Progress Report SP 2010-001

Systematics of the triggerplant genus *Stylidium*

Plant Science and Herbarium

Project Core Team

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Approved and active

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Project Team	granted
Program Leader	granted
Directorate	granted

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Context

With more than 300 known taxa, the triggerplant genus *Stylidium* is one of the most abundant and diversified genera in Australia. While substantial progress has been made over the past 20 years in documenting Australia's *Stylidium* diversity, our knowledge of the genus remains insufficient for scientific and conservation needs. There are new taxa awaiting formal description, species complexes that remain poorly understood, and a number of nomenclature and typification issues that require resolution. Perhaps the most significant issue at this point in time is the lack of an identification guide and readily accessible diagnostic information for the known species in Western Australia, which hinders accurate identification by conservation personnel, botanical consultants and other stakeholders. This is especially concerning in the south-west region where 86 taxa are conservation-listed, the majority of which require further survey to understand the full extent of their distribution.

Aims

Improve the underlying taxonomic knowledge necessary for effective biodiversity management of the triggerplant genus *Stylidium* and to make this information readily accessible to stakeholders. The current project focus is on taxa occurring in south-western Australia.

Progress

- Two taxonomic papers were published in *Nuytsia* describing six taxa and resolving a number of typification issues.
- Field data and collections for assorted taxonomy, phylogeny and pollination ecology papers were obtained and papers subsequently progressed.
- A contribution was made to the Interim Recovery Plans for the Threatened taxa *Stylidium applanatum* and *S. coroniforme* subsp. *amblyphyllum.*
- Presentations were given at the 2015 Clay-based Wetland Workshop (Swan Region), Australiasian Systematic Botany Society Conference (Canberra), and Society Australian Systematic Biologists Conference (Fremantle).

Management implications

- Taxonomic research and targeted field work has improved our understanding of the distribution, habitat requirements and conservation status of a range of triggerplant species.

Future directions

- Progress phylogenetic research papers and identification guides.
- Prepare taxonomic papers on focus groups, conducting targeted field work as needed.
- Prioritise field surveys of taxa likely to warrant listing as threatened and prepare threatened flora nominations as required.