Supplemental material for:

An accelerometer-derived ballistocardiogram method for detecting heartrates in free-ranging marine mammals

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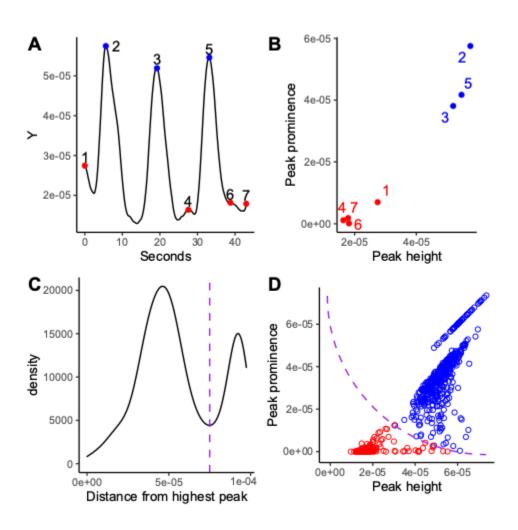


Figure S1: Heuristic method for discriminating between major and minor peaks. A: Minor peaks (red points) in the ballistocardiogram (BCG, line) were not considered heart beats. Only major peaks (blue points) were retained for analysis. The BCG for one motionless period shown here. B: We used peak height and prominence (i.e. height relative to the contour surrounding a higher peak) to heuristically differentiate major and minor peaks. For each peak, we calculated the Euclidean distance (in height-prominence space) to the highest peak overall. The peaks in A shown here in height-prominence space. C: The distance to the highest peak exhibited a bimodal distribution. We chose a distance threshold (dashed purple line) corresponding to the valley in the density curve. D: All peaks found in the BCG across all motionless periods in height-prominence space. Solid and hollow points as in A. The dashed purple curve corresponds to the distance threshold in C.