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Supplementary Material

Hydrological manipulation to assist spawning of a threatened galaxiid fish in a highland lake system

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Table S1. Physico-chemical conditions in pelagic habitats in Lake Crescent and Lake Sorell during the 2007 and 2009 *Galaxias auratus* breeding seasons (July–January). Mean ± s.e. (minimum–maximum) values are presented.

Physico-chemical variable	Lake Crescent		Lake Sorell	
	2007	2009	2007	2009
Water temperature (°C)	11.5 ± 1.1 (3.9–18.1)	10.0 ± 1.0 (4.4–16.4)	11.1 ± 1.0 (3.8–18.7)	10.1 ± 1.0 (4.4–16.3)
Dissolved oxygen (mg L^{-1})	8.9 ± 0.4 (4.5–11.3)	11.1 ± 0.3 (9.5–13.1)	9.7 ± 0.3 (6.6–11.8)	11.1 ± 0.3 (9.4–13.0)
Dissolved oxygen (% saturation)	82 ± 3 (47–92)	97 ± 0.5 (91–101)	89 ± 1 (69–98)	97 ± 1 (94–102)
pH	7.2 ± 0.1 (6.8–7.5)	6.9 ± 0.1 (6.5–7.4)	7.1 ± 0.1 (6.6–7.5)	7.0 ± 0.1 (6.6–7.5)
Electrical conductivity (μS cm^{-1})	166 ± 2 (154–188)	154 ± 7 (128–224)	104 ± 0.9 (99–114)	92 ± 2 (83–108)
Total turbidity (NTU)	234 ± 7 (191–339)	186 ± 19 (95–346)	118 ± 3 (84–139)	138 ± 12 (80–251)

Fig. S1. Water levels in Lake Crescent and Lake Sorell between January 1970 and March 2010. Levels at which littoral wetlands connect to the lakes and rocky shores begin to be inundated in Lake Crescent are indicated. Maximum (full supply level, FSL) and minimum (sill) operating levels of sluice gates are also shown. Water levels are measured in metres of elevation according to the Australian Height Datum (m AHD).

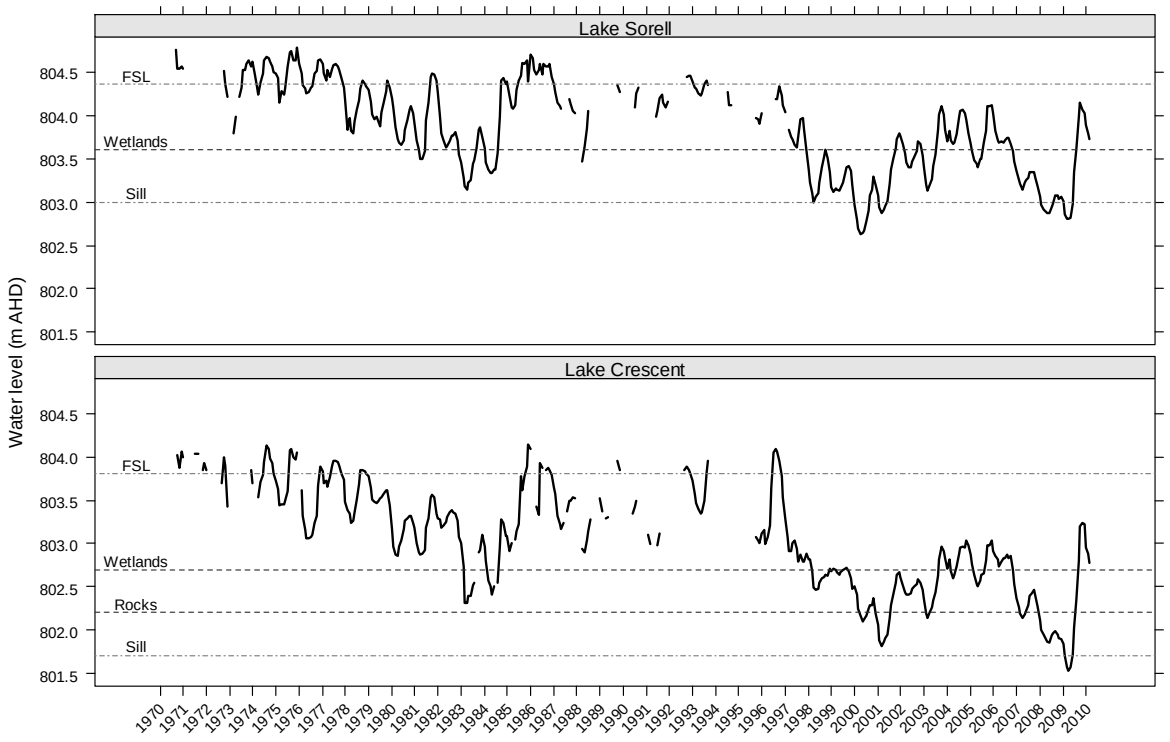
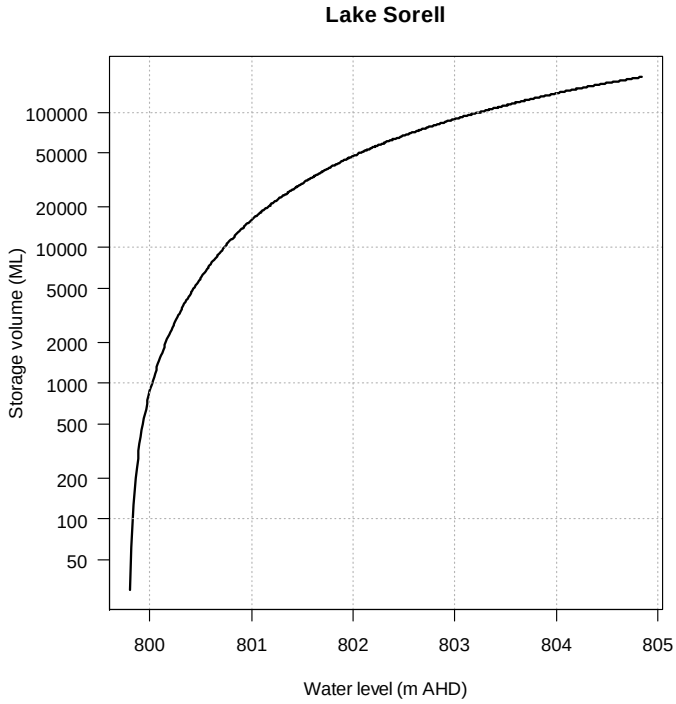


Fig. S2. Relationships between water levels and storage volume in Lake Crescent and Lake Sorell.



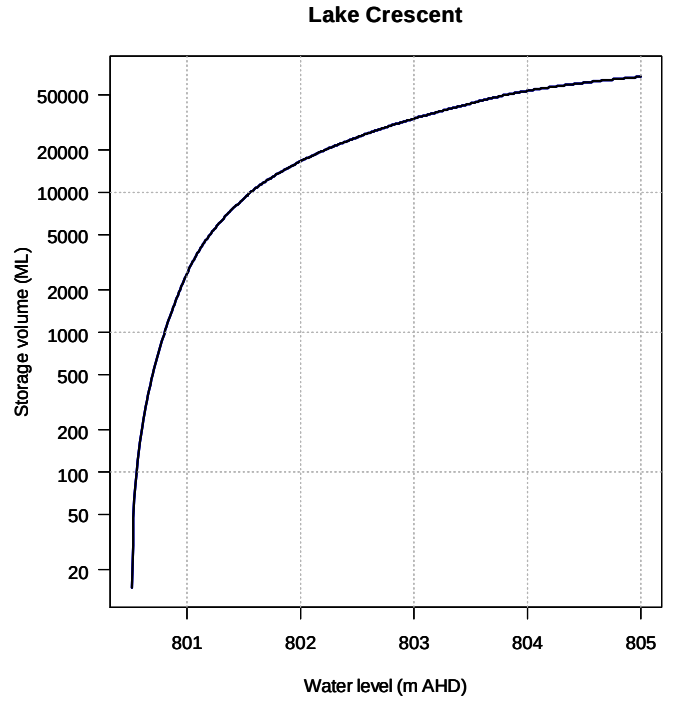
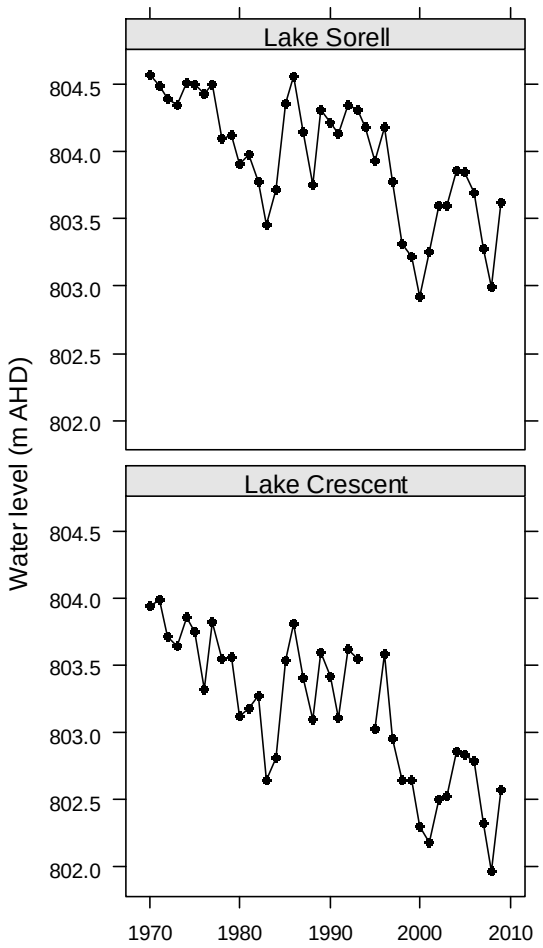


Fig. S3. Mean annual water levels in Lake Crescent and Lake Sorell between 1970 and 2009 plotted with an aspect ratio following the 'banking rule' of Cleveland *et al*. (1988) to visualise long-term trends.



References

Cleveland W. S., McGill M. E., and McGill R. (1988). The shape parameter of a two-variable graph. *Journal of the American Statistical Association* **83**, 289–300.