



Iascach Intíre Éireann  
Inland Fisheries Ireland

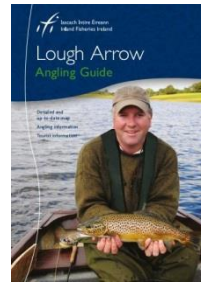
# Citizen Science and Fisheries

Dr. Cathal Gallagher  
Head of Research and Development

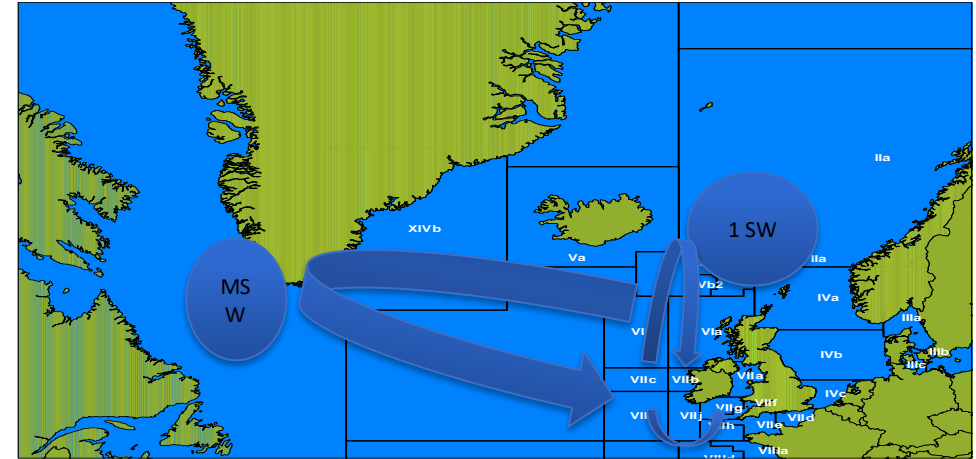
# A little background



*The conservation, protection, management, development and improvement of inland fisheries*



# Salmon Science and Management



**SALMON AND SEA TROUT ANGLERS LOGBOOK** YEAR 2011  
*(Valid for wild Atlantic salmon. Salmon and sea trout. Other trout.)*

Inland Fisheries Ireland, Licence Number: A  
*(Agent Address)*

Valid to end of 2011 season in all fishery districts.

Authorised Agent: \_\_\_\_\_ Agent Signature: \_\_\_\_\_ Issue Date (dd/mm/yyyy): 12/01/11  
Licence Holder's Signature: \_\_\_\_\_

Licence Holder: \_\_\_\_\_  
(BLOCK LETTERS)

Licence Holder's Home Address:  
(BLOCK LETTERS)

Email Address (if ANY): \_\_\_\_\_

Date (dd/mm/yyyy)	Issued (give quantity)	Lost (give quantity)	Returned (give quantity)	Tag Codes and Numbers (give first in list in sequence)	Author	Agent Signature
				IF.E.DK.13.26 123103		
				IF.E.DK.13.26 123104		
				IF.E.DK.13.26 123104		

**NOTES FOR ANGLERS**

**FISHING AND CATCH RECORD**

Line	Date (dd/mm/yyyy)	Name of Precatch	Dist.	County	Species (tick box)	Weight (give as appropriate)	Sex	Tag code and no. (give if fish retained)	Tot. Weight (give only if fish retained)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

Passport must include the following codes: Fry (F), Spinner (S), Worm (W), Prawn/Strip (P), Other (O)

Contract Code: \_\_\_\_\_ Licence Holder's Signature: \_\_\_\_\_

TOTAL DAYS FISHED (INCLUDING THOSE WHEN NO FISH WERE CAUGHT): \_\_\_\_\_



# Scientific Science Advice

Anglers engaged with their individual catchment and on conservation

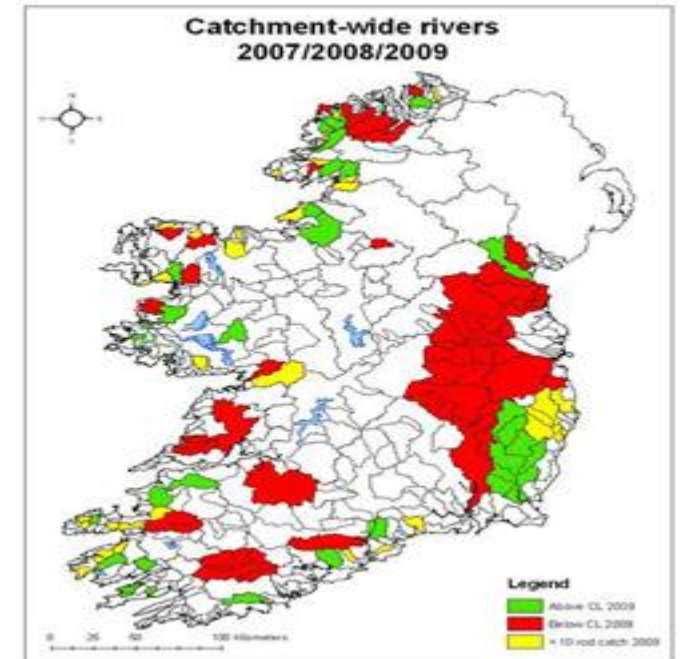
- Rod Catch
- Counter Data
- Juvenile Index

TEGOS/NSSSCIF

5 Year Historic Data

Dundalk all ages		Flurry Dun-A	Castletown Dun-A	Fane Dun-B	Glyde Dun-C	Dee Dun-C	Dee Counter
River name							
Common estuary							
Fisheries Board Code		2	3	4	5	6	6
OS River Number		91	92	94	95	96	96
Type of monitoring		Catch	Catch	Catch	Catch	Catch	Counter
Harvests / counts by year					[02 to 06]	[02 to 06]	
2003	2002	0	12	30	43	92	119
2004	2003	0	41	126	63	40	84
2005	2004	0	18	73	36	55	161
2006	2005	2	12	14	70	57	211
2007	2006	0	0	100	33	23	376
C&R							
2003	C&R 2002	0	0	3	0	0	
2004	C&R 2003	0	0	2	7	0	
2005	C&R 2004	0	1	3	0	0	
2006	C&R 2005	0	1	11	1	0	
2007	C&R 2006	0	42	40	1	0	
Catches, corrected for released fish							
2003	2003	0	12	33	43	92	40
2004	2004	0	41	128	70	40	55
2005	2005	0	19	76	36	55	57
2006	2006	2	13	25	71	57	23
2007	2007	0	42	140	34	23	53
Exploitation rates in the rod fisheries (Crystal Ball assumptions)							
Triangular Distribution		0.05	0.15	0.15	0.15	0.26	
Likely		0.01	0.02	0.02	0.02	0.06	
Minimum		0.12	0.35	0.35	0.35	0.44	
Maximum		<i>Crystal Ball ER draws based on assumptions above</i>					
2003	2002	0.055	0.144	0.129	0.160	0.291	
2004	2003	0.061	0.257	0.130	0.163	0.091	
2005	2004	0.037	0.149	0.171	0.068	0.217	
2006	2005	0.076	0.181	0.126	0.155	0.253	
2007	2006	0.049	0.073	0.325	0.093	0.095	
Estimated spawners		Assume 33% of CL					
2003	2002	41	71	225	226	224	118
2004	2003	41	118	857	366	401	84
2005	2004	41	110	372	492	198	161
2006	2005	41	60	184	388	169	211
2007	2006	41	575	330	332	218	376
Conservation limits							
Total CL		123	197	543	2172	2410	2410
1SW CL		114	182	502	2009	2229	2229
2SW CL		9	15	41	163	181	181
within district		0.023	0.036	0.100	0.399	0.443	0.443
Draft / snap / other catches (by river)							
Draft prop by river		0.00000	0.00000	0.41280	0.30615	0.14053	0.14053
Snap prop by river		0	0	0	0	0	0
Other prop by river		0	0	0	0	0	0
2003	2002	0	0	205	159	73	70
2004	2003	0	0	305	152	70	103
2005	2004	0	0	219	226	103	74
2006	2005	0	0	128	162	74	44
2007	2006	0	0	0	95	44	0
Driftnet catches (using river specific proportions of national catch based on CWT analysis in 148 rivers database)							
Prop by river		0.0358	0.1543	0.3344	0.2478	0.1139	0.1139
2003	2002	16	67	145	108	49	49
2004	2003	16	67	145	108	49	49
2005	2004	16	67	145	108	49	49
2006	2005	16	67	145	108	49	49
2007	2006	16	0	0	108	49	0

Independent Scientific Advice



# Salmon Management

October

Independent Scientific  
Advice

- MSW and 1 SW surplus per catchment
- Juvenile index
- Recommendations on status Open/Closed/CR

IFI Salmon Mgt

- Open Rivers MSW and 1 SW surplus per catchment
- C&R Rivers/Brown Tag Rivers
- Licence pricing recommendations

AE

- Draft Primary Legislation
- Start 30 public consultation

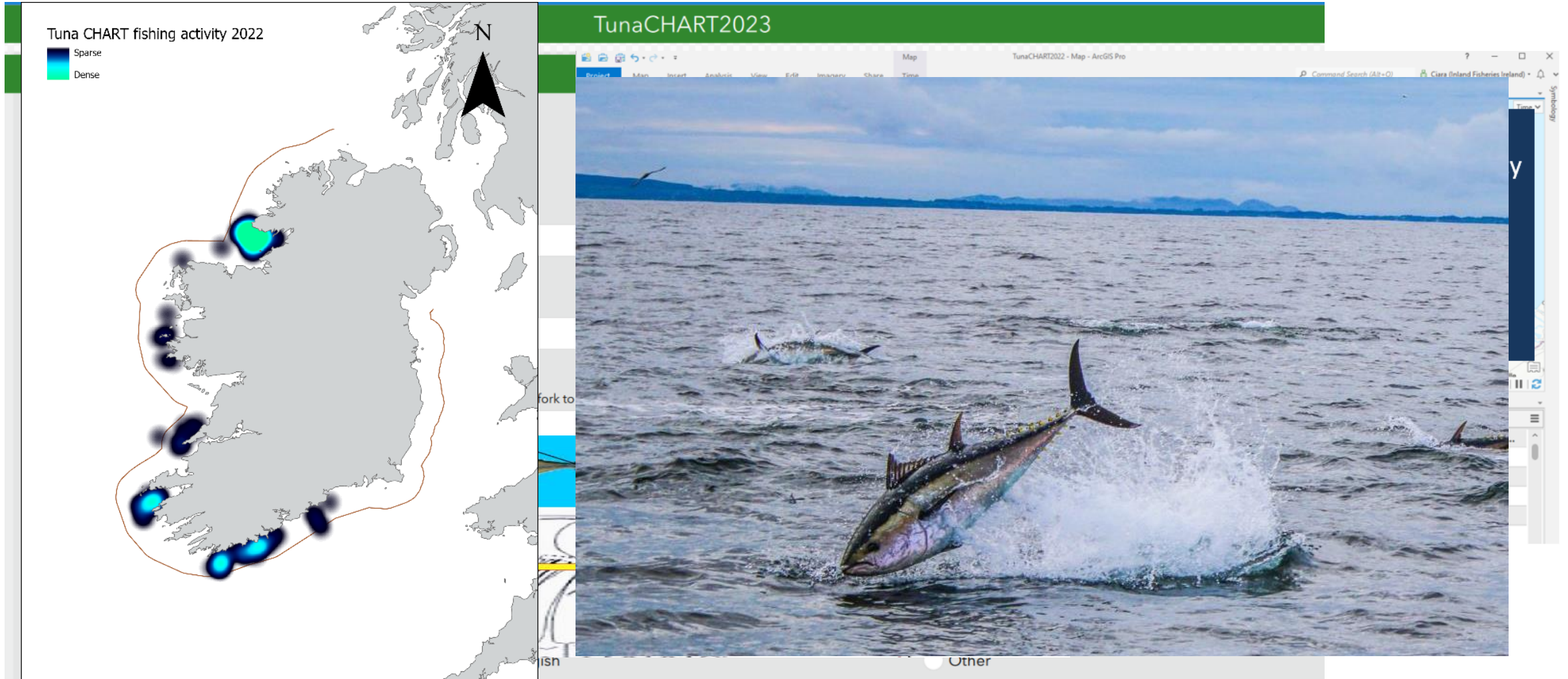
IFI Licences Available

- On-line & Paper licences, tags available
- Season and River information available

1<sup>st</sup> January

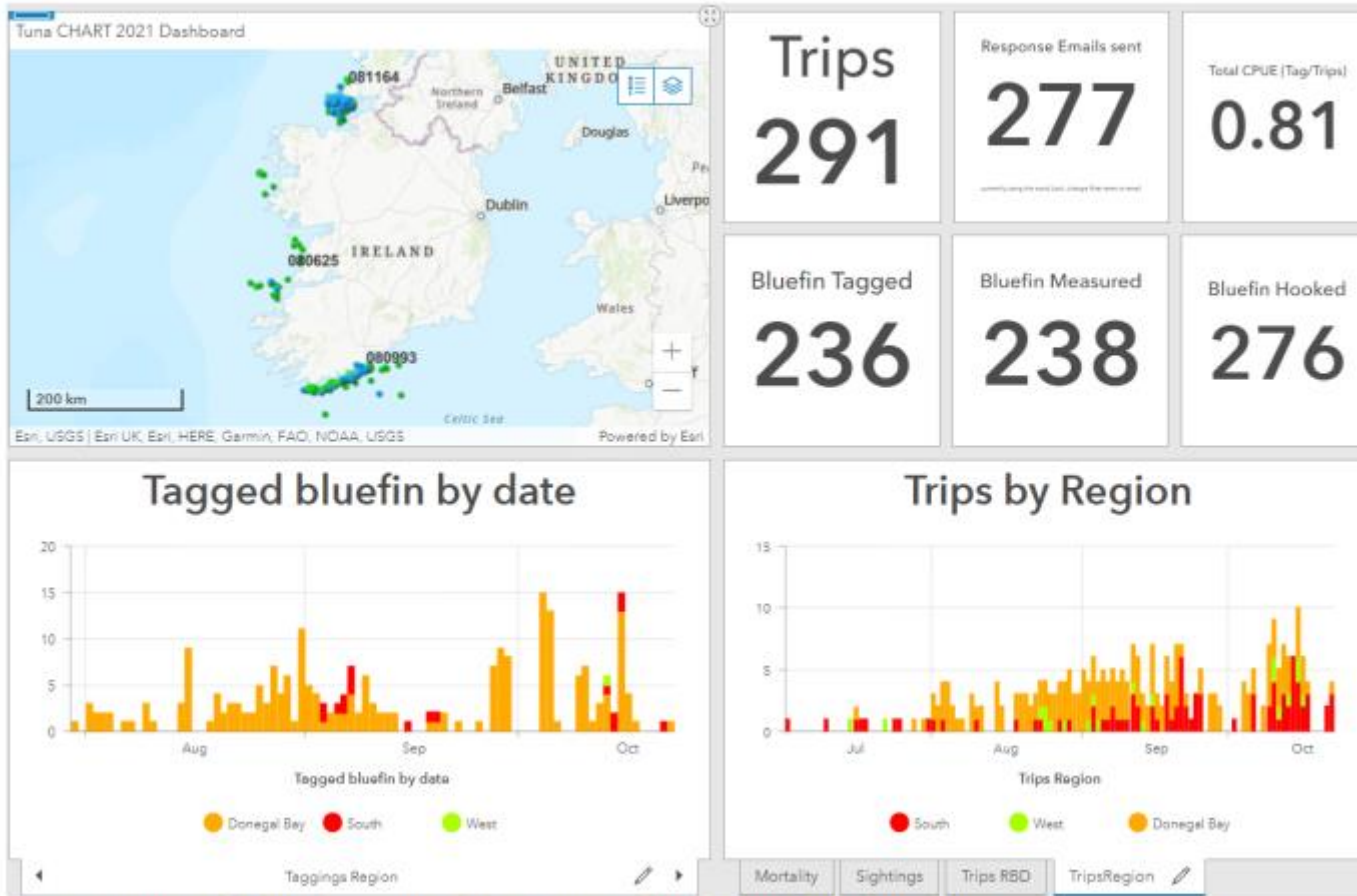


# TunaChart – BFT ICCAT Tagging Programme



# TunaChart ICCAT Tagging

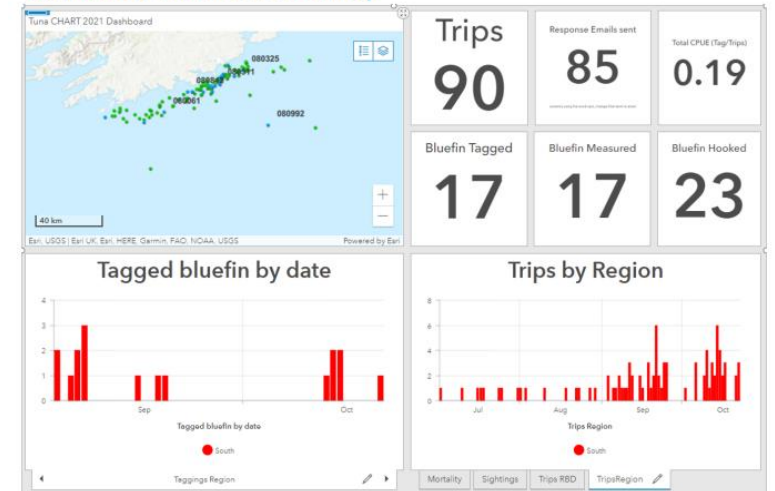
## Tuna CHART 2021 Overview



Green points = fishing locations, Blue points = bluefin hook-up locations



## Tuna CHART South Coast Summary



# Producing data to support conservation

Tuna CHART Catch per Unit Effort (CPUE) and Fishing effort to date  
28/10/21 compared to 2020

CPUE = no. bluefin tagged per angling trip

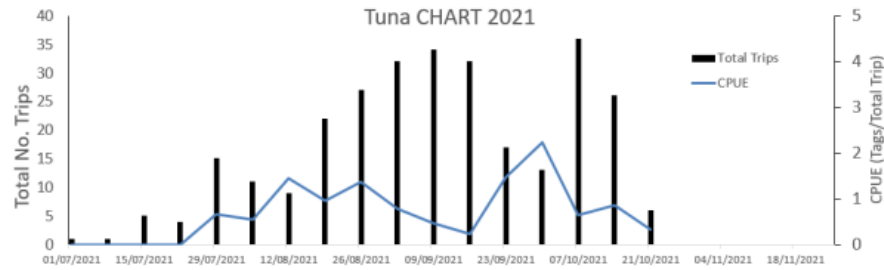
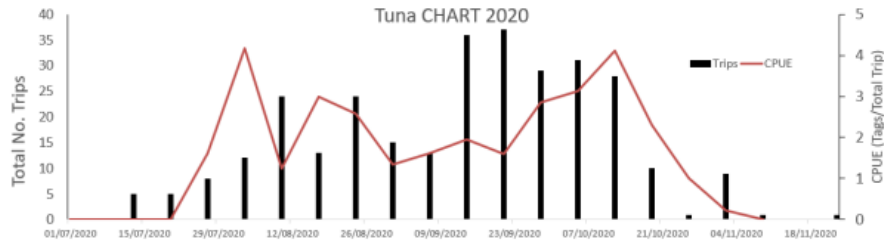
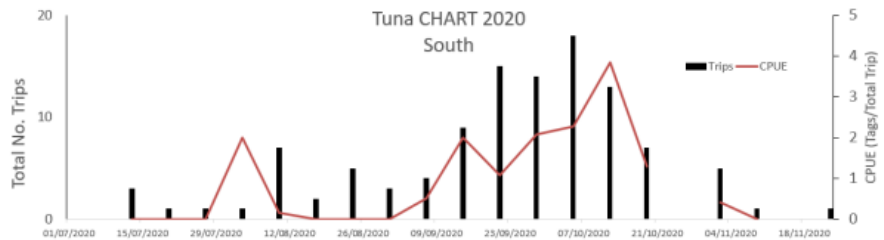


Fig. 1 Weekly comparison in fishing effort and CPUE 2020-2021 all Ireland



Year	No. Authorised Skippers	No. Tagged	CPUE Tags/Trips	% Successful Trips
2019	15	209	1.02	48.5
2020	22	685	2.27	72.5
2021	22	242	0.72	38.4

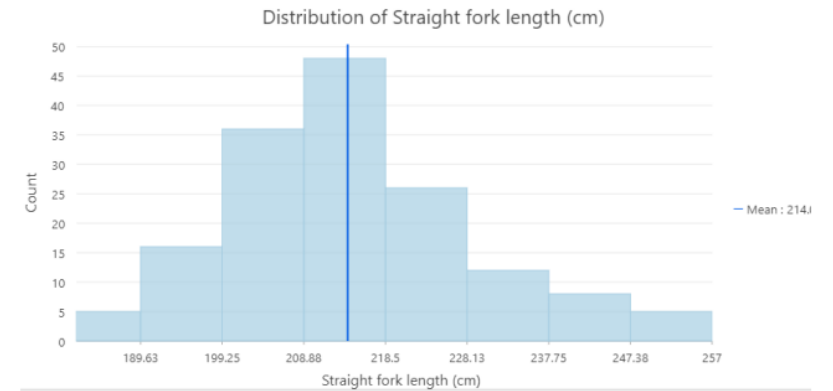


Fig. 3 Length frequency distribution of all bluefin measured 2022 (as of 8<sup>th</sup> September 2022)

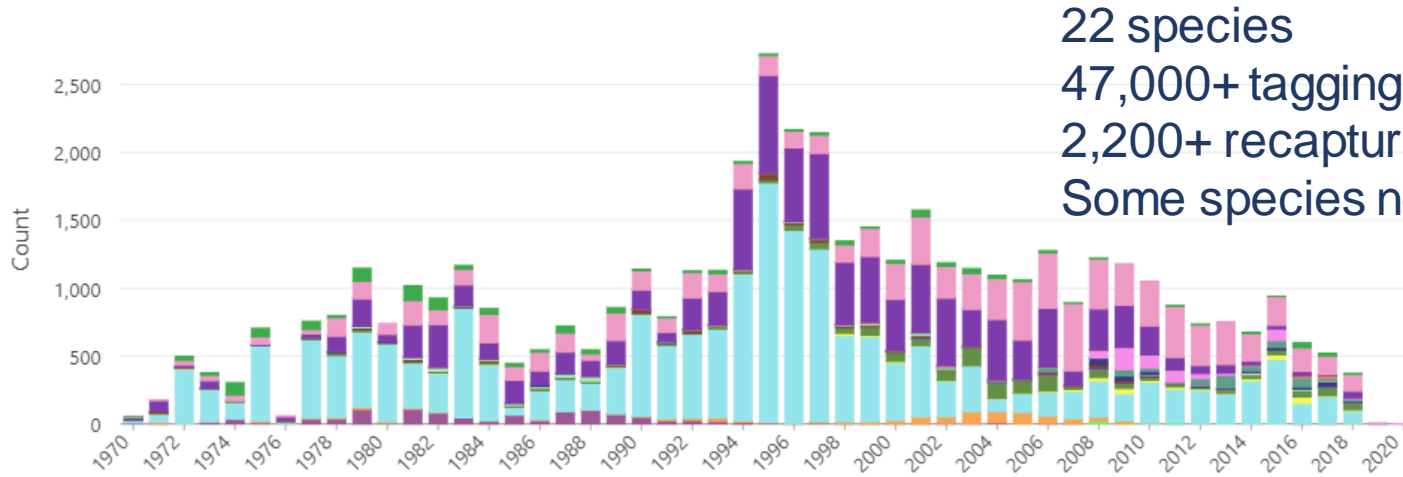
Socio-economic data is also collected to put a value on a potential future C&R BFT angling



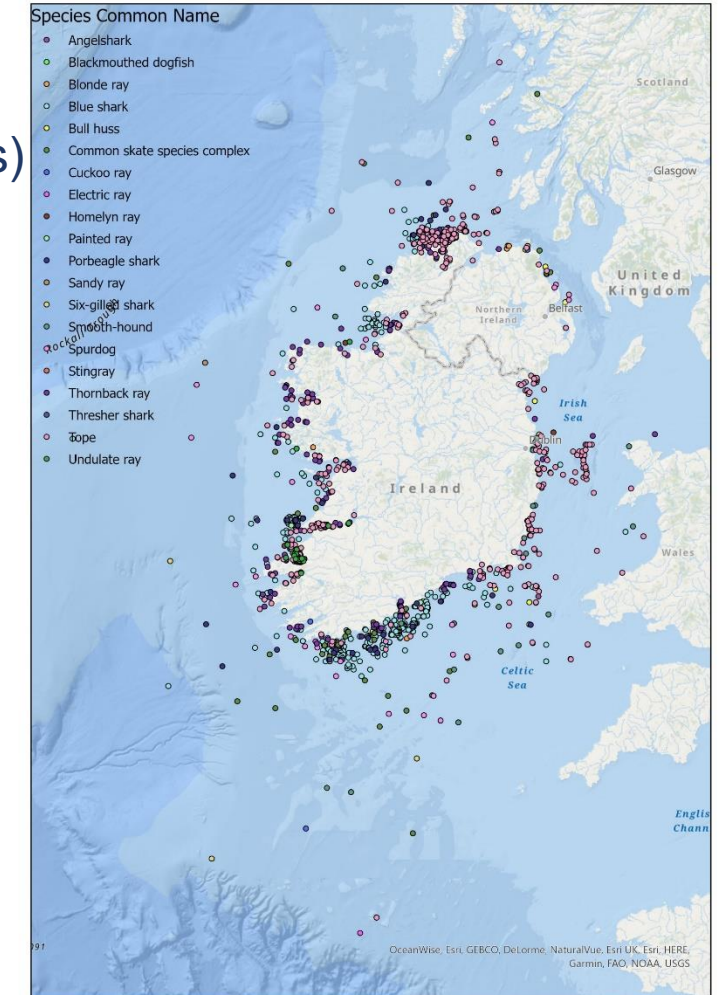
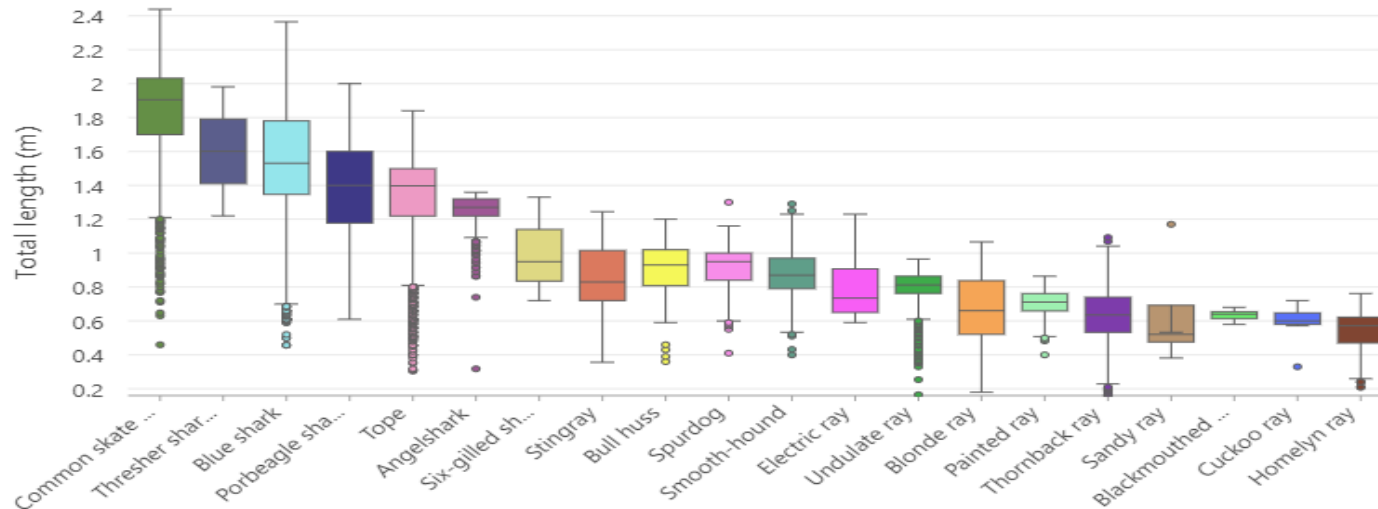
# Marine Sports Fish Elasmobranch Tagging Programme



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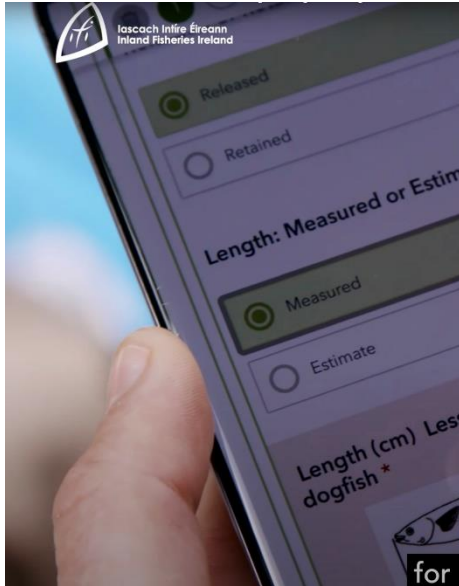
22 species  
47,000+ taggings,  
2,200+ recaptures  
Some species now rare (50 yrs)



# Marine Recreational Angling



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Inland Fisheries Ireland



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Inland Fisheries Ireland

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## Irish Marine Recreational Angling Survey

Understanding Ireland's sea angling resource

### Join The IMREC Project

This allows you to submit fishing sessions and view your personal dashboard

[Get Involved](#)

or

[Sign In](#)

Over recent years, there has been a greater effort by the European Commission to try to learn more about the sea angling resource across EU member states. For this reason, we have established the Irish Marine Recreational Angling Survey to collect information on fishing effort and catches around the coastline.



# Marine Recreational Angling



Diary Data Apr 21 – Dec 22



● Charter ● Shore ● Small Boat

Released  
3287  
Retained  
873

33.43  
Avg. length (cm)  
642  
Sessions

Survey Data – 2021 & 2022



● Shore ● Small Boat

Retained  
867  
Released  
797

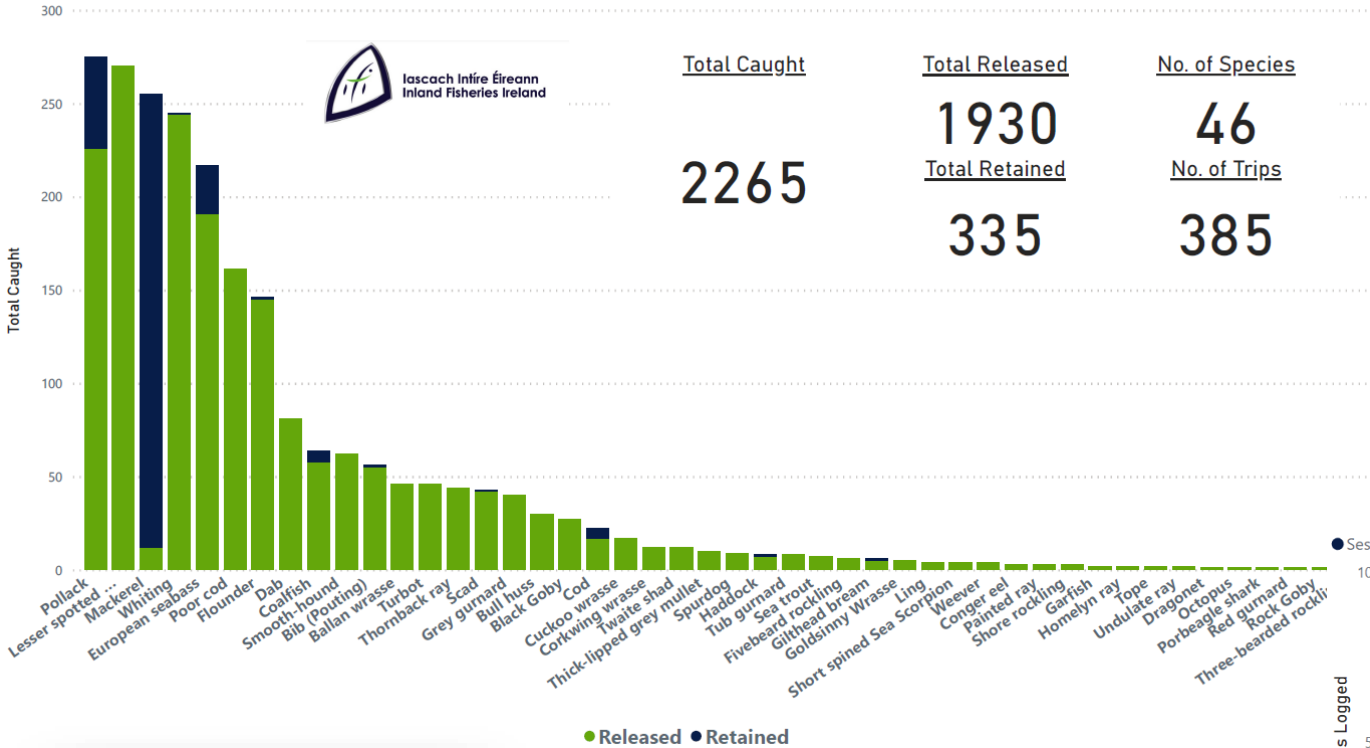
30.07  
Avg. length (cm)  
154  
Sessions

## Diary vs Survey

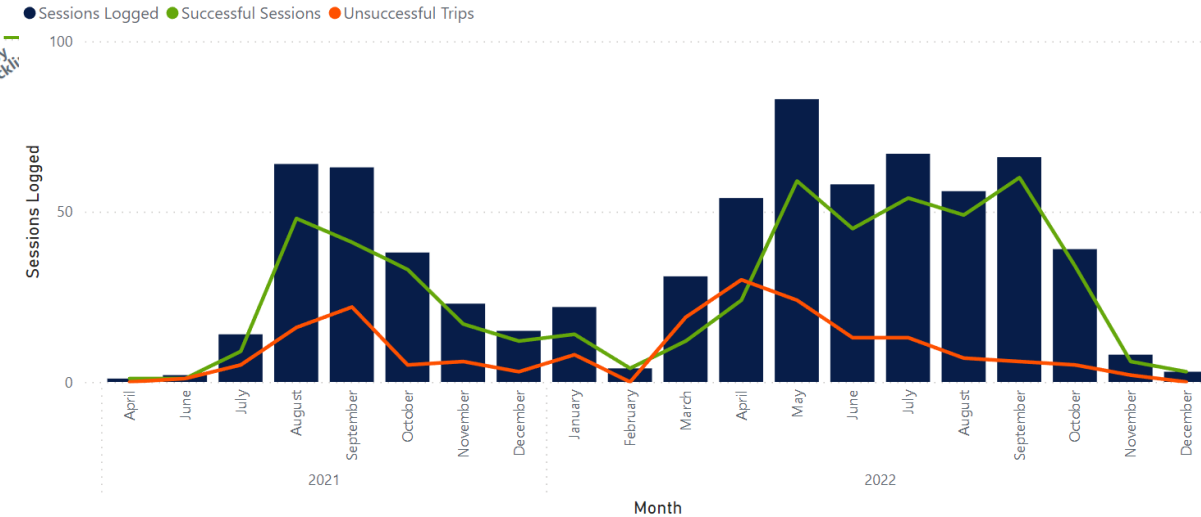
# Angler Diary - Fish Species Caught (& Released) shore and boat combined



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<u>Total Caught</u>	<u>Total Released</u>	<u>No. of Species</u>
2265	1930	46
	<u>Total Retained</u>	<u>No. of Trips</u>
	335	385



# Citizen Science in fisheries

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- Education and empowerment of the citizens
  - Contributing to filling key gaps in data poor areas (abundance, distribution, habitat usage etc..)
  - Citizens can drive/own the management decisions (e.g. salmon)
  - Enhanced conservation efforts with data (species protection, MPAS and monitoring etc..)
  - Support sustainable development (e.g ORE) and citizen understanding
  - Contributing to fulfilling Data Collection requirements (under Reg (EC) No 199/2008)
  - Low cost when compared to traditional sampling methods & complimenting same
-

# Thank You

