

Supplementary material

Migration patterns and estuarine aggregations of a catadromous fish, Australian bass (*Percales novemaculeata*) in a regulated river system

D. J. Harding^{A,F}, *R.G. Dwyer*^B, *T. M. Mullins*^A, *M. J. Kennard*^C, *R. D. Pillans*^D and *D.T. Roberts*^E

^ADepartment of Natural Resources and Mines, Landcentre,
Corner Main and Vulture Street, Woolloongabba, Qld 4102, Australia.

^BSchool of Biological Sciences, University of Queensland, St Lucia, Qld 4067, Australia.

^CAustralian Rivers Institute, Griffith University, 170 Kessels Road,
Nathan, Qld 4111, Australia.

^DCSIRO, Oceans and Atmosphere, Ecosciences Precinct, 41 Boggo Road,
Dutton Park, Qld 4102, Australia.

^EQueensland Bulk Water Supply Authority (Seqwater), 117 Brisbane Street,
Ipswich, Qld 4305, Australia.

^FCorresponding author. Email: douglas.harding@dnrm.qld.gov.au

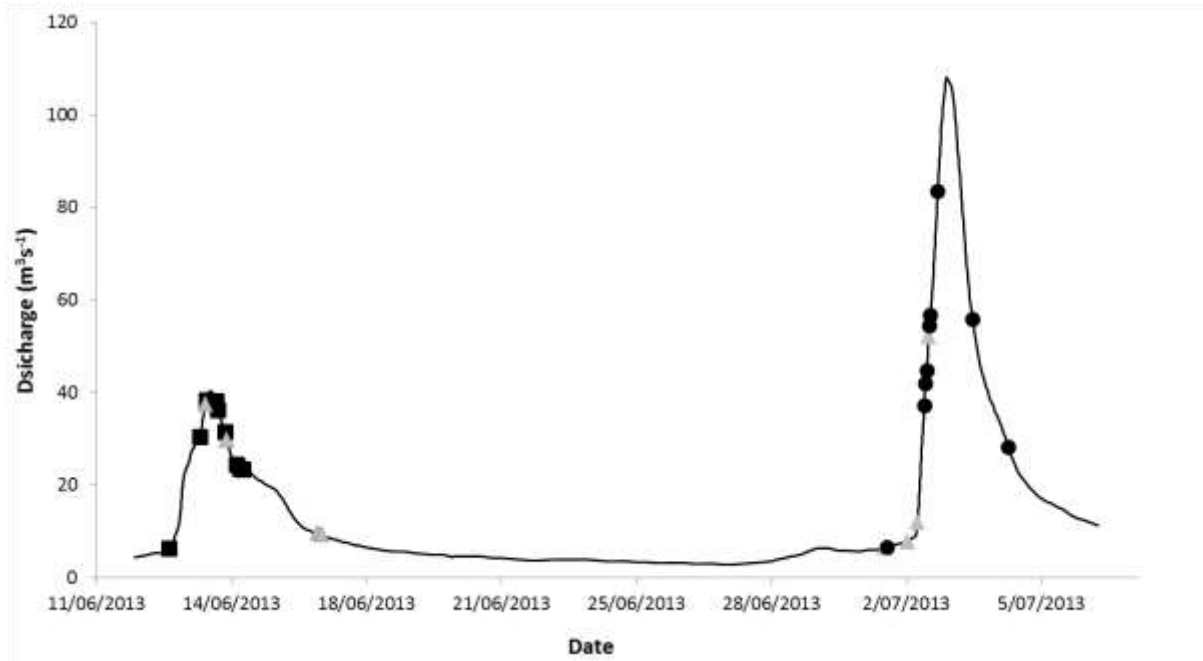


Fig. S1. Last detected time for tagged bass upstream of Cedar Grove Weir and South Maclean Weir associated with instantaneous discharge. Black squares represent bass which migrated on first flow in June 2013. Black circles represent bass which migrated on the second flow in July 2013. Grey triangles represent bass which began migration in June past Cedar Grove Weir and completed their migration past South Maclean Weir on the July flow.

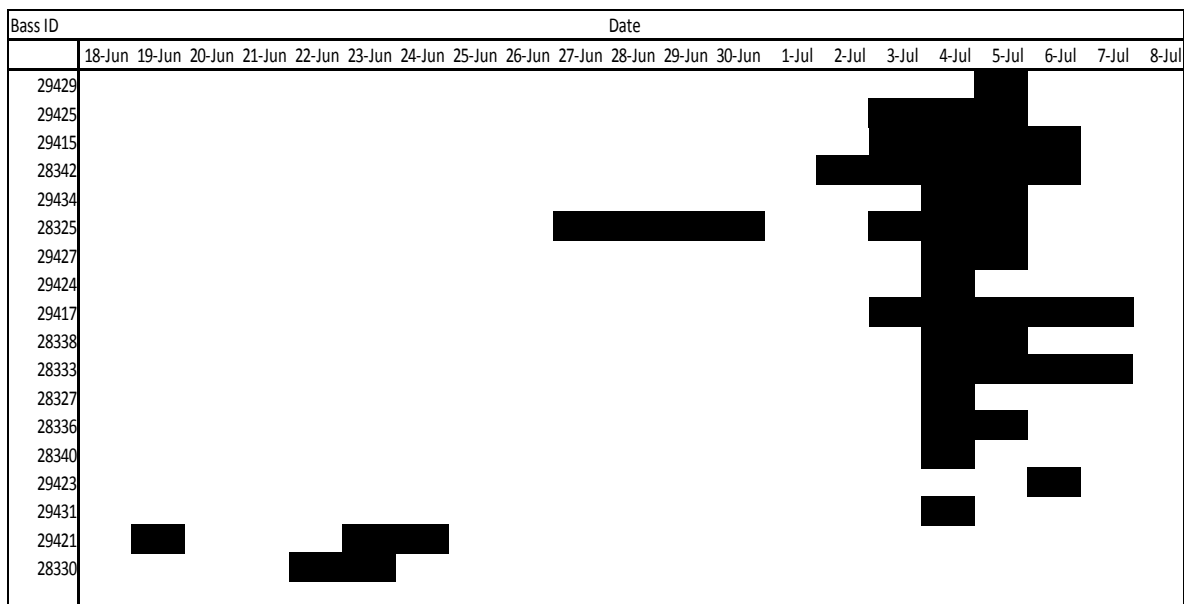


Fig. S2. Bass aggregation dates (see aggregation zone in Fig. 1 in the main paper) between 0 and 6 km adopted middle thread distance (AMTD). Each bass, identified by unique tag (ID). Aggregation of bass was determined to be dates when bass entered lower estuary and either exited river mouth or travelled upstream out of lower estuary (black rectangle). ‘Aggregation’ of bass was determined by the high number of tagged bass present in a similar location at a similar time, e.g. lower estuary.