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| **Title** | Fauna Maxent modelling |
| **File identifier** | The unique identifier for the metadata file |
| **Abstract** | Fauna Maxent modelling refers to combination outputs dependent on known species presence-only occurrence in the landscape, the species’ relationship with environmental variables (covariates) such as temperature, rainfall and topography, and its predicted occurrence based on covariate analysis. Models do not predict actual occupancy, but rather habitat suitability: confounding factors such as inter-species competition, geographical barriers and disturbance events play a significant role in species occurrence, and are not considered in Maxent.  Maxent analysis is based on software developed by Steven Phillips (<https://biodiversityinformatics.amnh.org/open_source/maxent/> and references therein).  Derivation of fauna distribution surfaces associated with this metadata are described in detail in the NRC publication ‘NSW Forest Monitoring and Improvement Program: Final Report. Project 2: Baselines, drivers and trends for species occupancy and distribution.’  An R version of Maxent is available through the R Project <https://cran.r-project.org/> |
| **Contact** | Associate Professor Linda Beaumont, Department of Biological Sciences, Macquarie University; Dr Ross Jenkins, University of New England, School of Environmental and Rural Science. |
| **Purpose** | The dataset was created as part fulfillment for the NRC project ‘NSW Forest Monitoring and Improvement Program: Final Report. Project 2: Baselines, drivers and trends for species occupancy and distribution.’ |
| **Jurisdictions** | Macquarie University and the University of New England |
| **Geographic Bounding Box** | North −28 degrees; South −37.5 degrees; West 147 degrees; East 153.5 degrees |
| **Lineage** | Species occurrence data from systematic fauna surveys conducted between 1991 and 1998 was sourced from NSW DPIE (e.g. NPWS 1994 Fauna of north-east NSW forests, NSW National Parks and Wildlife Service), as well as unpublished data held by the NSW DPI Forest Science unit. Additional occurrence data over the same period and spatial extent was extracted from the Atlas of Living Australia. Covariate data was sourced in the main from the State Vegetation Type Map (SVTM) Modelling Grid Collection (<https://datasets.seed.nsw.gov.au/dataset/svtm-modelling-grid-collection>) with additional data as described in ‘NSW Forest Monitoring and Improvement Program: Final Report. Project 2: Baselines, drivers and trends for species occupancy and distribution.’  Model outputs (statistical analyses and predictive surfaces) were generated using the Maxent kernel from the R Project <https://cran.r-project.org/> |
| **Extent** | The temporal extent of the species occurrence was limited to 1991–1998. |
| **Distribution Format** | Raster (ESRI Geodatabase) |
| **Keyword** | Fauna, RFA, Maxent modelling |
| **Maintenance and Update Frequency** | Not planned |
| **Use Limitation** | Maxent generates probabilistic species predictive habitat surfaces, and does not imply species presence at any particular location. Modelling is restricted to the eastern NSW RFA areas. |
| **Resolution** | 90 m |
| **DQ Completeness** | Complete |
| **Reference System** | GDA94 |
| **Topic Category** | Biota |
| **Metadata Date** | 2021-12-16 |
| **Date Created** | 2021-09-05 |
| **Date Revised** | 2021-09-05 |
| **Date Published** | 2021-11-16 |