Supplementary material

Provision of environmental flows promotes spawning of a nationally threatened diadromous fish

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There was strong co-linearity between day-of-the-year (DOY) and water temperature ($R^2 =$ –0.87), so we excluded temperature from formal analyses. Nonetheless, we also ran analyses including temperature instead of DOY and present the results of these here for reference. The best temperature model had a delta Akaike information criterion of 22.17, compared with the best DOY model in Table 3 in the main paper. This means that there was very little support for a temperature-only model.
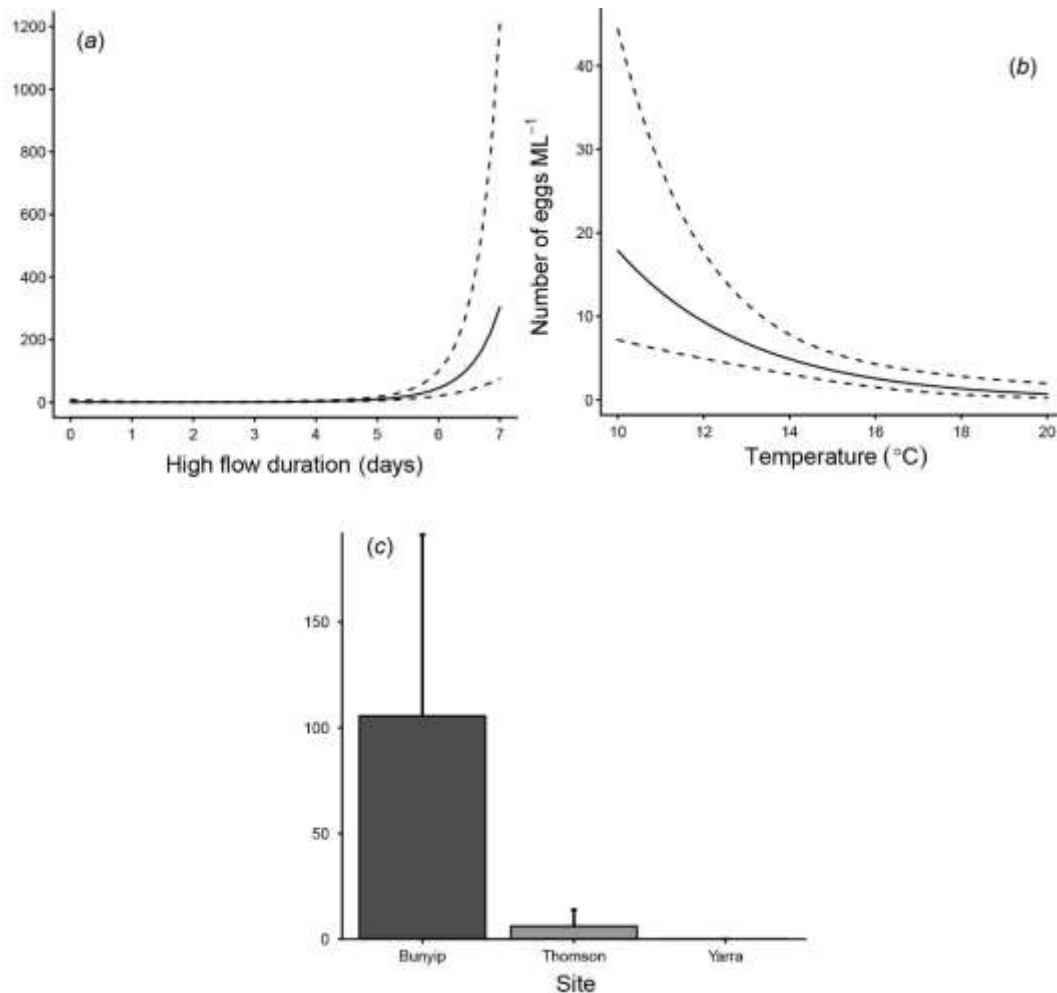

Fig. S1. Predicted catches (±95% confidence intervals) of Australian grayling eggs per megalitre *v*. (*a*) high flow duration, (*b*) water temperature and (*c*) river. Each plot is produced controlling for other covariates.

Table S1.   Parameter estimates and test statistics for the best negative binomial general linear model (derived from sequential likelihood-ratio tests, including temperature *in lieu* of day-of-the-year), describing variation in Australian grayling egg counts in 2013 and 2014 in the Bunyip, Yarra and Thomson rivers

Superscripts denote polynomial terms

Parameter	Estimate $\pm$ s.e.	z-value	Probability
Intercept	-2.758 ± 0.307	8.973	<0.001
High flow duration	0.746 ± 0.128	5.834	<0.001
High flow duration^2	0.192 ± 0.064	3.007	0.003
Temperature	-0.324 ± 0.085	3.800	<0.001
River Thomson (compared with Bunyip)	-2.849 ± 0.522	5.546	<0.001
River Yarra (compared with Bunyip)	-7.489 ± 0.564	13.276	<0.001