

Fig. S1. Comparison between ascent swimming efforts until 200 m and until the surface. We can observe a small difference which can be explain by a small effect of the lung on buoyancy above 200 m depth. But we can assume that the effect is minor and thus analyses could be done without taking care of the 200 m depth threshold.

Ascent phases until 200m

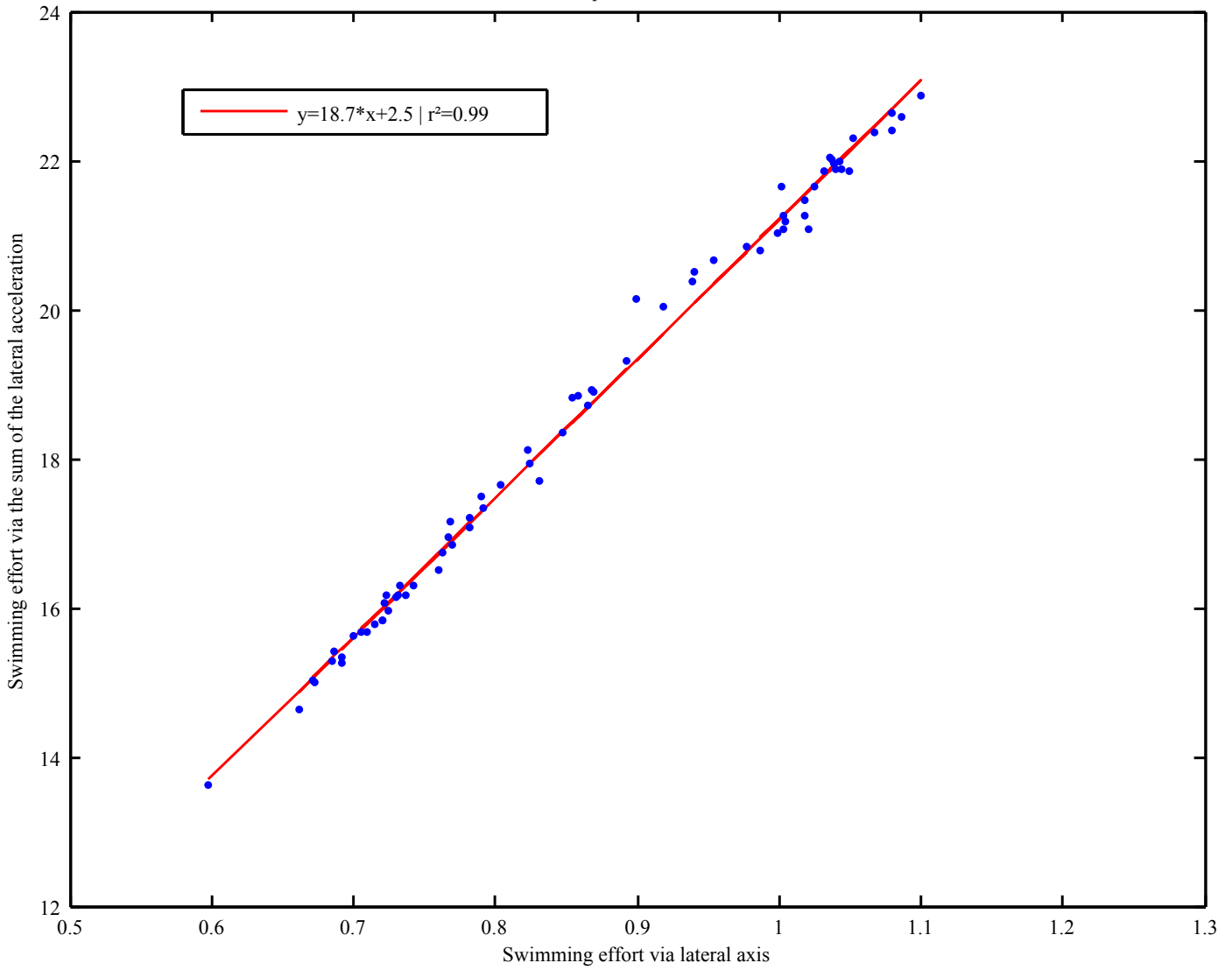


Fig. S2. Linear regression, for the 3 dive phases, between the swimming effort used in our study, calculated with the lateral axis, and a swimming effort calculated by the same way (i.e. the same index) but using the 3 axes of the accelerometer:

Ascent phase

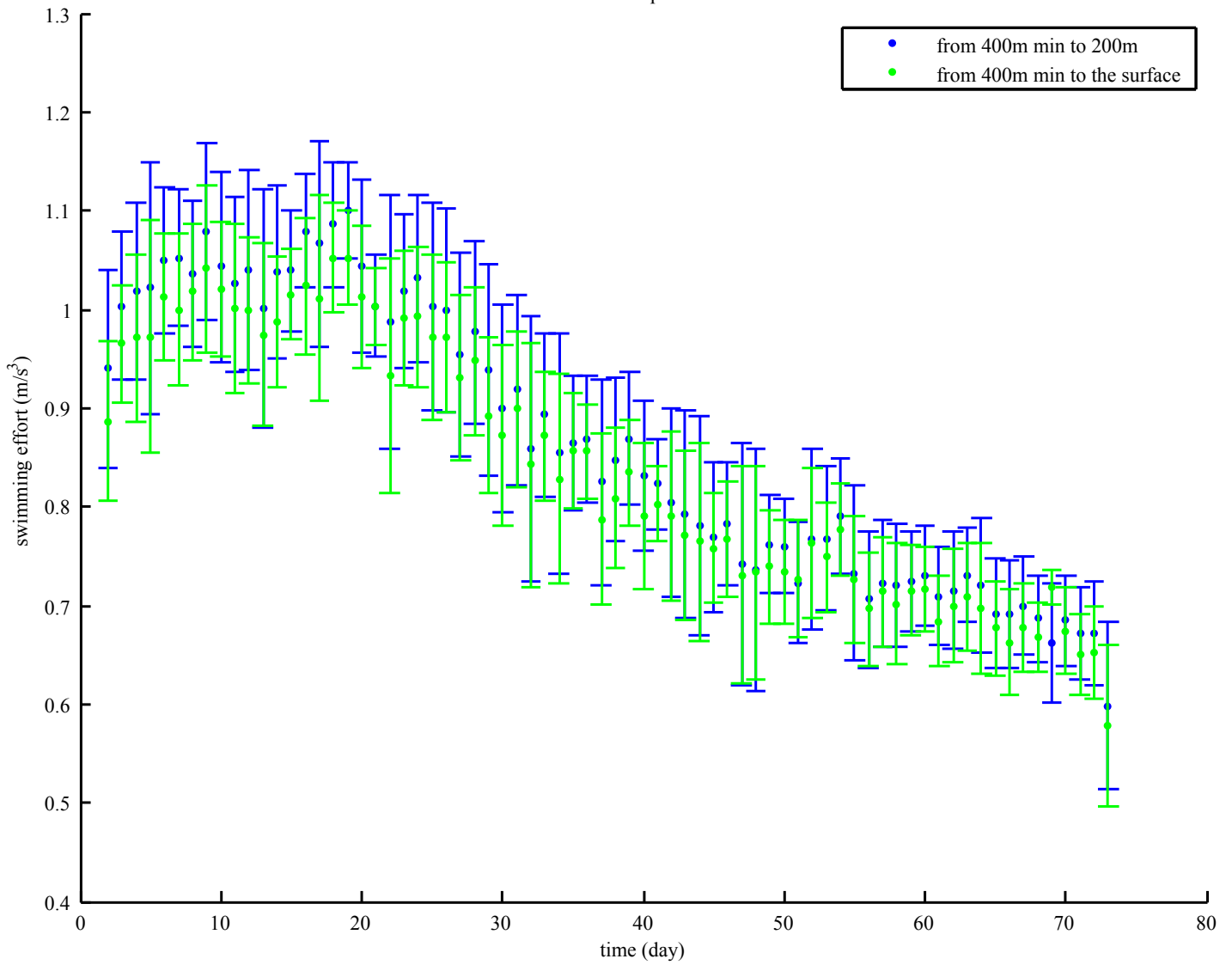


Fig. S3. Linear regression, for ascent phases until 200 m depth, between the swimming effort used in our study and a swimming effort calculated similarly to 'ODBA' but on the lateral axis, i.e. we sum the lateral acceleration of the studied phase: