our results. If we continue improve as rapidly as this then within a few seasons we should be landing eels of a size that are going to exceed our greatest expectations.

Table 18: Abbreviations

Weights are given in lb:oz, thus, 4:07 (4lb 7 oz.) and are rounded to the nearest oz. Half-ounces are rounded upwards.

Ranges in weight, temperature, etc., cover the range from the lower number to less than the upper number. Thus, for example a 1:00 eel falls in the 1 - 2 lb. range, a 2:00 eel in the 2 - 3lb. range and so on.

E eel(s)

CF% culmative Frequency percent.

Median the middle weight that divides the list into two equal parts. The median is therefore a measure of the average and the

Quartiles are the weights which divide each half into two equal parts

UQ upper quartile

LQ lower quartile

Additional information to the 1978 reporting scheme

Weather details (cont.)

weight range	water temperature (F) 45/50	50/55	55/60	60/65	65/70	70/75
0 - 1	19	3	18	8	2	-
1 - 2	7	13	32	30	-	-
2 - 3	2	4	19	15	3	1
3 - 4	1	2	4	8	1	-
4 - 5	-	1	2	7	2	-
5 - 6	-	-	-	2	2	-
Total	29	23	75	70	10	1
Median	0:9	1:08	1:10	1:14	2:09	2:01
UQ	1:6	2:06	2:12	2:14	4:01	-
LQ	0:6	1:01	1:02	1:05	2:01	-

Please Note: 155 sets of data not submitted.

weight range	Barometric Pressures High	Low	Medium	Rising	Falling	Steady
0 - 1	20	14	12	8	1	31
1 - 2	45	32	36	10	13	88
2 - 3	19	25	37	6	9	58
3 - 4	4	7	14	1	3	18
4 - 5	3	6	7	1	2	11
5 - 6	2	-	2	1	-	3
Total	93	84	108	28	28	209
Median	1:01	1:14	2:03	1:13	1:15	1:11
UQ	2:02	2:12	2:14	2:02	2:14	2:09
LQ	1:10	1:02	1:04	0:14	1:05	1:06

weight range	Air characteristics frosty	cold	mild	warm	hot	sultry
0 - 1	5	16	34	9	3	2
1 - 2	-	20	67	18	13	5
2 - 3	1	17	63	11	3	8
3 - 4	-	9	24	3	-	2
4 - 5	-	3	14	3	2	1
5 - 6	-	-	1	1	2	1
Total	6	65	203	45	23	19
Median	0:05	1:12	1:15	1:13	1:14	2:00
UQ	0:09	2:13	2:10	2:11	2:01	2:03
LQ	0:04	1:00	1:05	1:02	1:02	1:08

Owing to the analysis sheets not catering fot weather details the writer had to complete an entire analysis of this information from 'scratch'. As a result some data took longer to complete, hence this additional table to the report.

As can be seen eels were taken over a wide range of water temps. from 45F to over 70F. The results follow what is considered to be the accepted pattern, the larger eels being caught in greater numbers as the water temperatures increased. Barometric pressure shows a slightly different picture to 1977 with all catagories producing approx. the same number of eels. However as in the previous report steady barometric pressure seems to be very neccessary for eels to be caught. Air characteristics produced similar results to the water temperatures, the warmer conditions producing the most eels.

Graph A: Annual Trends 1967 - 78
Graph B: Average eels per member 1967 - 78