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CORRECTION

Kinematics of the ribbon fin in hovering and swimming of the electric ghost knifefish

Ricardo Ruiz-Torres, Oscar M. Curet, George V. Lauder and Malcolm A. MacIver

Two errors appeared in *J. Exp. Biol.* **216**, 823-834.

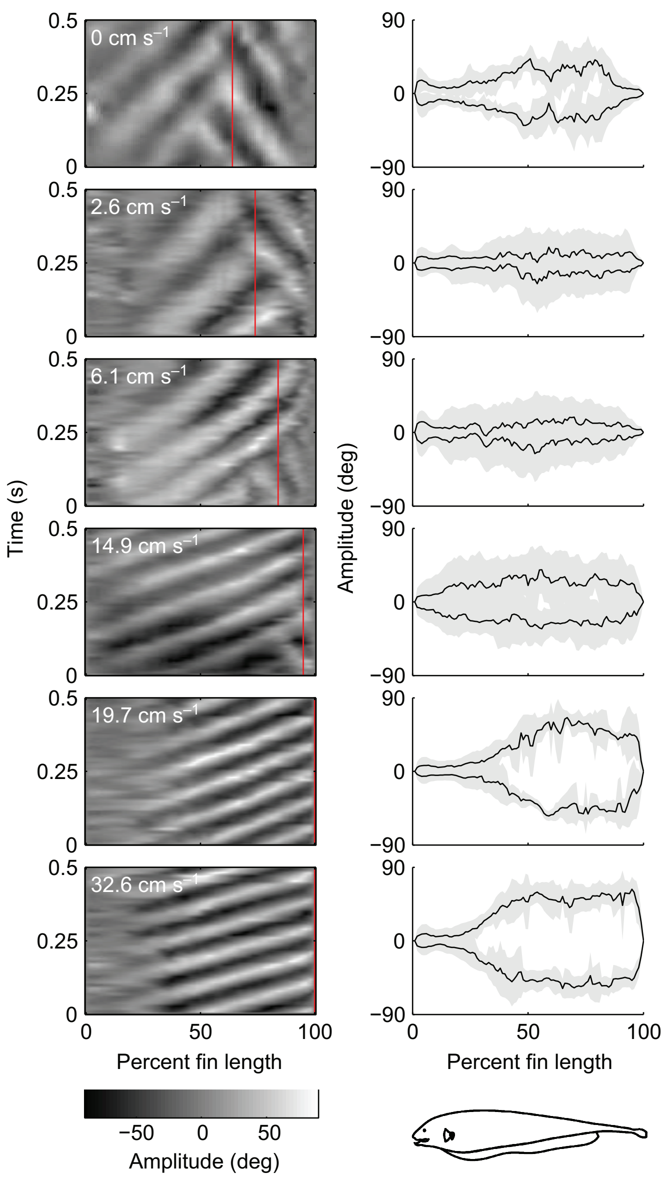

Fig. 2. Comparison of traveling wave amplitude patterns and wave envelope for different swimming velocities. Two counter-propagating waves are seen at low swimming velocities. The fraction of the fin occupied by the tail wave becomes shorter as the swimming velocity increases. Grayscale map is for amplitude in degrees. Estimated nodal point position for each swimming velocity is shown as a vertical red line. The first 500 ms of data are shown per trial for comparison. Trial duration varies amongst data sets. Mean wave envelope is shown in the right column. Gray area ranges vertically by ±1 s.d. of the peak magnitude of fin angle across the trial (N=530 frames for 0 cm s^{-1}, N=1000 for all other cases).

During data processing, the wrong scaling factor was used when converting the fin amplitude from pixels on the video to linear displacement in millimetres [term $y(x)$ in Eqn 1]. This error caused the angular displacement to be underestimated by a factor that varied between 2.9 and 3.6 (mean ± s.d. = 3.28 ± 0.27) for the different data sets.

The error is found in Figs 2, 4, 9 and 10. In the right panels of Fig. 2, both panels of Fig. 4, Fig. 9C and the color bar in Fig. 10, the range of the y-axis is approximately three times smaller than it should have been.

In the Results and Discussion, we comment on the direction of the change in amplitude at different swimming speeds. The error does not affect these comments because the amplitude at all swimming speeds was scaled by approximately the same factor.

A second error was introduced when calculating the ratio of the fin length to the fin base length. The measurement of the fin base length was performed only on the first frame of every data set, instead of averaging the length across all the frames as was done for the fin length. This caused the ratio of fin length to fin base length to be larger in the hovering condition and smaller when swimming at 6 cm s^{-1}. After the correction, the ratio is more constant than before.

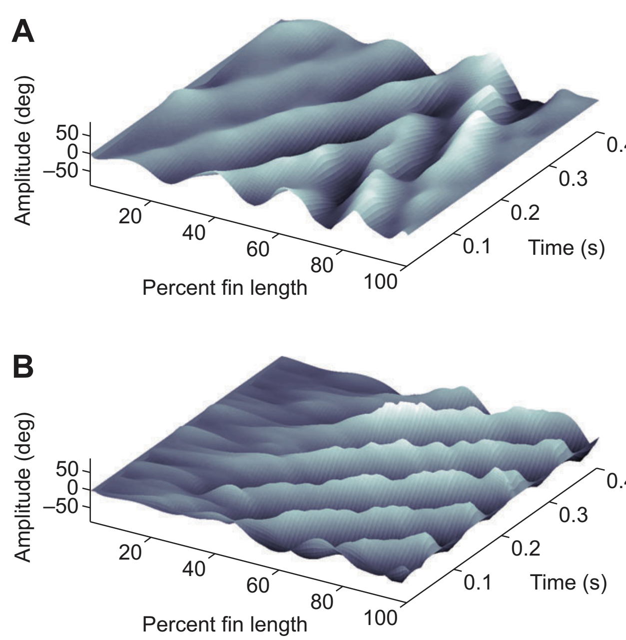

Fig. 4. Traveling wave comparison between (A) hovering and (B) surging at 19.7 cm s^{-1}. A single wave travels caudally during forward swimming, while two waves traveling towards each other are observed while hovering. Grayscale is used to enhance amplitude information. The rostral end of the fin is at 0% on the fin length axis.

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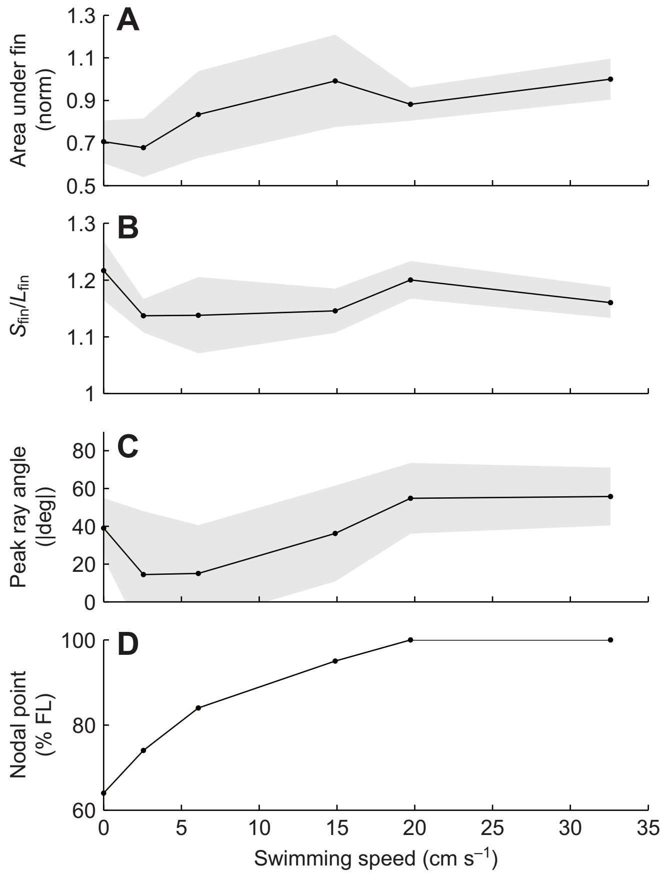

Fig. 9. Traveling wave variables as a function of swimming speed: (A) area under the fin, (B) normalized fin edge length, (C) peak ray angle and (D) nodal point location. The area under the fin is normalized with respect to the largest value. Fin edge length (S_{fin}) is normalized with respect to the fin base length (L_{fin}). Gray area ranges vertically by ±1 s.d. No s.d. is shown for nodal point location as this was obtained through visual inspection of the amplitude profiles (see Materials and methods). FL, fin length. N=530 frames for 0 cm s^{-1}, N=1000 for all other cases.

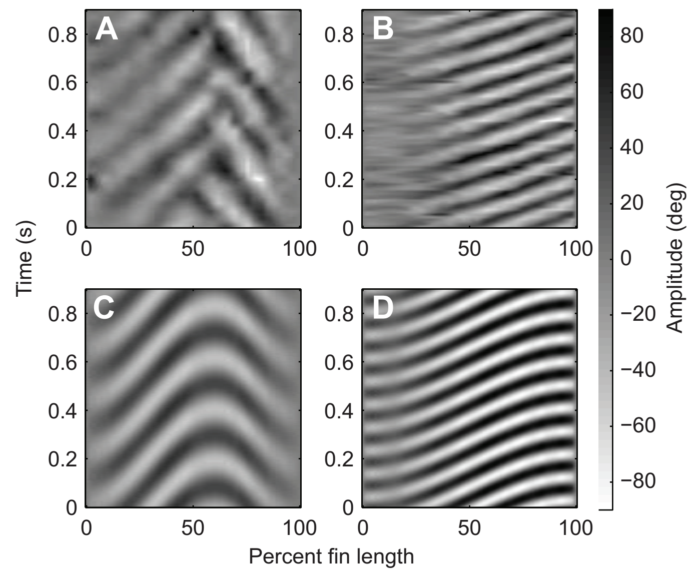

Fig. 10. Traveling wave amplitude comparison across behaviors for a set of representative trials. Grayscale indicates amplitude of fin movement in degrees. (A) Hovering experimental data. (B) Surging experimental data, swimming velocity of 19.7 cm s^{-1}. (C) Hovering simulated data. (D) Surging simulated data.

This error can be found in Fig. 9B, as well as in the sentence ‘The amount of stretch might not be insignificant: as Fig. 9B shows, the edge of the fin is 1.3 times the length of the fin base for a hovering fish.’ This sentence should read ‘The amount of stretch might not be insignificant: as Fig. 9B shows, the edge of the fin is 1.2 times the length of the fin base for a hovering fish.’

The corrected figures appear here.

The authors apologise for any inconvenience, and assure readers that these errors do not affect any other part of the analysis or conclusions.

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