Title	ASDST Grinding Grooves Current Model
Alternative title(s)	curr_gdg
Abstract	

The Aboriginal Sites Decision Support Tool ASDST extends the Aboriginal Heritage Information Management System (AHIMS) by illustrating the potential distribution of site features recorded in AHIMS. ASDST was first developed in 2012 by the Office of Environment and Heritage (OEH) to support landscape planning of Aboriginal Heritage. The Tool produces a suite of raster GIS modelled outputs and is held in Esri GRID format. The first suite was published in 2016 as Version 7 at 100m resolution and in Lamberts Conic Conformal Projection (LCC). The current Version 7.5 was produced by the now Department of Planning, Industry and Environment (DPIE) in 2020 at 50m resolution in Geographic Coordinate System (GCS). Each layer covers the extent of NSW.

The suite of layers includes separate predictive layers for different Aboriginal site feature types. The feature codes used in layer naming conventions are:

- ALL = model for all feature types combined
- AFT = predicted likelihood for stone artefacts
- ART = predicted likelihood for rock art
- BUR = predicted likelihood of burials
- ETM = predicted likelihood of western mounds and shell
- GDG = predicted likelihood of grinding grooves
- HTH = predicted likelihood of hearths
- SHL = predicted likelihood of coastal middens
- STQ = predicted likelihood of stone quarries and
- TRE = predicted likelihood of scarred trees.

The feature models have been derived in two forms:

- The first form ("p1750XXX" where XXX denotes three letter feature code) predicts likelihood of feature distribution prior to European colonisation of NSW.

- The second form ("curr_XXX" where XXX denotes three letter feature code) predicts feature likelihood in the current landscape.

For both sets of feature likelihood layers, cell values range from 0 – 1000, where 0 indicates low likelihood and 1000 is high likelihood.

Please note the scale is likelihood and NOT probability. Likelihood is defined as a relative measure indicating the likelihood that a grid cell may contain the feature of interest relative to all other cells in the layer.

Additionally, there are other derived products as part of the suite. These are:

- drvd_imp = which is a model of accumulated impacts, derived by summing the difference between the pre colonisation and current version of all feature models. Cell values range from 0 – 1000, where 1000 is a high accumulated impact.

- drvd_rel = which is a model of the reliability of predictions based on an environmental distance algorithm that looks at recorded site density across the variables used in the models.

- drvd_srv = which is a survey priority map, which considers model reliability (data gap), current likelihood and accumulated impact. Cell values range from 0 – 1000 where 1000 indicates highest survey priority relative to the rest of the layer.

For more details see the technical reference on the ASDST website.

NB. Old layers with a suffix of "_v7" indicate they are part of ASDST Version 7 produced in 2016. The current models (Version 7.5) do not contain a version number in their name and will continue to be named generically in future versions for seamless access.

Updates applied to ASDST version 7.5

For all ASDST 7.5 data sets, the resolution was increased from a 100m cell to a 50m cell. All data sets were clipped and cleaned to a refined coastal mask. Cell gaps in the mask were filled using a Nibble algorithm. The pre-settlement data sets were derived by resampling the version 7 pre-settlement data sets to 50m cell size. The present-day data sets were derived from the version 7.5 pre-settlement layers and 2017-18 land-use mapping and applying the same version 7 parameters for estimating the

preservation of each feature type on each land-use. For version 7.5, the model reliability data set was derived by resampling the version 7 data set to 50m cell size. Accumulated impact and survey priority version 7.5 data sets were derived by applying the version 7 processing algorithm but substituting the version 7.5 pre-settlement and present-day ASDST models.

Resource locator

Data Quality Statement	Name: Data Quality Statement
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Data quality statement for ASDST Artefacts Pre1750 Model
	Function: download
ArcGIS Rest Service	Name: ArcGIS Rest Service
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	ESRI Rest Service
	Function: download

Unique resource identifier

Code	96cd5652-d16f-4520-bb7c-b1709341850e

Presentation form	mapDigital

Edition	7.5

Dataset language	eng

Metadata standard

Name	ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata
Version	1.1

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/96cd5652-d16f-4520-bb7c-b1709341850e

Purpose	To support landscape planning of Aboriginal Heritage.

Status	completed

Spatial representation type	grid

Spatial reference system

Authority code	GDA94 Geographic (Lat\Long)
Code identifying the spatial reference system	4283

Spatial resolution	50 m

Additional information source	For further information and to download the reference to the technical manual describing product derivation, please visit this website: https://www.environment.nsw.gov.au/research-and-publications/our-science-and-research/our-research/cultural-science/aboriginal-sites-decision-support-tool

Topic category

Keyword set

keyword value	HERITAGE-Aboriginal
	HUMAN-ENVIRONMENT-Planning

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	141
East bounding longitude	154
North bounding latitude	-38
South bounding latitude	-28
NSW Place Name	NSW

Vertical extent information

Minimum value	-100
Maximum value	2228

Coordinate reference system

Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711

Temporal extent

Begin position	1990-01-01
End position	N/A

Dataset reference date

Date type	publication
Effective date	2021-06-22
Date type	revision
Effective date	2020-01-07

Resource maintenance

Maintenance and update frequency	None

Contact info

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Lineage

The ASDST models and derived layers were developed using Aboriginal site data from the Aboriginal Heritage and Information Management System (AHIMS). The models were derived using presence only statistical modelling using the GRASP tool in S-Plus (see: Lehmann, A., Overton, J. M. C. & Leathwick, J. R., 2002. GRASP: Generalized Regression Analysis and Spatial Predictions. Ecological Modelling, 157: 189-207). Each model uses a unique combination of variables, but can include various terrain indices; various indices of proximity to water; geology; soils; pre1750 vegetation and climate variables. The derived products also make use of land-use, native vegetation extent and tenure data to estimate site likelihood in the present landscape. The products describing model reliability and survey priority utilised the environmental distance algorithm of Faith and Walker (Faith, D. P. and P. A. Walker (1996). "Environmental diversity: on the best-possible use of surrogate data for assessing the relative biodiversity of sets of areas." Biodiversity and Conservation 5(4): 399-415.). All spatial data was current and accurate at the time of model completion on the 20/12/2012.

Grids were published in 2016, updated in 2020 and republished 2021.

Limitations on public access

Scope	dataset

Responsible party

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Metadata point of contact

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Responsible party role	distributor

Metadata date

2021-06-22

Metadata language

eng