

Progress Report CF 2011-111

The Western Australian Plant Census and Australian Plant Census

Plant Science and Herbarium

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The Western Australian Plant Census and Australian Plant Census

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Context

The Western Australian Plant Census (a component of WACensus) is the authoritative database of all names of plants in Western Australia, including synonyms created by taxonomic change. It is continually updated to reflect changes in our knowledge of the flora. The census constitutes the fundamental master list for many Departmental processes and datasets, including the Threatened and Priority Flora databases maintained by the Species and Communities Branch, the Herbarium's specimen database, Max, *FloraBase* and *NatureMap*.

The Australian Plant Census (APC) is a project of the Council of Heads of Australasian Herbaria, designed to provide a consensus view of all Australian plant taxa. Until now plant censuses have been only state-based, which has made it difficult to obtain authoritative information on what species occur in Australia as a whole, to obtain accurate national statistics, and to deal with differences in opinion and knowledge for taxa that cross state boundaries. In addition to working systematically through the vascular plant families, the APC process provides for updates as taxonomic changes or new findings are published. The consensus also extends from family and genus level to an overall classification of the plants that occur in Australia. As the APC project continues, the Western Australian Plant Census is updated to reflect the consensus view. The APC provides the key name list for the Atlas of Living Australia.

Aims

Maintain an accurate and timely listing of all plants, algae and fungi in Western Australia, including both current names and synonyms, and integrate this with the national consensus.

Progress

- 337 plant names (307 formally published and 30 informal names) were added to WACensus.
- 1,159 other edits were made to the WACensus.
- WACensus updates were regularly distributed to 255 registered Max users.
- An APC update list covering all newly published and informal (phrase) names, including synonymy, for the period 2014-2016 was processed and returned to Canberra.
- The final review of all currently known taxa in Western Australia for the family Orchidaceae is in progress.
- Contributed to discussions on agreed standard distributional categories for the APC, this is intended to reflect taxon distributions at the national level and indicate whether populations in a given jurisdiction are native, naturalised, or a combination of both.
- The source data for APC is the Australian Plant Name Index (APNI). Over the last year the Western Australian Herbarium added 106 new names to APNI as part of 996 edits (which also included data on synonymy and publications) as the State's contribution to this national cooperative database.

Management implications

- WACensus provides users with a single, authoritative official list of plants for Western Australia, with their currently accepted classification, scientific name, correct spelling and authority. Delivery of this information is through the *FloraBase* website, Max (departmental software for information based on taxonomic names) and other linked databases or websites.
- Users of plant names are able to access WACensus information to ensure that current information on names, taxonomic acceptance and occurrence in Western Australia is available for conservation status lists, publications, signage and legal requirements. Outdated names can be traced to their current status or updated name through WACensus.

- WACensus feeds Western Australian information to national biodiversity systems such as the Atlas of Living Australia, the Australian Plant Census (National Species List), e-flora of Australia and the Australasian Virtual Herbarium.

Future directions

- Continue to provide a comprehensive and up to date census across all plant groups.
- Continue to engage with the Council of Heads of Australasian Herbaria on projects like APC and APNI