

Estimating energy expenditure of animals using the accelerometry technique: activity, inactivity and comparison with the heart-rate technique

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Several errors were published in the original online version of *J. Exp. Biol.* **212**, 471-482. These errors occurred in both the PDF and full-text versions of the online article but have now been corrected. The print version is correct.

The captions of Figs 9 and 10 were truncated, and the caption published under Fig. 11 referred to Fig. 10.

Figs 9–11, together with the correct captions, are printed below.

We sincerely apologise to all authors and readers of this article for any inconvenience this has caused.

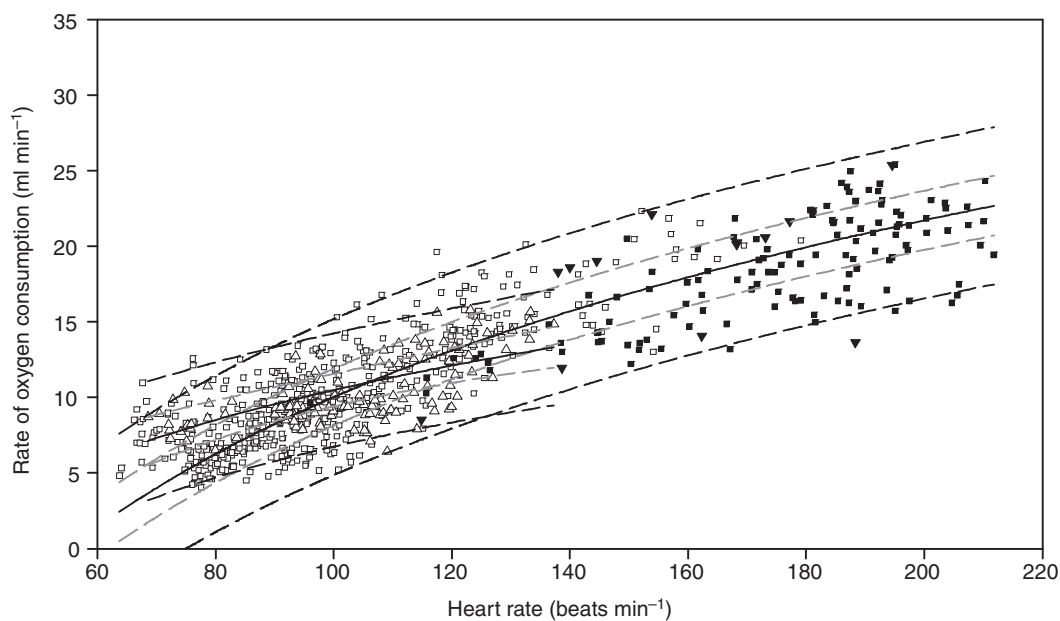


Fig. 9. Rate of oxygen consumption as a function of heart rate in eight bantam chickens. Data were recorded while the chickens walked on a treadmill (filled squares), ate a meal of food pellets (filled triangles), digested the meal of food pellets (open triangles) or thermoregulated (open squares). Also plotted are two best-fit regression lines (solid line) and 95% confidence intervals (black dashed lines) and 95% prediction intervals (grey broken lines). 95% confidence intervals were calculated as if $s\dot{V}_{O_2}$ was estimated from one measurement of heart rate, during one additional behaviour by one additional chicken. 95% prediction intervals were calculated as if $s\dot{V}_{O_2}$ was estimated from 10,000 measurements of heart rate, during four additional behaviours by 100 additional chickens, effectively the smallest possible prediction interval for this model.

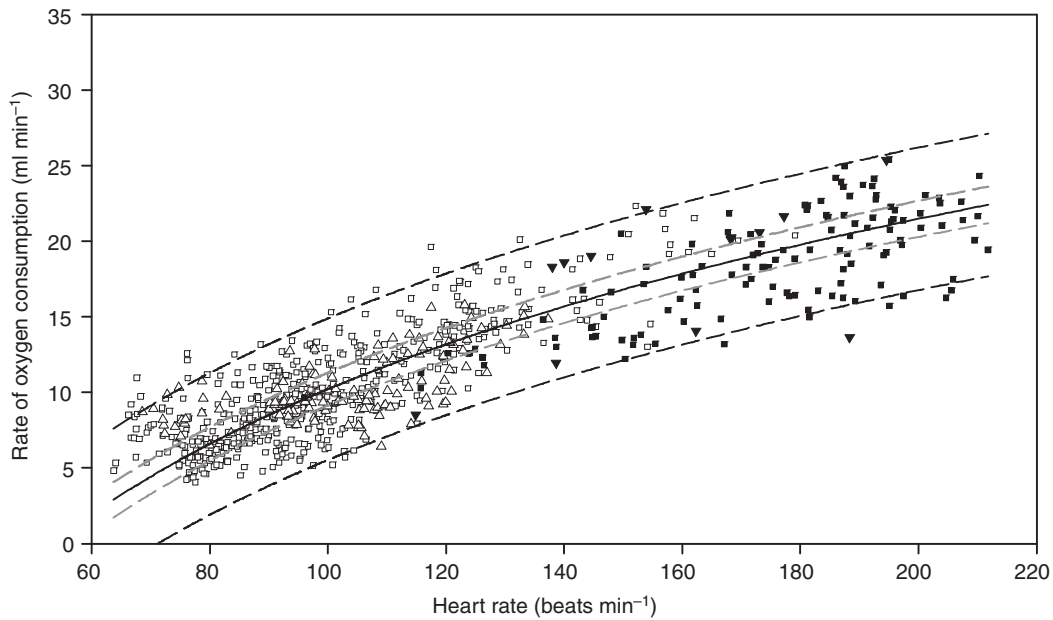


Fig. 10. Rate of oxygen consumption as a function of heart rate in eight bantam chickens. Data were recorded while the chickens walked on a treadmill (filled squares), ate a meal of food pellets (filled triangles), digested the meal of food pellets (open triangles) or thermoregulated (open squares). Also plotted are best-fit regression lines (solid line) and 95% confidence intervals (black broken lines) and 95% prediction intervals (grey broken lines). 95% confidence intervals were calculated as if $s\dot{V}_{O_2}$ was estimated from one measurement of heart rate, during one behaviour by one additional chicken. 95% prediction intervals were calculated as if $s\dot{V}_{O_2}$ was estimated from 10,000 measurements of heart rate, during four additional behaviours by 100 additional chickens, effectively the smallest possible prediction interval for this model.

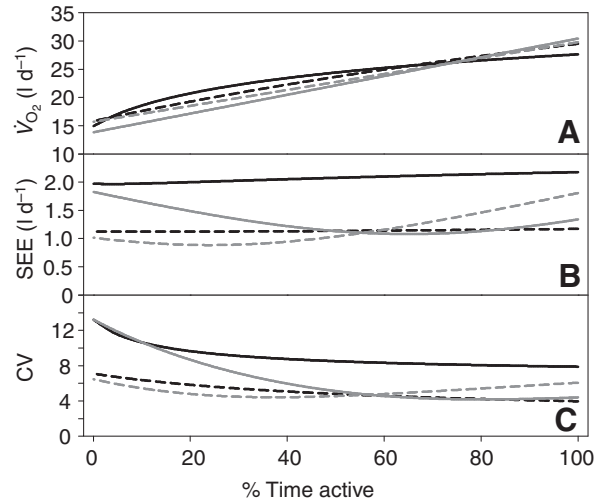


Fig. 11. Simulation showing the effect of model selection on precision and accuracy when estimating the rate of oxygen consumption (\dot{V}_{O_2}) in bantam chickens. A day in the life of a chicken was repeatedly simulated where the proportion of time spent 'active' was varied between 0 and 100%. (A) \dot{V}_{O_2} , (B) the standard error of the estimate (s.e.e.) and (C) the coefficient of variation ($CV=100 \times s.e.e./Estimate$) were calculated for this range of activity using four predictive approaches. Each of the four approaches used either partial dynamic body acceleration in the x and z axis (PDBA_{xz}) or heart rate (f_H) to predict \dot{V}_{O_2} . The approaches used were (1) one-model using PDBA_{xz} (black solid lines), (2) two-model using PDBA_{xz} (grey solid lines), (3) one-model using f_H (black broken lines), (4) two-model using f_H (grey broken lines). See text for further details of the four predictive approaches.