The assessment of ecosystem risk in *Banksia* woodlands of the Swan Coastal Plain, Western Australia

Plant Science and Herbarium

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Project Team	required
Program Leader	required
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Progress Report

Banksia woodlands of the Swan Coastal Plain are part of the south-west Western Australian biodiversity hotspot and have been subjected to extensive clearing. These *Banksia* woodlands are now listed as a threatened ecological community (TEC) by the Commonwealth through the *EPBC Act.* There are numerous floristic community types (FCTs) within *Banksia* woodlands, of which several are threatened. An example is the Swan Coastal Plain floristic community type 20a (SCP20a) (*Banksia attenuata* woodlands with species rich dense shrublands). The threatening processes impacting on *Banksia* woodland include further land clearing, fragmentation, weed invasion, inappropriate fire regimes, altered hydrological processes, disease due to *Phytophthora cinnamomi* and a drying climate. This project aims to address knowledge gaps for improving the understanding of *Banksia* woodland floristic communities with a focus on SCP20a through a meta-analysis of Swan Coastal Plain data, combined with targeted assessment of new sites and re-assessment of existing sites with the aim of detecting change. The study also aims to integrate spatial analysis of environmental factors with biological data to identify predictive capability and assess risk to *Banksia* woodlands using the IUCN Red List of Ecosystems criteria, with reference to alternative risk assessment techniques.

Targeted field surveys were completed in the second half of 2017 for a selection of SCP20a sites. Acquisition of additional SCP floristic plot data has been made through collaboration with other researchers and data custodians. The development of a floristic meta-dataset for the SCP is in progress to review the position of *Banksia* woodlands within the context of improved availability of survey data acquired since the original FCTs were defined. This will be followed by a meta-analysis of the consolidated dataset.