

**Dataset:** Sea ice parameters near McMurdo Station, Antarctica from 1986 to 2013

**Project(s):** Food web dynamics in an intact ecosystem: the role of top predators in McMurdo Sound (McMurdo Predator Prey)

**Abstract:** Fast ice thickness and temperature data collected at the “sea ice runway” near McMurdo Station by the United States Antarctic Program (USAP) logistic support contractors and provided by the Ice Surveyor (J Scanniello). Fast ice measurements were taken at a suite of 16 stations along a 3000 m distance, and five stations across an orthogonal 1000 m distance. At each station, small holes were drilled through the fast ice and the thickness measured using a meter tape with a lever-arm that held the zero-point against the bottom of the fast ice. Thickness was measured for solid ice and did not include underlying platelet ice, nor overlying snow. Fast ice temperature was measured at 15 cm depth beneath the ice surface. Note that the sea ice runway area is routinely cleared of excess snow, which may affect the fast ice thickness and temperature measurements. For a complete list of measurements, refer to the supplemental document 'Field\_names.pdf', and a full dataset description is included in the supplemental file 'Dataset\_description.pdf'. The most current version of this dataset is available at: <http://www.bco-dmo.org/dataset/675187>

**Description:** Sea ice parameters near McMurdo Station, Antarctica, 1986-2013

This dataset contains sea ice thickness, sea ice temperature, and air temperature at the sea ice runway near McMurdo Station, Antarctica, from 1986-2013.

**Acquisition** Actual sampling location varied slightly between years and may be obtainable  
**Description:** from support contractor records. Approximate location of sampling was McMurdo Station, Antarctica (77°51'14"S, 166°28'07"E). The number of measurements varied between different years from 1 to 20. All data were collected within an area of approximately 0.28 km<sup>2</sup>, at a standard suite of 16 stations along a 3000 m distance, and five stations across an orthogonal 1000 m distance.

At each station, small holes were drilled through the ice and the thickness measured using a meter tape with a lever-arm that held the zero-point against the bottom of the fast ice. Thickness was measured for solid ice and did not include underlying brash ice or frazil ice, nor overlying snow.

**Notes:**

1999 began collection of additional data on time of day and snow depth  
2003 began collection of additional data from shipping channel sites  
2006 stopped collection of shipping channel site data, began collection of additional data on ice temperature profiles  
2010 did not collect ice temperature profile data.

For access to additional data that are available but not transcribed into this data set; please contact authors to obtain access.

**Processing BCO-DMO Data Manager Processing Notes:**

- Description:**
- \* added a conventional header with dataset name, PI name, version date
  - \* modified parameter names to conform with BCO-DMO naming conventions
  - \* blank values replaced with no data value 'nd'
  - \* added approximate latitude and longitude of sampling location near McMurdo Station.

## Project Information

**Food web dynamics in an intact ecosystem: the role of top predators in McMurdo Sound**

[http://data.bco-dmo.org/McMurdo\\_Predator\\_Prey/MODISSSML.jpg](http://data.bco-dmo.org/McMurdo_Predator_Prey/MODISSSML.jpg)

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## Instrument Information

<b>Instrument</b>	meter tape
<b>Description</b>	<i>local description not specified</i>
<b>Generic Instrument Name</b>	Measuring Tape
<b>Generic Instrument Description</b>	A tape measure or measuring tape is a flexible ruler. It consists of a ribbon of cloth, plastic, fibre glass, or metal strip with linear-measurement markings. It is a common measuring tool.