

Table S1. Summary of Atlantic bluefin tuna sampling in the Strait of Gibraltar area in 2019–2021, including biometric data (straight fork length, SFL mean  $\pm$  SD) and information on the fishing gear category used for their capture, dates of captures, sex and numbers of specimens collected. nd: no data available

Gear	Month	2019					2020					2021				
		Days	♀ (n)	SFL (cm)	♂ (n)	SFL (cm)	Days	♀ (n)	SFL (cm)	♂ (n)	SFL (cm)	Days	♀ (n)	SFL (cm)	♂ (n)	SFL (cm)
Hook & line	Jan	nd	nd	nd	nd	nd	16	3	137.7 $\pm$ 6.4	2	146 $\pm$ 9.9	nd	nd	nd	nd	nd
	Feb	nd	nd	nd	nd	nd	13	4	150 $\pm$ 8.3	4	147.8 $\pm$ 17.5	nd	nd	nd	nd	nd
	Mar	nd	nd	nd	nd	nd	9	4	122.5 $\pm$ 1.7	4	133.5 $\pm$ 9.3	nd	nd	nd	nd	nd
	Apr	22	2	123 $\pm$ 2.8	nd	nd	nd	nd	nd	nd	nd	21	4	131.5 $\pm$ 9	4	139 $\pm$ 6.2
	May	16-21	8	131.1 $\pm$ 7.5	8	131.1 $\pm$ 14.5	nd	nd	nd	nd	nd	10-27	33	135.3 $\pm$ 21.3	26	135.6 $\pm$ 18.2
	Jun	25, 28	4	212.8 $\pm$ 6.5	4	207.8 $\pm$ 21	15-26	7	217.1 $\pm$ 11.1	4	230 $\pm$ 20.5	21-29	3	203 $\pm$ 31.8	3	228.3 $\pm$ 43.7
	Jul	1-12	8	201.8 $\pm$ 14	6	209.8 $\pm$ 25.6	9-25	6	177.8 $\pm$ 48.2	9	154.6 $\pm$ 39.7	nd	nd	nd	nd	nd
	Aug	8, 9	6	136.7 $\pm$ 10	9	133.8 $\pm$ 6.6	11, 14	4	125 $\pm$ 7.5	9	132.7 $\pm$ 13.3	nd	nd	nd	nd	nd
	Sep	9	2	131 $\pm$ 0	2	133.5 $\pm$ 7.8	16, 17	8	135.6 $\pm$ 7.9	7	136.1 $\pm$ 10	nd	nd	nd	nd	nd
	Oct	7	2	139 $\pm$ 1.4	2	136 $\pm$ 2.8	13	6	135 $\pm$ 10.7	2	134 $\pm$ 15.6	nd	nd	nd	nd	nd
	Nov	25	2	143 $\pm$ 18.4	2	132.5 $\pm$ 5	16	4	134.3 $\pm$ 7.8	3	135.3 $\pm$ 6.1	nd	nd	nd	nd	nd
	Dec	nd	nd	nd	nd	nd	9	3	135.7 $\pm$ 12.7	3	127 $\pm$ 4.6	nd	nd	nd	nd	nd
Trap	May	15-20	25	205.6 $\pm$ 21.4	6	195.6 $\pm$ 35.6	nd	nd	nd	nd	nd	24, 25	22	208.5 $\pm$ 19.1	10	225.3 $\pm$ 17
	Jun	4	8	201 $\pm$ 14.5	2	238.5 $\pm$ 10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd