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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 Parks and Wildlife processes and datasets, including the Threatened and Priority Flora databases maintained by the Species and Communities Branch, the Herbarium's specimen database, the Max database utility, 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.

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

- 559 plant names were added to WACensus, comprising 534 names formally published and 25 informal names.
- 1,231 other edits were made to the census.
- Smut fungi were added to WACensus (92 names).
- WACensus updates were regularly distributed to 245 registered Max users.
- The last major family processed for the APC (Orchidaceae) was progressed and is still ongoing, awaiting compilation of all jurisdictional responses.
- An APC update list is in the final stages of checking and covers changes to a number of taxa in families, including Asteraceae, Cyperaceae, Dilleniaceae, Ericaceae, Euphorbiaceae, Fabaceae, Hypoxidaceae, Lamiaceae, Myrtaceae and Phrymaceae.
- Maintained records of changes to WACensus as a pending contribution of updates to the APC.

Management implications

- All Parks and Wildlife systems using Western Australian plant names are based on, or integrated with, the WACensus database.
- Staff maintaining plant databases can use Max and the regular WACensus updates to check name currency.

Future directions

- Provide a comprehensive and up to date census across all plant groups with a particular focus on completing the fungi.
- Incorporate modifications based on the globally accepted list of families and family circumscriptions of the Angiosperm Phylogeny Group (APG) IV (2016) and APC.