

Table S1. *Glycolytic enzyme activities (i.u. g<sup>-1</sup> tissue) in tissues of Fundulus grandis held under normal and reduced oxygen levels for 4 weeks at 27°C*

Enzyme	Muscle		Liver		Heart		Brain	
	Normoxia	Hypoxia	Normoxia	Hypoxia	Normoxia	Hypoxia	Normoxia	Hypoxia
HK	n.d.	n.d.	0.34±0.15	0.25±0.17	8.8±1.7	10.0±1.9*	6.7±1.2	7.8±1.4*
PGI	98±17	60±19**	64±13	76±15*	178±24	161±27*	79±10	83±11
PFK	9.7±3.4	5.9±3.8*	0.9±0.3	1.4±0.4**	12.2±4.9	9.3±5.5	6.9±0.9	6.5±1.0
ALD	89±16	46±18**	14±3	12±4	22±5	19±5	17±2	18±2
TPI	1920±496	1300±550**	1680±641	1850±710	1130±190	1170±211	478±66	547±73*
GAPDH	119±56	66±62*	140±32	183±36*	144±46	129±51	93±13	98±14
PGK	95±38	73±42	100±27	173±30**	119±19	110±21	67±10	74±11
PGM	199±25	142±27**	68±12	74±14	143±24	142±26	71±14	62±15
ENO	42±26	16±29*	49±14	49±16	20±5	17±5*	22±2	22±3
PYK	103±21	68±23**	15±3	17±4	79±16	88±18	89±13	90±14
LDH	346±54	205±59**	282±57	367±64**	334±58	314±65	160±25	172±28

HK, hexokinase; PGI, phosphoglucosomerase; PFK, phosphofructokinase; ALD, aldolase; TPI, triose phosphate isomerase; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; PGK, phosphoglycerokinase; PGM, phosphoglyceromutase; ENO, enolase; PYK, pyruvate kinase; LDH, lactate dehydrogenase.

Values are least-squared means (±1 s.d.) from two-way ANOVA testing the effects of dissolved oxygen treatment and sex of fish. Sample sizes were 19 for normoxia and 20–22 for hypoxia. n.d., not determined.

Significantly different between normoxia and hypoxia, \* $P \leq 0.05$ ; \*\* $P \leq 0.001$ .

Table S2. *Activities of enzymes of glycogen metabolism (i.u. g<sup>-1</sup> tissue) in tissues of Fundulus grandis held under normal and reduced oxygen levels for 4 weeks at 27°C*

Enzyme	Muscle		Liver	
	Normoxia	Hypoxia	Normoxia	Hypoxia
Total GPase	8.59±1.76	5.40±1.95**	2.80±0.76	2.31±0.84
Active GPase	1.57±0.74	0.78±0.81*	2.36±0.72	1.73±0.80*
Total GSase	1.35±0.25	0.99±0.28**	0.96±0.34	1.28±0.38*
Active GSase	0.19±0.12	0.14±0.13	0.15±0.07	0.15±0.08

GPase, glycogen phosphorylase; GSase, glycogen synthase.

Values are least-squared means (±1 s.d.) from two-way ANOVA testing the effects of dissolved oxygen treatment and sex of fish. Sample sizes were 19 for normoxia and 22 for hypoxia.

Significantly different between normoxia and hypoxia, \* $P \leq 0.05$ ; \*\* $P \leq 0.001$ .

Table S3. *Gluconeogenic enzyme activities (i.u. g<sup>-1</sup> tissue) in liver of Fundulus grandis held under normal and reduced oxygen levels for 4 weeks at 27°C*

Enzyme	Normoxia	Hypoxia
MDH	504±128	636±142*
PEPCK	2.88±1.36	2.72±1.53
FBPase	5.04±1.14	6.32±1.27*
G6Pase	5.00±0.97	4.67±1.08

MDH, malate dehydrogenase; PEPCK, phosphoenolpyruvate carboxykinase; FBPase, fructose-1,6-bisphosphatase; G6Pase, glucose-6-phosphatase.

Values are least-squared means (±1 s.d.) from two-way ANOVA testing the effects of dissolved oxygen treatment and sex of fish. Sample sizes were 16–19 for normoxia and 22 for hypoxia. Significantly different between normoxia and hypoxia, \* $P \leq 0.05$ .