

ICCAT GBYP TAGGING PROGRAMME 2024

Atlantic-Wide Research Programme for Bluefin Tuna
(GBYP PHASE 14)

Tagging of Atlantic bluefin tuna with ICCAT tags in the Channel in 2024



Lucy Hawkes, Francis Binney, Alex Plaster, and Matthew Witt

FINAL REPORT

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Executive Summary

Atlantic bluefin tuna (ABT) have returned to waters in the western Channel between the UK and France (hereafter “the Channel”), including coastal waters of the Channel Islands (Jersey, Guernsey and Alderney; Horton *et al.* 2021, 2025). To improve insight into ABT migration and ecology, a suite of electronic tags have been deployed on ABT across their range in European waters, including pop-up satellite archival tags (PATs), accelerometers and acoustic tags. This report describes attempted tagging activities for 2024 in the territorial waters of Jersey using tags funded by the International Committee for the Conservation of Atlantic Tuna (ICCAT) under their GBYP programme.

Introduction

Atlantic bluefin tuna were absent, or at least present in very low numbers, in the western Channel from the 1960s until 2014, since which sightings have been reported with increasing regularity (Horton *et al.* 2021). In 2018, the first ABT were tagged in the Channel with electronic tags by Thunnus UK, which has now been conducting tagging for six years (2018-2023). Part of this tagging work has been conducted under a Memorandum of Understanding (MoU) with the GBYP ICCAT program, who have provided conventional and electronic tags (PATs). Waters of southwest England, the western Channel and the Crown Dependency of Jersey (the Channel Islands; **Figure 1**) may be of particular interest because tuna tagged in these waters are generally small, and thus are likely to be relatively young.

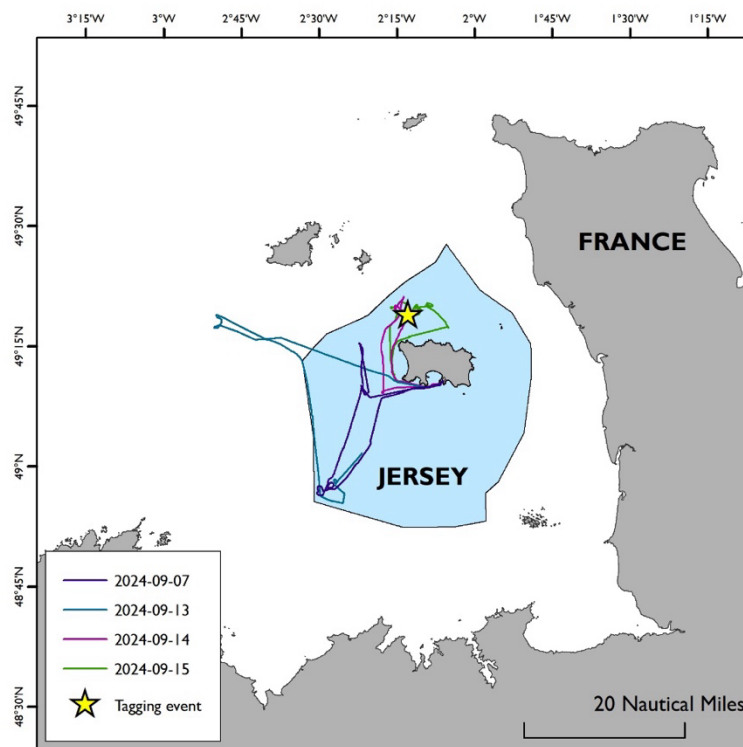


Figure 1: Map of the Channel Islands (Jersey territorial waters shown in blue polygon) showing fishing routes on four days in 2024 (coloured line) and single tagging event (yellow star).

Methods & results

Troll fishing using squid spreader bars was carried out for four days in Jersey waters in September 2024 (9th, 14th, 15th and 16th), few fish were sighted, and only a single Atlantic bluefin was caught. Only one hook-up occurred during fishing, with one small fish tagged. The fish was sufficiently small (117cm CFL; est. weight 22kg) that drag effects from MiniPATs would have been unacceptably large, and so a Jersey Government funded acoustic tag (Thelma Biotel HP16) was deployed instead. The fish was boarded and released with no evident signs of bleeding or injuries, and was in an energetic state.

Permission to tag in Jersey was issued by the Government of Jersey, with an exemption granted under the Jersey wildlife law 2021. An MoU was agreed and signed by the Government of Jersey, Defra and ICCAT to allow fishing operations in Jersey territorial waters for 2024.

Once the fish was supplied to the tagging team:

- 1) ABT was boarded onto a wet PVC mat, continuously ventilated with a hose delivering fresh seawater to the mouth, and eyes covered with a wet microfiber towel. Their condition was evaluated by the tagging team (bleeding, injuries, movement, colour etc.).
- 2) Having passed the evaluation, the fish was measured (curved fork length, CFL and half girth), pain relieving drugs administered, electronic tags deployed, and the fishing hook removed.
- 3) To revive ABT and assess fitness after tagging, ABT was 'swum' behind the boat using a boga grip, and their fitness for release was evaluated by the tagging team (movement, tail beats etc.). All tagging and return to water was completed in 3 minutes.

Summary and conclusions

The University of Exeter and staff from the Government of Jersey successfully deployed one acoustic tag, funded by the Jersey Government. Subsequent detections of this data via the European Tracking Network will contribute to knowledge on ABT movement and residency behaviour.

References

- Horton, T.W., Binney, F.C.T., Birch, S., Block, B.A., Exeter, O., Garzon, F., Plaster, A., Righton, D., van der Kooij, J. & Witt, M.J. 2025. Annual migrations, vertical habitat use and fidelity of Atlantic bluefin tuna tracked from waters off the United Kingdom. *Scientific Reports* 15, pp. 293. <https://doi.org/10.1038/s41598-024-80861-w>
- Horton, T.W., Block, B.A., Davies, R., Hawkes, L.A., Jones, D., Jones, H., Leeves, K., Maoiléidigh, N.Ó., Righton, D., van der Kooij, J. and Wall, D., 2021. Evidence of increased occurrence of Atlantic bluefin tuna in territorial waters of the United Kingdom and Ireland. *ICES Journal of Marine Science*, 78(5), pp.1672-1683. <http://dx.doi.org/10.1093/icesjms/fsab039>

Table 2. All ABT tagged for ICCAT by the University of Exeter, Cefas, ThunnusUK and Jersey Government between 2020 and 2024. Information provided on date, type of tag, tag ID's, and release site and person and group. Blue shading shows most recent deployment season detailed in this report (2024).

Deploy date	Type	PAT ID	Lat	Lon	CFL (cm)	Location
12-Sep-2020 16:35	MiniPAT-1Y	20P1136	50.1047	-4.9032	194	England
16-Sep-2020 13:49	MiniPAT-1Y	20P1139	50.1267	-4.8489	222	England
16-Sep-2020 15:27	MiniPAT-1Y	20P1137	50.1115	-4.8337	201	England
06-Sep-2021 08:30	MiniPAT-1Y	21P0466	49.0875	-2.3735	212	Jersey
07-Sep-2021 18:19	MiniPAT-1Y	21P0341	49.0500	-2.3297	154	Jersey
12-Oct-2021 09:01	MiniPAT-1Y	21P0399	50.0753	-4.8407	201	England
12-Oct-2021 09:51	MiniPAT-1Y	21P0337	50.0830	-4.8169	190	England
12-Oct-2021 13:20	MiniPAT-1Y	21P0342	50.0613	-4.7580	211	England
12-Oct-2021 13:48	MiniPAT-1Y	21P0397	50.0521	-4.7952	168	England
04-Oct-2022 14:36	MiniPAT-1Y	21P1997	49.2446	-2.3510	168	Jersey
04-Oct-2022 17:08	Acoustic+ MiniPAT-1Y	21P0354	49.2620	-2.3620	141	Jersey
07-Oct-2022 13:18	Acoustic+ MiniPAT-1Y	21P0355	49.0512	-2.3619	153	Jersey
08-Oct-2022 10:53	MiniPAT-1Y	21P0365	49.1031	-2.5055	164	Jersey
13-Nov-2022 15:15	Acoustic+ MiniPAT-1Y	21P2022	50.1197	-4.8336	187	England
04-Oct-2023 10:37	MiniPAT-2Y	22P1241	50.0835	-4.7582	175	England
04-Oct-2023 13:30	MiniPAT-2Y	22P1244	50.1254	-4.7574	158	England
11-Nov-2023 09:49	Acoustic+ MiniPAT-2Y	21P0339	50.0743	-4.9556	149	England
11-Nov-2023 12:21	Acoustic+ MiniPAT-2Y	20P2942	50.0005	-5.0197	136	England
11-Nov-2023 12:21	Acoustic+ MiniPAT-2Y	21P0349	50.0005	-5.0197	230	England
11-Nov-2023 14:51	Acoustic+ MiniPAT-2Y	22P1245	50.0716	-4.9835	184	England
17-Nov-2023 12:55	Acoustic+ MiniPAT-2Y	21P0433	50.2215	-4.5047	186	England
09-Sep-2024 15:10	Acoustic	(-)	49.3156	-2.2232	117	Jersey