1. I have cited Catford et al. extensively throughout the thesis, as well as other authors mentioned by the reviewer (Greet, Kominoski, Capon) (?). While I acknowledge that there is a wealth of literature describing qualitative functional responses of riparian vegetation to various environmental gradients (including publications by the authors listed by the reviewer), I was mostly concerned with introducing quantitative, functional trait-based approaches. Happy to pepper a few more refs into the Introduction.
2. I am aware that there are many more factors that influence ecological communities than a single set of processes. I don’t believe I’ve made the case that local flow regime to be the only important factor influencing the ecology of riparian vegetation communities. In Chapters 2-4 I modelled relationships between community descriptors and gradients of statistical metrics of flow regime. I found strong links and the results fit well within the prevailing paradigm that flow regime is an important, even dominant control on riparian ecology. I couldn’t measure or account for every source of variation and in peer review (Ch’s 2&3) I was cautioned not to discuss variables which I did not quantify. I am happy to add a few paragraphs to more clearly define the scope of my investigations and their place within 21st century riparian ecology. I don’t think it would add to my thesis to broaden its scope, however.
   1. With respect to the soil data, I acknowledge that the resolution of national soil map data is insufficient to fully characterize soil characteristics. I did sample soils in the field but unfortunately I ran into problems with soil storage, rendering my samples unusable.
3. I agree with the reviewer that the interplay between succession and biophysical processes is a fascinating and fundamental aspect of riparian ecology. The benefit of functional trait-based approaches is to allow assertions to be made about the function of plant communities in which species-specific knowledge is lacking. The sort of work the reviewer is suggesting would require fine scale analysis of case studies, as opposed to the macroecological environmental gradient analyses described here.
4. Again I agree with the reviewer. Stem flexibility, elasticity and root architecture are of fundamental importance in mediating plant responses to fluvial disturbance. I examined wood density because wood density is known to be a key plant functional trait. A wealth of studies in the functional ecology literature describe the role of wood density in plant ecological strategy, economic spectra associated with wood density, and variation in wood density along numerous environmental and ecological gradients. Using wood density in Chapter 2 allowed me to situate my work within a broader context in plant functional ecology. Studies describing below-ground functional traits of riparian vegetation are sorely needed to extend riparian functional ecology, but to date have been hampered by the difficulty, cost and destructiveness of working on tree roots.
5. Reviewer 1 also requests this information. I have extensive notes on each site described in Ch2&3 including systematic photography and cross-section sketches. Detailed histories are unfortunately difficult to determine for a number of sites. I do not have access to this data for Ch4 as I was working with data collected for a project I was not involved with. Detailed site data for 15 sites would comprise a fairly large appendix. Since Ch2&3 are already published, would this information really add to the body of work?
6. The described scaling was not performed. Geomorphic homogeneity was established by visual inspection and qualitative judgement. Site history is always an issue in ecological studies, and is not easily determined. I attempted to minimize the influence of site history and human alteration of river flows by choosing sites in minimally altered catchments along unregulated rivers. Given the requirement that sites be adjacent to flow gauging stations, unfortunately several sites had undergone some form of human alteration.