Larval fish sensitivity to a simulated cold-water pulse varies between species and age

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Table S1. Generalised Additive Mixed Models (GAMMs) considered to assess the effects of treatment variables (temperature, age and bench) on the probability of fish entering a state of 'loss of equilibrium'. Model formulae include; a penalised thin plate regression spline (s(temperature, bs='ts')), fixed factors (e.g., age, bench), and a random treatment factor (1|trt). Superior models (bold) were chosen using Akaike information criterion (AIC) values, with a change in AIC (ΔAIC) values >2.0.

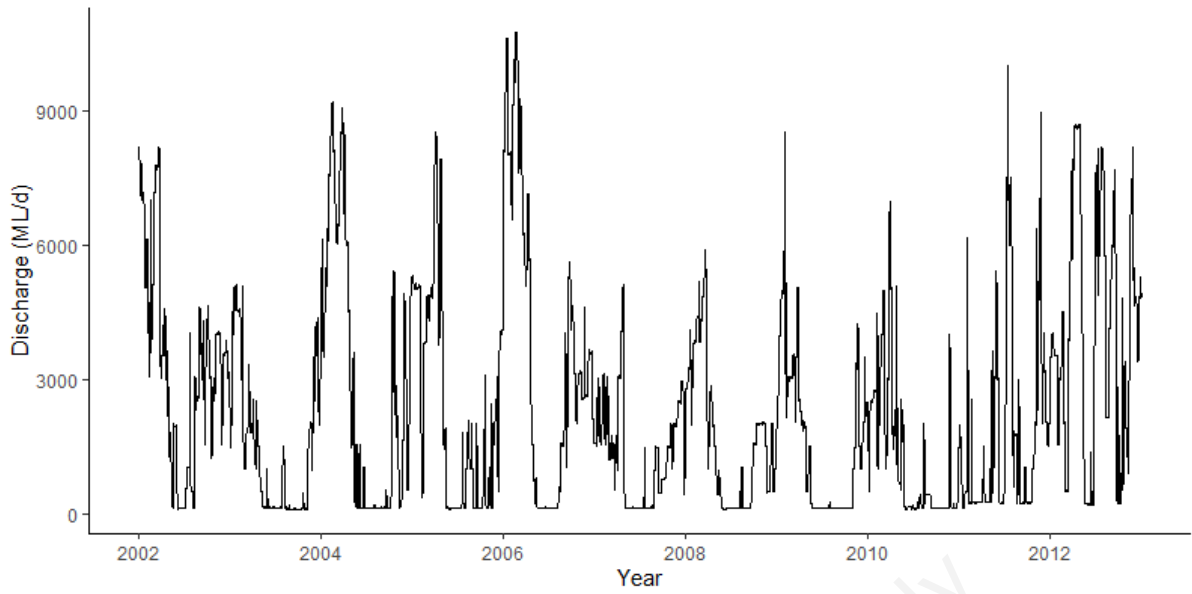| Species	Model no.	Model Formula	AIC	ΔAIC
Maccullochella peelii	1	~ s(temperature, bs='ts') + bench + (1|trt)	242.0	89.4
	2	~ s(temperature, bs='ts') + age + bench + (1|trt)	163.6	11.0
	3	**~ s(temperature, bs='ts', by=age) + age + bench + (1|trt)**	**152.6**	**0.0**
Macquaria australasica	1	~ s(temperature, bs='ts') + bench + (1|trt)	243.5	115.7
	2	**~ s(temperature, bs='ts') + age + bench + (1|trt)**	**127.8**	**0.0**
	3	~ s(temperature, bs='ts', by=age) + age + bench + (1|trt)	130.6	2.8

Figure S1. Goulburn River (case study river) decadal discharge recorded 4 km below Eildon Dam, Australia. Data (https://data.water.vic.gov.au/) collected from gauge station #405203.
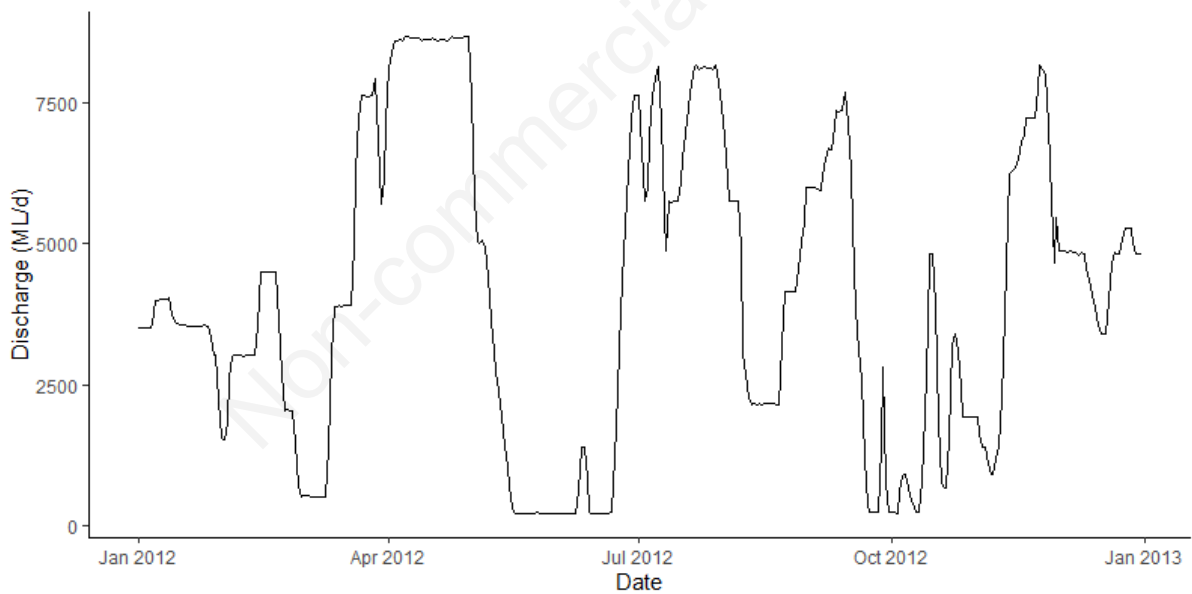

Figure S2. Goulburn River (case study river) annual (2012) discharge recorded 4 km below Eildon Dam, Australia. Data (https://data.water.vic.gov.au/) collected from gauge station #405203.
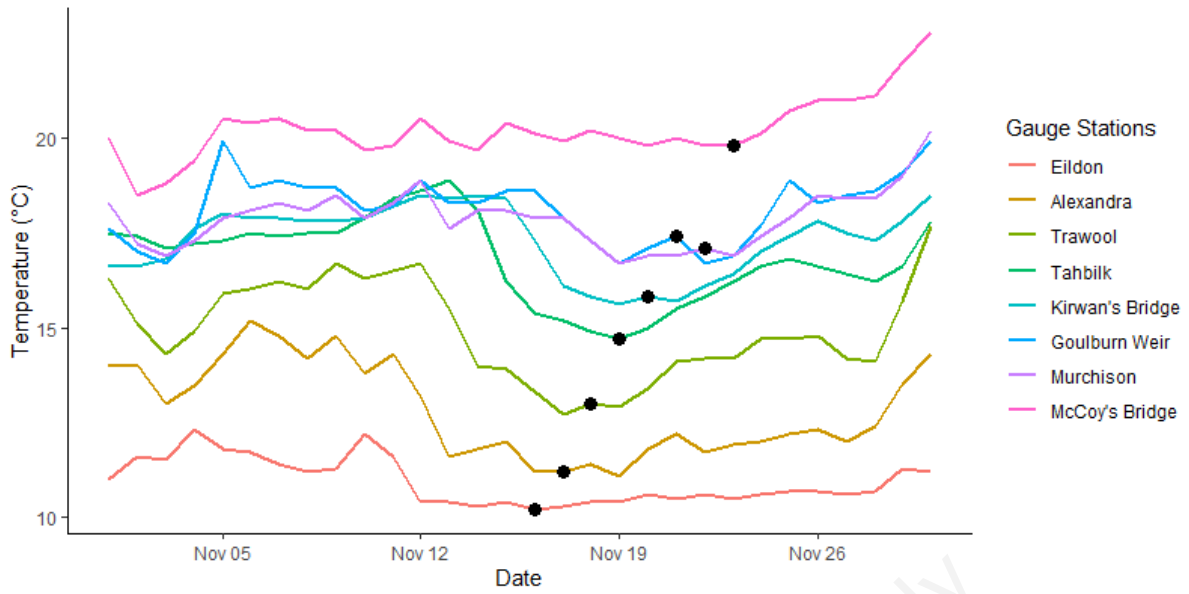
Figure S3. Goulburn River (case study river) daily water temperature (based on the coldest hourly temperature for each day) recorded below Eildon Dam, Australia. Data (https://data.water.vic.gov.au/) was collected from gauge stations located at Eildon (#405203), Alexandra (#405332), Trawool (#405201), Tahbilk (#405323), Kirwan's Bridge (# 405282), Goulburn Weir (#405259), Murchison (#405200) and McCoy's Bridge (#405232). Thermal profiles (key) are presented in descending order downstream of Eildon dam wall. Temperature data was collected on consecutive days (black dots) to construct interpolated riverine thermal profiles.