



Manaaki Whenua
Landcare Research

LENZ - Mean annual temperature

Metadata

File Identifier

c2fa13b8-aa64-1489-320a-b9216d5de010

Language

en

Character Set

Character Set Code

utf8

Hierarchy Level

Scope Code

dataset

Hierarchy Level Name

dataset

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Role

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processor

Date Stamp

Date

2010-05-27

Metadata Standard Name

ISO 19115

Metadata Standard Version

2003

Spatial Representation Info

Grid Spatial Representation

Integer

2

Integer

59600

Integer

40800

Cell Geometry Code

area

Boolean

true

Reference System Info

Reference System

Reference System Identifier

Identifier

Code

GD_1949_New_Zealand_Map_Grid

Identification Info

Data Identification

Citation

Citation

Title

Mean annual temperature - LENZ

Date

Date

Date

Edition Date

Date

2003-01-01

Cited Responsible Party**Responsible Party****Individual Name**

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Role**Role Code**

custodian

Presentation Form**Presentation Form Code**

mapDigital

Abstract

Mean annual temperature data layer used in the creation of Land Environments of New Zealand (LENZ) classification. Mean annual temperature is recorded in °C. The climate station data used in the development of this climate surface were derived from summaries of climate observations published by the New Zealand Meteorological Service, using data collected over the period from

1950-1980. The resulting data layer was created by coupling a 100 m DEM with a thin-plate spline surface fitted to an irregular network of 300 meteorological stations. The resulting 100 metre layer was then interpolated to 25 metres using bilinear interpolation. Following conventions used in the calculation of climate summary statistics, the values used to fit the surface consisted of the mean of the 12 monthly averages for daily average temperature. Additional details such as the climate station locations used in the creation of the layer and error maps are defined in the attached LENZ Technical Guide.

Resource Maintenance

Maintenance Information

Maintenance And Update Frequency

Maintenance Frequency Code

notPlanned

Descriptive Keywords

Keywords

Keyword

Mean annual temperature

Keyword

LENZ

Keyword

Temperature

Keyword

Climate

Type

Keyword Type Code

theme

Descriptive Keywords

Keywords

Keyword

New Zealand

Type

Keyword Type Code

place

Descriptive Keywords

Keywords

Keyword

Downloadable Data

Spatial Representation Type Code

grid

Language

en

Topic Category Code

environment

Topic Category Code

climatologyMeteorologyAtmosphere

Extent

EX_ Extent

Geographic Element

EX_ Geographic Bounding Box

166.122046179.601635-47.505151-33.959618

Distribution Info

Distribution

Distributor

Distributor

Distributor Contact

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Role

Role Code

pointOfContact

Distributor Format

Format

Name

ESRI Binary Grid Raster Dataset

Version

ArcGIS 9.3

Distributor Transfer Options

Digital Transfer Options

Transfer Size

Real

226.158

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://lris.scinfo.org.nz/layer/48094-lenz-mean-annual-temperature/>

Data Quality Info

DQ _ Data Quality

Scope

DQ _ Scope

Level

Scope Code

dataset

Lineage

LI _ Lineage

Statement

All climate layers used in LENZ were derived either directly or indirectly from mathematical surfaces (thin-plate splines) that use information about the climate, location and elevation of a number of meteorological stations. Locations are described either in terms of their latitude and longitude or their coordinates on a map projection such as the New Zealand Map Grid (NZMG). Each surface is calculated using a process in which data values for each climate station are omitted in turn and its climate is predicted from the surrounding stations. This process is repeated until no further improvement can be made to the fit of the surface to the raw data. Surfaces can be simultaneously fitted to up to 12 variables, typically monthly data for various climate parameters, e.g., monthly estimates of temperature or rainfall. Additional details such as the climate station locations used in the creation of the layer and error maps for this layer are defined in the attached LENZ Technical Guide. Once the surface has been fitted, predictions can be made for any point of known location and elevation. For example, coupling the surface with a digital elevation model, a regular grid of elevation values, allows the generation of digital climate maps as used in the creation of LENZ. Finally, maps that show the standard errors of the predicted values can be derived using results from more sophisticated analyses of the errors associated with the climate surfaces. The majority of the climate station data used in the development of our climate surfaces were derived from summaries of climate observations published by the New Zealand Meteorological Service. Temperature and rainfall data were collected over the period from 1950 to 1980, while data describing humidity and solar radiation consisted of averages of all data collected up until 1980. Some additional short-duration records of rainfall, including information from storage rain gauges, were used to describe geographic variation in high-rainfall mountainous areas of the South Island.

Metadata Constraints

Legal Constraints

Use Limitation

Landcare Data Use License

Use Constraints

Restriction Code
license