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REPORT FOR YEAR 1978

INDEX

REPORT
OF
IRISH SPECIMEN FISH COMMITTEE
For the Year 1978.

During 1978 the Committee was composed of A. E. J. Went (Chairman), A. Gibson and Miss E. Twomey (Department of Fisheries); D. Brennan and P. Fitzmaurice (Inland Fisheries Trust Inc.); N. Kavanagh and J. Greene (Bord Failte Eireann); C. P. O'Toole (Irish Federation of Sea Anglers); J. Keaveney (National Coarse Fishing Federation of Ireland); G. Moorkens (Angling Council of Ireland); G. Timmins (Irish Trout Fly Fishing Association) and P. Byrne (Trout Anglers Federation of Ireland).

During the year the Committee received 596 claims and ratified 525.

SPECIMEN FISH CLAIMS RATIFIED BY THE COMMITTEE IN 1978

(Dates of capture 1978 unless otherwise stated)

SEA TROUT

Record, 14 lbs. 3 ozs. **Specimen Weight, 6 lbs.: 2.721 kilos**

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
7	14½	Lough Currane	21st June	Dermot Joyce	Wetfly
6	13	Lough Currane	31st May	Paul Montgomery	Fly
6	11	Lough Currane	2nd July	J. Gannon (GB)	Fly
6	9½	L. Derrianna	9th Sept.	E. A. Kenny	Fly
6	4¼	R. Cummeragh	6th June	Richard Morais (CH)	Worm
6	2	Lough Currane	6th August	P. Hoare	Wetfly

BROWN TROUT (RIVER)

Record, 20 lbs. **Specimen Weight, 5 lbs: 2.268 kilos**

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
9	15	River Annalee	10th May	Sean Martin	Dead Roach

BROWN TROUT (LAKE)

Record, 26 lbs. 2 ozs. **Specimen Weight, 10 lbs: 4.536 kilos**

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
16		Lough Mask	7th Sept., '77	J. Davies (GB)	Worm
15	6¾	Lough Lein, Killarney.	8th July	D. J. O'Riordan	Copper Spoon
15	1½	Lough Lein	28th July	Dermot Fogarty	Copper Spoon
14	8	Lough Mask	2nd July	Michael Bell	Copper Saler
14		Lough Mask	22nd April	Michael Bell	3" Copper Spoon
13	1	Lough Mask	18th May	Kurt Menrad (D)	Mepps
13	0½	Lough Lein	10th July	D. J. O'Riordan	Copper Spoon
12	10	Lough Corrib	29th June	Steen Madsen (DK)	Toby
12	8½	Lough Lein	29th July	D. J. O'Riordan	Toby

BROWN TROUT (LAKE) (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
12	4	Lough Erne	13th August, '77	Basil Shields	2½" Copper Spoon
11	15	Lough Mask	22nd June	Rev. P. T. Boyhan	Mepps
11	7	Lough Lein	8th July	D. J. O'Riordan	Copper Spoon
10	7	Lough Melvin	4th May	Cecil Davis	Spoon
10	6	Lough Mask	20th May	Robin Cowan	Mepps No. 3
10	4	Lake Gulladoo, Carrigallen.	24th April	Raymond Huggins (GB)	Voblex 10
10	2	Lough Lein	7th August	D. J. O'Riordan	Copper Spoon
10	1	Lough Corrib	23rd May	John McKenna	Abu Plankton
10	1	Lough Corrib	21st June	W. Mattock Mason (GB)	Grasshopper

BREAM

Record, 11 lbs. 12 ozs. Specimen Weight, 7½ lbs: 3.402 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
9	4¼	R. Shannon, Lanesboro.	10th May	Gerald Price	Bread
9	2¾	Lanesboro	29th April	Johnston Price	Bread
9	1¾	Lanesboro	13th May	Philip Elliott	Bread
9		Lanesboro	19th April	Alan Coates (GB)	Bread
8	15	Monalty Lake	5th August	Alan Ross	Bread
8	13¾	Lanesboro	19th April	Alan Coates (GB)	Bread
8	13	Monalty Lake	17th August	Thomas Werner (D)	Maggots
8	12	Monalty Lake	6th May	Larry McAlinden	Bread
8	10½	Lanesboro	8th May	John Mills (GB)	Bread Flake
8	7½	Lanesboro	6th April	Johnston Price	Worms
8	6	R. Shannon, Tarmonbarry.	9th May	John Jackson (GB)	Maggot & Worm Cocktail
8	5½	Lanesboro	21st April	Alan Coates (GB)	Bread
8	5¼	Lanesboro	12th May	John Mills (GB)	Bread Flake
8	4½	Monalty Lake	3rd August	Alan Ross	Bread
8	4½	Lanesboro	30th April	Gerald Price	Bread
8	3¾	Lanesboro	17th April	Wilfred Lister (GB)	Bread
8	3¼	Lough Ree, Lanesboro.	29th April	A. Smyth	Bread
8	3	Lanesboro	21st May	David Denham (GB)	Bread Flake
8	3	Lanesboro	12th May	John Mills (GB)	Bread Flake
8	2¾	Lanesboro	18th May	John Mills (GB)	Bread Flake
8	2	Lanesboro	14th May	R. Nursey (GB)	Bread
8	2	Lanesboro	12th May	John Mills (GB)	Bread Flake
8	1¼	Lanesboro	5th May	Darien Blunt (GB)	Maggots
8		R. Shannon, Tarmonbarry.	8th May	John Jackson (GB)	Maggot & Worm Cocktail
8		Lanesboro.	22nd April	Thomas McEntee	Bread
8		Tarmonbarry	8th May	John Jackson (GB)	Worm & Maggot Cocktail
8		Tarmonbarry	8th May	John Jackson (GB)	Maggot & Worm Cocktail
8		Lough Iron	15th May	Michael Sloane (GB)	Bread & Maggots
8		River Inny	21st May	Michael Sloane (GB)	Worms
7	15½	Lanesboro	30th April	Johnston Price	Bread
7	15½	Lanesboro	18th May	John Mills (GB)	Bread Flake
7	15¼	Lanesboro	17th May	P. C. Hart (GB)	Worms
7	15	River Suck, Ballinasloe.	26th May	Vincent Ayris (GB)	Worms

BREAM (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
7	15	Lanesboro	22nd April	Michael Frost (GB)	Bread Flake
7	14½	Lanesboro	16th April	Wilfred Lister (GB)	Worms
7	14	Lanesboro	29th May	Edward Harrison (GB)	Maggots
7	14	Lanesboro	18th May	John Mills (GB)	Bread Flake
7	13¾	Lanesboro	10th May	Johnston Price	Bread
7	13¾	Lanesboro	15th April	Alastair Smyth	Worms
7	13¼	Lanesboro	15th April	Martin Bernard (GB)	Bread
7	12½	R. Shannon, Athlone.	3rd July	David Crossdale (GB)	Bread Flake
7	12½	River Inny	21st May	Richard Barker (GB)	Worms
7	12	Athlone	3rd July	David Crossdale (GB)	Bread Flake
7	11¾	Lanesboro	12th May	John Mills (GB)	Bread Flake
7	10½	Lanesboro	30th April	Gerald Price	Worm & Maggot
7	10½	Lanesboro	17th April	Wilfred Lister (GB)	Bread
7	10	Lanesboro	8th May	Gerald Price	Bread
7	10	Monalty Lake	1st August	Alan Ross	Bread
7	10	River Inny	22nd May	John Foy (GB)	Worms
7	9¾	Lough Ree	28th April	Alan Ross	Bread
7	9¾	Monalty Lake	3rd August '77	Master A. McNally (GB)	Worms
7	9½	Monalty Lake	5th August '77	Master A. McNally (GB)	Worms
7	9¼	Lanesboro	13th May	John Mills (GB)	Bread Flake
7	9	Moyola River	3rd Sept.	John Morwood	Lobworm
7	8¾	Lanesboro	16th April	B. Lister (GB)	Bread
7	8¾	Lanesboro	30th April	Geoffrey Dawson (GB)	Bread Flake
7	8	Lanesboro	21st April	Alan Coates (GB)	Bread
7	8	Lanesboro	12th May	John Mills (GB)	Bread Flake

CARP

Record, 18 lbs. 12 ozs. Specimen Weight, 10 lbs: 4.536 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
13	11	The Lough, Cork	20th May	Conor Healy	Bread Paste
12	15	The Lough	13th May	Conor Healy	Bread Paste
11	9	The Lough	27th Nov. '77	Conor Healy	Bread Crust
10	4	The Lough	13th Sept.	David Magee	Floating Crust

EEL

Record, 5 lbs. 15 ozs. Specimen Weight, 3 lbs: 1.361 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
5	10	Aughrusbeg Lake, Clifden	21st Sept.	J. J. Smits	Worms
5	2	Aughrusbeg Lake	4th Sept.	J. J. Smits	Worms
4	14	Stoneyford Res., Antrim.	29th Sept., '77	John Huddleston	Worms
4	7	Lake Cluhir	25th May	John Shepherd	Worms
4	3¼	Stoneyford Res.	30th July	N. Wright-Turner	Worms
4	2	Aughrusbeg Lake	6th Sept.	J. J. Smits	Worms
4	1¾	Carnadoe Lough	20th June	E. Kershaw (GB)	Bread
4	1	Aughrusbeg Lake	4th Sept.	Ph. L. S. Treytel (NL)	Sandeel Strip
3	12	Aughrusbeg Lake	31st May	J. J. Smits	Worms
3	10¼	Aughrusbeg Lake	21st May	H. T. Kloppenborg (NL)	Mackerel Strip

EEL (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
3	8	Aughrusbeg Lake	20th June	R. Schefferlie (NL)	Worms
3	6	Augurusbeg Lake	6th Sept	J. J. Smits	Mackerel Strip
3	4	Lough Sheever	3rd July	T. Williams (GB)	Maggots
3	2	Grand Canal, Rahan	18th June	H. J. Coley (GB)	Maggots
3		Leixlip Lake	26th August	Master George Hynes	Worms

PIKE (RIVER)

Record, 42 lbs. Specimen Weight, 20 lbs: 9.072 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
28		River Bann Upper	31st Dec. '77	Lawrence Peile	Roach
27		River Suck, Ballyforan.	22nd January	Kevin Dowd	Plaice Fillet
23		River Shannon, Drumshanbo.	5th May	Wulf Henning (D)	Perch
22	8	River Shannon, Drumsna.	18th Sept.	Hans Peter Maier (D)	Copper Spoon
22	8	River Shannon, Drumshanbo.	27th June	Thomas Aherne	Perch
22	6	River Shannon, Lanesboro	4th October	Joseph Kaiser (L)	Mepps No. 5
21	11¾	River Liffey	11th Feb.	Michael Hunt	Herring
21	7	River Corrib, Menlo.	7th May	Burkhard Hobler	Abu Hilo
21		River Glyde, Ballyhoe	22nd Sept.	John Leese (GB)	Perch
20	1¾	River Suck, Derrycahill.	13th May	Paul Bourke	Herring

PIKE (LAKE)

Record, 38 lbs. 2 ozs. Specimen Weight, 30 lbs: 13.608 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
32		Lough Corrib, Lower	28th October	Maurice O'Connell	Abu Hi-Lo

RUDD

Record, 3 lbs. 1 oz. Specimen Weight, 2¼ lbs: 1.021 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
2	8¾	River Shannon, Shannonbridge.	23rd April	Jim O'Connell	Worms
2	7¾	Lough Iron	16th May	John Foy (GB)	Worms
2	6½	Shannonbridge	1st August	Stephen Peak (GB)	Bread Paste
2	4½	L. Annaghmore	7th August	Peter Butler (GB)	Bread Paste
2	4½	Lough Iron	18th May	John Foy (GB)	Worms
2	4	Ballinafid L, Mullingar	26th August	James Bennett	Sweet Corn

RUDD/BREAM HYBRID

Record, 5 lbs. 13 ozs. Specimen Weight, 3 lbs: 1.361 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
4	12	Monalty Lake	24th August	Hugh Gough	Bread
4	12	Monalty Lake	23rd August	Patrick McNeice	Bread
4	12	Rye Water	16th May	Patrick Long	Worms
4	10	Rye Water	16th May	Gregory Long	Worms
4	4¾	River Shannon, Lanesboro.	31st July	A. J. Cooper (GB)	Maggots
3	5¾	River Shannon, Shannonbridge.	29th July	Jim O'Connell	Bread
3	5	River Suck, Coreen.	21st May	Ivan Marks (GB)	Maggots
3		Shannonbridge	30th Sept., '77	Albert Cooper (GB)	Maggots

TENCH

Record, 7 lbs. 13¼ ozs. Specimen Weight, 6 lbs: 2.721 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
7	11½	Carnadoe Lough	20th June	E. Kershaw (GB)	Lobworm
7	2	River Shannon, Lanesboro.	9th June	Trevor Dunn (GB)	Bread
7		Lanesboro	11th May	John Ingram (GB)	Bread Flake
6	13	Lanesboro	9th June	Steve Parnham (GB)	Bread
6	8¼	Lanesboro	14th June	Stephen Holmes (GB)	Bread
6	8	Lanesboro	7th June	Alan Ross	Bread
6	7	Lanesboro	9th June	K. Whitehead (GB)	Bread
6	6¾	Lanesboro	14th Feb	Darien Blunt (GB)	Bread Flake
6	6¾	Lanesboro	22nd June	John Mills (GB)	Bread Flake
6	5¼	Lanesboro	22nd June	John Mills (GB)	Bread Flake
6	5	Carnadoe Lough	20th June	R. C. Kershaw (GB)	Bread Flake
6	4¼	Lanesboro	6th May	Michael Frost (GB)	Bread Flake
6	3¾	Lanesboro	6th May	Michael Frost (GB)	Bread Flake
6	2½	Lough Ree	21st June	M. Pickthall (GB)	Maggots
6	2¼	Lanesboro	3rd June	Edward Harrison (GB)	Bread Flake
6	2¼	Lanesboro	6th May	Michael Frost (GB)	Bread Flake
6	2¼	Lanesboro	23rd April	Michael Frost (GB)	Bread Flake
6	2	Lanesboro	29th May	Bernard Coyne (GB)	Bread
6	1¾	Lanesboro	12th May	Michael Frost (GB)	Bread Flake
6	1½	Carnadoe Lough	20th June	R. C. Kershaw (GB)	Bread Flake
6	0¾	Lanesboro	23rd April	Damian Gilmore	Bread Flake
6		Kilgory Lake, Clare	9th August	Nigel Philips (GB)	Maggots

BASS

Record, 17 lbs. 1¼ ozs. Specimen Weight, 10 lbs: 4.536 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
12	12½	Churchtown, Co. Wexford	10th Sept.	Walter Keane	Mackerel
11	13	Crosshaven	11th June	Jim Ring	Crab
11	12	Ferrybank, Wexford	6th October	Colin Manning	Ragworm
10	14½	Garryvoe, Co. Cork	5th November	Don Woods	Lugworm
4.95 kilos.		Clonakilty	4th Sept.	Peter Wally (GB)	Sandeel
10	12	Barrow Harbour, Fenit	31st May	George Cundill (GB)	Lugworm

BASS (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
10	10½	Inch Bay, Cork	12th Sept.	William Cunningham	Mackerel Strip
10	9½	Youghal	17th Sept.	Cormac McCarthy	Crab & Lugworm
10	8	Killiney Bay	12th August	John Horn	Sandeel
10	4	Greenore Point, Rosslare.	13th Sept.	Peter Green	Lugworm
10	4	Clonakilty	28th October	Seamus O'Sullivan (GB)	Sandeel
10	3	Ballinasker, Co. Wexford	7th May	David Gaffney	Lugworm
10	3	Rosscarbery	24th October	M. J. Wall (GB)	Razor Fish
10	2½	Dungarvan	26th July	John O'Riordan	Razor fish
10	2	Garryvoe	9th Sept.	Billy Dunne	Mackerel Strip
10	1½	Dungarvan	29th April	Miguel Garcia	Crab
10	1	Killiney Bay	12th August	John Horn	Sandeel
10	1	Castlegregory	30th July	William Ryan	Lugworm

COALFISH

Record, 24 lbs. 7 ozs. Specimen Weight, 15 lbs: 6.804 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
21	6	Cobh	3rd Sept.	C.R.B. Smith (GB)	Mackerel Strip
16	1	Cobh	4th Sept.	R. J. Kingston (GB)	Mackerel Strip
15	15¼	Belmullet	30th July	P. J. Sweeney	Mackerel

COD

Record, 42 lbs. Specimen Weight, 25 lbs: 11.340 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
25	10	Achill	8th June	Denis Lynch	Baited feathers

CONGER EEL

Record, 72 lbs. Specimen Weight, 40 lbs: 18.144 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
45		Fenit	3rd June	C. E. Tune (GB)	Mackerel

DAB

Record, 1 lb. 12½ ozs. Specimen Weight, 1½ lbs: .680 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
1	10	Cobh	6th January	George Stockley	Herring Strip
1	9	Belmullet	2nd Sept.	Paul McConnell	Baited Spoon
1	8½	Valentia	14th August	Clive Richards (GB)	Mackerel
1	8½	Causeway Coast	23rd July	Derek McLeister	Baited Spoon

GREATER SPOTTED DOGFISH

Record, 21 lbs. 4 ozs. Specimen Weight, 16 lbs: 7.257 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
19	6½	Larne Lough	7th Sept.	Leonard McCord	Mackerel
17	3	Killala Bay	5th August	Dr. W. D. George (GB)	Mackerel Head
17		Caherciveen	27th August	Martin Sarney (GB)	Mackerel

GREATER SPOTTED DOGFISH (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
16	11	Valentia	23rd August	J. D'Art	Mackerel fillet
16	4	Ballinskelligs, Co. Kerry.	6th August	John Bowler	Mackerel
16	1	Courtmacsherry	11th Sept.	Robert Lecocq (B)	Mackerel Strip
16		Ballinskelligs	6th August	Carol Girdwood (GB)	Mackerel

LESSER SPOTTED DOGFISH

Record, 3 lbs. 13 ozs. Specimen Weight, 3 lbs: 1.361 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
3	13	Belfast Lough	1st October	Edward Reid	Mackerel
3	12	Causeway Coast	1st July	Irvine Tannahill	Mackerel Strip
3	11	Crosshaven	8th July	Tony Hartnett	Mackerel
3	10	Courtmacsherry	3rd October	E. de Laat (NL)	Mackerel
3	10	Enniscrone	6th August	James Byrne	Mackerel
3	8	Killybegs	13th August	T. Gallagher	Mackerel
3	8	Courtmacsherry	23rd July	P. C. Vd Geest (NL)	Mackerel Strip
3	8	Courtmacsherry	1st June	C. H. Borghoff (NL)	Mackerel
3	8	Dingle	13th August	Derrick McKenna	Mackerel
3	7	Courtmacsherry	8th August	Dirk Verhen (NL)	Mackerel Strip
3	5	Courtmacsherry	20th Sept.	J. Th. Theesing (NL)	Mackerel Strip
3	5	Aghada, Cork Harbour	28th April	William Cunningham	Lugworm
3	5	Courtmacsherry	25th May	C. A. Groot (NL)	Mackerel
3	5	Portrush	19th August	Eddie Reid	Mackerel fillet
3	5	Courtmacsherry	12th July	Hans Zwann (NL)	Mackerel Strip
3	5	Greystones	22nd October	Liam Tully	Mackerel Strip
3	5	Causeway Coast	21st May	Raymond Ridley	Ragworm
3	4½	Valentia	27th August	Mr. Vermeerbergen (B)	Mackerel
3	4¼	Valentia	24th August	Derrick McKenna	Mackerel
3	4	Belfast Lough	7th Sept.	Mrs. Maureen Wells	Mackerel Strip
3	4	Enniscrone	8th Sept.	Roy Tynan	Mackerel Strip
3	4	Courtmacsherry	10th Sept.	G. L. Clarys (NL)	Mackerel
3	4	Cobh	18th Dec. '77	Sean O'Connor	Mackerel
3	4	Brandon, Dingle	9th August	William Hodgins	Mackerel
3	4	Ballinskelligs	18th July	Mrs. Carol Girdwood (GB)	Mackerel
3	3	Youghal	9th October	Sean White	Crab
3	3	Causeway Coast	13th July	John Murray	Mackerel Strip
3	3	Ballinskelligs	10th August	Dan Rooney	Mackerel
3	3	Courtmacsherry	20th July	Kees Berling (NL)	Mackerel Strip
3	3	Courtmacsherry	25th May	O. F. De Graaf (NL)	Mackerel Strip
3	2½	Courtmacsherry	14th May	L. C. de Graaf (NL)	Mackerel Strip
3	2	Courtmacsherry	5th July	Sipko Sipkens (NL)	Mackerel
3	2	Courtmacsherry	2nd August	B. T. W. Becker (NL)	Mackerel
3	2	Courtmacsherry	12th July	C. de Graaf (NL)	Mackerel Strip
3	2	Ballybrannigan, Co. Cork.	12th August	Tony Ahern	Lugworm
3	2	Cork Harbour	12th August	Christopher Cody	Mackerel
3	2	Courtmacsherry	30th July	S. J. de Boer (NL)	Mackerel
3	2	Courtmacsherry	19th Sept.	L. G. Clarys (NL)	Mackerel
3	2	Courtmacsherry	23rd July	C.A.A. Van Kaam (N)	Mackerel Strip
3	2	Courtmacsherry	4th August	Brian Furphy	Mackerel Strip
3	2	Ballycotton	3rd June	Liam Dunne	Mackerel Strip
3	2	Enniscrone	8th August	F. W. Heath (GB)	Mackerel
3	2	Aghada	28th April	Bernard Daly	Mackerel
3	1¾	Valentia	26th August	J. D'Art	Mackerel Fillet

LESSER SPOTTED DOGFISH (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
3	1½	Courtmacsherry	22nd May	D. A. de Graaf (NL)	Mackerel
3	1½	Valentia	27th August	Jef Panis (B)	Mackerel
3	1½	Courtmacsherry	25th May	C. de Graaf (NL)	Mackerel Strip
3	1	Courtmacsherry	19th Sept.	S.O.E. Rieske (NL)	Mackerel
3	1	Cork Harbour	27th August	Jeremiah Kelly	Mackerel
3	1	Causeway Coast	29th July	W. B. Clarke	Mackerel Strip
3	1	Courtmacsherry	29th July	Sipko Sipkens (NL)	Mackerel
3	1	Causeway Coast	28th May	Irvine Tannahill	Mackerel Strip
3	1	Valentia	20th August	J. B. Healy	Mackerel
3	1	Courtmacsherry	16th Sept.	G.L.A. Clarys (NL)	Mackerel
3	1	Courtmacsherry	17th July	L. V. Krieken (NL)	Mackerel
3	1	Courtmacsherry	12th July	D de Mooy (NL)	Mackerel Strip
3	0½	Courtmacsherry	14th May	M. Hage (NL)	Mackerel Strip
3	0½	Courtmacsherry	18th July	Kryn Ooms (NL)	Mackerel
3	0½	Hook Head, Wexford.	4th June	Walter Keane	Mackerel Strip
3		Ballinskelligs	21st July	Brendan Rooney	Mackerel
3		Courtmacsherry	16th Sept.	L. G. Clarys (NL)	Mackerel
3		Courtmacsherry	8th August	Fred de Boer (NL)	Mackerel Strip
3		Causeway Coast	28th May	Irvine Tannahill	Mackerel Strip
3		Valentia	26th August	Gerald Fitzgerald	Mackerel Strip
3		Dungarvan	28th July	G. Bangs (GB)	Mackerel Strip

SPUR DOGFISH

Record, 18 lbs. 12 ozs. Specimen Weight, 12 lbs: 5.443 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
16	11½	Rush, Co. Dublin	16th July	Kevin Friel	Mackerel
15	5½	Belfast Lough	1st October	Robert McCarten	Mackerel Strip
14	5¼	Kilmore Quay	9th July	Nicholas Whelan	Mackerel Strip
14	5	Sneem, Co. Kerry	19th August	A. Blom (NL)	Mackerel Strip
14	3	Killala Bay	25th August	Rudi Breuch (D)	Mackerel Strip
14		Dungarvan	1st August	John Browne	Mackerel Strip
14		Courtmacsherry	13th June	Brian Furphy	Mackerel Strip
13	15½	Rush	16th July	Con Byrne	Mackerel Strip
13	9	Cork Harbour	17th Sept.	Gerard Rasmussen	Mackerel Strip
13	8	Sneem	24th August	W. G. Bousie (NL)	Mackerel
13	6	Sneem	20th May	A. Ligt (NL)	Mackerel Strip
13	4½	Enniscrone	25th August	W. Rosebrock (D)	Mackerel
13	4	Sneem	22nd August	J. C. Pronk (NL)	Mackerel Strip
13	4	Sneem	20th May	G. W. Guerts (NL)	Pollack Strip
13	4	Wicklow	9th July	Terry Doyle	Mackerel Strip
13	2	Killala Bay	4th June	Heinz Hoffmaster (D)	Mackerel Strip
13		Rush	26th August	John Donnelly	Mackerel
13		Sneem	24th August	C. Schreuder (NL)	Mackerel
13		Sneem	21st August	W. Ardon (NL)	Mackerel Strip
12	15	Rush	16th July	Francis McMahon	Mackerel
12	12	Rush	26th August	Liam Tully	Mackerel Strip
12	12	Kilmore Quay	9th July	Gerard Olin	Mackerel
12	9½	Belfast Lough	1st October	David Long	Mackerel
12	9	Sneem	21st August	T. J. Smit (NL)	Mackerel
12	8	Sneem	21st August	R. Schoonderwoerd (NL)	Mackerel
12	8	Sneem	20th May	Mrs. H. C. Guerts (NL)	Pollack Strip
12	8	Wicklow	9th July	Terry Doyle	Mackerel Strip
12	7	Sneem	21st August	J. W. Hilgerink (NL)	Mackerel
12	7	Sneem	24th August	W. G. Pepping (NL)	Mackerel
12	7	Sneem	22nd August	N. Vrolyk (NL)	Mackerel Strip

SPUR DOGFISH (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
12	7	Courtmacsherry	2nd May	A. Duppen (NL)	Pollack Strip
12	6	Sneem	13th August	A. Meyer (NL)	Mackerel Strip
12	6	Sneem	22nd August	P. Brouwer (NL)	Mackerel
12	6	Clare Island	20th August	John McCormick	Mackerel
12	5	Sneem	13th August	A. Blom (NL)	Mackerel
12	5	Belfast Lough	29th June	Terence Coan	Mackerel
12	4	Greystones	1st October	Christopher Smith	Mackerel
12	4	Rush	22nd October	Noel Harford	Mackerel Strip
12	4	Kilmore Quay	15th July	M. Langford	Mackerel Strip
12	3	Black Head, Co. Antrim	25th July	J. H. McNeice	Mackerel Strip
12	2	Sneem	13th August	P. Bogaard (NL)	Mackerel
12	2	Sneem	22nd August	A. M. Hulleman (NL)	Mackerel Strip
12	2	Sneem	18th July	J. Crockaert (B)	Mackerel Strip
12	2	Wicklow	16th July	Noel Harford	Mackerel Strip
12	2	Courtmacsherry	28th April	G. R. v.d. Ploeg (NL)	Pollack Strip
12	1½	Kilmore Quay	13th August	John Byrne	Mackerel
12	1	Killala Bay	2nd Sept.	Richard Butler	Mackerel Strip
12		Courtmacsherry	8th April	C. Slieker (NL)	Pollack Strip

FLOUNDER

Record, 4 lbs. 3 ozs. Specimen Weight, 2 lbs. 8 ozs: 1.134 kilos

WEIGHT b.	oz.	PLACE	DATE	CAPTOR	METHOD
3	7	Ballinrannig, Strand, Dingle.	4th October	Patrick Brennan	Lugworm
3	7	Dungarvan	8th February	David Lewis	Lugworm
3	4	Fermoyle, Dingle.	15th October	Martin Hobbs (GB)	Lugworm
3	3	Ballyteigue, Co. Wexford	17th August	Graham Dungan	Crab
3	3	Dungarvan	23rd January	David Lewis	Lugworm
3	2½	Dungarvan	27th Nov. '77	David Lewis	Lugworm
3	2½	Kilmore Quay	30th August	David Gray	Crab
3	2¼	Dungarvan	29th January	David Lewis	Lugworm
3	1¾	Ballinrannig	31st October	Derry Ryan	Lugworm
3	1	Dungarvan	17th January	Michael Cowming	Lugworm
3	1	Dungarvan	25th January	David Lewis	Lugworm
3		Ballinrannig	15th October	Thomas Keogh	Lugworm
3		Kilmore Quay	30th August	Master Shane Gray	Crab
3		Dungarvan	18th January	Michael Cowming	Lugworm
2	14¾	Ballinrannig	31st October	Kevin Keogh	Lugworm
2	14½	Ballyteigue,	2nd January	John Byrne	Lugworm
2	14½	Dungarvan	25th January	Michael Cowming	Lugworm
2	14	Dungarvan	5th February	Keith Fennelly	Lugworm
2	12¼	Cloghane, Dingle	6th October	Anthony Sarini	Lugworm
2	12	Ballyteigue	17th August	Rev. Victor Dungan	Crab
2	12	Dungarvan	5th January	Miguel Garcia	Lugworm
2	11½	Dungarvan	26th January	David Lewis	Lugworm
2	11	Clonakilty Bay	18th October	Humphrey Duggan	Sandeel
2	11	Cloghane	7th October	Kenneth Johnston	Lugworm
2	11	Dungarvan	21st January	Michael Cowming	Lugworm
2	10¾	Kilkee, Co. Clare	1st October	W. Ryan	Lugworm
2	10½	Dungarvan	8th January	William Keane	Lugworm
2	10½	Dungarvan	2nd April	Paul Needham	Crab
2	10	Dungarvan	3rd January	Michael Power	Lugworm
2	9¾	Kilmore Quay	3rd Sept.	David Gray	Crab
2	9½	Ballinrannig	3rd October	Thomas Keogh	Lugworm

FLOUNDER (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
2	9½	Kilmore Quay	30th August	Master Shane Gray	Crab
2	9½	Kinsale	9th July	Frank O'Mahony, Jnr.	Crab
2	9	Cloghane	16th October	Martin Hobbs (GB)	Lugworm
2	9	Kilmore Quay	3rd Sept.	David Gray	Crab
2	8½	Dungarvan	11th May	Pat Early	Crab
2	8	Fenit	17th June	John White	Lugworm

GARFISH

Record, 3 lbs. 10¼ ozs. Specimen Weight, 2½ lb: 1.134 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
2	12	Kinsale	11th Sept. '77	Th. van Ravenstein (NL)	Mackerel Strip
2	8	Kinsale	6th August	Karel Macor (NL)	Mackerel Strip

GREY GURNARD

Record, 3 lbs. 1 oz. Specimen Weight, 1½ lbs: .680 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
1	12	Enniscrone	2nd June	Theo Sigrist (CH)	Mackerel Strip
1	8	Killybegs	11th August	T. B. Cook (GB)	Mackerel

RED GURNARD

Record, 3 lbs. 9½ ozs. Specimen Weight, 2 lbs: .907 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
2	7½	Enniscrone	3rd Sept.	Martin Cassidy	Mackerel Strip
2	7	Lough Foyle	24th Sept.	Drew Alexander	Baited Feathers
2	5¼	Killala Bay	12th August	Bob Sherlock	Mackerel
2	4	Enniscrone	3rd Sept.	C. Martin	Mackerel
2	3	Cushendall	1st July	Wm. P. McGaughey	Mackerel Strip
2	2½	Enniscrone	5th August	John O'Regan	Mackerel
2	2	Enniscrone	10th Sept.	William Clarke	Mackerel
2	1	Causeway Coast	9th August	A. G. Smallwood	Mackerel
2	1	Causeway Coast	15th August	T. Smyth	Pirk & Feathers
2	1	Causeway Coast	29th July	Peter McNeil	Baited Feathers

TUB GURNARD

Record, 12 lbs. 3½ ozs. Specimen Weight, 5 lbs: 2.268 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
6	10	Enniscrone	5th August	Joanne Coulson (GB)	Mackerel
6	8	Enniscrone	6th April	Horst Kiehlreker (D)	Mackerel Fillet
5	10½	Killala Bay	30th August	Hans Peter Klein (D)	Mackerel Strip
5	7	Killala Bay	19th July	Karl Bruckner (A)	Mackerel Strip
5	3	Killala Bay	23rd July	Mrs. J. Molloy	Mackerel
5	2½	Killala Bay	12th August	E. O'Brien	Mackerel Strip
5	1	Enniscrone	24th May	Reinhold Baver (D)	Mackerel Strip

HADDOCK

Record, 10 lbs. 13½ ozs. Specimen Weight, 7 lbs: 3.175 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
7	10½	Causeway Coast	22nd June	G. Jeavons	Mackerel
7	10	Causeway Coast	6th August	F. G. Hunter	Mackerel Strip
7		Causeway Coast	24th Sept.	Eric McCrubb	Mackerel Strip

HAKE

Record, 25 lbs. 5½ ozs. Specimen Weight, 10 lbs: 4.536 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
22	8	Enniscrone	29th July	Franz Buchen (D)	Mackerel Fillet
22		Enniscrone	29th July	William Howe (GB)	Mackerel Strip
21		Enniscrone	29th July	Helmut Geelhaar (D)	Mackerel Fillet
18	8	Enniscrone	29th July	Peter Buchwald (D)	Mackerel Fillet
17	10	Enniscrone	4th August	William Howe (GB)	Mackerel Fillet
15	8	Enniscrone	29th July	Stephen Bushell (GB)	Mackerel Strip
15		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
14	12	Killala Bay	24th August	Ken Boardman (GB)	Mackerel Strip
14	8	Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
13	15	Enniscrone	4th August	Gordon Bushell (GB)	Mackerel Strip
13	14	Enniscrone	4th August	William Howe (GB)	Mackerel Fillet
13		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
13		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
12		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
11		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
11		Enniscrone	29th July	Gordon Bushell (GB)	Mackerel Strip
10	8	Enniscrone	29th July	Franz Buchen (D)	Mackerel Fillet
10		Dungarvan	18th June	Patrick Cullen	Mackerel Strip

LING

Record, 46 lbs. 8 ozs. Specimen Weight: 25 lbs: 11.340 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
29		Castletownshend, Co. Cork.	9th June	Peter Green	Red Rubber Eel
28		Courtmacsherry	20th July	Kryn A. Ooms (NL)	Mackerel Strip
26	10	Cork Harbour	13th May	Jan Van Gerven (NL)	Mackerel Strip
26	2	Kilmore Quay	27th August	Graham Dungan	Mackerel Feathers
26		Dungarvan	20th August	H. v Zanten (NL)	Mackerel Strip
26		Courtmacsherry	20th July	Rob van der Velden (NL)	Mackerel Strip
11.80 kilos.		Kinsale	16th July	Liam Irwin	Mackerel
25	12	Youghal	27th August	Myles Clancy	Mackerel Strip
25	12	Kinsale	21st October	Alec Good	Mackerel
25		Courtmacsherry	7th July	J. P. den Boer (NL)	Baited feathers

MONKFISH

Record, 69 lbs. Specimen Weight, 50 lbs: 22.680 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
58	2	Fenit	2nd June	Ron Toovey (GB)	Mackerel
58		Fenit	10th June	Albert Locke	Mackerel

MONKFISH (continued)

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
51	8	Fenit	29th August	Norman Dunlop	Mackerel Fillet
51		Fenit	9th May	Harry Ladner (D)	Mackerel

GREY MULLET

Record, 7 lbs. 12 ozs. Specimen Weight, 5 lbs: 2.268 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
5	0½	Skerries	13th August	Peter Walsh	Mackerel

PLAICE

Record, 7 lbs. 2½ ozs. Specimen Weight, 4 lbs: 1.814 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
5		Greystones	11th June	Raymond Bannerman	3" Spoon
4	14	Cushendall, Co. Antrim.	2nd June	Martin Harper	Lugworm
4	8	Killiney	9th August	Robert Reynolds	Mackerel Strip
4	5	Cork Harbour	5th August	Tony Hartnett	Mackerel Strip
4	5	Causeway Coast	4th June	P. R. Hale	Mackerel
4	4	Greystones	6th Nov. '77	Peter Blackeman	Lugworm
4	2	Causeway Coast	23rd April	Paul McConnell	Lugworm

POLLACK

Record, 19 lbs. 3 ozs. Specimen Weight, 12 lbs: 5.443 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
8.35 kilos.		Kinsale	17th Sept.	Gunther Macher (D)	Mackerel Strip
15		Kinsale	20th August	Frans Bogman (NL)	Abu Sillen
6.4 kilos.		Kinsale	23rd August	Joke Barvoets (NL)	Jensen
14		Courtmacsherry	9th June	H. Oulton	Artificial lure
6.30 kilos.		Kinsale	17th Sept.	Kenneth Foot	Mackerel Strip
13	12	Courtmacsherry	20th October	Brian Furphy	Rubber Eel
13	8	Clifden	12th October	G. J. Brunnekreef (NL)	Mackerel Strip
13	8	Cork Harbour	7th August	Denis Canty	Feathers
13	8	Kinsale	27th June	Mrs. P. Robinson (GB)	Mackerel Strip
13	8	Courtmacsherry	18th July	R. van der Velden (NL)	Mackerel Strip
6 kilos.		Kinsale	21st July	G. van der Lee (B)	Jensen
13		Courtmacsherry	21st June	H. Oulton	Rubber Eel
12	14	Cork Harbour	3rd Sept.	James Geary	Mackerel Strip
12	12	Courtmacsherry	1st Oct. '77	Gerhard Boom (D)	Mackerel Strip
5.75 kilos.		Kinsale	4th May	P. v. Dam (NL)	Rubber Eel
12	8	Courtmacsherry	11th June	Brian Furphy	Artificial lure
5.7 kilos.		Kinsale	29th May	Master M. Lambert(GB)	Mackerel Strip
5.7 kilos.		Kinsale	8th July	Stanley W. Hobbs (GB)	Baited Pirk
5.7 kilos.		Kinsale	19th Sept.	P. J. V. Dam (NL)	Baited Spinner
12	8	Courtmacsherry	8th June	F. Verstraeten (B)	Rubber Eel
12	7	Cork Harbour	19th August	John Barry	Rubber Eel
12	5¾	Cushendall	18th Nov.	Adrian Redmond	Red Gill
12	5½	Courtmacsherry	24th May	D. A. de Graaf (NL)	Rubber Eel
12	4	Achill	7th June	John O'Shea	Artificial Eel
12	2	Courtmacsherry	24th August	M. C. Dreyer (NL)	Mackerel Strip
12	2	Causeway Coast	5th Sept.	Harry Garvin	Baited Feathers
12	2	Courtmacsherry	23rd June	J. Den Boer (NL)	Artificial lure
12	1	Kinsale	24th June	Dr. Jerry Walsh	Rubber Eel
12	0½	Courtmacsherry	12th June	Cindy Allen	Rubber Eel

POLLOCK (continued)

WEIGHT	PLACE	DATE	CAPTOR	METHOD
12	Enniscrone	5th July	Henry Ward (GB)	Mackerel Strip
12	Kinsale	20th June '77	P. C. Weekhout (NL)	Mackerel

POUTING

Record, 4 lbs. 10 ozs. Specimen Weight, 3 lbs: 1.361 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
3	8	Dungarvan	2nd Sept.	M. Hennessy	Mackerel Strip
3	6½	Ballycotton	18th July	B. Bengtsson (S)	Mackerel Strip
3	6	Sneem	3rd August	J. Oostveen (NL)	Baited feathers
3	4	Killybegs	12th August	Mrs. Carmel O'Shea	Mackerel
3	4	Killybegs	5th Sept.	John Cooper (GB)	Mackerel Fillet
3	4	Sneem	8th June	E. W. Kelderman (NL)	Baited feathers
3	3	Castletownshend	14th May	William Cody	Mackerel Strip
3	2½	Kinsale	23rd Sept.	Charles O'Sullivan	Abu Lure
3	2	Causeway Coast	5th August	Norman Brashaw	Mackerel Strip
3	2	Kilmore Quay	22nd October	Sean Moynihan	Mackerel
3	1½	Portstewart	17th June	George Buchanan	Baited feathers
3	1	Courtmacsherry	16th August	Bill Robb (GB)	Mackerel
3	1	Valentia	30th June	Frans Mens (B)	Mackerel
3		Killybegs	12th August	Barry O'Shea	Mackerel
3		Valentia	31st August	Harold Crabtree (GB)	Mackerel Strip
3		Killybegs	12th August	Patrick Peoples	Mackerel
3		Valentia	27th May	Radley Carter (GB)	Mackerel

BLONDE RAY

Record, 36 lbs. 8 ozs. Specimen Weight, 25 lbs: 11.340 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
32		Greystones	30th July	J. D'Art	Mackerel Fillet
26	8	Cork Harbour	24th Sept.	Miss Dorothy Baker	Mackerel Strip
26		Courtmacsherry	30th August	A. Bekooy (NL)	Mackerel Strip
26		Greystones	4th June	Martin Malone	Mackerel
28	4	Cushendall	3rd Sept.	Ivor Fletcher	Mackerel
25	12	Greystones	17th Sept.	Patrick J. Wilson	Mackerel

CUCKOO RAY

Record, 5 lbs. 11 ozs. Specimen Weight, 4½ lbs: 2.041 kilos

WEIGHT lbs.	oz.	PLACE	DATE	CAPTOR	METHOD
4	14	Causeway Coast	5th August	Willis Hammond	Mackerel
4	14	Portstewart	23rd July	Adam Bones	Mackerel Strip
4	14	Causeway Coast	26th August	John Craig	Mackerel

PAINTED RAY

Record, 13 lbs. Specimen Weight, 10 lbs: 4.536 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
11	6½	Ardmore	17th July	David Lewis	Mackerel Strip
11	3	Ardmore	14th July	John McDonald	Mackerel Strip
10	5¾	Garryvoe, Co. Cork.	26th August	Edmund Cull	Mackerel Strip
10	4	Garryvoe	23rd Sept.	Master Brian Ahern	Mackerel Strip
10	1	Ardmore	14th July	Michael Fennelly	Mackerel Strip

HOMELYN RAY

Record, 7 lbs. 7½ ozs. Specimen Weight, 5 lbs: 2.268 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
6	15	Causeway Coast	10th Sept.	Harry Jamieson	Mackerel
5	15	Sheephaven Bay	27th August	W. J. Duffy	Mackerel Strip
5	15	Causeway Coast	6th August	Jim Doherty	Mackerel Strip
5	9	Causeway Coast	27th August	B. Smallwood	Mackerel
5	7	Culdaff, Co. Donegal	15th July	W. F. McLaughlin	Mackerel
5	4	Cork Harbour	17th June	Mrs. Eleanor Conlon	Mackerel Strip
5	3	Causeway Coast	28th August	Robert McCarten	Mackerel Fillet
5	1½	Causeway Coast	20th August	Derek McLeister	Mackerel Strip
5		Fenit	7th June	T. Gillespie (GB)	Mackerel Strip

THORNBACK RAY

Record, 37 lbs. Specimen Weight, 20 lbs: 9.072 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
25		Courtmacsherry	1st July	P. van der Zwet (NL)	Mackerel Strip
25		Greystones	10th June	Daniel Byrne	Mackerel
24	6	Causeway Coast	24th August	Hugh Bolton	Mackerel
23	8	Courtmacsherry	12th July	Dan O'Dwyer	Mackerel Strip
22	4	Courtmacsherry	18th June	J. Bals (NL)	Mackerel Strip
10 kilos.		Kinsale	1st October	John Brown (GB)	Mackerel Strip
9.85 kilos		Greystones	4th June	E. A. Richards	Herring Strip
21	4	Greystones	16th July	Christopher Smith	Mackerel Strip
21		Courtmacsherry	6th August	D. A. de Graaf (NL)	Mackerel
21		Courtmacsherry	6th August	C. de Graaf (NL)	Mackerel Strip
20	13	Bonmahon Strand, Co. Waterford.	31st July	Harry Condon	Mackerel Strip
20	1	Greystones	11th June	Denis Horgan	Mackerel Strip
20	0½	Courtmacsherry	4th August	M. Meyler (NL)	Mackerel

UNDULATE RAY

Record, 18 lbs. Specimen Weight, 14 lbs: 6.350 kilos

WEIGHT lbs.	oz.	PLACE	DATE	CAPTOR	METHOD
15	2	Fenit	16th June	Billy Wilson (GB)	Mackerel
14	8	Fenit	18th June	Ernest Burrows (GB)	Mackerel
14	6	Fenit	10th June	Mrs. W. Burrows (GB)	Mackerel
14	6	Fenit	22nd May	M. McKenna (GB)	Mackerel Strip
14	2	Fenit	7th June	Bill Howes (GB)	Squid

ELECTRIC RAY

Specimen Weight, 20 lbs: 9.072 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
59		Courtmacsherry	5th Sept, '77	J. Rynsburger (NL)	Mackerel Strip

RAY'S BREAM

Record, 6 lbs. 4¼ ozs. Specimen Weight, 5 lbs: 2.268 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
6	4¼	Valentia	26th August	Martin Sarney (GB)	Pirk
6	2	Courtmacsherry	20th July	Brian Furphy	Mackerel
5	12	Kinsale	30th July, '77	Arnold Mahon	Mackerel

PORBEAGLE SHARK

Record, 365 lb. Specimen Weight, 150 lb.: 68.038 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
154		Galway Bay	1st Sept.	James Pitt	Mackerel

BLUE SHARK

Record, 206 lbs. Specimen Weight, 100 lbs: 45.359 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
57 kilos		Kinsale	7th July	Roy Hately (GB)	Mackerel
56 kilos		Kinsale	25th June	W. Kinderdick (D)	Mackerel
120		Enniscrone	10th August	B. Gaston (F)	Mackerel
119		Dungarvan	15th July	Terence Tiplady (GB)	Mackerel
115		Kinsale	6th July '77	B. R. Hollins (GB)	Mackerel
109	12	Dingle	8th Aug. '77	B. C. de Bruin (NL)	Mackerel
109	8	Killala Bay	24th August	Fritz Lehmacher (D)	Mackerel
107		Courtmacsherry	28th August	Yaap Spigt (NL)	Mackerel
103		Courtmacsherry	20th June	J. Oerlemans (NL)	Mackerel
101		Youghal	27th August	Michael Neligan	Mackerel
101		Kinsale	29th August	H. Franken (NL)	Mackerel
100		Kinsale	16th Sept.	Stek Tjaard (NL)	Mackerel

TOPE

Record, 60 lbs. 12 ozs. Specimen Weight, 40 lbs: 18.144 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
44	8	Greystones	1st July	T. Grealy	Mackerel

TURBOT

Record, 26 lbs. 8 ozs. Specimen Weight, 18 lbs: 8.165 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
21	4	Causeway Coast	22nd August	Roy Henry	Gurnard Strip
21	3	Belmullet	2nd Sept.	Lawrence McCluskey	Mackerel Strip
20	6	Causeway Coast	27th August	Brian McLaughlin	Mackerel
18	5	Causeway Coast	20th May	Peter Arkins	Pirk
18		Culdaff, Donegal	15th July	W. F. McLaughlin	Mackerel Strip

WHITING

Record, 4 lbs. 8½ ozs. Specimen Weight, 3 lbs: 1.361 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
4	6¼	Courtmacsherry	1st Sept.	T. H. v Lier (NL)	Mackerel Strip
3	4	Courtmacsherry	30th June	Dr. R. Schoning (D)	Baited feathers
3	4	Courtmacsherry	12th July	C. A. de Vries (NL)	Mackerel Strip
3	3	Courtmacsherry	21st July	C. V. Keulen (NL)	Mackerel Strip
3	2½	Belfast Lough	2nd July	Peter Webb	Mackerel Strip
3	0¾	Causeway Coast	4th Sept.	Derek McLeister	Baited feathers
4	0	Bray	22nd October	Michael McEvoy	Mussel & Herring Cocktail

BALLAN WRASSE

Record, 7 lbs. 6 ozs. Specimen Weight, 6 lbs: 2.721 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
6	4¼	Kilmore Quay	9th July	Denis Horgan	Ragworm

CUCKOO WRASSE

Record, 1 lbs. 11¼ ozs. Specimen Weight, 1¼ lbs: .567 kilos

WEIGHT lb.	oz.	PLACE	DATE	CAPTOR	METHOD
1	10⅝	Causeway Coast	28th August	William Todd	Mackerel
1	8	Causeway Coast	29th August, '77	Angus Barry	Mackerel
1	7½	Causeway Coast	13th August	Derek Cowan	Mackerel Strip
1	7	Causeway Coast	8th August, '77	Angus Barry	Baited feathers
1	6	Killybegs	20th August	Leo McCullagh	Mackerel Strip
1	5¾	Causeway Coast	8th August, '77	A. Wilton	Baited feathers
1	5½	Causeway Coast	3rd June	Jackie Robinson	Mackerel
1	5	Achill	12th August	Dr. Tom Haren	Baited feathers
1	4⅝	Causeway Coast	9th July	Barry Latham	Mackerel

NEW RECORDS

Two new Irish Records were established during 1978.

(1) **RAYS BREAM**, 6 lbs. 4¼ oz. caught by Martin Sarney, 22 Ewan Way, Leigh-on-Sea, Essex, England, at Valentia, Co. Kerry, on 26th August 1978.

(2) **LESSER SPOTTED DOGFISH**. 3 lbs. 13 oz. caught by Edward Reid, 35, Donard Avenue, Bangor, Co. Down in Belfast Lough on 1st October 1978.

It will be noted that all six specimen sea trout listed were taken in the Waterville fisheries, Co. Kerry. We wish to thank all those who assisted in recording these fine fish. The list of Brown Trout (Lake) is exceptional and is the greatest number authenticated in any year since the inception of the Committee.

FISH OF A LIFETIME AWARD

This award is being made in respect of the following fish :—

(1) A Monkfish weighing 68 lbs. 2 oz. caught by Ron Toovey, 11, Halsway, Hayes, Middlesex, England at Fenit, Co. Kerry on 2nd June 1978.

(2) A Hake weighing 22 lbs. 8 oz. caught by Franz Buchen, Hockstrasse 83, 4630 Wattenscheid, West Germany at Enniscrone, Co. Sligo on 29th July 1978.

TEN PIN AWARD WINNERS

The following qualified in 1978 for the special award made to anglers who have ten or more specimen fish :—

Damien Gilmore, 62 The Green, Lanesboro, Co. Longford.
John O'Shea, 6 Raphoe Road, Crumlin, Dublin 12.
Dan Rooney, 21 Brian Avenue, Marino, Dublin 3.

SPECIAL AWARD

In 1976 the Committee decided to recognise the angling prowess of those anglers who have had authenticated claims for specimens of ten separate species of fish. Only two of these awards have been made to-date and those who qualified during 1978 are :—

Brendan Rooney, 35 Fortunestown, Cookstown, Co. Dublin.

SPECIAL AWARD FOR JUVENILES

The special award donated by Dr. A. E. J. Went for the best specimen taken by a juvenile, who has not reached his or her fourteenth birthday on 1st January 1979 was won by :—

Shane Gray, 170 Clonkeen Crescent, Kill of the Grange, Co. Dublin for a flounder weighing 3lb. taken at Ballyteigue Bay, Co. Wexford, on 30th August, 1978.

NEW CATEGORY

For the 1979 season onwards the Committee has decided to add **STONE BASSE** (Polyprion americanus) to the list of eligible species. The specimen weight has been provisionally fixed at 8 lbs.

REVISED SPECIMEN WEIGHTS

For the 1979 season onwards the Committee has decided to increase the specimen weight for **LESSER SPOTTED DOGFISH** (Scyliorhinus caniculus) from 3 lb. to 3¼lb. It has decided to reduce the specimen weight of **TWAITE SHAD** (Alosa fallax) from 2¼ lbs. to 1½ lb. and of **BALLAN WRASSE** (Labrus bergylta) from 6 lb. to 4½ lb.

METRIFICATION

As and from 1978 the schedule of specimen weights on the Specimen Fish Claim Form will give the weight in lbs. and ozs. as heretofore and also in kilos and grammes. Claims will be accepted under either system until we eventually go metric altogether.

COMMON SKATE

In the interest of conservation of the species, the Committee during 1976 decided to remove the Common Skate (Raja batis) from the list of eligible fishes for three years, i.e., 1977/79, and not to consider any claims whatsoever except a possible new record (i.e., a fish weighing in excess of 221 lbs.) during the three year period. The Committee's decision has on the whole been very well accepted by anglers and it is gratifying to know that so many good skate were returned unharmed to the water during the season. The Committee will keep the situation under review until the end of 1979.

"SETTING UP" CLASSES

The Committee would like to get together a national collection of exceptionally big fish, and so, in the case of fish of or above the weights listed below, if the angler so wishes, the Committee will accept the fish for setting up as part of such national collection. Where a fish of marketable species is accepted by the Committee for setting up, the market value of the fish will be paid to the donor, if requested. Freight charges will also be paid by the Committee.

The following is a list of species (with minimum weights) which the Committee would like to receive for "setting up" :—

COD (40 lbs.); CONGER (70 lbs.); JOHN DROY (7 lbs.); GREY MULLET (8 lbs.); POLLACK (16 lbs.); POUTING (4 lbs.); RED SEA BREAM (7 lbs.); SHAD ALLIS (5 lbs.); SHAD TWAITE (3 lbs.); PORBEAGLE SHARK (300 lbs.); MAKO SHARK (200 lbs.); TOPE (60 lbs.); WHITING (4½ lbs.); BALLAN WRASSE (9 lbs.); CUCKOO WRASSE (1½ lbs.).

DISTRIBUTION OF SPECIMEN AWARDS

The number of specimen fish taken by visiting anglers in recent years may be of interest for purposes of comparison. The details are listed below for 1972, 1973, 1974, 1975, 1976, 1977 and 1978.

	IRELAND	BRITAIN	GERMANY	NETHERLANDS	BELGIUM	FRANCE
1972	169	126	29	23	7	2
1973	235	91	23	40	9	5
1974	170	117	16	36	6	9
1975	204	132	46	27	3	6
1976	214	123	40	36	2	5
1977	272	135	35	47	4	4
1978	281	126	19	86	7	1

REJECTED CLAIMS

As in every year since its inception, the Committee with considerable regret, has had to reject a number of claims because of incomplete or inadequate documentation.

These included instances where fish were weighed on balances which were not, or could not, be checked for accuracy. Some photographs submitted as evidence of identity of species of fish were inadequate for identification purposes because they were out of focus, or obscured by spectators or were taken at such an angle that the important diagnostic features could not be certified. Some claims were also rejected because the actual fish, or its scales (where required under the rules) were not sent to the Committee's Biologists for identification, or if the fish was sent, it was in such a state of advanced decomposition as to render positive identification impossible. In some cases the fish were not delivered at all but were destroyed by the Postal Authorities.

Fish must not be sent before Bank Holidays or week-ends. If they cannot reach the Committee before Friday afternoon, then they should be kept in cold storage until Monday. **Fish must not be wrapped in aluminium foil or polythene bags, as this hastens decomposition.** They should first be wrapped in greaseproof paper and then in newspaper and brown paper. Please also attach a label to each fish giving the captor's name and address, date and place of capture and the weight of the fish.

Where photographs are requested as proof of identification, it is essential that these be sharp, clear and close-up, showing the entire fish with its fins and other features easily seen. They must not be foreshortened or obscured by shadows or bystanders. (See Rules on Claim Form).

PRESENTATION OF AWARDS

IN IRELAND

The Annual Presentation of Awards to anglers whose claims were accepted during 1977 was made at the Burlington Hotel, Dublin. The presentation for the 1978 awards will take place at the Burlington Hotel, Dublin, on Saturday, 10th February, 1979, at 3 p.m. All Irish anglers who are due awards are cordially invited to attend.

ABROAD

Presentations were held for British anglers who were due awards for 1977 in London, Manchester and Birmingham. It is hoped that similar presentations will be held early in 1979 and award winners will receive invitations.

Presentations were also held in Amsterdam for anglers from the Netherlands and in Dusseldorf for anglers from West Germany during 1978 and it is hoped to make presentations to Continental anglers at suitable centres during 1979.

Our grateful thanks are due to Bord Failte Eireann (Irish Tourist Board) for making these presentations possible and to Aer Lingus (Irish Airlines) for their assistance during the year.

ACCOUNTS

A statement of the Committee's accounts for the calendar year 1977 is given in this Report. The 1978 accounts will be audited early in 1979 and will be published in the next Report.

HON. AUDITOR'S REPORT

We wish to thank those whose consistent and much appreciated financial support has enabled the Irish Specimen Fish Committee to continue the awards to anglers for recording Record and Specimen Fish caught in Ireland.

We regret to report that the Committee is no longer solvent and we are financially worse at the end of 1977, than in the previous year by the sum of £451.00p. (£195.50 representing last years Balance and we owe the bank £255.08p).

To our contributors who have assisted us so consistently and generously we are deeply appreciative. Bord Failte and the Inland Fisheries Trust Inc. have continued their grants and Aer Lingus have been most helpful. Angling Federations, Clubs and Individual members of the public have maintained their contributions and we are pleased to acknowledge subscriptions of £ 40 from one local Midland Tourist Organisation.

As mentioned last year the return in terms of National Income compared with the very ow expenditure of the Committee is in the region of 6,000%. Rising costs and inflation have ncreased our expenditure and it will continue to increase.

Despite our appeal in the last Report we received only two subscriptions from those who benefit most from the angling activities of Game, Coarse and Sea Anglers and we refer again to Hotels, Transport Companies, Tourist Associations, Fishing Tackle Shops, etc. A contribution of .0001% of the total tourist income from angling would maintain the Irish Specimen Fish Committee in its valuable work from anglers and the scientific data resulting from it.

IMPORTANT NOTICE

The transfer of the Department of Fisheries Laboratory to Abbottstown, Co. Dublin and the fact that there are no Saturday postal deliveries in Dublin caused difficulties during the year with fish sent for identification. In future all fish for identification must be sent to the Committee at **Balnagowan House, Mobhi Boreen, Mobhi Road, Glasnevin, Dublin 9. (Phone 379206).** All correspondence should also be sent to this address.

Fish taken in **Northern Ireland** should be sent as heretofore to the **Fisheries Laboratory, The Cutts, Coleraine (Phone 4521)** indicating that the fish has been sent for identification on behalf of the Irish Specimen Fish Committee.

A label must be attached to each fish giving the captors, name and address date and place of capture and the weight of the fish.

DONATIONS

The Irish Specimen Fish Committee is a voluntary body representative of all angling nterests in Ireland. It depends for funds on the subscriptions of well-wishers and the Committee wishes to convey its sincere thanks to those who have already subscribed namely :—

Bord Failte Eireann, The Inland Fisheries Trust Inc; Aer Lingus Teoranta; Cantharella Motel, Sneem, Co. Kerry; Irish Trout Fly Fishers Association; Lough Arrow Fish Preservation Association; Dublin Coarse Fish Angling Club; Lanesboro/Ballyleague Tourist Development Association; Monaghan Coarse Angling Club; Midland Angling Club; Irish Federation of Sea Anglers; Aghada S.A.C.; Aer Lingus S.A.C.; Argonaut S.A.C.; B.E.T.S. S.A.C.; Causeway Coast S.A.C.; Dunlaoghaire S.A.C.; Dunmore East S.A.C.; Greystones Ridge S.A.C.; Howth S.A.C.: Irish Shark Club; Kittiwakes S.A.C.; Lazy "K" S.A.C.; Old Head S.A.C.; Tramore and Waterford S.A.C.; Albert Ashworth "Cedar Cottage" 15A Gronont Road, Prestatyn, North Wales; Rudi Breuch, 53, Bonn-Beuel; Friedrich Brewerstrasse, 46, West Germany; P. J. Carberry, 23, Castle Road, Carrickfergus, Co. Antrim, N.I.; Thomas Cannon, 6 Hall Road, Woolston, Warsington, Cheshire, England; William Cunningham, Saleen, Cloyne, Co. Cork; P. F. Dore, St. Annes, Freshford Road, Kilkenny; Cliff Dobbs, 22 Bedale Avenue, Osbaldiveck, York, England; M. Dixon, 36, Ralahine, Church Road, Ballybrack, Co. Dublin; Pierce F. Duffy, 46 Meadow Vale, Blackrock, Co. Dublin; Norman Dunn, 2F Ballyhalbert, Bangor, Co. Down; Joseph Donnelly, 72, O'Rahilly House, Ringsend, Dublin 4; W. J. K. Eakin, 59 Roddens Cres. Belfast, N.I.; John J. Ellis, 31 Larkfield Gardens, Sydenham, Belfast, N.I.; W. H. Emersen, 1M Ternascobe Road, Armagh, N.I.; James Farrell, 137 Leinster Road, Rathmines, Dublin 6; John Flood, 11, Cleggan Park, Ballyfermot, Dublin; Michael Fennelly, 7 Spruce Terrace, Lisduggan Estate, Waterford; Dr. P. J. Flanagan, 32, Clifton Road, Runcorn, Cheshire, England; Eamon Furlong, 98, St. Annes Square, Portmarnock, Co. Dublin; M. Frost, 16, Kent Close, Cheylesmore, Coventry, England; P. Gledhill, Chemical Engineering Section, I.I.R.S., Ballymun Road, Dublin 11; J. R. Heaslip, 13 St. Josephs Drive, Montenotte, Cork; R. D. Hancox, 25, Lime Avenue, Northampton, England; Mrs. Margaret Hoban, 55, Woodlawn Grove, Cork Road, Waterford, Paul Keen, 195, Brighton Road, South Croydon, Surrey, England; Sir G. G. M. Leeds, Roche Bois, Mont Es Tours, St. Aubin, Jersey, C.I.; D. J. Lynch, 6, Seaview Terrace, Donnybrook, Dublin 4; Norman A. Lomas, 11, Dawn View, Cobh, Co. Cork; J. M. Montgomery, 16 Derwent Drive, Bangor, Co. Down, N.I.; Anthony McEvoy, 10, New House, Ballytuckle, Waterford; Raymond McEvoy, 4, Marian Terrace, Cashel Road, Clonmel, Co. Tipperary; Robert J. McMullan, 21, Dalriada Park, Cushendall, Co. Antrim, N.I.; W. F. McLaughlin, 116, Roemill Road, Limavaddy, Co. Derry, N.I.; F. G. McClure, 42, Killeaton Gardens, Derriaghy, Dunmurry, Belfast, N.I.; W. McGonagle, Ballina, Co. Mayo; Michael J. O'Connor, 9, Main Street, Kenmare, Co. Kerry; Diarmaid O Ceilleachain, 12, Sraid na Carraige, Traighli, Co. Chiarraighe; Karl O'Leary, Gouldaroher, Dooredoyle, Limerick; G. F. G. Rivaz, 51, High Street, Hungerford, Berks, England; D. Rooney, Brian Avenue, Marino, Dublin; J. M. Sarney, 22 Ewan Way, Leigh-on-Sea, Essex, England; J. Sennett, Green Road, Multyfarnham, Co. Westmeath; A. M. Toms, "Greenways", Pownall Avenue, Bromhall, Cheshire, England; Dennis Thomas, 4, Coiscorrig Crescent, Loughrea, Co. Galway; Graham Walker, 62, Duncairn Gardens, Belfast, N.I.; Dr. Martin Wilson, Lagan Valley Hospital, Lisburn, N.I.; John White, 9, Mitchells Road, Boherbee, Tralee, Co. Kerry; Philip Wesson, 145 Daton Ave., Sutton Coldfield, West Midlands, England; J. B. Woolman, 21 Durham Drive, Fairfield, Wigston, Leics, England; J. Young, 29, Queensway, Old Dalby, Leicestershire, England.

Further subscriptions will be gratefully received from any society or individual desirous of helping the Committee in its work.

A. E. J. WENT, Chairman.
D. BRENNAN, Hon. Secretary.
1st January, 1979.

IRISH SPECIMEN FISH COMMITTEE

EXPENDITURE AND REVENUE ACCOUNT 1st JANUARY DECEMBER 1977

1976	EXPENDITURE	1977	1976	REVENUE	1977
£570.91	Printing	£648.26	£426.72	Incoming Balance	£195.57
45.47	Medallions etc.	527.57		**GRANTS**	
598.45	Travel and Presentations	515.33	444.53	Bord Failte	500.00
150.00	Refund to I.F.T.	—	500.00	Inland Fisheries Trust	500.00
58.38	Postage	45.50		**SUBSCRIPTIONS**	
35.00	Miscellaneous	42.78	25.00	A.B.U.	
8.61	Bank Charges	6.23	88.15	Angling Clubs	
195.50	Balance	—	177.92	Individual Donations	
			—	Tourist Associations	
				Miscellaneous	
				Bank Overdraft 31/12/77.	
£1,662.32		£1,785.67	£1,662.32		£1,785.67

We have examined all dockets, record books, lodgement and cheque books and certify that the accounts are correct.

Signed : C. P. O'Toole, F. A. Gibson.

WOULD YOU LIKE TO HELP?

IRISH SPECIMEN FISH COMMITTEE

The Committee is a voluntary body and it depends for funds on the subscriptions of well-wishers. The Banker's Order is for the convenience of those who wish to participate in our work. If you cannot assist us financially please help us by making anglers aware of the work we are doing and by recording all specimens and record fish taken by fair angling.

BANKER'S ORDER

To:.

On January 1st each year, please debit my account with the sum of £ being my annual subscription to the Irish Specimen Fish Committee, c/o Allied Irish Banks Ltd., Lower O'Connell Street, Dublin 1.

SIGNED .....

DATE ....

This form may be used by those who wish to pay their subscription through their Bank.

RARE OR UNUSUAL FISH CAUGHT IN IRISH WATERS IN 1977

J. Molloy, Fisheries Research Centre

The following is a list of some rare and unusual fish taken in Irish waters during 1977. A more detailed list will be published in the Irish Naturalist's Journal.

Species	Scientific Name	Locality
Wolf or Catfish	Anarchichus lupus. b.	N. Irish Sea
Torsk	Brosme brosme	Achill
Red mullet	Mullus surmuletus	Wexford, Killybegs
Pelamid	Sarda sarda	Brandon Bay
Greater Forkbeard	Phycis blennoides	Dingle Bay
Blackfish	Centrolophus niger	Smerwick Harbour
Beryx	Beryx splendens	Dingle Bay
Trigger or File Fish	Balistes carolinensis	Dingle Bay

The Committee received details of a Torsk (Brosme brosme) weighing 9 lbs. 13 ozs. caught by Gary Petric, 40 Larkfield Gardens, Belfast 4, Northern Ireland on 20th May 1978 some 22 miles north west of Malin Head, Co. Donegal. This is a rare species for which there is no category in the Specimen Fish List. Six previous captures had been reported, four of which were taken on rod and line. They are as follows :—

890	Bill Rock (off Achill)	2 specimens
968 Sept.	Kinsale	1 specimen *
973 May	Achill	1 specimen *
975 Aug.	Achill	1 specimen *
977 June	Achill	1 specimen *

* taken on rod and line

SPECIMEN "COD FISHES" TAKEN IN IRISH WATERS (1955/1977)

by A. E. J. Went

In previous annual reports of the Committee special notes have been given on a large variety of subjects as follows :—

a. **Report for 1971**, "Some notes on specimen brown trout from Irish waters".

b. **Report for 1972**, "Skates and rays" and "rudd".

c. **Report for 1973**, "Ireland's record and specimen sea trout".

d. **Report for 1974**, "Notes on some specimen cartilaginous fishes". (dealing with the dogfishes, tope, monkfish and blue-sharks).

e. **Report for 1975**, "Specimen coarse fish from Irish waters" (dealing with bream, carp, dace, eels, perch, pike, roach, rudd, rudd/bream and tench).

f. **Report for 1976**, "Specimen skates and rays taken in Irish waters (1956-1975)".

g. **Report for 1977**, "Specimen flatfish and some gurnards taken in Irish waters (1956-1976)".

Some notes were also given on specimen haddock in the report for 1968.

As the weights heretofore have been recorded in pounds and ounces these units have been used throughout this paper. This paper deals with the "cod fishes", that is to say coalfish (**Pollachius virens**), cod (**Gadus morhua**), haddock (**Melanogrammus aeglefinus**), hake, (**Merluccius merluccius**), ling (**Molva molva**), pollack (**Pollachius pollachius**), pouting (**Trisopterus luscus**) and whiting (**Merlangius merlangus**). Present records for these species are as follows :—

Coalfish	24 lb. 7 oz.	26 August 1967	Kinsale
Cod	42 lb.	1921	Ballycottin
Haddock	10 lb. 13½ oz.	15 July 1964	Kinsale
Hake	25 lb. 5½ oz.	28 April 1962	Belfast Lough
Ling	46 lb. 8 oz.	26 July 1965	Kinsale
Pollack	19 lb. 3 oz.	1904	Ballycottin
Pouting	4 lb. 10 oz.	1937	Ballycottin
Whiting	4 lb. 8½ oz.	4 August 1969	Kinsale

COALFISH (1962/1977)

The specimen weight for this species was fixed in 1955 at 15 lb. at which it has remained ever since. A total of 80 specimens have been recorded from 1962 to 1977. The annual maximum weight of specimen coalfish, places of capture and the annual number of specimens are given in Table 1. The heaviest specimen coalfish and the number of specimens for the various localities are given in Table 2. Thirty per cent of the total specimens came from Kinsale. The size distribution of the specimens was as follows :—

	15-17½ lb.	17½-20 lb.	20-22½ lb.	Over 22½ lb.	Total
Number	53	21	5	1	80
Percentages	66.2	26.2	6.3	1.3	100.0

TABLE 1. The annual maximum weight of specimen coalfish, places of capture and the annual number of specimens.

Year	Maximum Weight lb.	oz.	Number of Specimens	Place of Capture of Heaviest Specimens
1962	16	0	4	Kinsale
1963	15	1	1	Valentia
1964	19	0	3	Kinsale
1965	17	3	2	Kinsale
1966	17	6 2/5	1	Kinsale
1967	19	4	15	Kinsale
1968	24	7	7	Kinsale
1969	22	4	20	Belmullet
1970	17	2½	4	Valentia
1971	21	6	7	Kinsale
1972	18	6	3	Achill
1973	19	4	4	Kinsale
1974	15	3½	2	Achill
1975	20	8	3	Kinsale
1976	16	4	1	Cork Harbour
1977	17	7	3	Kinsale
Total	–		80	–

TABLE 2 The heaviest specimen coalfish and numbers of specimens for the various localities

Locality	No. of Specimens	Heaviest Fish lb.	oz.
Cork Harbour	1	16	4
Kinsale	24	24	7
Courtmacsherry	2	15	8
Valentia	7	17	4
Achill	14	19	4
Belmullet	14	22	4
Killala Bay	1	15	1½
Killybegs	15	17	6
Belfast Lough	2	15	5
Total	80		

COD

The specimen weight of this species was fixed at 25 lb. in 1955 and it has remained the same ever since. A total of 112 specimens have been recorded from 1955 to 1977, the annual maximum weight, places of capture and the yearly number of specimens being given in Table 3. In the period 1964 to 1968, inclusive, the annual number of specimens averaged 10, a figure only reached in other years in 1973. The heaviest specimen and the number of specimens for the various localities are given in Table 4. About 48% of all the specimens came from Kinsale, of the remainder only Valentia with 15 (13%) reaching double figures. The size distribution of the specimens was as follows :–

	25-27½ lb.	27½-30 lb.	30-32½ lb.	32½-35 lb.	35-37½ lb.	Total
Number	67	17	17	7	4	112
Percentage	59.8	15.2	15.2	6.2	3.6	100.0

TABLE 3 The annual maximum weight of specimen cod, their places of capture and the annual number of specimens.

Year	Maximum Weight lb.	oz.	Number of Specimens	Place of Capture of Heaviest Specimens
1955	26	12	1	Greystones
1959	25	0	1	Rosslare
1960	28	0	3	Ballycottin
1961	25	0	1	Kinsale
1962	33	8	4	Kinsale
1963	27	0	3	Kinsale
1964	30	0	11	Kinsale
1965	32	4	8	Kinsale
1966	30	2	5	Kinsale
1967	36	14	10	Kinsale
1968	32	4	17	Kinsale
1969	33	4	8	Kinsale
1970	30	0	5	Courtmacsherry
1971	26	14	7	Belfast Lough
1972	30	0	4	Kinsale
1973	33	2	10	Kinsale
1974	29	7	3	Kenmare
1975	36	0	4	Enniscrone
1976	36	0	3	Causeway Coast
1977	34	10	4	Causeway Coast
Total			112	

TABLE 4 The heaviest specimen cod and numbers of specimens for the various localities

Locality	No. of Specimens	Heaviest Fish lb.	oz.
Greystones	6	31	8
Rosslare	5	27	2½
Youghal	1	26	8
Ballycottin	3	28	0
Kinsale	54	30	14
Courtmacsherry	3	33	0
Baltimore	1	26	0
Kenmare	2	29	7
Valentia	15	31	0
Dingle	1	25	0
Fenit	1	25	9
Achill	1	25	4½
Belmullet	1	26	9
Killala Bay (including Enniscrone)	3	36	0
Causeway Coast	6	36	6
Belfast Lough	9	33	4
Total	112	–	–

HADDOCK

In the Committee's Annual Report for the year 1968 notes (compiled by Dr. M. Kennedy) were given on the specimen haddock recorded from 1958 to 1968 inclusive. A portion of the report is worth quoting as follows :–

In recent years, the numbers of haddock reported have been increasing rapidly in spite of increases in the specimen weight. Anglers were asked to send in sets of scales from

specimen haddock and many did so. As a result it was possible to make age and growth estimates for the big haddock. Samples of small haddock were also examined for comparison.

The report went on to discuss the information obtained from reading of the scales of the haddock investigated and mentioned that until 1964 when the specimen weight was only 4 lb. very few claims had been received.

The report continued :—

> The claims, though few, included claims for some very large haddock. In 1965 14 claims were received, and in 1966 35 claims — half of them for haddock between 4 and 4½ lb. In 1967 the specimen weight was increased to 4½ lb. but the number of claims increased to 97. In 1968 the specimen weight was again increased to 5 lb. but the number of claims increased to 298.
>
> Sets of scales from 186 specimen haddock from the north (Causeway) coast which were caught in 1968, were examined. It was found with three exceptions they belonged to two year classes — 1962 (145 fish) and 1963 (38 fish). The specimens taken, in the early part of 1968, were mainly particularly fast-growing 1962 year-class fish. Later in the season, as the fish gained in weight, less rapidly-growing 1962 haddock and fast-growing 1963 haddock reached specimen size.

The report concluded that "for some seasons to come it seems likely that on parts of our coast, there will be a lot of big haddock. The Committee in the circumstances has no choice but to increase the specimen weight for haddock to 7 lb." Dr. Kennedy's forecast of big haddock for some years to come was obviously correct, the actual number of specimens of 7 lb. or above recorded numbering 25, 49, 29, respectively, for the years 1969 to 1971 inclusive.

The annual maximum weight of specimen haddock, places of capture and the annual number of specimens are given in Table 5. A total of 162 specimens weighing 7 lb. or upwards were recorded, the heaviest specimens and the number of specimens for the different localities being given in Table 6. Valentia with 79 specimens weighing 7 lb. or above lead with Kinsale and the Causeway Coast second and third, with 32 and 29 specimens respectively.

Justification for the progressive change in specimen weight from 4 lb. in 1967 to 7 lb. in 1969 is indicated in Table 7, in which the size distributions for certain periods are given. Clearly by 1972 the good year classes of 1962 and 1963 were becoming exhausted, hence the much smaller number of 7 pounders and over recorded for that year onwards. Be that as it may a minimum specimen weight of 7 lb. still attracted an average 5.3 specimens per annum from 1973 to 1977 inclusive.

TABLE 5 The annual maximum weight of specimen haddock, (weighing 7 lb. and upwards), places and the annual number of specimens

Year	Maximum Weight lb.	oz.	Number of Specimens	Place of Capture of Heaviest Specimens
1959	7	10½		Belfast Lough
1961	7	0¾		Belfast Lough
1962	7	9½		Belfast Lough
1963	9	2¾	1	Kinsale
1964	10	13½	2	Kinsale
1965	9	8¾	2	Kinsale
1967	7	5	3	Kinsale
1968	8	10½	17	Causeway Coast
1969	9	14½	25	Valentia
1970	9	8¾	48	Dungarvan
1971	10	0½	30	Valentia
1972	8	1½	8	Valentia
1973	7	8	12	Valentia
1974	7	0	1	Kinsale
1975	8	8	8	Clare Island
1976	9	4	2	Courtmacsherry
Total			162	—

TABLE 6 The heaviest haddock and number of specimens weighing 7 lb. and upwards for the various localities

Locality	No. of Specimens	Heaviest Fish lb.	oz.
Dungarvan	1	9	8¾
Youghal	1	7	8
Cork Harbour	2	7	4
Kinsale	32	10	13½
Courtmacsherry	2	9	4
Valentia	79	10	0½
Clare Island	2	8	8
Belmullet	9	7	8½
Sheephaven	1	7	11½
Causeway Coast	29	8	10½
Belfast Lough	4	7	10½
Total	162		

TABLE 7 Annual numbers of specimen haddock in the various periods or years in the different half pound groups

	HALF POUND GROUPS													
Period/Year	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½
	13.5	1.6	0.8	0.9	0.8	0.1	0.3	0.3	—	0.1	0.1	0.1	—	0.1
	—	4	25	20	7	2	3	—	—	—	—	—	—	—
		—	117	94	56	14	13	1	2	1	—	—	—	—
	—	—	—	—	—	—	17.3	8.7	5.3	1.7	0.3	0.7	0.3	—
	—	—	—	—	—	—	3.5	0.8	0.7	0.2	0.2	—	—	—

HAKE

From 1956 to 1977 only 29 specimen hake weighing 10 lb. (the weight fixed in 1955) and upwards have been recorded. The annual maximum weight, places of capture and the annual number of specimens are given in Table 8. The 29 specimens were recorded from only six localities, as shown in Table 9. All the specimens but one (the record from Belfast Lough) weighed from 10 to 20 lb.

The hake is a southern species so it is somewhat surprising to learn that about three-quarters of all the specimens came from as far north as Belfast Lough, Dungarvan, with only two specimens, was in days-gone-by a famous hake port, an old ballad saying :—

> Enough to make Dungarvan quake,
> With all the hake that's in it.

TABLE 8 The annual maximum weight of specimen hake, places of capture and the annual number of specimens

Year	Maximum Weight lb.	oz.	Number of Specimens	Place of Capture of Heaviest Specimens
1956	15	2¾		Bangor
1961	15	0¾	6	Belfast Lough
1962	25	5½	4	Belfast Lough
1963	10	4	1	Kinsale
1964	13	14	3	Belfast Lough
1965	17	9	2	Belfast Lough
1966	19	12	3	Belfast Lough
1967	16	8½	2	Belfast Lough
1968	19	5	1	Kinsale
1973	17	8	2	Belfast Lough
1975	13		1	Belmullet
1976	12	4	2	Dungarvan
1977	13	0	1	Killala Bay
Total	–	–	29	–

TABLE 9 The heaviest specimen hake and numbers of specimens from the different localities

Locality	Number of Specimens	Heaviest Fish lb.	oz.
Dungarvan	2	12	4
Kinsale	2	19	5
Belmullet		13	1
Killala Bay		13	0
Belfast Lough	22	25	5½
Bangor	1	15	2¾
Total	29	–	–

LING

From 1960 to 1977, inclusive, a total of 137 specimen ling weighing 25 lb. (the specimen weight fixed in 1955) and upwards were recorded. The annual maximum weight of specimen ling, places of capture and the annual number of specimens are given in Table 10. The heaviest specimen ling and the numbers of specimens for the various localities are given in Table 11. Kinsale accounted for 97 (71%) of all the specimens recorded, with Valentia 20 specimens, (14.6%) second but well behind Kinsale. The size distribution of the specimen fish was as follows :—

	25-30 lb.	30-35 lb.	35-40 lb.	40-45 lb.	Over 45 lb.	Total
Number	101	23	7	5	1	137
Percentage	73.7	16.8	5.1	3.7	0.7	100.0

TABLE 10 The annual maximum weight of specimen ling, places of capture and the annual number of specimens

Year	Maximum Weight lb.	oz.	No. of Specimens	Place of Capture of Heaviest Specimens
1960	27	0	2	Ballycottin
1961	36	4	26	Kinsale
1962	43	8	8	Kinsale
1963	30	0	3	Kinsale
1964	42	8	10	Kinsale
1965	46	8	7	Kinsale
1966	32	6	8	Valentia
1967	36	0	7	Kinsale
1968	36	6	13	Kinsale
1969	26	0¾	2	Kinsale
1970	26	8	2	Kinsale
1971	32	12	12	Kinsale
1972	31	0	4	Kinsale
1973	36	4	12	Kinsale
1974	26	12	3	Kinsale
1975	42	8	10	Kinsale
1976	19	12	4	Kenmare Bay
1977	28	0	4	Baltimore
Total	–		137	–

TABLE 11 The heaviest specimen ling and numbers of specimens for the various localities

Locality	Number of Specimens	Heaviest Fish lb.	oz.
Kilmore Quay	1	28	4
Youghal	2	31	0
Ballycottin	4	30	0
Cork Harbour	3	26	0
Kinsale	97	46	8
Courtmacsherry	1	28	0
Baltimore	1	28	0
Castletownbere	1	28	8
Kenmare Bay	4	29	12
Valentia	20	36	0
Clew Bay	2	27	8
Killybegs	1	28	4
Total	137		

POLLACK

A total of 348 specimen pollack have been recorded since 1959, the minimum specimen weight remaining constant throughout the period at 12 lb. The annual maximum weight, places of capture and the annual number of specimens are given in Table 12. The heaviest specimen and the number of specimens for the various localities are given in Table 13. Kinsale lead with 198 specimens (c. 57%), Achill with 31 (c. 9%) specimens being second but again well behind Kinsale. The size distribution of the specimens, in one pound groups was as follows :—

POUND GROUPS

	12	13	14	15	16	17	Total
Number	202	83	40	16	4	3	348
Percentage	58.0	23.9	11.5	4.6		0.9	100.0

'ABLE 12 The annual maximum weight of specimen pollack, places of capture and the apture and the annual number of specimens

Year	Maximum Weight lb.	oz.	No. of Specimens	Place of Capture of Heaviest Specimen
1959	14	8	1	Ballycottin
1960	14	8	2	Kinsale
1961	16	4	10	Kinsale
1962	17	0	16	Kinsale
1963	13	8	5	Valentia
1964	14	0	7	Kinsale
1965	14	1	11	Kinsale
1966	14	12	18	Copeland Islands
1967	17	6	11	Kinsale
1968	14	0	13	Kinsale
1969	15	1¼	18	Achill
1970	16	4	31	Cork Harbour
1971	15	2	26	Kinsale
1972	15	2	28	Clifden
1973	15	1½	34	Causeway Coast
1974	17	6	24	Kinsale
1975	15	2	34	Cork Harbour
1976	16	3	20	Clifden
1977	15	5	39	Kinsale
Total	–		148	–

TABLE 13 The heaviest specimen pollack and the number of specimens for the various ocalities

Locality	Number of Specimens	Heaviest Fish lb.	oz.
Rosslare	2	12	8
Kilmore Quay	1	12	6
Youghal	2	15	0
Ballycottin	6	14	8
Cork Harbour	15	16	4
Kinsale	198	17	6
Courtmacsherry	13	15	0
Kenmare Bay	1	12	9
Valentia	13	14	10
Dingle	12	14	10
Smerwick and Brandon Bays	5	16	0
Clifden	7	16	3
Achill and Clare Islands	31	15	5
Belmullet	9	13	9½
Killala Bay (including Enniscrone)	6	14	8
Killybegs	12	14	7
Causeway Coast	12	15	1½
Copeland Islands	1	14	12
Belfast Lough	2	14	3½
Total	148	–	–

POUTING

Forty-eight specimen pouting have been recorded since 1955, the minimum specimen weight remaining constant thereafter at 3 lb. The annual maximum weight, places of capture and the annual number of specimens are given in Table 14. The heaviest specimen and the number of specimens are given in Table 15. Valentia and Belfast Lough between them accounted for 27 specimens out of the total of 48, Kinsale being third with 7 specimens. The size distribution of the specimens was as follows :—

QUARTER POUND GROUPS

	3-3¼ lb.	3¼-3½ lb.	3½-3¾ lb.	3¾-4 lb.	4-4¼ lb.	4¼-4½ lb.	4½-4¾	Total
Number	22	16	5	1	3	–	1	48
Percentage	45.8	33.3	10.4	2.1	6.3		2.1	100.00

TABLE 14 The annual maximum weight of specimen pouting, places of capture and the annual number of specimens.

Year	Maximum Weight lb.	oz.	No. of Specimens	Place of Capture of Heaviest Specimen
1955	3	10	1	Kinsale
1959	3	10½	2	Belfast Lough
1961	3	8⅛	9	Belfast Lough
1962	4	1½	7	Belfast Lough
1963	3	4	2	Valentia
1964	3	13	2	Valentia
1965	3	4	3	Kinsale
1966	3	5½	4	Belfast Lough
1967	4	0	1	Valentia
1968	4	9	2	Belfast Lough
1971	3	6	1	Valentia
1972	3	4	3	Fenit
1973	3	4½	2	Valentia
1974	3	4½	2	Belfast Lough
1975	4	0	2	Courtmacsherry
1976	3	1½	3	Ballinaskelligs
1977	3	4	2	Baltimore
Total	–		48	–

TABLE 15 The heaviest pouting and the number of specimens for the various localities

Locality	Number of Specimens	Heaviest Fish b.	oz.
Hook Head	1	3	0
Ballycottin	2	3	8
Kinsale	7	3	6
Courtmacsherry	1	4	0
Baltimore	3	3	4
Kenmare Bay	1	3	0½
Ballinaskelligs	1	3	1½
Valentia	15	4	0
Fenit	1	3	4
Achill and Keem Bay	2	3	3¼
Causeway Coast	1	3	0
Belfast Lough	12	4	9
Copeland Islands	1	3	2½
Total	48	–	

WHITING

Ninety-one specimen whiting have been recorded since 1957, the minimum specimen weight remaining constant throughout the period 1957/77 at 3 lb. The annual maximum weight of specimen whiting, places of capture and the annual numbers of specimens are given in Table 16. The heaviest specimen and the number of specimens for the various localities are given in Table 17. Kinsale predominated with 56 specimens out of a total of 91, the second locality (Clare Island) being far behind with only 11 specimens. The size distribution of the specimens in quarter pound groups was as follows :—

QUARTER POUND GROUPS

	3-3¼ lb.	3¼-3½ lb.	3½-3¾ lb.	3¾-4 lb.	4-4¼ lb.	4¼-4½ lb.	4½-4¾ lb.	Total
Number	38	15	12	10	11	3	2	91
Percentage	41.7	16.5	13.2	11.0	12.1	3.3	2.2	100.0

TABLE 16 The annual maximum weight of specimen whiting, places of capture and the annual number of specimens

Year	Maximum Weight lb.	oz.	No. of Specimens	Place of Capture of Heaviest Specimens
1957	4	4	2	
1961	4	5½	1	
1962	3	12	3	
1963	3	2	1	
1964	3	2¼	1	
1965	3	1	2	
1966	3	7	7	
1967	4	2	16	
1968	4	8	11	
1969	4	8½	4	
1970	3	12	4	
1971	3	15¼	2	
1972	3	8	6	
1973	4	0	10	
1975	4	3	9	
1976	4	6	5	
1977	4	0	7	
Total			91	

TABLE 17 The heaviest whiting and the number of specimens for the various localities

Locality	Number of Specimens	Heaviest Fish lb.	oz.
Lambay Island	1	4	4
Dungarvan	2	3	12
Youghal	1	3	5½
Ballycottin	1	3	15¼
Cork Harbour	1	3	1
Kinsale	55	4	8½
Courtmacsherry	2	3	4
Kenmare Bay	1	3	2
Valentia	1	3	4½
Clare Island	11	4	6
Achill	3	3	10
Belmullet	2	3	13
Causeway Coast	2	3	8
Cushendall	1	3	8
Belfast Lough	7	4	2
Total	91	–	

NUMBER OF SPECIMENS ON THE DIFFERENT COASTS AND CENTRES

The relative number of specimens taken —

a. on the south and south-west coasts (Rosslare to Shannon Estuary) and
b. Elsewhere around the Irish coasts.

are given in Table 18.

With the exception of the coalfish and hake more specimens came from the south and south-west coasts than elsewhere. The position of the coalfish is not surprising because the species is known to be a more northerly one than, for example, the pollack but the hake is surprising inasmuch as such a big proportion of the specimens came from Belfast Lough, including the record fish taken in 1962.

Of all the centres Kinsale accounted for 467 specimens (46.5%), out of 1005 belonging to the eight species in question. Valentia with 149 specimens (14.8%) and Belfast Lough with 58 (5.8%) were second and third, respectively.

It must be realised that this distribution is much influenced by the intensity of fishing in the different areas, that in Kinsale being much greater than in any other centre around the Irish coast.

TABLE 18 Percentages of specimen "codfishes" taken on the south and south-west coasts (Rosslare to the Shannon Estuary) and elsewhere in the Irish coasts.

Coasts	Coalfish	Cod	Haddock	Hake	Ling	Pollack	Pouting	Whiting
South and south-west	42.5	76.8	72.4	13.8	97.8	77.0	66.7	71.4
Others	57.5	23.2	27.6	86.2	2.2	23.0	33.3	28.6

SOME OBSERVATIONS ON THE LIFE HISTORY OF BASS DICENTRARCHUS LABRAX (L)

by P. Fitzmaurice

INTRODUCTION

For many years, bass fishing has been very popular with a great majority of shore anglers. Since the 1950's, an increasing number of tourist anglers have been coming to Ireland specifically for bass. During this time also, a commercial fishery for the species has sprung up. In view of the important role that bass were occupying, the Inland Fisheries Trust commenced research on the species in order that its life history in Irish waters could be determined.

Bass is a southern European/north African species and Ireland is near the northern limit of its range. Indeed, its geographical range in Ireland shows clearly that the species is more abundant in the southern part of the country. They are much more abundant in coastal areas south of a line drawn approximately from Galway to Wexford than to the north of this line. Their frequency of occurrence in these areas appears to be temperature dependant, sea temperature on the southern coast of Ireland being on average 2°C warmer than the sea temperatures on the northern coasts (Lumb. 1961).

HABITAT

In spring, summer and autumn, bass are found in estuaries and creeks, in the bays into which rivers flow and on sandy beaches, especially in the vicinity of river mouths, streams and headlands. They occur at times in very shallow water. They also shoal at the surface in persuit of small fish bait, at a distance of a mile or more from land in some places. Juveniles are found in estuaries, pills, creeks and lagoons, particularly during the spring, summer and autumn.

TOLERANCE OF BRACKISH AND FRESH WATERS

The River Shannon is tidal to just above Limerick, some 45 miles from the open sea (taking Kilcredaun Point as marking the beginning of the estuary proper). Bass occur as far up as the entry point of the River Fergus, some 30 miles from the sea. The water here is strongly brackish. In the Waterford River, bass are found at least as far up as Waterford town. 15 miles from the sea where the salinity at H.W. is about 18‰.

In the River Slaney, small bass have occasionally been caught in the fresh water at the head of the tide at Enniscorthy, 17 miles from the sea. Bass are quite plentiful at times in the Slaney estuary at Killurin Bridge, 10 miles from the open sea. Here the salinity on Spring tides in summer varies from 2‰ at L.W. to 5-6‰ at H.W.

The River Ilen in West Cork is tidal as far as Skibbereen, 8 miles from the sea, a point to which in summer, bass often ascend with the tide. On the ebb, they may remain in a pool about a mile below the two where, at low water, the salinity is only 0.05‰. They can be caught on rod and line in this pool.

It is evident that bass can adapt readily and without difficulty to the full range of salinities from open sea (35‰) to fresh water. In long estuaries of large rivers, however, they probably do not ascent much beyond the point where crab (Carcinus), shrimp (Crangon) and similar foods cease to be plentiful.

SPAWNING AND EARLY DEVELOPMENT

SIZE AND AGE AT MATURITY

Table 1 gives details of spawning condition of bass in the critical size-range which covers the largest immature and the smallest mature fish. Males were found to be mature at fork-lengths of 31.7 cm and upwards, females at fork-lengths of 35.5 cm and upwards.

The ages at which the indicated minimum lengths at first spawning are usually attained in Irish waters are 4-7 years for males and 5-8 years for females.

Females outnumber males in the spawning stock in the ratio of about 2 to 1.

TABLE 1 Size and Age of Irish Bass at Maturity

	Immature			Mature		
	Fork-length (cm)	Age	Year Examined	Fork-length (cm)	Age	Year Examined
Males	30.5	5+		31.7	7	
	All smaller fish	–		31.7	7	
				34.6	7	
Females	30.5	5+		34.3	5+	1949
	31.1	5+		35.5	9	1968
	31.7	5+	1953/4	36.2	5+	1953
	32.8	5+		38.0	7	1967
	33.0	5		38.7	9	
	34.3	5	1953	39.3	9	
				39.3	9	1968
				40.0	9	

SPAWNING SEASON

Examination of gonads in large bass indicated that spawning time occurred mainly in the months of May and June. Running ripe males have been found as early as February on the Kerry coast and as late as June on other areas. By late June most males are spent or partly spent.

It is seldom that females are seen running ripe, although a small female caught in Waterford in 1968 was seen to extrude one or two ripe eggs. Professional fishermen in Youghal have reported occasionally catching female bass "from which the spawn was dripping".

Gonadal examination of females at spawning time showed that some of the large ovaries contained appreciable amounts of loose clear eggs in the lumen, along with opaque eggs of varying sizes. Analysis of the results indicate that female bass do not ripen all their eggs together and shed them within a short period. It appears that they are probably fractional spawners.

The earliest and latest dates on which bass eggs were taken in tow-nets were 7th May and 12th June, but these dates happened to be earliest and latest dates on which tow-netting took place in known spawning areas, so it is conceivable that the spawning season could extend beyond this period. The capture of post-larval bass at the Eddystone by Russell (1935) as early as 17th March, 1931, indicates that in some years spawning occurs in March off Plymouth.

Sea surface temperatures, when bass eggs were taken in tow-nets on the Irish coast ranged from 10 to 15°C, mostly 10-12°C. Thus it is possible that spawning on the Irish coast, especially in Kerry, begins in April and perhaps even earlier in some years.

FECUNDITY

Fecundity determinations were made for only two females bass, with the following results:

(1) Bass caught at Stradbally (Dingle Peninsula, Co. Kerry) 20th March, 1968. Fork-length 48.2 cm, weight 1389 g. Gonads 7.91% of total weight of fish. Fecundity 409.700 eggs (293,000 eggs per kg of female).

(2) Bass caught at Bunmahon (Co. Waterford) 1st May, 1968. Fork-length 35.5 cm, weight 567 g. Gonads 11.25% of total weight of fish. Fecundity 203,100 eggs (358,000 eggs per kg of female).

Only eggs which were likely to ripen and be shed in the current spawning season were counted.

SPAWNING PLACES

Bass have spawned in the aquarium at Naples and their eggs have been found in plankton in the Mediterranean (Raffaele, 1888; Bertolini, 1933). Bass have also spawned in the aquarium at Plymouth and their eggs and the resulting young stages have been described by Jackman (1954).

Hitherto, however, the eggs of bass do not appear to have been found on the coasts of Britain or Ireland. The only young stages recorded were 14 post-larvae from 4 to 7.5 mm long, taken in the Eddystone area in the years 1925, 1926, 1931 and 1933, with dates of capture between 17th March and 4th June (Russell, 1935).

As part of a programme of research on the biology of bass in Irish waters, tow-netting for bass eggs was carried out in the years 1957-1970 inclusive. It was felt that places where bass assemble in numbers might also be places where they spawn.

Table 2 gives the results of tow-netting carried out at various stations around the Irish coast between 1967 and 1970. Bass eggs were obtained at five of these stations. Three were in or near river mouths, namely at the mouth of the Waterford River (1970), in the estuary of the Cork Blackwater at Youghal (1967, 1969, 1970), and at Cromane near the head of Dingle Bay (1970). In each of these places, eggs were taken on the late flood or early ebb when the salinity was high (30‰ or over). The eggs were taken near the surface. Nets were also fished at lower levels, but did not take eggs when none were being taken at the surface. The tides were very strong at all three stations. The remaining two stations where bass eggs were obtained were on the open coast. These stations were the Splaugh Rock, Co. Wexford (1967, 1970), close to land where there are swift tides running over reefs and sand banks, and Blasket Sound, Co. Kerry (1970), where swift tides run over a shoal projecting outwards from the tip of the Dingle Peninsula.

TABLE 2 Results of Tow-Netting for Bass Eggs on the Irish Coast 1967-1970

		TOW-NETTING			BASS	
Place	Salinity ‰	Year	Date	No. of Days	No. of Eggs	No. of Days
Dublin Bay	33.9-34.5	1968	12 June	1	—	—
Splaugh Rock	32.1-34.5	1967	1-2 June	2	4	2
		1970	4-5 May	2	6	2
Waterford River	27.6-34.85	1970	5-13 May	3	2	1
Dungarvan Bay		1967	15 Apr.-17 May	5	—	—
		1969	7 May-11 June	12	—	—
Youghal	24.0-34.2	1967	8 May-1 June	5	25	5
		1969	12 June	1	1	1
		1970	7-8 May	2	6	2
Cork Harbour	23.0-31.3	1968	24 Apr.-5 June	6	—	—
Baltimore	33.9-35.0	1967	6-7 June	2	—	—
Cromane	29.4	1970	28 May	1	3	1
Blasket Sound	35.2	1970	11-27 May	7	26	3
Shannon Estuary	30.4-33.0	1970	18-25 May	6	—	

One egg taken at Youghal and one egg taken at Cromane contained outlined embryos. Otherwise all the bass eggs obtained were in an early state of development and had been recently shed.

Tow-netting for bass eggs has, in fact, been carried out unsuccessfully at two of the places where spawning is considered likely to take place, namely Dublin Bay and at the mouth of the Shannon (Table 2). Tow-netting at Dublin was, however, carried out only on one day (12th June, 1968) and is therefore inconclusive; while the mouth of the Shannon is too vast an area to explore thoroughly in 6 days for eggs so relatively scarce as those of bass.

It is not considered likely that much spawning, except perhaps of a limited and sporadic nature, occurs at Dungarvan; nor in the inner portion of Cork Harbour, where the salinities are, in any case, rather low.

In order to get some idea of the drift of eggs and larvae from spawning areas, a few surface drift bottles were released in 1970 in Blasket Sound and at the Splaugh Rock, the two open-coast stations where eggs were obtained.

Two out of seven bottles released in Blasket Sound were found and reported. Both were picked up within a few miles of each other near Ballyheige, Co. Kerry, in the angle formed by Kerry Head and Banna Strand. They had drifted about 35 miles over a maximum period of five and six days respectively.

Since hatching of bass eggs takes place in about 4 days, young stages resulting from spawning in Blasket Sound would have reached the shallows north of Tralee Bay by the time they were ready to feed.

The release of drift bottles at the Splaugh Rock yielded no useful results. Of 12 bottles released during the period 13-17th July, 1970, two were picked up on the west coast of Anglesey in mid-August, 1970, and a third was found ashore in the Menai Straits in November, 1970. Subsequent release of drift bottles at the Tuskar Rock in 1973 confirmed these results. It seems likely that objects set adrift near the Splaugh would be swept north and south for some time by the swift tides between the Wexford coast and the Tuskar Rock and that there would be some movement in towards the Wexford coast as well as out across the Irish Sea. Bass fry from 2.5 to 3.9 cm. long which were obtained on the Wexford coast at Rosslare Strand, Cahore and Courtown Harbour (Bracken & Kennedy, 1967) were probably derived from spawning in the Splaugh area or off the mouth of Wexford Harbour.

Drift bottles released in and outside Dungarvan Bay in 1971 and 1972 showed that those released in the Bay itself tended to move in a N.E. direction and were washed ashore on the Waterford coast. Those released outside the Bay showed a westward drift towards the Cork and Kerry coasts.

EGGS AND LARVAE

Bass eggs taken in the tow-net hauls were brought back alive to the laboratory for hatching. The bass eggs obtained on the Irish coast ranged from 1.20-1.32 mm. in diameter; the majority lay within the range of 1.25-1.32 mm. The egg capsule has no distinguishing features and the perivitelline space is small. In recently shed eggs, 2-4 small oil-globules were present. During development these oil-globules fused together, resulting in a single globule, being 0.36-0.42 mm. in diameter (Fig. 1A). The colour of this globule was sometimes pale yellow in the early stages of development but later became colourless. The Irish eggs were thus larger than those described by Bertolini (1933), smaller than those described by Jackman (1954), were similar in size to unfertilized eggs described by Holt and Byrne (1898).

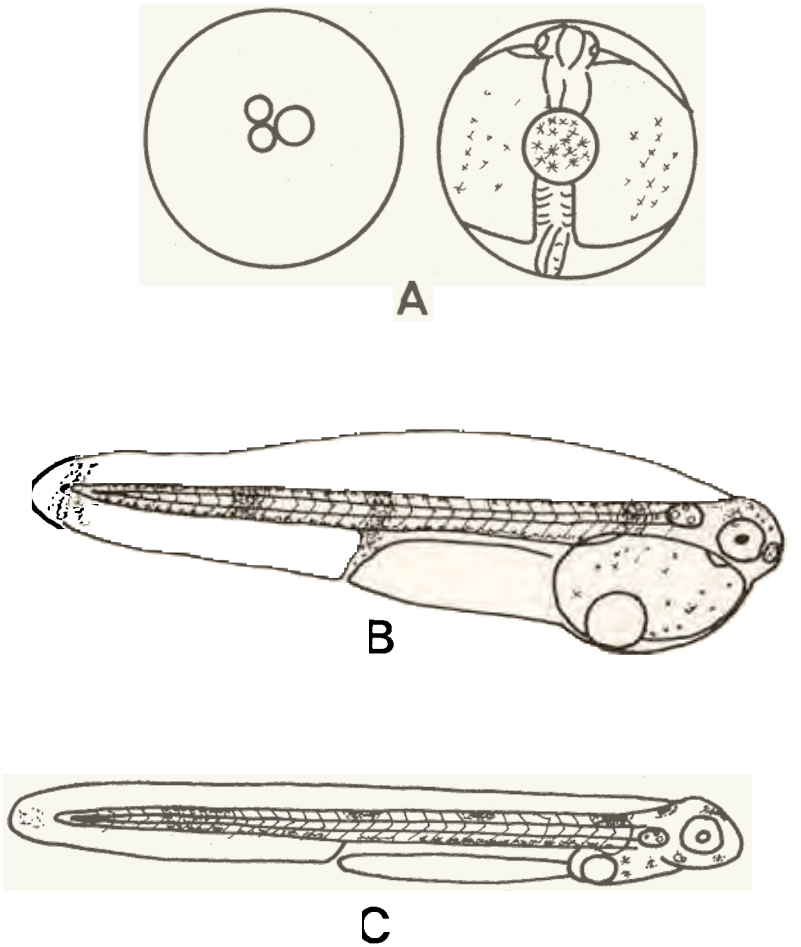

Fig. 1 Eggs and larval bass; A, Eggs in early and late stages of development, 1.28mm diameter; B, larvae hatched from egg, less than a day old, 4.45mm; C, larvae 3 days old, 5.0mm.

A distinctive feature of the egg is the presence of yellow and black chromatophores on the yolk and on the oil-globule. The advanced embryo shows pigment banding which is a feature of the larvae. The eggs normally take 3-4 days to hatch.

The length of the newly hatched larvae (Fig. 1B) is normally somewhat less than 4 mm. The body pigmentation is strongly marked with yellow and black chromatophores which are concentrated in the areas behind the head, over the anus and mid-way along the tail. As further development takes place, the banding disappears, the melanophores intensify and are reduced in numbers. Fig. 1C shows a bass larvae 3 days old with yolk almost completely absorbed. By the time it reaches 23 mm. in length, the fins are fully formed. Russell (1935) and Russell & Demir (1971) have taken post-larval bass in the vicinity of the Eddystone and Plymouth. Neither larvae or post-larvae have ever been taken on the Irish coast.

GROWTH OF BASS

JUVENILE BASS

The smallest examples of bass obtained to-date were fry of 2.5 cm. caught in a fine-meshed beach seine on the strand at Rosslare in July, 1961, and several examples of the same size hand-netted, along with 0-group mullet, in a little tidal stream flowing into Courtown Harbour, Co. Wexford in August, 1965 (salinity 3.5‰). At this stage, bass fry are still translucent, with a good deal of dark pigment internally about the backbone. Somewhat larger fry (3.5-3.9 cm.) were taken in a fine-meshed beach seine at Cahore, Co. Wexford, in August, 1961 (Bracken & Kennedy, 1967). Samples of small bass 2.5-4.2 cm. were also taken in Rogerstown estuary in 1973 and 1974.

At what stage of development the young bass enter the nursery areas and whether they do so passively or actively are not known at present. It seems likely, however, that they arrive in the nursery areas while still quite small. Since the young fry of bass are translucent and often swim deep, they are much more likely to escape notice.

In Ireland, young bass, especially 0+, 1+ and 2+ fish, occur mainly in the lower middle reaches of estuaries and in tidal creeks, pills, lagoons and backwaters, i.e., in shallow, sheltered inshore situations. Some of these situations are sandy-bottomed inlets in which salinity is fairly high. Others are brackish with a muddy bottom, where the water is usually turbid. Typical of the latter type of situation is a pill opening off the estuary of the Cork Blackwater near Ferry Point (opposite the town of Youghal) and the estuary at Rogerstown.

Older juvenile bass, fork-length 20 cm. to about 35 cm, often occur in the same places as fry and young juveniles. However, they also occur in the lower reaches of estuaries and along sheltered beaches in company with adult fish. They seldom occur in any numbers on the surf beaches where so many large bass are caught. The shoaling bass, attacking herring fry or sprat at some distance from shore, are exclusively adult fish. The juvenile bass are gregarious and travel in schools.

AGEING

Scales and operculars (gill cover bones) can be used to age bass. The scales of bass show well defined annuli. False checks are infrequent, are seldom complete and are not recorded on the opercular bones of the same fish. The annuli on scales and operculars can readily be matched with each other because of the variation in the spacing between annuli due to changes in growth rate with age (see Plate 1).

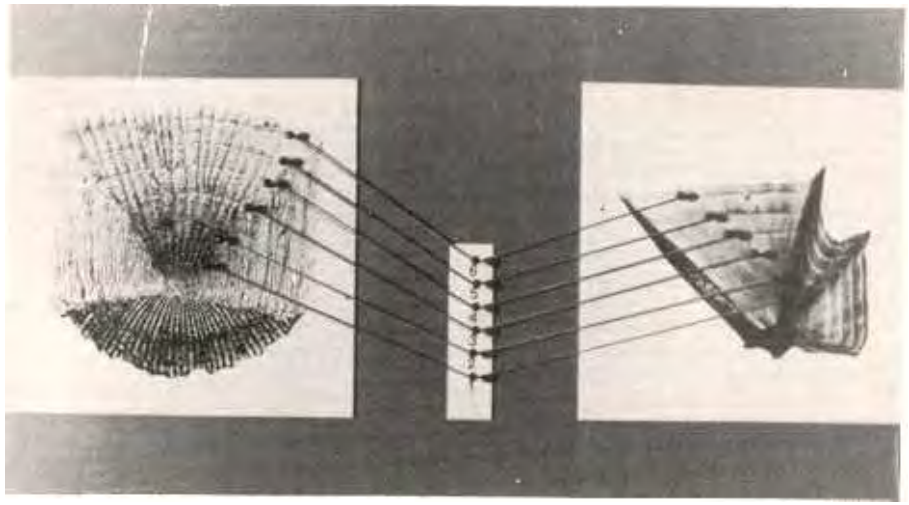

Plate 1 Scale and opercular bone of a bass aged 6 + caught in September 1972, length 44.5 cm. The first annular is barely visible on the opercular.

At a fork-length of 2.5 cm, only the nuclei of the scales have been developed on bass fry and they have not been developed on all parts of the body. By the time the fry have attained a fork-length of 3.7 cm, however, the scale covering is complete and the scales are fully formed, with several circuli present.

It was found, however, that length-for-age estimates directly back-calculated from the positions of the annuli along the oral axis of the scales of large bass were in good agreement with the actual lengths of young fish of corresponding ages. The growth of bass was accordingly calculated on the assumption that scale growth along this axis was isometric.

In analysing the growth data derived from scale examination, the following points were taken into consideration: (1) differences in growth between the sexes (2) differences in growing conditions in different years and (3) individual variation in growth rate.

The largest bass whose scales were examined was a female weighing 17 lbs. 1¼ ozs. (7747 g.) taken at Whiting Bay, Co. Waterford, in April, 1977 and aged 21 years.

All the bass of over 10 lbs. (4536 g.) which were examined were also females. The largest male bass examined was taken on the Mayo coast on 6th June, 1967. It measured 68.6 cm. fork-length and weighed 8 lbs. 15 ozs (4054 g.). It had large, ripe milts. The scales examined had replacement centres and showed 16 years post-replacement growth; the estimated age was 19 or 20 years. Other large Irish male bass examined included the following :—

(a) Fork-length 62.2 cm, weight 2835 g. age 16+, Clifden, Co. Galway, July, 1952;
(b) Fork-length 59.7 cm, weight, 2608 g, age 14+, Youghal, Co. Cork, July, 1952. A few other male bass examined weighed between 2000 and 2250 g. In general, however, most Irish bass of upwards of 1500 g. were females.

In view of the marked disparity in the size of the sexes, the growth rates of male and female bass were separated. The males, as a rule, do not grow as fast as the females. Moreover, they tend to be shorter-lived.

Scale examination did not indicate any very obvious differences in the growth rate of bass from different parts of the Irish coast. The distribution of captures of specimen bass taken during the years 1958-1978 inclusive was analysed (Table 3). It was found that, out of a total

of 276 large bass, 133 had been caught in the south-western region and 85 in the south-eastern region. As the majority of bass in the former region are taken by beach fishing with natural bait and the majority of bass in the latter region are caught by spinning with artificial baits, the discrepancy in the numbers of big bass caught in these two areas probably does not mean very much, since beach fishing is the method most likely to take the very big fish. Also, more autumn and winter fishing is done in the south-western region and therefore the condition factor of the bass caught there tends to be higher (summer bass are rather lean). The small number of specimen bass (only 19) recorded from the east and north coasts is probably only a reflection of the rather sparse population of bass on these coasts. In the circumstances, it was decided not to separate bass on a regional basis when summarizing the growth data.

TABLE 3 Specimen bass taken on rod and line on the Irish coast 1958-1978 inclusive

	WEIGHT-GROUP					
Region	10-11 lb. (4536-4990 g)	11-12 lb. (4990-5443 g)	12-13 lb. (5443-5897 g)	13-14 lb. (5897-6350 g)	14 lb. or over (6350 g)	Total
East (Clogher Head to N. of Wexford Hbr.)	13	5	—	1	—	19
South-east (Wexford Hbr. to Cork Hbr. inclusive)	54	18	9	3	1	85
South-west (W. of Cork Hbr. to Shannon)	76	36	16	2	3	133
West (Shannon to Clew Bay)	8	5	4	2	1	20
North	9	4	4	1	1	19
Totals	160	68	33	9	6	276

However, while the scales examined did not afford any definite indications of regional differences in the growth of Irish bass, there were indications that bass grew faster in some years than in others. On some scales (Fig. 2) the increments made during fine summers (1949, 1955, 1959, 1968) were noticeably wide, while the increments made in poor summers (1963) were noticeably narrow. It was also noted that 0-group bass of the 1959 year-class were larger than average at the end of the first growing season.

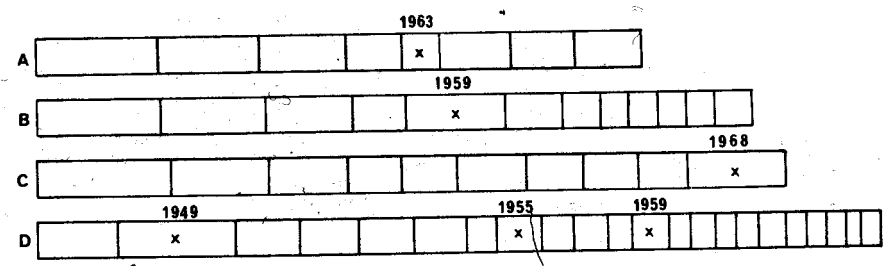

Fig. 2 Positions of annuli as marked on measuring slips placed on the magnified images of four bass scales (reading from left to right from nucleus to scale-edge); A, 1959 year-class, caught at Dungarvan in June, 1967; B, 1955 year-class, caught at Dungarvan in June, 1967; C, 1959 year-class, caught on the Antrim coast in October, 1968; D, 1948 year-class caught at Tramore, Co. Waterford, in April, 1970. Increments larger or smaller than would be expected are marked X.

Accordingly, bass other than specimens were separated into two groups. Bass caught during the years 1947-63 which made all or most of their growth during the 1940's and 1950's and the 1959 year-class, which made up nearly half the stocks of adult bass present on the Irish coast in 1967 and 1968. It will be seen from Fig. 3 that the 1947-63 bass made better growth than bass of the 1959 year-class, due mainly to lower than average sea temperatures in the early 1960's. Data on the growth rate of Moroccan bass (Gravier, 1961) are included for comparison.

Segerstrale (1932) showed that, in the Gulf of Finland, there was a correlation between summer temperatures and the growth of fresh water bream. It seems reasonable to assume that the growth of the bass, a southern species, would be similarly influenced by summer temperatures.

Monthly temperature data for the years 1940-70 showed considerable fluctuation from year to year. Generally, July-August temperatures of each year were higher and conditions were probably more favourable for growth. During the 1940's and 1950's, the overall mean monthly temperatures were higher than in the 1960's and this is reflected in the growth pattern of the bass. The good growth years of 1949, 1955 and 1959 were characterised by high temperatures in July and August.

High or low inshore water temperatures in April and May probably result in early or late spawning. This would affect the condition of the adults and also the length of the first growing season for the fry. The juvenile bass probably make fast growth from the end of May onwards, but the adults not until the beginning of July. Consequently, high average temperatures for a season give good brood years and good growth years.

In Irish waters the maximum length-increments are made during the first 5-7 years of life. Thereafter there is an appreciable reduction in length increments which is often quite marked on individual scales. After 10-13 years of life there is usually a further sharp reduction in length-increments, though during this stage in the life of a bass the small annual increase in length may mean an appreciable gain in weight.

In Ireland, at the northern limits of its geographical distribution, the bass is clearly a slow-growing, long-lived fish. Routine sampling produced bass up to 19 years old, whole of the specimen bass whose scales were examined, 32 were aged 20 years or more (two were aged 24 years). Examination of some sets of scales from English bass indicated a rate of growth similar to that of Irish bass.

Boulineau-Coatanea (1970) states that in French waters bass may attain an age of 30 years and bass of 8-10 kg. may be 20-25 years old. She gives the average weight of a 5 year old bass as 500 g. and states that a bass of 4 kg. is probably 15 or 16 years old. This is not very different from growth in Irish waters.

Towards the southern limit of their geographical range, bass appear to grow faster and have a shorter life-span. Gravier (1961) gives details of growth on the Atlantic coast of Morocco. He examined bass up to 87 cm. total length, but his oldest fish was only 13 years of age.

Fig. 3 compares the growth of Irish and Moroccan bass. The growth of bass in Morocco is faster from the beginning than that of Irish bass. The shape of the growth curves for the two populations is also different. If length is plotted against age, the regression is nearly a straight line for Moroccan bass, but a strongly curved line for Irish bass.

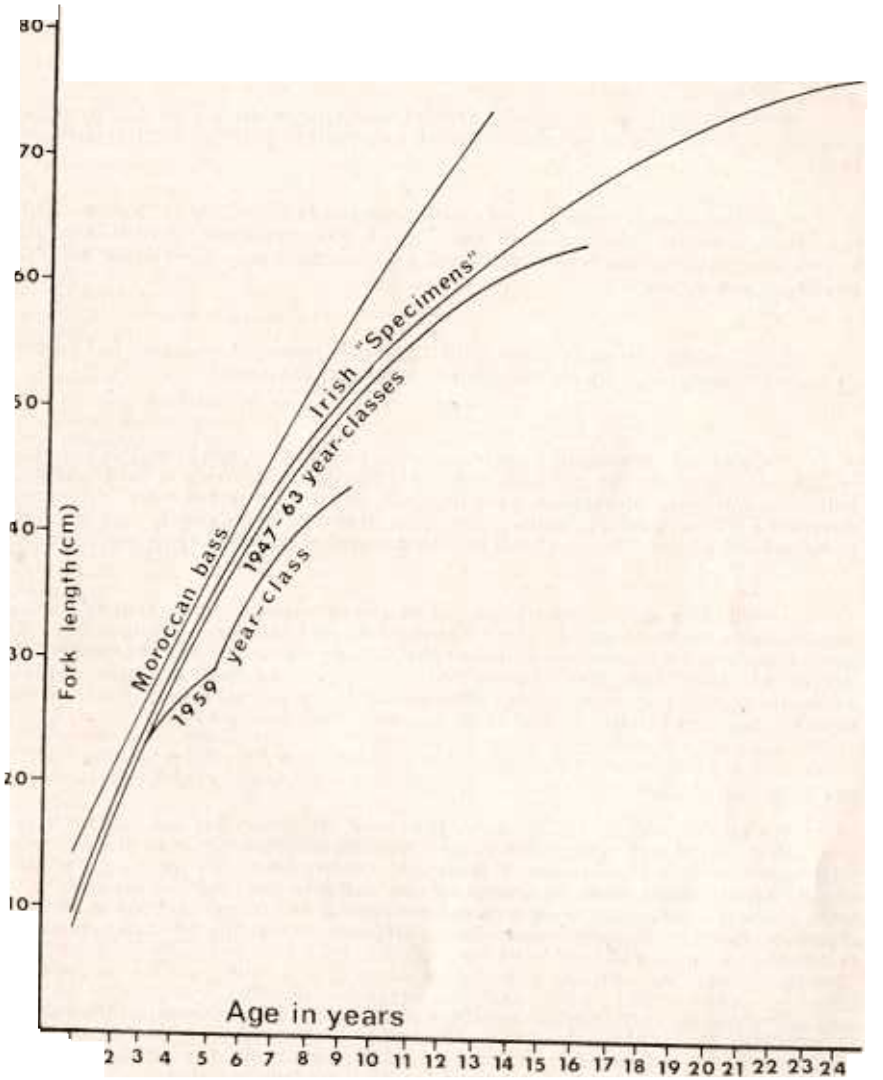

Fig 3 Comparison of mean growth of Irish and Moroccan bass.

FOOD

FOOD OF JUVENILES

In France, the bass is cultured and the very early stages fed on rotifers (**Brachionis plicatalis**) and ciliates (**Fabrea salina**). The later stages fed on **Artemia** and **Temora** (Barnabé 1974).

No information is available about the diet of larvae and post-larvae and very small fry of bass, as no examples were examined. The stomach of a few 0-group fry 2.5-6.35 cm. fork-lengths were analysed and found to be feeding on copepods, polychaete larvae, adult diptera, gammarids and mysids.

The stomach contents of a sample of 32 juvenile bass aged 1+ caught in a pill opposite the town of Youghal contained mainly shrimps (**Crangon**) and mysids.

The stomach contents of juvenile bass aged 1+ and 4+ caught at various times in a little muddy creek entering the pill were examined. The dominant foods in these bass were the burrowing amphipod **Corophium volutator** and the small, brackish-water ragworm **Nereis diversicolor**. They had also eaten some small **Carcinus** and **Crangon** and on occasional gammarid and isopod. The same kinds of food occurred in bass of all age groups from 1+ to 4+.

Juvenile bass aged 3+ were taken in two other situations – Back Strand, Tramore and Woodstown in the lower reaches of the Waterford River. Conditions at these stations differed from those in the Pill at Youghal, in that the bottom was sandy instead of muddy and the salinity was fairly high. The Tramore and Woodstown bass held sand eels, clupeoid fry, unidentified small fish, small shore crabs (**Carcinus**) shrimps (**Crangon**), prawns (**Palaemon serratus**), lugworm (**Arenicola**) and white ragworm (**Nephthys sp.**).

FOOD OF ADULTS

In places such as the Splaugh Rock (Wexford), Dungarvan Bay and Youghal Bay, where bass "shoal" at the surface in persuit of small fish, shoaling may occur at certain stages of the tide for several days in succession if favourable weather conditions continue. The stomachs of bass have been examined on these occasions and have been found to contain very little apart from the bait-fishes being attacked – herring fry (**Clupea harengus**) and/or sprat (**Sprattus sprattus**) in most cases, though occasionally sand eels (**Ammodytidae**) were present.

Near the tip of the Cunnigar sandspit in Dungarvan Bay is a sand bank on and in which, in September and October, large shoals of lesser sand eel **Ammodytes tobianus** gather to spawn. The concentration of sand eels attract many bass to this bank. As might be expected, these bass when examined, hold mainly sand eels, though some shrimps and crabs also occur in them.

When there are no concentrations of bait-fishes, adult bass caught along beaches and in estuaries have a different and more varied diet. Table 4 gives details of the stomach contents of 103 such fish. It will be seen that, in terms of frequency of occurrence, shore crabs, shrimps (**Crangon**) and small plaice and flounders, in that order, were the most important foods. Sand eels also occurred in fair numbers, though only in a few bass. The large isopods **Idotea baltica** and **I. linearis** occurred in only a few bass, but they were present in large numbers in these bass, which were caught in three localities:– Blackhall Strand, Co. Wexford; the Dingle Peninsula and the Clare coast, Lugworm occurred only in the bass from Dublin Bay which were caught in a place where lugworms are particularly plentiful.

TABLE 4 Food of adult bass. Stomach contents of 103 "non-shoaling" bass, various localities

Type of Food	No. of Bass	Total No. of Organisms
Sea Trout (Whiting), *Salmo trutta*	1	1
Sand eels (Ammodytidae)	6	75
Herring fry and/or sprats (Clupeidae)	8	18
Flounders and/or plaice (young) (Pleuronectidae)	15	33
Brill (young), *Scophthalamus rhombus*	1	3
Blenny *(Blennius pholis)*	1	1
Butterfish *(Pholis gunnellus)*	1	1
Stickleback *(Spinachia)*	1	1
Sea scorpion *(Taurulus bubalis)*	1	1
Unidentified fish	4	9
Shore crabs *(Carcinus)*	61	198
Edible crabs *(Cancer)*	3	5
Swimming crabs *(Portunus holsatus)*	2	18
Hermit crabs *(Pagurus sp.)*	2	2
Prawns *(Palaemon serratus)*	4	20
Shrimps *(Crangon)*	22	120
Hippolyte sp.	1	1
Mysids	1	Many
Idotea baltica and/or *I. linearis*	8	205
Lugworm *(Arenicola)*	3	5
Bivalves	2	2
Sea anemone	1	1
Empty	11	–

The stomachs examined were mainly from bass caught during the months of June to September and did not include adult herrings or salmon smolts which anglers and professional fishermen have reported as occurring in autumn and early summer respectively.

LENGTH-WEIGHT RELATIONSHIP

In bass, as in most species of fish, the young fish are more slender in build than the adults. The young bass do not vary greatly in build throughout the season and in May or June they have a good deal of internal fat. The adults, however, are comparatively lean at the completion of spawning and have little or no internal fat. They gain condition rapidly during the summer and by September or October are usually deep and thick and have a good deal of internal fat. There is much individual variation in build. The females tend to be heavier for their length than the males. Fig. 4 shows the fork-length-weight relationship of Irish bass.

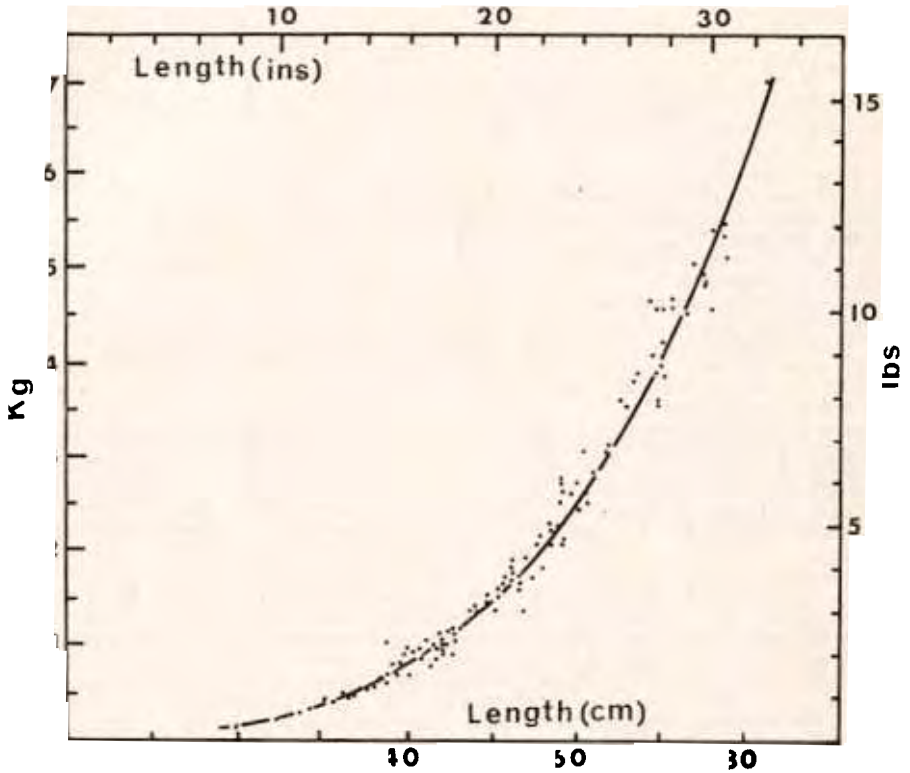

Fig 4 Relationship between fork-length and weight in Irish bass. Both sexes combined.

MIGRATION OF BASS

SEASONAL MOVEMENTS

Along the east coast bass appear to leave the river mouths and inshore shallows between late October and late November, depending on weather conditions. At this time of year sea surface temperatures in Dublin Bay fall, sometimes quite sharply, from 13-14 to 8-10°C. Occasional bass are caught later in the year but seldom in sufficient numbers for inshore bass fishing to be worthwhile. Commercial fishermen setting long-lines for cod in winter in the vicinity of the Arklow Lightship sometimes catch bass in depths of 20 fm. or more. Few bass are taken again from the shore before late April or early May.

On the south coast the juvenile bass tend to disappear from the shallow creeks and pills in October or November. In the Blackwater estuary at Youghal, these small bass are sometimes caught in numbers at this time by anglers and commercial fishermen fishing for codling on the bottom at the mouth of the estuary in 3-5 fm. In 1968, no small bass (nor mullet) were found in their normal summer habitat in a shallow pill opposite the town of Youghal in March or early April, but small bass and mullet had returned to the pill by 25th April, 1968. It is not known where the juveniles spend the winter, it is possible that they do not migrate very far. The adult bass are present in the estuaries and along the shore, as a rule, until late November or even December. Bass have been caught on hand lines in Youghal Bay in fine weather in January and the salmon netsmen take occasional bass in the nets in Youghal

Bay in February and March. In January, 1953, a trawler took a large catch of adult bass about 1 mile from Rosslare Harbour and 3½ miles from the entrance to Wexford Harbour. These bass were caught in 3 fm. over clean sand in an area of extensive sandbanks. Some bass, therefore, do not go very far from shore nor into very deep water during the winter in this area. At least a proportion of the population does, however, migrate offshore. Kilmore Quay trawlermen report the occasional capture of bass in winter well offshore in depths of 30-40 fm. A tagged bass was taken in a trawl on 16th April, 1968, 3 miles east of the Saltee Islands in about 20 fm.

In the southwest, bass are found inshore throughout the year; under favourable conditions there is good surf fishing all through the winter.

Sea temperatures are probably the main factor influencing the autumn, winter and spring movements of bass. In February, 1958, sea surface temperatures along the east of Ireland between Dundalk Bay and Cahore Point were between 7 and 8°C, temperatures between Cahore and Baltimore were between 8 and 9°C, while along the south-west and west coasts the sea surface temperatures were between 9 and 10°C.

TAGGING MOVEMENTS

From 1967-78 inclusive, 1053 adult and 28 juvenile bass were tagged on the Irish coast. Fig. 5 shows the movements of tagged bass. All fish were caught on rod and line, mostly by Inland Fisheries Trust staff and the remainder by some 20 anglers co-operating in the tagging programme.

The original tag in use was made from laminated colourless cellulose acetate containing a message on one side and a number on the other side. By using a hypodermic needle they were attached to the fish with 20 lbs. test braided Terylene fishing line. During 1978, Floy tags were used on an experimental basis and it appears that these should give much better returns.

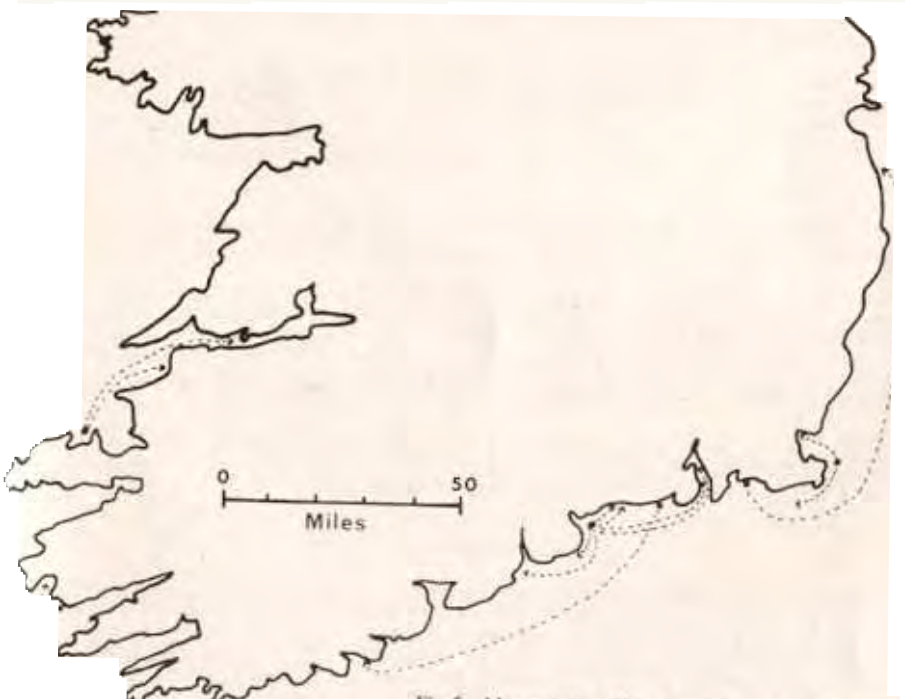

Fig 5 Movements of bass tagged on the Irish coast

One tagged bass, not marked by a member of the Trust's staff, was found dead on the beach the day after marking, but otherwise there were no known mortalities. Recaptured fish were reported to be in good condition. Mullet marked with the same type of tags were seen by the author on many occasions and did not seem to be inconvenienced in any way by the presence of the tag. Tags which had been on bass for up to 12 months were reported to be still firmly attached. Tags returned had very little growth on them, though a short, fuzzy growth of green algae was present on the Terylene line in some instances. The liklihood of tag shedding cannot be assessed. Some probably occurred because studies on other fishes indicated tag losses after one year. Also on one tagging expedition to Kerry, a bass captured had a mark which probably indicated the presence of a tag at one time.

Up to November, 1978, 31 adult bass were recaptured. Some of the recaptured bass were caught on rod and line or on hand-lines, others were caught on set lines, others were taken in gill nets and drift nets; one was taken in a trawl. Of the bass recaptured within a week of tagging, two were recaptured by the same angler on rod and line within a few hours and a third was recaptured on rod and line the day after tagging. In all, 11 out of the 31 recaptured bass were taken within a month of tagging and a further 10 within 1-4 months of tagging. There was thus no indication of possible "sulking" after tagging, such as was noted by Chadwick (1963), who found that the recapture rates of tagged striped bass **Roccus saxatilis** marked with streamer and disc-dangler tags were twice as high in the second quarter after tagging as in the first 3 months after tagging.

Bass recaptured during the same year in which they were tagged were, in general, taken within 10 miles of where they were marked. One bass, however, tagged in Ballyteigue Bay, travelled a considerable distance in a short period – 80 miles to Garrettstown Strand, Co. Cork, in 82 days.

Two bass marked in spring on Kerry beaches, however, travelled considerable distances in a short period – 42 miles to the Shannon estuary in 14 days and 26 miles to the Cashen estuary in 14 days.

Two bass marked in Dungarvan in late September were recaptured in the Waterford River at Cheekpoint, 39 miles away – one after 6 days and the other after 35 days. Of the eight bass recaptured the year after they were tagged, three were recaptured between 26 and 42 miles from where they were tagged, four between 8½ and 18 miles from where they were tagged and one only 1½ miles from where it was tagged. 7 bass were recaptured in the location of tagging.

The longest period that a tagged bass was at liberty proved to be 386 days. This fish was tagged on the Wexford coast in 1973 and recaptured the following year in the same place.

The Wexford coast had the highest percentage recapture (7.1%) out of 84 tagged bass. The overall recapture rate for tagged adult bass was 2.9%, but there were considerable variations in the recapture rates for different areas and even for different lots marked in the same area. For example, on the Kerry coast, the recapture rate for the north shore of the Dingle Peninsula was 2.8% (218 marked) and for the Ballinskelligs-Waterville-Derrynane area 3.6% (84 marked) 67 bass marked in Dingle Bay yielded no recaptures.

Tagging during the spring period yielded, in general, proportionately more recaptures than did tagging during the autumn. Spring-tagged fish are, of course, subjected to more fishing during the year of marking than are autumn-tagged fish.

DISCUSSION

While little is at present known about the larval, post-larval and very early stages of bass in Irish and British waters, all the evidence points towards the importance of sheltered, inshore, nursery areas for juvenile bass – situations in which the young fish are vulnerable to indiscriminate hook-and-line fishing as well as to net fishing. Unfortunately, these are also situations in which the young fish are vulnerable to pollution – an increasing problem in brackish waters. In its juvenile habitat the European bass agrees with the American striped bass, in spite of the difference in spawning places.

The bass occupies much the same ecological niche on the coasts of Europe as the striped bass, **Roccus saxatilis** (Walbaum), on the Atlantic coast of North America. The natural history of the striped bass has been summarized by Nichols (1966). The striped bass is very much larger than the European bass, growing, as it does, to over 100 lbs. in weight. In its feeding habits, the types of situation in which it occurs and the methods by which it is caught, the striped bass is, however, very like the European species. The females may live to be 40 years of age, the males, which grow more slowly, have a shorter life-span.

European bass are relatively old when they first mature (at least 5-7 years for females and 7 years for males). Their fecundity appears high but huge mortalities of the eggs and larvae take place during the planktonic stage. Spawning is related to water temperatures and the location is usually associated with fast running tides.

In Irish waters, at the northern limit of its distribution, the species is long-lived and slow growing. Growth is dependent on water temperatures and higher than average temperatures in any year is reflected in accelerated growth in bass.

The bass is a restless, fast-swimming fish which patrols the surf beaches and may travel miles with the tides sweeping into and out of estuaries. Yet its wanderings, at any rate within a 12-month period, are apparently more limited than those of some species often regarded as sedentary. Harden Jones (1968) gives instances of extensive movements of plaice **Pleuronectes platessa** in the Irish Sea and mentions the recapture off the Eddystone of a plaice marked on the north-east coast of Anglesey 3 months previously. A thornback ray **Raja clavata**, tagged in Tralee Bay (Kerry) on 3rd July, 1970, was recaptured in Dingle Bay, 4 miles S.E. of Dingle on 14th September, 1970, having travelled between 40 and 50 miles in 74 days. Yet none of the bass marked on the Irish coast were recaptured more than 80 miles from where it was tagged. Most were taken within 18 miles of where they were tagged, even though some had been at liberty for nearly a year. Out of six recaptures from 84 fish marked at Blackhall Strand, Co. Wexford, five of these were subsequently recaptured on the same strand by the same angler. The information so far available, in fact, suggests that bass populations may be essentially local.

If this is indeed the case, then local over-fishing of bass would not necessarily soon be rectified by immigration from other parts of the coast. Bass are a species which could be easily over-exploited, since growth is slow and the adult stocks are the accumulated product of spawning over a span of many years.

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IRISH RECORD FISH

Freshwater Species

Species	Weight lb.	oz.	Date of Capture	Place of Capture	Captor
Salmon	57	0	1874	River Suir	M. Maher
Sea Trout	14	3	15.5.1973	Dooagh Beach, Achill.	Dr. Eoin Bresnihan
Brown Trout (River)	20	0	22.2.1957	R. Shannon, Corbally	Major Hugh Place
Brown Trout (Lake)	26	2	15.7.1894	Lough Ennell	Wm. Meares
Bream	11	12	1882	River Blackwater (Monaghan)	A Pike
Carp	18	12	6.6.1958	Abbey Lake	John Roberts
Dace	1	2	8.8.1966	River Blackwater, Cappoquin	John T. Henry
Perch	5	8	1946	Lough Erne	S. Drum
Pike (River)	42	0	22.3.1964	River Barrow	M. Watkins
Pike (Lake)	38	2	25.2.1973	Lough Corrib	Brendan Hardiman
Roach	2	13½	11.8.1970	River Blackwater, Cappoquin	Lawrie Robinson
Rudd	3	1	27.6.1959	Kilglass Lake	A. E. Biddlecombe
Rudd/Bream Hybrid	5	13½	12.4.1975	R. Shannon, Lanesboro	P. J. Dighton
Tench	7	13¼	25.5.1971	R. Shannon, Lanesboro	Raymond Webb
River Eel	5	15	25.9.1968	R. Shannon, Clondra	E. Hawksworth

MARINE SPECIES

Species	Weight lb.	oz.	Date of Capture	Place of Capture	Captor
Angler Fish	71	8	5.7.1964	Cork Harbour	Ml. Fitzgerald
Bass	17	1¼	27.4.1977	Whiting Bay, Ardmore	Malcolm Tucker
Black Sole	3	10	19.10.1970	Woodstown Strand, Waterford	R. W. Nicholson
Coalfish	24	7	26.8.1967	Kinsale	J. E. Hornibrook
Cod	42	0	1921	Ballycotton	I. L. Stewart
Conger	72	0	June 1914	Valentia	J. Green
Dab	1	12½	10.9.1963	Kinsale	Ivan Kerr
Spur Dogfish	18	12	10.9.1977	Bantry	John Murnane
Greater Spotted Dogfish	21	4	13.9.1975	Malin, Co. Donegal	Drew Alexander
Lesser Spotted Dogfish	3	13	1.10.78	Belfast Lough	Edward Reid
Flounder	4	3	5.8.1963	Killala Bay	J. L. McMonagle
Garfish	3	10¼	16.9.1967	Kinsale	Evan Bazzard
Tub Gurnard	12	3½	8.8.1973	Bullsmouth, Achill	Robert Seaman
Grey Gurnard	3	1	21.9.1967	Rosslare Bay	Brendan Walsh
Red Gurnard	3	9½	17.7.1968	Belmullet	James Prescott
Haddock	10	13½	15.7.1964	Kinsale	F. A. E. Bull
Hake	25	5½	28.4.1962	Belfast Lough	H. W. Steele
Halibut	156		23.7.1972	Belmullet	Frank Brogan
Ling	46	8	26.7.1965	Kinsale	A. J. C. Bull
John Dory	7	1	6.9.1970	Tory Island, Donegal	Stanley Morrow.
Mackerel	3	8	1.7.1972	Clogherhead Pier, Co. Louth	Roger Ryan
Monkfish	69	0	1.7.1958	Clew Bay, Westport	Michael Fuchs

	Weight lb. oz.	Date of Capture	Place of Capture	
Grey Mullet	7 12	7.9.1975	Brittas Bay	Colm Quinn
Plaice	7 2½	27.5.1973	Youghal	Cecil Pratt
Pollack	19 3	1904	Ballycotton	J. N. Hearne
Pouting	4 10	1937	Ballycotton	W. G. Pales
Thornback Ray	37 0	28.5.1961	Ling Rocks, Kinsale	M. J. Fitzgerald
Blonde Ray	36 8	9.9.1964	Cork Harbour	D. Minchin
Sting Ray	51 0	8.8.1970	Fenit, Co. Kerry	John White
Cuckoo Ray	5 11	3.8.1975	Causeway Coast	V. Morrison
Undulate Ray	18	11.6.1977	Fenit	Ann-Mari Liedecke
Homelyn Ray	7 7½	17.7.1976	Dunfanaghy, Co. Donegal	John Kerr
Painted Ray	13	28.9.1977	Brandon Bay, Dingle	S. Hosking
Ray's Bream	6 4¼	26.8.78	Valentia	Martin Sarney
Red Sea Bream	9 6	24.8.1963	Valentia	P. Maguire
Porbeagle Shark	365	1932	Keem Bay, Achill	Dr. O'Donel Brown
Blue Shark	206	7.10.1959	Achill Head	J. McMonagle
Common Skate	221	1913	Ballycotton	T. Tucker
White Skate	165	7.8.1966	Clew Bay, Westport	Jack Stack
Tope	60 12	12.9.1968	Strangford Lough	Crawford McIvor
Turbot	26 8	1915	Valentia	J. F. Eldridge
Whiting	4 8½	4.8.1969	Kinsale	Eddie Boyle
Ballan Wrasse	7 8½	26.7.64	Killybegs	A. J. King
Cuckoo Wrasse	1 11¼	10.10.1976	Causeway Coast	Trevor Best

SCHEDULE (1979)

SCHEDULE OF SPECIMEN WEIGHTS (REVISED)

FRESHWATER FISH	IRISH record lb. oz.	SPECIMEN lb.	WEIGHT kilos.
Salmon *(Salmo salar)*	57 0	25	11,339
Sea trout *(Salmo trutta)*	14 3	6	2.721
Brown Trout *(Salmo trutta) (river)*	20 0	5	2.268
Brown Trout *(Salmo trutta) (Lake)*	26 2	10	4.536
Slob trout *(Salmo trutta)*	—	10	4.536
Bream *(Abramis brama)*	11 12	7½	3.402
Carp *(Cyprinus carpio)*	18 12	10	4.536
Dace *(Leucisus leucisus)*	1 2	1	.454
Perch *(Perca fluviatilis)*	5 8	3	1.361
Pike *(Esox lucius) (Lake)*	38 2	30	13.608
Pike *(Esox lucius) (River)*	42 0	20	9.072
Roach *(Rutilus rutilus)*	2 13½	2¼	1.021
Rudd *(Scardinius erythrophthalmus)*	3 1	2¼	1.021
Rudd Bream hybrid	5 13½	3	1.361
Roach/Bream hybrid	—	3	1.361
Tench *(Tinca tinca)*	7 13¼	6	2.721
Eel *(Anguilla anguilla)*	5 15	3	1.361
SEA FISH			
Angler fish *(Lophius piscatorius)*	71 8	40	18.144
Bass *(Dicentrarchus labrax)*	17 1¼	10	4.536
Black sole *(Solea solea)*	3 10	2	.907
Brill *(Scophthalmus rhombus)*	—	8	3.629
Coalfish *(Pollachius virens)*	24 7	15	6.804
Cod *(Gadus morhus)*	42 0	25	11.340
Conger *(Conger conger)*	72 0	40	18.144
Dab *(Limanda limanda)*	1 12½	1½	.680

FRESHWATER FISH	IRISH record lb. oz.	SPECIMEN lb.	WEIGHT kilos.
Dogfish—Spur *(Squalus acanthias)*	18 0	12	5.443
—Lesser Spotted *(Scyliorhinus Caniculus)*	3 13	3¼	1.475
—Greater spotted *(Scyliorhinus stellaris)*	21 4	16	7.257
Flounder *(Platchthys flesus)*	4 3	2½	1.134
Garfish *(Belone bellone)*	3 10¼	2½	1.134
Gurnard — tub *(Trigla lucerna)*	12 3½	5	2.268
— grey *(Eutrigla gurnardus)*	3 1	1½	.680
— red *(Aspitrigla cucuius)*	3 9½	2	.907
Haddock *(Melanogrammus aeglifinus)*	10 13½	7	3.175
Hake *(Merluccius merluccius)*	25 5½	10	4.536
Halibut *(Hippoglossus hippoglossus)*	156 0	50	22.680
Herring *(Clupea harengus)*	—	¾	.340
John Dory *(Zeus faber)*	7 1	4	1.814
Ling *(Molva Molva)*	46 8	25	11.340
Mackerel *(Scomber scombrus)*	3 8	2½	1.134
Megrim *(Lepidorhombus whiffiagonis)*	—	3	1.361
Monkfish *(Squatina squatina)*	69 0	50	22.680
Mullet—Grey, thick lipped) *(Crenimugil labrosus)*	7 12	5	2.268
—Red *(Mullus surmuletus)*	—	1	.454

SEA FISH	IRISH record lb. oz.	SPECIMEN lb.	WEIGHT kilos.
Plaice — *(Pleuronectes platessa)*	7 2½	4	1.814
Pollack *(Pollachius pollachius)*	19 3	12	5.443
Pouting *(Trisopterus luscus)*	4 10	3	1.361
Ray — Thornback *(Raja clavata)*	37 0	20	9.072
— Blonde *(Raja brachyura)*	36 8	25	11.340
— Cuckoo *(Raja naevus)*	5 11	4½	2.041
— Electric *(Torpedo nobiliana)*	—	20	9.072
— Homelyn *(Raja montagui)*	7 7½	5	2.268
— Undulate *(Raja undulata)*	18	14	6.350
— Painted *(Raja microocellata)*	13	10	4.536
— Sting *(Dasyatis pastinaca)*	51	30	13.608
Ray's Bream *(Brama brama)*	6 0	5	2.268
Red Sea Bream *(Pagellus bogaraveo)*	9 6	4½	2.041
Scad *(Trachurus trachurus)*	—	2	.907
Shad — Allis *(Alosa alosa)*	—	4	1.814
— Twaite *(Alosa fallax)*	—	1½	.680
Shark — Porbeagle *(Lamna nasus)*	365 0	150	68.038
— Blue *(Prionace glauca)*	206 0	100	45.359
— Thresher *(Alopias vulpinus)*	—	120	54.431
— Mako *(Isurus oxyrinchus)*	—	200	90.718
— Six-Gilled *(Hexanchus griseus)*	—	100	45.359
Skate — Common *(Raja batis)*	221 0	suspended	
— White *(Raja alba)*	165 0	120	54.431
— Long Nose *(Raja oxyrinchus)*	—	80	36.287
Stone Basse *(Polyprion americanus)*	—	8	3.628
Tope *(Galeorhinus galeus)*	60 12	40	18.144
Tunny *(Thunnus thynnus)*	—	100	45.359
Turbot *(Scophthalmus maximus)*	26 8	18	8.165
Whiting *(Merlangius merlangus)*	4 8½	3	1.361
Wrasse Ballan *(Labrus bergylta)*	7 6	4½	2.041
Wrasse Cockoo *(Labrus mixtus)*	1 11¼	1¼	.567

Scientific names in accordance with the "List of Irish Fishes (Third edition, 1976) by A. E. J. Went, D.Sc., M.R.I.A. and M. Kennedy, Ph.D. Published by the Stationery Office for the National Museum (1969).