## ERRATUM

## Erratum to: Immature Pacific bluefin tuna, *Thunnus orientalis*, utilizes cold waters in the Subarctic Frontal Zone for trans-Pacific migration

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An incorrect miscalculation by us resulted in erroneous values of daily distance traveled per day by immature Pacific bluefin tuna that were presented in Fig. 1c of our paper. When corrected with a more appropriate statistical test (Student's *t*-test), the correlation values between the daily distance traveled and SST (r) and mean daily distance with SD were only minimally changed. Figure 1c should also appear as shown in this Erratum. The authors wish to correct their errors in the second paragraph in the Results

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H. Nakata Graduate School of Fisheries Science and Environmental Studies, Nagasaki University, 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan (Page 195) in the article as follows: "There was a significant inverse correlation between the daily distance traveled and SST (Fig. 1b versus Fig. 1c; r=-0.30, P<0.0001). This indicates that the fish traveled a greater distance per day in colder waters. In particular, during the trans-Pacific migration (between arrows 1 and 3 in Fig. 1a), mean ambient temperature was 14.5±2.9 (°C±SD), which was significantly lower than other periods (17.6±2.1, P<0.0001, Student's *t*-test). Mean daily distance covered by the fish during the trans-Pacific migration was also significantly higher 163.5±37.8 (km±SD) than other periods (130.7±39.3, P<0.0001, Student's *t*-test)."

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Fig. 1 a The migration pathway of the archival-tagged fish, with sea surface temperature data for November 1997 (*blue open circle*: November–December, *blue open square*: January–February, *blue open triangle*: March–April, *red open circle*: May–June, *red open square*: July–August, *red open triangle*: September–October). *Arrow 1* indicates the day when the fish

initiated trans-Pacific Migration (11 November 1997), *arrow 2* the day when the fish changed its direction of movement to the south-east (8 December 1997), and *arrow 3* the day when the fish arrived in the eastern Pacific (15 January 1998). **b** Timeseries of ambient SST. *Arrows* and *symbols* are the same as in **a**. **c** Time-series of distance traveled per day