CTD data from the Cruise CD-ROMS on ARSV Laurence M. Gould (LMG0201A, LMG0203, LMG0205, LMG0302, LMG0104) in the Southern Ocean from 2001-2003 (SOGLOBEC project)

Website: https://www.bco-dmo.org/dataset/2361
Version: revisited - improved
Version Date: 2011-04-07

Project
» U.S. GLOBEC Southern Ocean (SOGLOBEC)

Program
» U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

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Coverage

Spatial Extent: **N**:-65.1047 **E**:-64.259 **S**:-69.8882 **W**:-76.1657

Dataset Description

Sea-Bird CTD Data Files

These CTD data files were collected on most cruises. The raw and processed data were placed on CD-ROMs, usually in zipped and/or tar'ed form, and provided to the participants and the Data Management Office. The "asc" versions of the files are served, using the information collected from the "hdr" files. These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

If a cruise is not represented here, there were no ascii files available to serve (lmg0103, lmg0106), or they have been post-processed and re-served (nbp0103, nbp0104, nbp0202, and nbp0204).

See related datasets: ctd_JK_one_meter and ctd_JK_std_depth

Questions concerning this data set should be directed to:
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Methods & Sampling

Sea-Bird CTD Data Files.

Data Processing Description

These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

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Data Files

File
ctd_cruise.csv (Comma Separated Values (.csv), 716.08 MB) MD5:42069a2c56715bd98b028f74c8fb5ba9 Primary data file for dataset ID 2361

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Parameters

Parameter	Description	Units
cruiseid	Cruise identification	
cast	cast identification (numeric/alpha numeric)	
year	year, four digit	YYYY
month_utc	month of year	MM
day_utc	day of month	DD
time_utc	time of day, 24 hour clock	HHmm.m
lat	Latitude, negative = South	DD.D

lon	Longitude, negative = West	DDD.D
station	Station number or description	
event	Event number a unique station identifier	
operator	Name of CTD operator	
scan	Scan count	
time_elapsed	Elapsed time	seconds
press	Pressure	decibars
temp	Water temperature, primary temp sensor, ITS-90	deg. C
cond	Conductivity, primary conductivity sensor	siemens/meter
temp2	Temperature, from secondary sensor. ITS-90	deg. C
cond2	Conductivity, from secondary sensor	siemens/meter
Sbeox0V	Oxygen Voltage, primary sensor SBE 43	volts
Sbeox1V	Oxygen Voltage, secondary sensor SBE 43	volts
wetBTrans	WET Labs, beam transmission	percent
V0	Voltage channel 0	volts
V2	Voltage channel 2	volts
V4	Voltage channel 4	volts
V5	Voltage channel 5	volts
V6	Voltage channel 6	volts

trans	Beam (light) Transmission, Chelsea/Seatech/Wetlab CStar	percent
fluor	Fluorescence, Chelsea Aqua 3	ug/l
Par	PAR/Irradiance, Biospherical/Licor	
SPAR	Surface Irradiance (PAR), (downwelled Photosynthetically Available Radiation)	
sbe_o2	dissolved oxygen, SBE 43 unit, calculated from primary sensors,	ml/l
sbe_o2_2	dissolved oxygen, SBE 43 unit, calculated from secondary sensors,	ml/l
o2	dissolved Oxygen	ml/l
oxC	Oxygen, current	volts
oxT	Oxygen sensor temperature	deg.C
O2sat	Oxygen saturation	ml/l
oxPS	Oxygen percent saturation	percent
potemp	Potential temperature, ITS-90, calculated from primary sensors	deg. C
sal	Salinity, calculated from primary temp. and cond. sensors	PSU
potemp2	Potential Temperature, calculated from secondary sensors, ITS-90	deg. C
sal2	Salinity, calculated from secondary temp. and cond. sensors	PSU
sigma_t	Density, calculated from primary temp. and cond. sensors	kg/m³
sigma_t2	Density, calculated from secondary temp. and cond. sensors	kg/m³
sound_vel	Sound Velocity	meters/sec
depth	depth of sample/observation	meters

Flag	flag	
cond_mS	Conductivity of seawater measured in milliSiemans/centimeter by the primary sensor.	mS/cm

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Instruments

Dataset-specific Instrument Name	Conductivity, Temperature, Depth
Generic Instrument Name	CTD - profiler
Dataset-specific Description	CTD measurements taken, CTD unit unidentified, Sea-Bird CTD
Generic Instrument Description	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see https://www.bco-dmo.org/instrument/869934.

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Deployments

LMG0201A

Website	https://www.bco-dmo.org/deployment/57640
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0201a/LMG02-01A_Report.pdf
Start Date	2002-02-06
End Date	2002-03-03
Description	**Methods & Sampling** Sea-Bird CTD Data Files. **Processing Description** These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

LMG0203

Website	https://www.bco-dmo.org/deployment/57642
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0203/menu.html
Start Date	2002-04-07
End Date	2002-05-20
Description	**Methods & Sampling** Sea-Bird CTD Data Files. **Processing Description** These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

LMG0205

Website	https://www.bco-dmo.org/deployment/57644
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0205/report_lmg0205.pdf
Start Date	2002-07-29
End Date	2002-09-18
Description	**Methods & Sampling** Sea-Bird CTD Data Files. **Processing Description** These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

LMG0302

Website	https://www.bco-dmo.org/deployment/57645
Platform	ARSV Laurence M. Gould
Report	http://globec.whoi.edu/so-dir/reports/lmg0302/lmg0302.htm
Start Date	2003-02-13
End Date	2003-03-07
Description	**Methods & Sampling** Sea-Bird CTD Data Files. **Processing Description** These files have been shipboard processed using standard SeaBird software to one decibar averaged intervals.

LMG0104

Website	https://www.bco-dmo.org/deployment/57637
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/cruises/gould0103_0104.doc
Start Date	2001-04-20
End Date	2001-06-05
Description	**Processing Description** Data Manager notes: Serving these data became data rescue, not just data serving. These CTD data were processed aboard the Gould and distributed on the cruise CDs. The were in a different directory on the CD from other Gould and Palmer cruises, so they were missed in the first automated serving of data. In order for the program to find them and pick them for serving, they were transfered to a different directory ('ocean/ctd') and renamed (a 'd' was added to the CTD name [meaning downcast] and they were switched to lower case.). When looking at the data, it was determined that the units for the conductivity sensors were different from other Gould and Palmer cruises, so additional parameters were added to the final data listing. Since mS/cm and S/m are not interchangeable, an additional parameter, cond_alt, was employed for the mS/cm data.

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Project Information

U.S. GLOBEC Southern Ocean (SOGLOBEC)

Website: http://www.ccpo.odu.edu/Research/globec_menu.html

Coverage: Southern Ocean

The fundamental objectives of United States Global Ocean Ecosystems Dynamics (U.S. GLOBEC) Program are dependent upon the cooperation of scientists from several disciplines. Physicists, biologists, and chemists must make use of data collected during U.S. GLOBEC field programs to further our understanding of the interplay of physics, biology, and chemistry. Our objectives require quantitative analysis of interdisciplinary data sets and, therefore, data must be exchanged between researchers. To extract the full scientific value, data must be made available to the scientific community on a timely basis.

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Program Information

U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Website: http://www.usglobec.org/

Coverage: Global

U.S. GLOBEC (GLOBal ocean ECosystems dynamics) is a research program organized by oceanographers and fisheries scientists to address the question of how global climate change may affect the abundance and production of animals in the sea.

The U.S. GLOBEC Program currently had major research efforts underway in the Georges Bank / Northwest Atlantic Region, and the Northeast Pacific (with components in the California Current and in the Coastal Gulf of Alaska). U.S. GLOBEC was a major contributor to International GLOBEC efforts in the Southern Ocean and

Western Antarctic Peninsula (WAP).

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Funding

Funding Source	Award
NSF Antarctic Sciences (NSF ANT)	unknown SOGLOBEC NSF ANT

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