

CORRECTION

Correction: Tackling the Tibetan Plateau in a down suit: insights into thermoregulation by bar-headed geese during migration

Nicole Parr, Charles M. Bishop, Nyambayar Batbayar, Patrick J. Butler, Beverly Chua, William K. Milsom, Graham R. Scott and Lucy A. Hawkes

There were errors published in Journal of Experimental Biology (2019) 222, 203695 (doi: 10.1242/jeb.203695).

The authors discovered that autocorrelation was not properly accounted for in their analyses of body temperature. They reanalysed the data using a CorARMA correlation term and found that the overall results and conclusions were unaltered. This was confirmed by a reviewer of the original paper, who was asked to review the corrected version and specifically state whether or not, in their opinion, the conclusions were unchanged.

The new analysis has altered some of the minor results relating to change in T_b reported in Figs 3 and 7 (shown here) and in several places in the Results section. The data for stationary days in Table S1 and the estimates and CIs reported in Table S2 have also changed.

Both the online full-text and PDF versions of the article and supplementary information have been updated. The original uncorrected PDFs with the errors highlighted are available as supplementary material to this Correction, so that readers can clearly see where changes have been made.

The authors apologise for these errors and any inconvenience they may have caused.

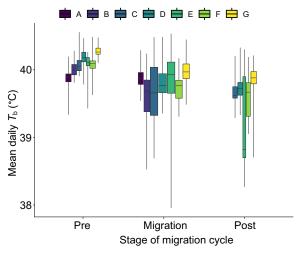


Fig. 3. (corrected). Bar-headed goose $T_{\rm b}$ throughout the tracking period. Boxplots showing mean daily $T_{\rm b}$ at three stages of the tracking period relative to migration (N=7 geese pre-migration and during migration, N=5 post-migration). Boxes show interquartile range, horizontal black line inside the box shows median value, and whiskers show the minimum and maximum $T_{\rm b}$ per goose. Box width reflects the relative number of days per goose included in each case.

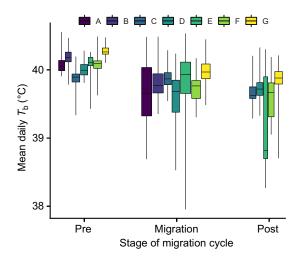


Fig. 3. (original). Bar-headed goose $T_{\rm b}$ throughout the tracking period. Boxplots showing mean daily $T_{\rm b}$ at three stages of the tracking period relative to migration (N=7 geese pre-migration and during migration, N=5 post-migration). Boxes show interquartile range, horizontal black line inside the box shows median value, and whiskers show the minimum and maximum $T_{\rm b}$ per goose. Box width reflects the relative number of days per goose included in each case.

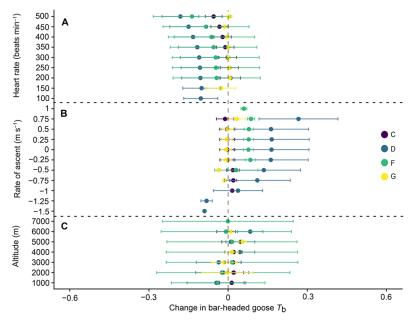


Fig. 7. (corrected). The effect of altitude, heart rate and climb speed on flying bar-headed goose T_b . Dashed grey vertical line at 0 represents no effect of each predictor on T_b , and larger effect sizes (°C changes from mean T_b) in either direction indicate a stronger negative or positive effect of the predictor, for (A) heart rate, (B) rate of ascent and (C) altitude. Coloured circles show the mean effect per goose (N=4), and horizontal error bars represent the 95% CI. For example, at 2000 m altitude, goose C T_b dropped by 0.008°C on average. Altitude is grouped into 1000 m bins, rate of ascent/descent is grouped into 0.25 m s⁻¹ bins, and heart rate is grouped into 50 beats min⁻¹ bins. Data were filtered to include only long (over 1 h) flights and modelled using mixed models with flight ID as a random factor and temporal autocorrelation as accounted for using a corARMA term with the structure model optimised to each goose (Goose C, p=3, q=2; Goose D, p=1, q=2; Goose F, p=1, q=3; Goose G, p=3, q=2) and confirmed using AICc model selection.

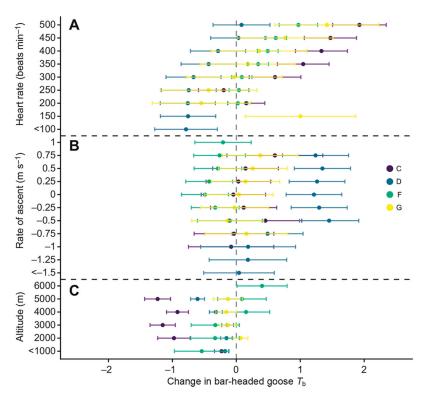


Fig. 7. (original). The effect of altitude, heart rate and climb speed on flying bar-headed goose T_b . Dashed grey vertical line at 0 represents no effect of each predictor on T_b , and larger effect sizes (°C changes from mean T_b) in either direction indicate a stronger negative or positive effect of the predictor, for (A) heart rate, (B) rate of ascent and (C) altitude. Coloured circles show the mean effect per goose (N=4), and horizontal error bars represent the 95% CI. For example, at 2000 m altitude, goose C T_b dropped by 1°C on average. Altitude is grouped into 1000 m bins, rate of ascent/descent is grouped into 0.25 m s⁻¹ bins, and heart rate is grouped into 50 beats min⁻¹ bins. Data were filtered to include only long (over 1 h) flights and modelled using mixed models with flight ID as a random factor and temporal autocorrelation as accounted for using a corAR1 term.