

Supplementary Materials

Otolith $\delta^{18}\text{O}$ Composition as a Tracer of Yellowfin Tuna (*Thunnus Albacares*) Origin in the Indian Ocean

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Figure S1. The MicroMill drill path used (red line) for oxygen stable isotope analyses in two yellowfin tunas of 29 cm FL (A) and 134 cm FL (B) otolith transverse sections.

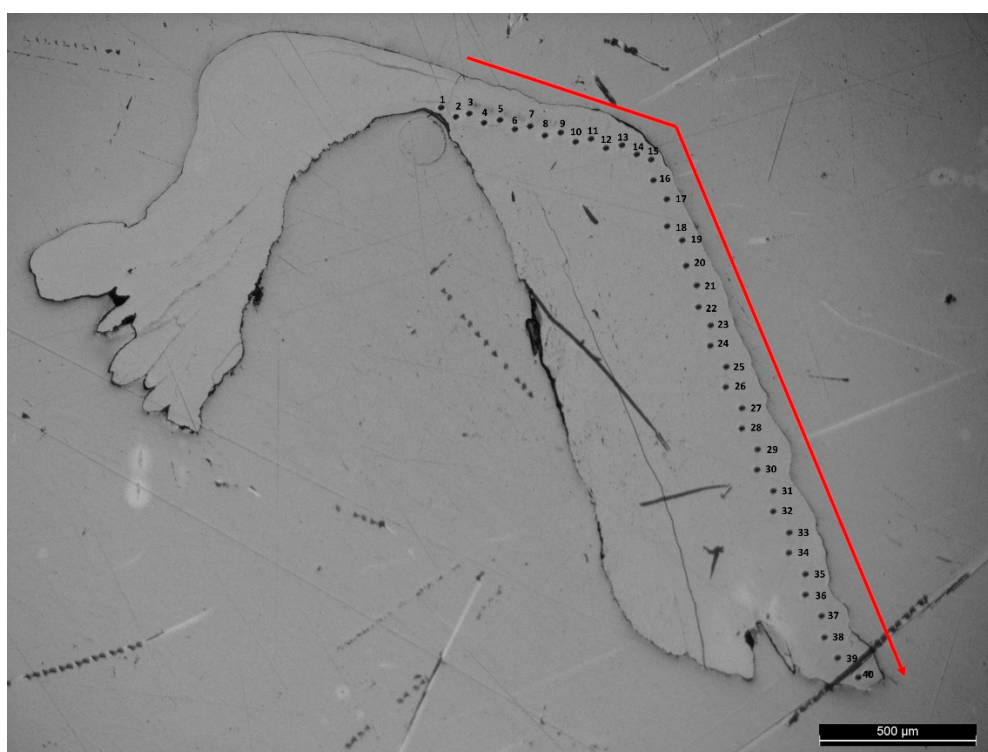


Figure S2. Transverse section of an adult yellowfin tuna (*Thunnus albacares*) otolith showing the transect (red line) followed and spot analysis locations (black numbering) for $\delta^{18}\text{O}$ SIMS analysis.

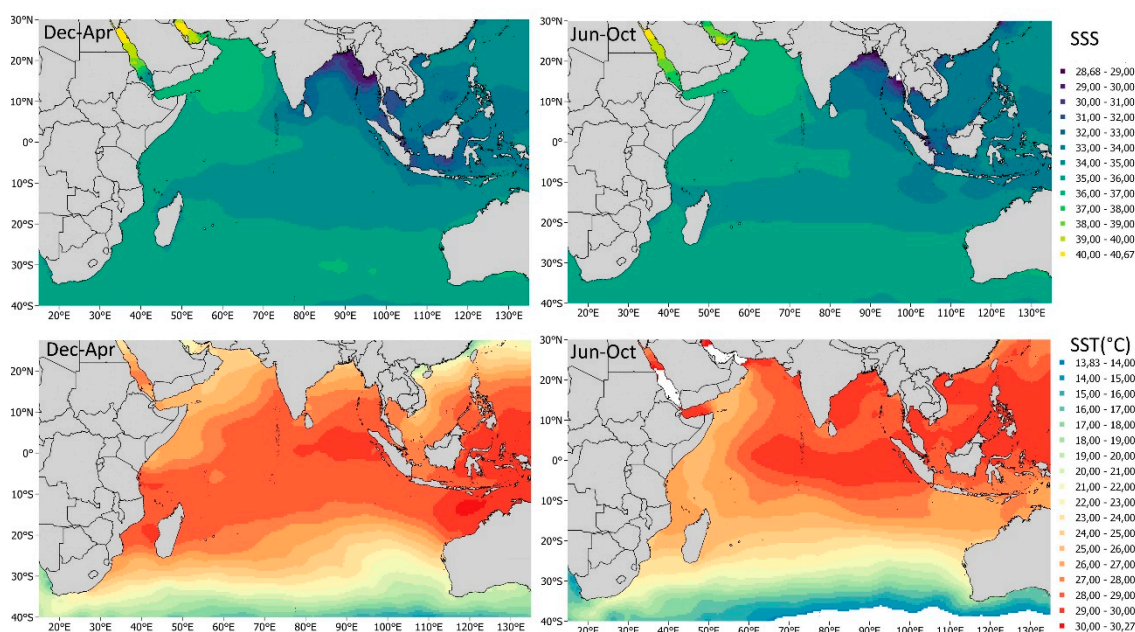


Figure S3. Seasonal mean sea surface salinity (SSS, top panels) and sea surface temperature (SST, bottom panels) in the Indian Ocean averaged for the 2017–2018 period in December, January, February and March (left-hand panels) and June, July, August, September and October (right hand panels). Monthly data was obtained from the “INSITU_GLO_TS_OA_NRT_OBSERVATIONS_013_002_a” product available in the EU Copernicus Marine Service Information.

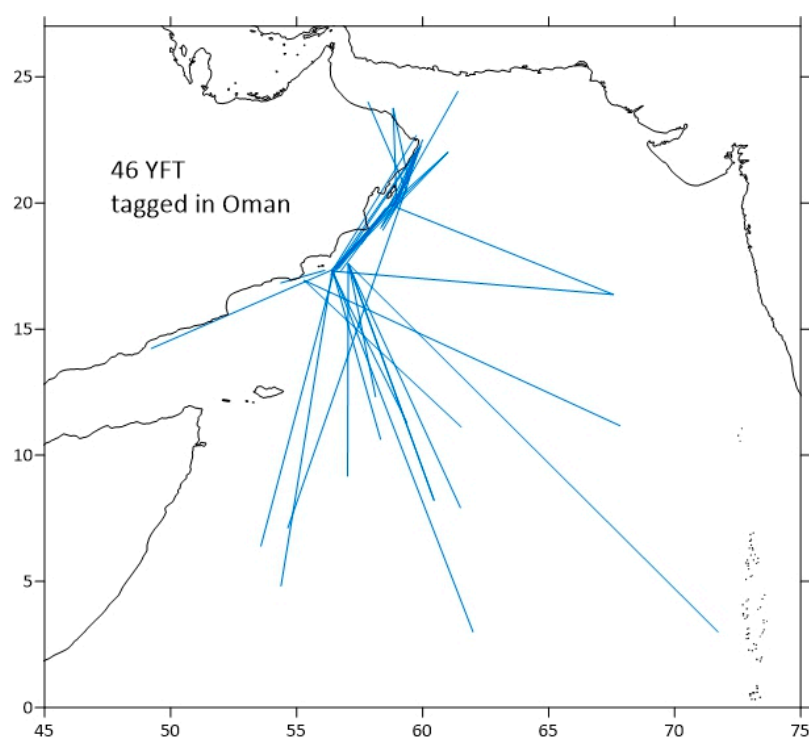


Figure S4. Trajectories of 46 yellowfin tuna (*Thunnus albacares*) tagged off Oman. Data from the RTTP-IO database (<https://www.iotc.org/tagging-data-2014-0>, accessed on 10 March 2021).

Table S1. Raw secondary ion mass spectrometry measurements of $\delta^{18}\text{O}$ along the growth axis of an otolith of a 134 cm FL yellowfin tuna (*Thunnus albacares*) captured in South Africa.

Otolith position	Isotope (VSMOW)
1	25.50644967
2	25.90928783
3	26.23297005
4	25.26494845
5	26.34439337
6	26.28943797
7	26.42254094
8	25.92441316
9	25.90424605
10	26.2249032
11	25.94911788
12	26.12406762
13	25.77013472
14	26.24406196
15	26.01365265
16	26.13919295
17	25.52611261
18	25.48477002
19	25.7661013
20	25.94558864
21	26.55413138
22	26.16339349
23	26.78504486
24	26.7431981
25	26.91814783
26	26.649421
27	26.79613678
28	26.30910091
29	27.2110752
30	26.37212315
31	26.99730377
32	26.69630955
33	27.27157655
34	27.09511428
35	28.46799074
36	27.46719758
37	27.94062064
38	26.85613395
39	27.29376038
40	27.09410593