



**Manaaki Whenua**  
Landcare Research

## Mean April Soil Temperature (South Island)

### Metadata

#### File Identifier

9c27dc2a-c478-90af-1241-8fae7642d590

#### Language

eng

#### Hierarchy Level Name

dataset

#### Contact

##### Responsible Party

##### Individual Name

James Barringer

##### Organisation Name

Landcare Research NZ Ltd

##### Position Name

GIS Specialist

#### Date Stamp

##### Date Time

20130612

#### Metadata Standard Name

ISO 19115:2003/19139

#### Metadata Standard Version

1.0

#### Spatial Representation Info

##### Georectified

##### Boolean

0

##### Pixel Orientation Code

001

#### Reference System Info

##### Reference System

##### Reference System Identifier

##### Identifier

Code

## Identification Info

### Data Identification

#### Citation

##### Citation

##### Title

Mean April Soil Temperature (South Island)

##### Cited Responsible Party

##### Responsible Party

##### Individual Name

James Barringer

##### Organisation Name

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##### Position Name

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### Abstract

Soil temperature surfaces for the South Island of New Zealand are based on analysis of a combination of monthly mean soil temperature data from the NIWA (National Institute of Water and Atmospheric Research) 3 years data from 175 mini-data-loggers (1997-2000) laid out in a stratified sampling scheme at 7 climatically representative locations in the South Island. At each location a cluster of about 25 data loggers sampled a range of elevations between 100 and 1800 m. At each elevation grouping the 4 primary aspects (N, S, E, W) and a flat site were sampled at a depth of 30 cm. Multiple regression used site characteristics of latitude, Distance from coast, elevation, aspect, slope and forest/non-forest cover to predict topographic effects on soil temperatures.

### Purpose

These surfaces are designed to assist in properly explaining topographic variation in local climate conditions. Temperature, along with moisture availability, are the most important climatic drivers of many environmental systems. In the mid-latitude steep and/or high-relief environments typical of 70% of New Zealand's land surface, topographic influences are strong. For example mean temperature differences of nearly 4°C between north and south aspects in South Island hill country equate to a latitudinal displacement of 9° (Nelson to Bluff).

### Credit

Barringer, JRF; Lilburne, LL; Landcare Research NZ Ltd.

### Point Of Contact

#### Responsible Party

##### Individual Name

James Barringer

##### Organisation Name

Landcare Research NZ Ltd

**Position Name**

GIS Specialist

**Language**

eng

**Topic Category Code**

elevation

**Topic Category Code**

environment

Microsoft Windows 7 Version 6.1 (Build 7600) ; Esri ArcGIS 10.1.1.3143

**Extent**

EX \_ Extent

Geographic Element

EX \_ Geographic Bounding Box

166.122125175174.593342416-47.4908055345-40.1413540036

**Content Info**

**Coverage Description**

stmeanjan

Real

237

Real

-81

Integer

16

**Distribution Info**

**Distribution**

**Transfer Options**

**Digital Transfer Options**

On Line

Online Resource

Linkage

URL

<https://iris.scinfo.org.nz/layer/48339-mean-april-soil-temperature-south-island/>

**Metadata Constraints**

**Legal Constraints**

**Use Limitation**

Landcare Data Use License

**Use Constraints**

**Restriction Code**

license