Automated Validation of Biological Names in Environmental Survey and Impact Assessments

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Abstract

Taxonomic name validation and elucidation in biodiversity collection datasets (specimens and names) at institutions are well established, as is the enabling of historical scientific literature, thanks to the work at the Biodiversity Heritage Library (BHL), Plazi TreamentBank, and others. However, a significant area yet to be enhanced in this way is in the assembly of environmental impact survey (EIS) assessments across states or countries.

In this project, we looked at using new tools such as AWS Textract to extract text from a range of document types, together with the newly-released gnfinder tool to find taxon names in submitted EIS documents, match them in the Global Names Index and other sources, then use this unique names list to interrogate the Atlas of Living Australia to find additional applicable data, such as the taxonomic and conservation status of given names.

The result is a consolidated report summarising the validity and status of taxon names in each EIS report, saving many hours of manual lookup across multiple datasets and thereby significantly streamlining the process of evaluating each environmental proposal.
Keywords
taxon names, gnfinder, environmental assessment, Biodiversity Heritage Library, Plazi TreatmentBank, AWS Textract, Global Names Index, Atlas of Living Australia

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