CAN YOU CONDUCT A NATIONAL ANALYSIS RELATING BIOLOGICAL TRAITS TO FLOW?

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Studies which quantify biological responses to flow are generally very location and data set specific which limits our ability to interpret the results for other locations. We have conducted a study whereby the biological traits of macroinvertebrates and fish were related to hydrological metrics for ten case study regions covering all states and territories. The study design was focused on using a consistent approach to analyse many different biological datasets. Our analysis has focused on testing hypotheses of trait response to flow drivers and to construct a narrative of the flow drivers for each specific case study region. We will present some of the key findings by case study region which demonstrate how biological traits reflect key hydrological measures. The consistent approach to data analysis and interpretation across case studies was intended to allow us to ‘extrapolate’ the results between the case study regions via a parallel hydrological classification. We will demonstrate some of the limitations of large scale traits based analysis. The principal limitation being the need to reduce the resolution of data sets such as collating family level traits lists to allow comparison across different quality data sets and different bioregions.