Thunnus UK- bluefin tuna research update

A 202 cm tuna is measured before being tagged and released.

Since 2018, scientists at the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the University of Exeter have been studying the movements and distribution of bluefin tuna found in waters off the SW of the UK. Part of this research has involved the use of pop-up electronic tags to track the movements and monitor behaviours of individual tuna.

Thunnus UK- summary of tagging programme

	2018	2019
Days of fishing effort (number of fish caught)	25 days (11)	29 days (24)
Pop-up satellite tags deployed	10	23
Number of post-release mortalities	0	0
Average length of tagged tuna (± 1 Standard Deviation)	178 ± 15 cm	199 ± 17 cm
Datasets transmitted by tags	9 (90%)	18 (78%)
Number of tags collected or found after pop-up	4 of 10 (40%)	8 of 23 (35%)
Average duration of tag attachment (± 1 SD)	261 ± 94 days	287 ± 104 days
Number of tags that recorded a full annual migratory cycle	5 (50%)	8 (35%)
Tuna that migrated to the Mediterranean spawning area	2 (40%)	5 (63%)

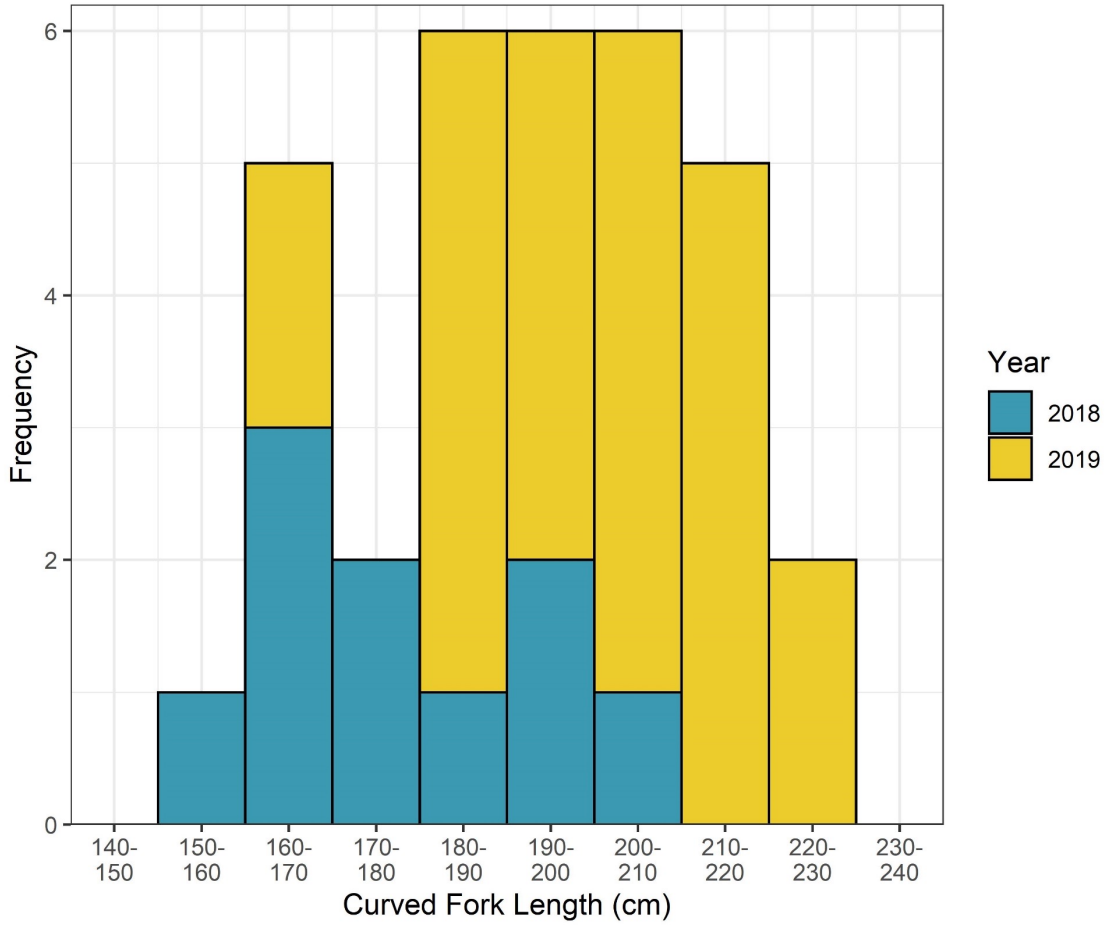

Figure 1. Size frequency histogram for Atlantic Bluefin Tuna tagged in 2018 and 2019

Thunnus UK- mapping annual migrations of bluefin

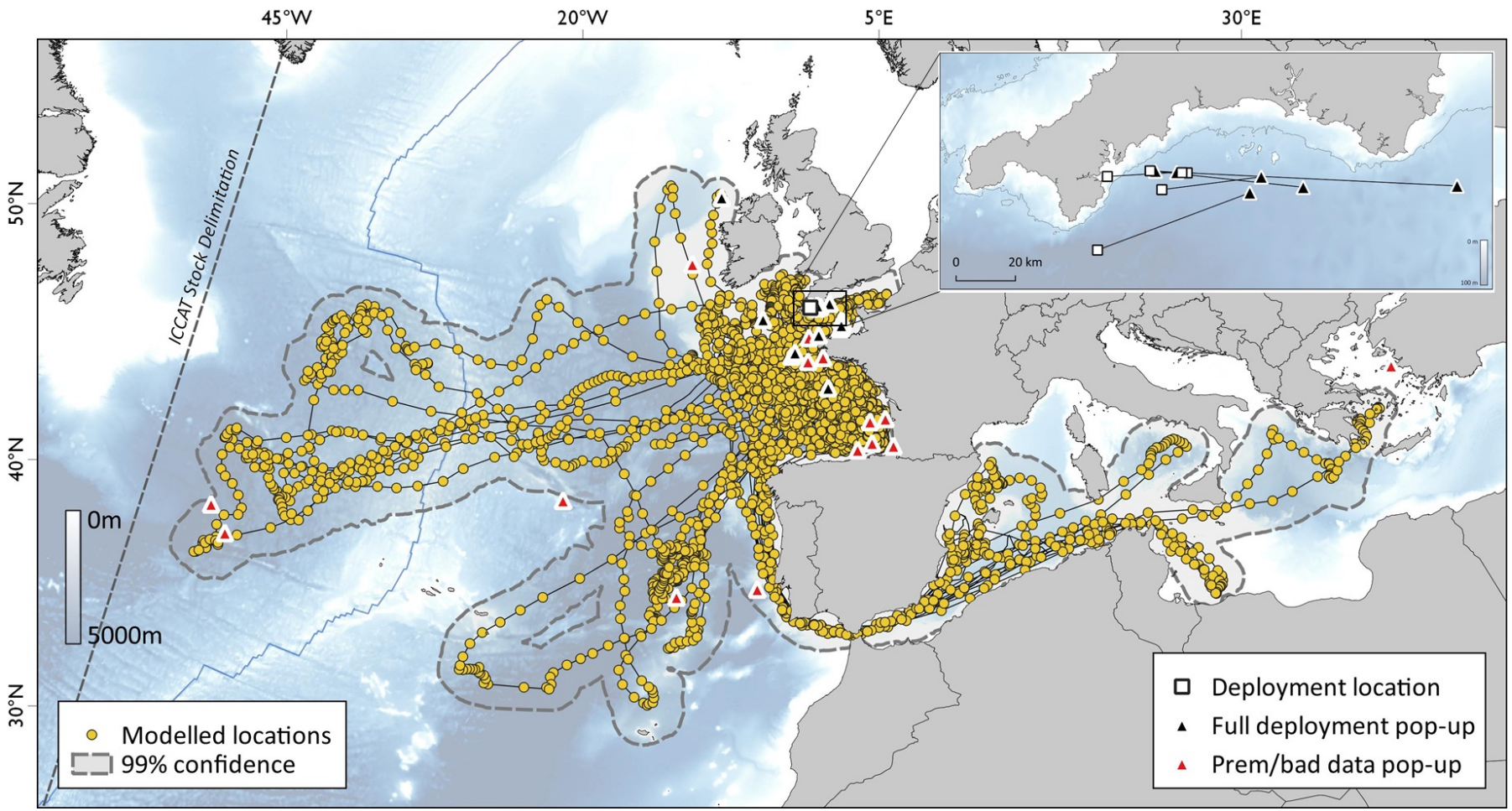

Figure 2. Yellow circles show the estimated daily positions of 13 Atlantic bluefin tuna that were at liberty for a year before their tags popped up (triangles denote pop-up positions).

Thirteen of the tags recorded data for a full year's migratory cycle. All of the tuna migrated to the Bay of Biscay, and some then travelled more widely throughout the eastern Atlantic Ocean. In May and June, approximately half of these tuna visited the Mediterranean, where spawning takes place. Some tuna returned to their place of tagging (inset), enabling the scientific team to go out and collect them. Some other tags were found by the public after drifting to beaches and sent back to the team.