Table S1. Results of best fitted linear mixed-effects model testing for effects of rearing temperature, test temperature, ploidy and the interactions on routine oxygen consumption rates ($MO_{2,routine}$) in zebrafish (*Danio rerio*) larvae based on the Michaelis–Menten equation. Ploidy is expressed as % induction of 3n (See Methods: Ploidy determination for further details).

Factor	Coefficient	s.e.	*t*-value	*P*
(Intercept)	36.9660	22.0999	1.673	0.0952
test T	-0.8168	0.8227	-0.992	0.3220
rear T	-1.7895	0.8406	-2.129	0.0339
ploidy	-0.6147	0.2701	-2.275	0.0234
test T × rear T	0.0609	0.0312	1.947	0.0522
test T × ploidy	0.0226	0.0100	2.250	0.0249
rear T × ploidy	0.0257	0.0102	2.509	0.0125
test T × rearT × ploidy	-0.0009	0.0004	-2.480	0.0135

Note: estimates based on 422 observations.

Table S2. Results of best fitted linear mixed-effects model testing for effects of rearing temperature, test temperature, ploidy and the interactions on routine oxygen consumption rates ($MO_{2,routine}$) in zebrafish (*Danio rerio*) larvae based on the Michaelis–Menten equation. Body mass was included in the model as a covariate. Ploidy is expressed as % induction of 3n (See Methods: Ploidy determination for further details).

Factor	Coefficient	s.e.	*t*-value	*P*
(Intercept)	32.8670	21.9528	1.497	0.1352
body mass*	0.0487	0.0142	3.421	0.0007
test T	-0.8001	0.8166	-0.980	0.3278
rear T	-1.7382	0.8334	-2.086	0.0376
ploidy	-0.6404	0.2654	-2.413	0.0163
test T × rear T	0.0600	0.0310	1.937	0.0535
test T × ploidy	0.0235	0.0099	2.378	0.0179
rear T × ploidy	0.0266	0.0101	2.646	0.0085
test T × rearT × ploidy	-0.0010	0.0004	-2.610	0.0094

Note: * body mass was estimated as length cubed, estimates based on 410 observations.

Table S3. Results of best fitted linear mixed-effects model testing for effects of rearing temperature, test temperature and ploidy on critical value of PO_2 (P_{50}) in zebrafish (*Danio rerio*) larvae based on the Michaelis–Menten equation. Ploidy is expressed as % induction of 3n (See Methods: Ploidy determination for further details).

Factor	Coefficient	s.e.	*t*-value	*P*
(Intercept)	-18.6320	3.3801	-5.512	<0.0001
test T	1.3397	0.09242	14.496	<0.0001
rear T	-0.1729	0.0935	-1.849	0.0652
ploidy	0.013064	0.0047	2.764	0.0060

Note: the best fitting model did not include interactions, estimates based on 422 observations.
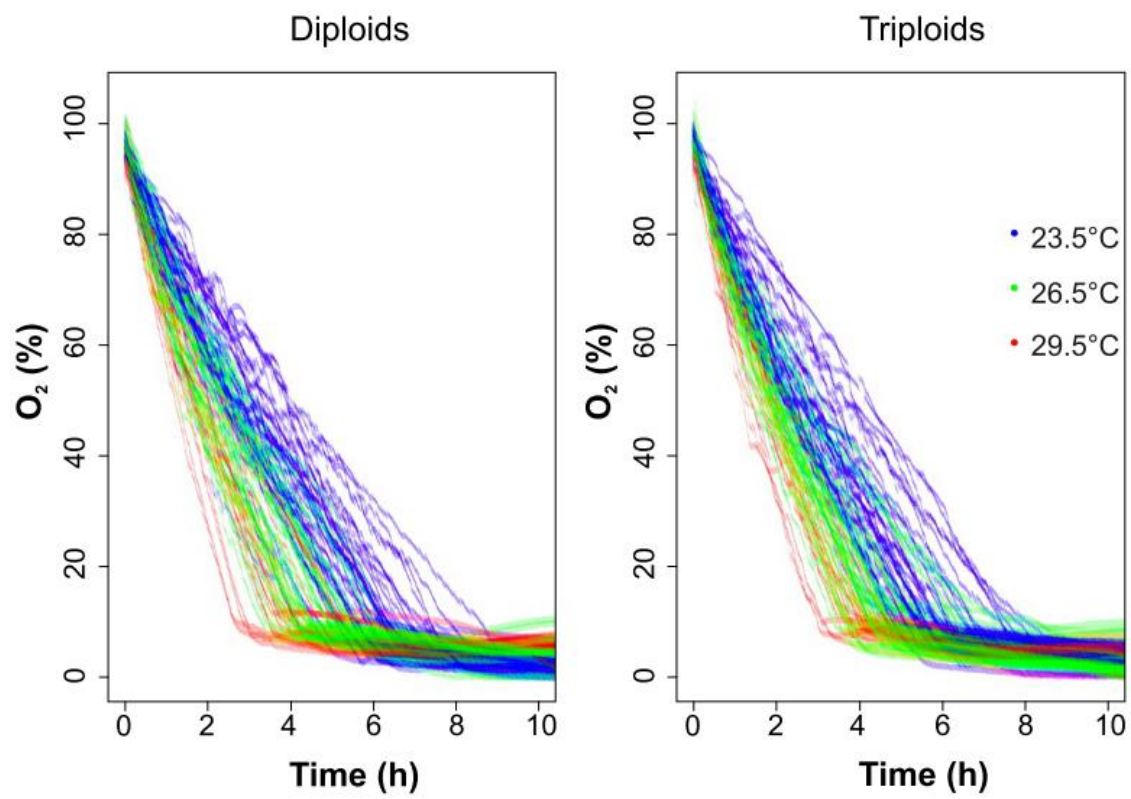
Fig. S1. Oxygen saturation traces through time for diploid and triploid zebrafish (*Danio rerio*) larvae. Each line is an individual, colour coded according to the test temperature.
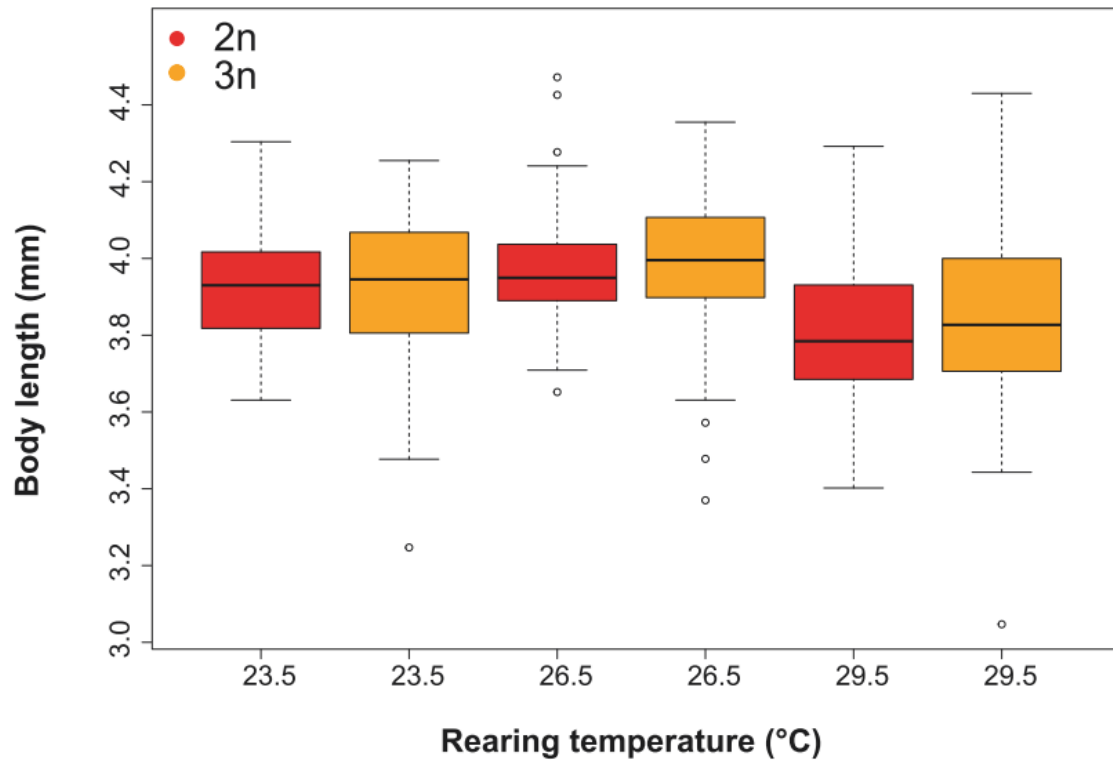
Fig. S2. Body length of diploid and triploid zebrafish (*Danio rerio*) larvae at each of the three rearing temperatures: 23.5°C (incubated 6 days), 26.5°C (incubated 5 days) and 29.5°C (incubated for 4 days). At the end of the incubation period, all fish had reached the same developmental stage (resorbed yolk sack). Median, 75th percentile, 25th percentile, range of nonoutlier values and outlier values are shown.
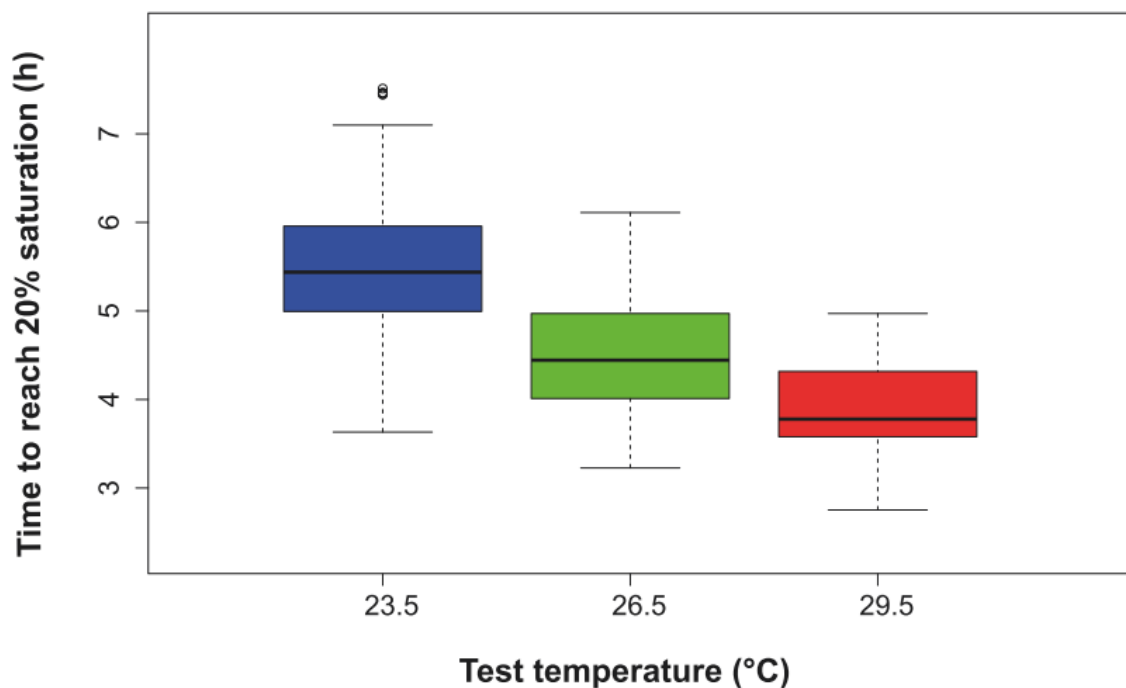
Fig. S3. The time until the zebrafish (*Danio rerio*) larvae depleted the oxygen saturation down to 20% at different test temperatures. The rate at which larvae depleted oxygen down to 20% (i.e. the inverse of time) had a thermal sensitivity similar to most other physiological rates; the activation energy was found to be 0.539 (0.523-0.554), corresponding to a Q10 of approximately 2.01. Median, 75th percentile, 25th percentile, range of nonoutlier values and outlier values are shown.