

Table S1. Regression coefficients for the least-squares exponential relationships between swimming speed and various respiratory variables in seven individual *Gymnotus carapo*, as shown in Figs 1–3

Variable	Figure	Fish number							Mean ± s.e.m.
		1	2	3	4	5	6	7	
		Symbol on figure							
Variable	Figure	□	◆	■	◆	■	◆	■	Mean ± s.e.m.
Norm \dot{M}_{O_2} with air	1A	0.98	1.00	0.95	0.99	0.97	0.99	0.99	0.98±0.01
Norm \dot{M}_{O_2} w/o air	1B	0.99	0.97	0.98	0.83	0.98	0.98	0.96	0.96±0.02
Hyp \dot{M}_{O_2} with air	1C	0.95	0.94	0.96	0.98	0.92	0.98	0.93	0.95±0.01
Hyp \dot{M}_{O_2} w/o air	1D	1.00	1.00	0.92	0.89	0.89	1.00	1.00	0.96±0.02
Norm \dot{M}_{aO_2}	2A	0.93	0.90	0.92	0.92	0.94	0.99	0.96	0.94±0.01
Norm \dot{M}_{wO_2}	2B	0.97	0.91	0.99	1.00	0.94	0.97	0.99	0.97±0.01
Hyp \dot{M}_{aO_2}	2C	0.83	0.70	0.93	0.90	0.93	0.97	0.80	0.87±0.04
Hyp \dot{M}_{wO_2}	2D	0.70	0.94	0.98	0.96	0.85	0.95	0.93	0.90±0.01
Norm f_{AB}	3A	0.72	0.82	0.76	0.95	0.86	0.76	0.91	0.83±0.03
Hyp f_{AB}	3B	0.95	0.94	0.95	0.92	0.95	0.98	0.88	0.94±0.01

Norm, normoxia ($P_{\text{O}_2} \sim 19$ kPa); Hyp, hypoxia ($P_{\text{O}_2} = 4$ kPa); \dot{M}_{O_2} , total oxygen uptake; with air, with access to air breathing; w/o air, without access to air breathing; \dot{M}_{aO_2} , oxygen uptake from air; \dot{M}_{wO_2} , oxygen uptake from water; f_{AB} , air-breathing frequency.