Editor in Chief of Freshwater Biology

Sydney, 16th May, 2016

Dear Professor David Dudgeon,

Please find enclosed our manuscript **“Environmental drivers of taxonomic and functional diversity of riparian plant communities in a modified landscape”** which we have submitted for consideration as a Standard Paper in *Freshwater Biology*.

In this work we were interested in teasing apart the importance of natural and anthropogenic environmental conditions associated with taxonomic and functional trait diversity in riparian plant communities along 20 river reaches in modified catchments of south-eastern Queensland. Specifically, we tested the hypotheses that environmental heterogeneity is the dominant control on taxonomic and functional trait diversity, and that flow modification and land use intensification is associated with reduced plant diversity.

Contrary to expectations, we found that greater species richness was associated with less environmental heterogeneous sites, and functional trait diversity showed only weak associations with catchment land-use and the extent of flow modification. We conclude that engineered environmental flows may therefore have limited use as a tool in riparian management in modified landscapes of south-eastern Queensland.

We believe this manuscript is suitable for publication in *Freshwater Biology* as it addresses the fundamental ecology of plant-environment interactions in riparian systems as well as being directly relevant to riparian conservation efforts. In addition, analysis of functional trait diversity across environmental gradients represents a novel approach in riparian ecology, as metrics of functional trait diversity capture diversity in terms of plant ecological strategies and environmental responses.

We confirm that this manuscript is original and is not published or under consideration for publication by any other journal. If you feel this contribution is appropriate for your journal, we suggest the following referees:

Nate Hough-Snee, Utah State University, USA(natehoughsnee@gmail.com)

Juliet Stromberg, Arizona State University, USA (jstrom@asu.edu)

Francisca Aguiar, Universidade de Lisboa, Portugal (fcaguiar@fc.ul.pt)

We submit this cover letter, the manuscript, four figures, two tables and three supplementary appendices.

James Lawson is the corresponding author, and email is the preferred form of contact.

Yours sincerely,

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