



RV LAURENCE M. GOULD Cruise History

Port Key:

COPA=Copacabana Field Camp, Antarctica; CS=Cape Sherriff, Antarctica; DEC=Deception Island, Antarctica; ESP=Esperanza Base, Antarctica; FCH=Fourchon, LA; KGI=King George Island, Antarctica; LIV=Livingston Island, Antarctica; OHG=O'Higgins Base, Antarctica; PAL=Palmer Station, Antarctica; PAN=Panama; PMN=Peterman Island, Antarctica; PNT=Puerto Natales, Chile; PUQ=Punta Arenas, Chile; SNO=Snow Island, Antarctica; ROT=Rothera Base, Antarctica; SEY=Seymour Island, Antarctica; TAL=Talcahuano, Chile; , Antarctica; USTPA=Tampa, FL; VRN=Vernadsky Station, Antarctica

Contacting Principal Investigators:

Each cruise's principal investigator and/or chief scientist is listed below. For e-mail addresses, and for links to the Antarctic Data Repository, please refer to the HTML version of the cruise history. For more in-depth contact information, mailing address, phone numbers, etc, please refer to the online version of the

[Science Planning Summaries](#)

Where active or archived information is available, the researcher's website may be accessed by clicking the link in the Cruise Name field. Use BOOKMARKS to get to specific cruises by name/date.

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG 98-1t	Transit to Punta Arenas Antarctic Data Repository for LMG9801T	N/A	12/25/1997	FCH	1/16/1998	PUQ
LMG 98-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment. (LTER) http://www.icess.ucsb.edu Antarctic Data Repository for LMG98-01	Maria Vernet S-016 Langdon Quetin & Robin Ross S-028 Ray Smith S-032 Dave Karl S-046	1/22/1998	PUQ	2/20/1998	PUQ
LMG 98-2	Holocene Paleoenvironmental Change Along the Antarctic Peninsula: a Test of the Polar/Bi-Polar Signal Antarctic Data Repository for LMG98-02	Eugene Domack GO-072-O	2/25/1998	PUQ	3/21/1998	PUQ
LMG 98-3	PAX Transfer to Palmer Station Antarctic Data Repository for LMG98-03	N/A	3/26/1998	PUQ	4/9/1998	PUQ
LMG 98-3A	PAX Transfer to Palmer Station Antarctic Data Repository for LMG98-03A	N/A	4/14/1998	PUQ	5/5/1998	PUQ
LMG 98-4	In Punta Arenas	N/A	N/A	N/A	N/A	N/A
LMG 98-5	In Punta Arenas	N/A	Jul-98	PUQ	N/A	N/A
LMG 98-6	Mtce. Dry Dock Period	N/A	7/28/1998	PUQ	8/2/1998	TAL
LMG 98-7	Transit to PUQ	N/A	8/29/1998	TAL	9/4/1998	PUQ
LMG 98-8	Palmer Station Support/turnover	N/A	9/10/1998 9/16/1998	PUQ PAL	9/14/1998 9/20/1998	PAL PUQ
LMG 98-8A	Palmer Station Turnover and open Copacabana Field Camp on King George Island	N/A	9/27/1998 10/1/1998 10/3/1998	PUQ COPA PAL	10/1/1998 10/3/1998 10/8/1998	COPA PAL PUQ
LMG 98-9	Photochemical and Optical Properties of Antarctic Waters in response to changing UV-B fluxes. New approaches to measuring and understanding the effects of Ultraviolet Radiation on Photosynthesis by Antarctic Phytoplankton. Antarctic Data Repository for LMG98-09	Kenneth Mopper BO-002-O Patrick Neale BO-010-O	10/12/1998 11/16/1998	PUQ PAL	10/15/1998 11/20/1998	Weddell Sea PUQ
LMG 98-10	Collaborative Research: Scotia Arc GPS Project (SCARP) Antarctic Data Repository for LMG98-10	Ian Dalziel GO-087-O	11/24/1998	PUQ	12/27/1998	PUQ
LMG 99-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment. (LTER) http://www.icess.ucsb.edu Antarctic Data Repository for LMG99-01	William Fraser BP-013-N Maria Vernet BP-016-N Doug Martinson BP-021 Langdon Quetin & Robin Ross BP-028-N Ray Smith BP-032-N Dave Karl BP-046-O	1/2/1999 1/6/1999 2/14/1999	PUQ PAL	1/6/1999 2/12/1999 2/18/1999	PAL PAL PUQ
LMG 99-2	Influence of Seasonal Ice Cover on Pelagic and Benthic Communities: Long Time-Series Studies Adaptations of Organisms at the Sulfide- and Methane-Containing Hydrothermal Areas of Deception Island Antarctic Data Repository for LMG99-02	Ken Smith BO-050-O Horst Felbeck BO-085-O	2/22/1999 2/26/1999 3/12/1999	PUQ PAL DEC	2/26/1999 2/27/1999 3/17/1999	PAL DEC PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG 99-3	Evolution of an Oxygen-binding Hemoprotein in a Unique Environment: Myoglobin in the Hemoglobinless Antarctic Icefishes	Bill Detrich BO-037-O	3/21/1999 4/16/1999	PUQ PAL	3/24/1999 4/20/1999	PAL PUQ
	Structure, Function, and Expression of Cold-Adapted Tubulins and Microtubule-Dependent Motors from Antarctic Fishes	Bruce Sidell BO-036-O				
	Characterization of Indigenous and Introduced Toxic Phytoplankton in Antarctica NOAA Grant	Donald Anderson BO-300-O Martin Visbeck NOAA Science Grant				
	Palmer Station support operations were performed as well and included a technical site visit by Biospherical Instruments. Antarctic Data Repository for LMG99-03					
LMG 99-4	Continuation of LMG99-3 Antarctic Data Repository for LMG99-04	Bruce Sidell BO-036-O	4/27/1999	PUQ	4/30/1999	PAL
		Bill Detrich BO-037-O	5/30/1999 5/31/1999	PAL COPA	5/31/1999 6/3/1999	COPA PUQ
LMG 99-5	Continuation of LMG99-4 Antarctic Data Repository for LMG99-05	Bruce Sidell BO-036-O	6/6/1999	PUQ	06/09.99	PAL
		Bill Detrich BO-037-O	6/29/1999	PAL	7/2/1999	PUQ
LMG 99-6	Palmer Station Support	N/A	7/9/1999	PUQ	7/13/1999	PAL
			7/26/1999	PAL	7/30/1999	PUQ
LMG 99-7	Transit to Talcahuano, Chile for Maintenance Period	N/A	8/1/1999	PUQ	8/7/1999	TAL
			9/4/1999	TAL	9/10/1999	PUQ
LMG 99-8	Shipboard Acoustic Doppler Current Profiling on R/V NATHANIEL B. PALMER and LAURENCE M. GOULD PAL Station Support/Turnover & ADCP Shakedown Cruise Antarctic Data Repository for LMG99-08	Teri Chereskin OO-315-O	9/14/1999	PUQ	9/20/1999	PAL
			9/23/1999	PAL	9/28/1999	PUQ
LMG 99-8A	Open Period--Vessel Science Inspection	N/A	9/28/1999 10/9/1999	PUQ PUQ	N/A	N/A
LMG 99-8B	Palmer Station Turnover and Copacabana Field Camp Opening	N/A	10/9/1999	PUQ	10/13/1999	COPA
			10/14/1999	COPA	10/15/1999	PAL
			10/17/1999	PAL	10/21/1999	PUQ
LMG 99-9	Influence of Seasonal Ice Cover on Pelagic and Benthic Communities: Long Time Series Study Antarctic Data Repository for LMG99-09	Ken Smith BO-050-O	10/25/1999	PUQ	10/29/1999	PAL
			10/29/1999	PAL	11/15/1999	PUQ
LMG 99-10	Impact and Fate of Bloom Material on the Sea Floor Mooring Recovery (Karl) Antarctic Data Repository for LMG99-10	Dave DeMaster BO-303-O Craig Smith BO-303-O Dave Karl BP-046-O	11/20/1999	PUQ	12/6/1999	PAL
			12/8/1999	PAL	12/12/1999	PUQ
LMG 00-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment. (LTER) http://www.icess.ucsb.edu Call at Cape Shirreff Field Camp Antarctic Data Repository for LMG00-01	Bill Fraser BP-013-O Maria Vernet BP-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Dave Karl BP-046-O	12/17/1999	PUQ	12/21/1999	CS
			12/21/1999	CS	12/22/1999	PAL
			12/22/1999	PAL	1/26/2000	PAL
			1/28/2000	PAL	2/1/2000	PUQ
LMG 00-2	Influence of Seasonal Ice Cover on Pelagic and Benthic Communities: Long Time Series Study. Planktonic Invertebrate Larvae and Biogeography of the Antarctic Shipboard Acoustic Doppler Current Profiling on R/V NATHANIEL B. PALMER and LAURENCE M. GOULD Also delivered construction materials to Copa Field Camp Antarctic Data Repository for LMG00-02	Ken Smith BO-050-O Rudolf Scheltema BO-281-O Teri Chereskin OO-315-O	2/5/2000	PUQ	2/9/2000	COPA
			2/10/2000	COPA	2/11/2000	PAL
			2/12/2000	PAL	2/13/2000	DEC
			2/22/2000	DEC	2/23/2000	PAL
LMG 00-3	Impact and Fate of Bloom Material on the Sea Floor Mooring Recovery (Karl) Antarctic Data Repository for LMG00-03	Dave DeMaster BO-303-O Dave Karl BP-046-O	3/2/2000	PUQ	3/6/2000	PAL
			3/7/2000	PAL	3/19/2000	PAL
			3/20/2000	PAL	3/24/2000	PUQ
LMG 00-3A	Acquisition and Operation of Broadband Seismograph Equipment at Chilean Bases in the Antarctic Peninsula Region (Weins). NOAA-CORC Southern Ocean Modern Observations (Visbeck) Antarctic Data Repository for LMG00-03A	Doug Wiens GO-097-O Martin Visbeck OO-124-O	3/28/2000 4/3/2000	PUQ PAL	4/2/2000 4/21/2000	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG 00-4	Dunbar Mooring Retrieval Palmer Station Logistics Antarctic Data Repository for LMG00-04	Rob Dunbar GO-072-O	4/25/2000 5/8/2000	PUQ PAL	4/29/2000 5/12/2000	PAL PUQ
LMG 00-5	Influence of Seasonal Ice Cover on Pelagic and Benthic Communities: Long Time-Series Studies Planktonic Invertebrate Larvae and Biogeography of the Antarctic Shipboard Acoustic Doppler Current Profiling on R/V NATHANIEL B. PALMER AND LAURENCE M. GOULD The Influence of Hydrothermal Discharge on Coastal Ocean Dissolved Iron Concentrations at Deception Island Antarctic Data Repository for LMG00-05	Ken Smith BO-050-O Rudolf Scheltema GO-281-O Teri Chereskin OO-315-O Anne Sturz OO-319-O	5/16/2000 5/22/2000 6/8/2000 6/10/2000	PUQ PAL DEC PAL	5/21/2000 5/23/2000 6/9/2000 6/15/2000	PAL DEC PAL PUQ
LMG 00-6A	Palmer Station Logistics Support Antarctic Data Repository for LMG00-06A	N/A	6/19/2000 6/26/2000	PUQ PAL	6/23/2000 6/30/2000	PAL PUQ
LMG 00-6B	Palmer Station Support & Haz Waste Pickup Antarctic Data Repository for LMG00-06B	N/A	7/3/2000 7/11/2000	PUQ PAL	7/7/2000 7/15/2000	PAL PUQ
LMG 00-6C	Palmer Station Support Antarctic Data Repository for LMG00-06C	N/A	7/18/2000 7/25/2000	PUQ PAL	7/22/2000 7/29/2000	PAL DEC
LMG 00-6D	Palmer Station Support Antarctic Data Repository for LMG00-06C	N/A	8/1/2000 8/8/2000	PUQ PAL	8/5/2000 8/12/2000	PAL PUQ
LMG 00-7	Talcahuano Dry Dock	N/A	8/15/2000 9/4/2000	PUQ TAL	8/21/2000 9/10/2000	TAL PUQ
LMG 00-8	Shuttle #1 -Palmer Station Turnover Antarctic Data Repository for LMG00-08	N/A	9/15/2000 9/24/2000	PUQ PAL	9/21/2000 9/29/2000	PAL PUQ
LMG 00-8a	Shuttle #2-Palmer Turnover Natural Product Drugs from Cold-Water Marine Organisms Antarctic Data Repository for LMG00-08A	Gregg Dietzman BO-282-O	10/1/2000 10/9/2000	PUQ PAL	10/7/2000 10/13/2000	PAL PUQ
LMG 00-9	Benthic-Pelagic Coupling on the West Antarctic Peninsula Shelf: The Impact and Fate of Bloom Material on the Shelf Floor Penguin-Krill-Ice Interactions: The Impact of Environmental Variability on Penguin Demography (COPA Field Camp) Antarctic Data Repository for LMG00-09	C. Smith BO-303-O Dave DeMaster BO-313-O Wayne Trivelpiece BO-040-O	10/17/2000 10/21/2000 10/23/2000 11/4/2000	PUQ COPA PAL PAL	10/21/2000 10/22/2000 11/4/2000 11/8/2000	COPA PAL PAL PUQ
LMG00-10	Influence of Seasonal Ice Cover on Pelagic and Benthic Communities: Long Time Series Study. Construction materials delivered to Copacabana Field Camp Antarctic Data Repository for LMG00-10	Ken Smith BO-050-O	11/12/2000 11/17/2000 11/19/2000	PUQ CS PAL	11/16/2000 11/18/2000 12/04/00	CS PAL PUQ
LMG00-11	Global Climate Change and the Evolutionary Ecology of Antarctic Mollusks in the Late Holocene Antarctic Data Repository for LMG00-11	Richard Aronson GO-065-O	12/8/2000 12/17/2000 12/20/2000	PUQ SEY PAL	12/12/2000 12/19/2000 12/24/2000	SEY PAL PUQ
LMG 01-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment. (LTER) http://www.icess.ucsb.edu	Bill Fraser BP-013-O Maria Vernet BP-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Dave Karl BP-046-O	1/4/2001 1/9/2001 1/25/2001	PUQ PAL PAL	1/8/2001 1/24/2001 1/31/2001	PAL PAL PUQ
LMG 01-1A	State Dept./EPA Antarctic Treaty Inspection of non-U.S. stations Antarctic Data Repository for LMG01-01A	N/A	2/2/2001 2/8/2001	PUQ PAL	2/7/2001 2/16/2001	PAL PUQ
LMG 01-2	Benthic-Pelagic Coupling on the West Antarctic Peninsula Shelf: The Impact and Fate of Bloom Material on the Shelf Floor Antarctic Data Repository for LMG01-02	Craig Smith BO-303-O Dave DeMaster BO-303-O	2/20/2001 2/25/2001 3/10/2001	PUQ PAL PAL	2/24/2001 3/9/2001 3/14/2001	PAL PAL PUQ
LMG 01-3	Southern Ocean Global Ocean Ecosystems Dynamics (SO GLOBEC): Circulation and Water Property Evolution SO GLOBEC: Mesoscale Circulation, Tides, and Mixing SO GLOBEC: Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area http://www.ccpo.edu.edu/Research/globec_menu.html AMS Radiocarbon Chronology of Glacier Fluctuations in the South Shetland Islands During the Last Glacial/Interglacial Hemicycle: Implications for the Role of Antarctica in Global Climate Change (Hall Field Camp Put-in on Liv. Island) Antarctic Data Repository for LMG01-03	Robert Beardsley OG-231-O Laurence Padman OG-238-O John Hildebrand BG-239-O Brenda Hall IO-196-L	3/18/2001 3/23/2001 3/25/2001 4/9/2001	PUQ KGI PAL PAL	3/22/2001 3/24/2001 4/8/2001 4/13/2001	KGI PAL PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG 01-4	SO GLOBEC: Seabird Ecology Using Observations and Diet Samples SO GLOBEC: Krill Distribution, Physiology, and Predations; Copepod Prey Abundance SO GLOBEC: Krill Age and Dietary History SO GLOBEC: Krill Physiology and Fish Ecology SO GLOBEC: Water-Column Phytoplankton Primary Productivity SO GLOBEC: Krill Distributions, Physiology and Predation; Copepod Prey Abundance http://www.ccpo.edu.edu/Research/globec_menu.html Livingston Island Field Camp Pickup of Brenda Hall Antarctic Data Repository for LMG01-04	Bill Fraser BG-234-O Kendra Daly BG-236-O Rodger Harvey BG-237-O Jose Torres BG-245-O Maria Vernet BG-246-O Meng Zhou BG-248-O Brenda Hall IO-196-L	4/20/2001 4/25/2001 4/26/2001 4/28/2001 5/31/2001 6/1/2001	PUQ KGI LIV PAL PAL LIV	4/25/2001 4/26/2001 4/27/2001 5/31/2001 6/1/2001 6/5/2001	KGI LIV PAL PAL LIV PUQ
LMG 01-5	Proteins of Oxygen-Binding & Energy Metabolism in Muscles of Antarctic Fishes: Evolutionary Adjustments to Life at Cold Temperatures Structure, Function, and Expression of Tubulins, Globins, and Microtubule-Dependent Motors from Cold-Adapted Antarctic Fishes Antarctic Data Repository for LMG01-05	Bruce Sidell BG-036-O Bill Detrich BG-037-O	6/11/2001 6/18/2001 7/11/2001	PUQ PAL PAL	6/16/2001 6/21/2001 7/15/2001	PAL PAL PUQ
LMG 01-6	SO GLOBEC: Foraging Ecology of Crabeater Seals SO GLOBEC: Seabird Ecology Using Observations and Diet Samples SO GLOBEC: Winter Distribution and Activities of Sea-ice Microbial Communities in the Western Antarctic Peninsula SO GLOBEC: Krill Age and Dietary History SO GLOBEC: Optical Environment of the Western Antarctic Peninsula SO GLOBEC: Winter Ecology of Larval Krill: Quantifying Their Interaction with the Pack Ice Habitat http://www.ccpo.edu.edu/Research/globec_menu.html Antarctic Data Repository for LMG01-06	Dan Costa BG-232-O Bill Fraser BG-234-O Chris Fritsen BG-235-O Rodger Harvey BG-237-O Doug Martinson OG-241-O Robin Ross BG-244-O	7/21/2001 7/26/2001 8/27/2001	PUQ PAL PAL	7/25/2001 8/26/2001 8/31/2001	PAL PAL PUQ
LMG 01-7	Maintenance Period and ADCP Sea Trials	N/A	9/1/2001	At PUQ	9/14/2001	At PUQ
LMG 01-8	Palmer Station Support Antarctic Data Repository for LMG01-08	N/A	9/20/2001	PUQ PAL	9/25/2001	PAL PUQ
LMG01-08A Copa Opening	Penguin-Krill-Ice Interactions: The Impact of Environmental Variability on Penguin Demography (COPA) Antarctic Data Repository for LMG01-08A	Wayne Trivelpiece BO-040-O	10/7/2001 10/11/2001 10/16/2001 10/16/2001 10/17/2001	PUQ COPA PAL Racer Rock COPA	10/11/2001 10/13/2001 10/16/2001 10/17/2001 10/21/2001	COPA PAL Racer Rock COPA PUQ
LMG01-08B	Palmer Station Support #2 Antarctic Data Repository for LMG01-08B	N/A	10/27/2001 11/8/2001	PUQ PAL	11/5/2001 11/12/2001	PAL PUQ
Maintenance	Maintenance Period in Punta Arenas, Chile	N/A	11/13/2001	At PUQ	12/1/2001	At PUQ
LMG01-9	Dynamics of Predator-Prey Behavior in the Antarctic Ocean Dispersal of Planktonic Invertebrate Larvae and the Biogeography of the Antarctic Benthos Antarctic Data Repository for LMG01-09	Richard Veit BO-023-O Rudy Scheltema BO-281-O	12/2/2001 12/23/2001	PUQ PAL	12/28/2001	PUQ
LMG02-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu	Bill Fraser BP-013-O Maria Vernet BG-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Dave Karl BP-046-O	1/2/2002 1/7/2002 1/28/2002	PUQ PAL PAL	1/6/2002 1/27/2002 2/1/2002	PAL PAL PUQ
LMG02-1A GLOBEC Mooring Recovery & Redeployment	Southern Ocean Global Ocean Ecosystems Dynamics (SO GLOBEC) : Circulation and Water Property Evolution SO GLOBEC: Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area http://www.ccpo.edu.edu/Research/globec_menu.html International Whaling Consortium Antarctic Data Repository for LMG02-01A	Bob Beardsley OG-231-O John Hildebrand BG-239-O Deb Thiele	1/6/2002	PUQ	3/2/2002	PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG02-1B	Mooring recovery Palmer Shuttle Antarctic Data Repository for LMG02-01B	Rob Dunbar Gene Domack GO-072-O	3/7/2002	PUQ	3/18/2002	PUQ
LMG02-2	Palmer Station Shuttle Antarctic Data Repository for LMG02-02	NA	3/22/2002 3/29/2002	PUQ PAL	3/26/2002 4/2/2002	PAL PUQ
LMG02-3	SO GLOBEC: Foraging Ecology of Crabeater Seals SO GLOBEC: Seabird Ecology Using Observations and Diet Samples SO GLOBEC: Krill Distribution, Physiology, and Predations; Copepod Prey Abundance SO GLOBEC: Krill Age and Dietary History SO GLOBEC: Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area SO GLOBEC: Krill Physiology and Fish Ecology SO GLOBEC: Krill Distributions, Physiology and Predation; Copepod Prey Abundance http://www.ccpo.odu.edu/Research/globec_menu.html Antarctic Data Repository for LMG02-03	Dan Costa BG-232-O Bill Fraser BG-234-O Kendra Daly BG-236-O Rodger Harvey BG-237-O John Hildebrand BG-239-O Jose Torres BG-245-O Meng Zhou BG-248-O	4/7/2002 4/13/2002 5/16/2002	PUQ PAL PAL	4/12/2002 5/14/2002 5/20/2002	PAL PAL PUQ
LMG02-4	Dry Dock and Maintenance Period	NA	5/25/2002 6/25/2002	PUQ TAL	5/31/2002 6/30/2002	TAL PUQ
LMG 02-4A	Palmer Station Shuttle Hazardous waste onload and Fueling Palmer Station Antarctic Data Repository for LMG02-04A	NA	7/5/2002 7/19/2002	PUQ PAL	7/10/2002 7/23/2002	PAL PUQ
LMG02-4B	Open Period	NA	7/24/2002	At PUQ	7/29/2002	At PUQ
LMG02-5	SO GLOBEC: Foraging Ecology of Crabeater Seals SO GLOBEC: Seabird Ecology Using Observations and Diet Samples SO GLOBEC: Winter Distribution and Activities of Sea-ice Microbial Communities in the Western Antarctic Peninsula SO GLOBEC: Optical Environment of the Western Antarctic Peninsula SO GLOBEC: Winter Ecology of Larval Krill: Quantifying Their Interaction with the Pack Ice Habitat http://www.ccpo.odu.edu/Research/globec_menu.html Antarctic Data Repository for LMG02-05	Dan Costa BG-232-O Bill Fraser BG-234-O Chris Fritsen BG-235-O Doug Martinson OG-241-O Robin Ross BG-244-O	7/29/2002 8/3/2002 9/13/2002	PUQ PAL PAL	8/3/2002 9/12/2002 9/18/2002	PAL PAL PUQ
LMG02-6	Palmer Station Opening Shuttle #1 Antarctic Data Repository for LMG02-06	NA	9/23/2002 10/3/2002	PUQ PAL	9/28/2002 10/7/2002	PAL PUQ
LMG02-7	Palmer Station Opening Shuttle #2 Foraging Behavior and Demography of Pygoscelis Penguins (COPA Field Camp) Antarctic Data Repository for LMG02-07	Wayne Trivelpiece BO-040-O	10/11/2002 10/15/2002 10/19/2002	PUQ COPA PAL	10/14/2002 10/16/2002 10/24/2002	COPA PAL PUQ
LMG02-7A	Open Period	NA	10/25/2002	At PUQ	11/2/2002	At PUQ
LMG02-8	Cape Shirreff Field Camp Put-in/Opening Automated Weather Station servicing at Racer Rocks and Hugo Island COPA Field Camp pickup Antarctic Data Repository for LMG02-08	NOAA Collaboration Chuck Stearns OO-283-O Wayne Trivelpiece BO-040-O	11/3/2002 11/7/2002 11/11/2002 11/13/2002	PUQ CS PAL COPA	11/7/2002 11/9/2002 11/13/2002 11/17/2002	CS PAL COPA PUQ
LMG02-9	The Scotia Arc GPS Project: Focus on the Antarctic Peninsula and South Shetland Islands AMS Radiocarbon Chronology of Glacier Fluctuations in the South Shetland Islands During the Last Glacial/Interglacial Hemicycle: Implications for the Role of Antarctica in Global Climate Change (Hall Field Camp Put-in on Liv. Island) Antarctic Data Repository for LMG02-09	Fred Taylor GO-080-O Brenda Hall IO-196-L	11/23/2002 12/1/2002 12/20/2002	PUQ PAL PAL	12/1/2002 12/18/2002 12/23/2002	PAL PAL PUQ
LMG03-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu Antarctic Data Repository for LMG03-01	Bill Fraser BP-013-O Maria Vernet BP-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Hugh Ducklow BP-045-O	12/31/2002 1/5/2003 2/4/2003	PUQ PAL PAL	1/4/2003 2/2/2003 2/8/2003	PAL PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG03-2	SO GLOBEC: Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area SO GLOBEC: Circulation and Water Property Evolution http://www.ccpo.edu.edu/Research/globec_menu.html Antarctic Data Repository for LMG03-02	John Hildebrand BP-239-O Bob Beardsley OG-231-O	2/13/2003 2/17/2003 3/3/2003	PUQ PAL PAL	2/17/2003 3/2/2003 3/7/2003	PAL PAL PUQ
LMG03-3	Development of a luminescence dating capability for antarctic glaciomarine sediments: Tests of signal zeroing at the Antarctic peninsula http://www.dees.dri.edu/Projects/berger_antarctica.htm Antarctic Data Repository for LMG03-03	Glenn Berger GO-092-O	3/12/2003 3/17/2003 3/25/2003	PUQ PAL PAL	3/16/2003 3/25/2003 3/29/2003	PAL PAL PUQ
LMG03-4	Structure, function and expression of tubulins, globins, and microtubule-dependent motors from cold-adapted Antarctic fishes Cold body temperature as an evolutionary shaping force in the physiology of Antarctic fishes CTD operations and mooring recovery science of opportunity Antarctic Data Repository for LMG03-04	Bill Detrich B-037-L Bruce Sidell B-036-L Martin Visbeck	4/5/2003 4/11/2003 4/25/2003 5/3/2003	PUQ PAL PAL PAL	4/9/2003 4/25/2003 5/2/2003 5/7/2003	PAL PAL PAL PUQ
LMG03-4A	Structure, function and expression of tubulins, globins, and microtubule-dependent motors from cold-adapted Antarctic fishes Cold body temperature as an evolutionary shaping force in the physiology of Antarctic fishes Antarctic Data Repository for LMG03-04A	Bill Detrich B-037-L Bruce Sidell B-036-L	5/10/2003 5/16/2003 5/20/2003 5/23/2003 5/24/2003 6/1/2003	PUQ PAL PAL PAL VRN PAL	5/14/2003 5/20/2003 5/23/2003 5/24/2003 5/26/2003 6/5/2003	PAL PAL PAL VRN PAL PUQ
LMG03-5	Palmer Station Shuttle	NA	6/16/2003 6/24/2003	PUQ PAL	6/20/2003 6/28/2003	PAL PUQ
Maintenance	Maintenance Period at Punta Arenas, Chile	NA	6/29/2003	At PUQ	8/15/2003	At PUQ
LMG03-5A	Palmer Station Shuttle Advanced Microwave Scanning Radiometer (AMSR) Sea Ice Validation during the Traverse to Antarctica http://www.ghcc.msfc.nasa.gov/AMSR/ Antarctic Data Repository for LMG03-05A	Konrad Steffen O-309-L	8/16/2003 8/21/2003	PUQ PAL	8/18/2003 9/3/2003	PAL PUQ
Open Period	Open Period for Maintenance	NA	9/7/2003	At PUQ	9/20/2003	At PUQ
LMG03-6	Palmer Station Shuttle	NA	9/22/2003 10/1/2003	PUQ PAL	9/26/2003 10/5/2003	PAL PUQ
LMG03-7	Palmer Station Shuttle	NA	10/10/2003 10/14/2003 10/18/2003	PUQ COPA PAL	10/14/2003 10/16/2003 10/23/2003	COPA PAL PUQ
LMG03-7A	Open Period	NA	10/23/2003	At PUQ	11/6/2003	At PUQ
LMG03-8	Dynamic Similarity or Size Proportionality?: Adaptations of a Polar Copepod Long-Term Data Collection at Select Antarctic Peninsula Visitor Sites Antarctic Data Repository for LMG03-08	Jeannette Yen B-285-L Ronald Naveen B-086-E	11/7/2003 11/11/2003 11/13/2003 11/14/2003 11/14/2003	PUQ CS PAL PMN PAL	11/11/2003 11/12/2003 11/14/2003 11/14/2003 11/19/2003	CS PAL PMN PAL PUQ
LMG03-9	Global Climate Change and the Evolutionary Ecology of Antarctic Mollusks in the Late Eocene Evolution and Biogeography of Late Cretaceous Vertebrates from the James Ross Basin, Antarctic Peninsula Dynamics of Predator-Prey Behavior in the Antarctic Ocean Antarctic Data Repository for LMG03-09	Daniel Blake G-065-L Judd Case G-061-E Richard Veit B-023-L	11/23/2003 12/2/2003	PUQ PAL	11/30/2003 12/29/2003	PAL PUQ
LMG04-1	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu	Bill Fraser BP-013-O Maria Vernet BP-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Hugh Ducklow BP-045-O	1/1/2004 1/7/2004 1/23/2004 1/25/2004 1/27/2004 2/2/2004	PUQ PAL Avian Island ROT Avian Island PAL	1/5/2004 1/23/2004 1/24/2004 1/27/2004 2/1/2004 2/7/2004	PAL Avian Island ROT Avian Island PAL PUQ
LMG04-2	Plankton Community Structure and Iron Distribution in the Southern Drake Passage http://www.es.umb.edu/faculty/mzh/files/sfz/sfz.htm Antarctic Data Repository for LMG04-02	Chris Measures B-225-L B. Greg Mitchell B-228-L Meng Zhou B-248-L	2/12/2004 2/17/2004 2/18/2004 3/20/2004	PUQ PAL PMN PAL	2/16/2004 2/18/2004 3/18/2004 3/24/2004	PAL PMN PAL PUQ
LMG04-3	SO GLOBEC: Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area Palmer Station shuttle Antarctic Data Repository for LMG04-03	John Hildebrand B-239-L	3/28/2004 4/2/2004 4/8/2004	PUQ KGI PAL	4/2/2004 4/3/2004 4/12/2004	KGI PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG04-4	Collaborative research: Paleohistory of the Larsen Ice Shelf: Phase II Consortium on the Ocean's Role in Climate (CORC) AbRupt climate CHange Studies (ARCHES) Antarctic Data Repository for LMG04-04	Eugene Domack G-096-L Martin Visbeck O-124-L	4/16/2004 5/19/2004 5/21/2004 5/23/2004	PUQ PAL ROT VRN	5/9/2004 5/20/2004 5/22/2004 5/27/2004	PAL ROT VRN PUQ
LMG04-5	Palmer Station Shuttle Antarctic Data Repository for LMG04-05	N/A	5/14/2004 5/19/2004 5/21/2004 5/22/2004	PUQ PAL ROT VRN	5/18/2004 5/20/2004 5/22/2004 5/27/2004	PAL ROT VRN PUQ
LMG04-6	Palmer Station Shuttle Antarctic Data Repository for LMG04-06	N/A	5/30/2004 6/5/2004	PUQ PAL	6/3/2004 6/9/2004	PAL PUQ
LMG04-7	Palmer Station Shuttle	N/A	6/12/2004 6/23/2004	PUQ PAL	6/16/2004 6/27/2004	PAL PUQ
LMG04-8	Northbound hazardous waste run Antarctic Data Repository for LMG04-08	N/A	6/30/2004 7/22/2004	PUQ PAN	7/17/2004 7/27/2004	PAN FCH
LMG04-9	Maintenance Period/Dry Dock at Port Fourchon, LA	N/A		At FCH		
LMG04-10	Southbound Transit to PUQ Talcahuano Dry Dock-Sonar window leak repair	N/A	8/19/2004 8/31/2004 9/17/2004	FCH PAN TAL	8/26/2004 9/13/2004 9/23/2004	PAN TAL PUQ
LMG04-11	Palmer Station Opening Tracers of biological productivity and gas exchange Antarctic Data Repository for LMG04-11	Steven Emerson O-271-L	9/28/2004 10/8/2004	PUQ PAL	10/3/2004 10/13/2004	PAL PUQ
LMG04-12	Foraging Behavior and Demography of Pygoscelis Penguins (COPA Field Camp) COPA Field Camp Opening Antarctic Data Repository for LMG04-12	Trivelpiece B-040-E	10/17/2004 10/21/2004 10/25/2004	PUQ COPA PAL	10/21/2004 10/23/2004 10/30/2004	COPA PAL PUQ
LMG04-13A	Long-Term Data Collection at Select Antarctic Peninsula Visitor Sites Cape Shirreff Field Camp Put-in/Opening COPA stop on northbound transit Antarctic Data Repository for LMG04-13A	Ronald Naveen B-086-E	11/6/2004 11/10/2004 11/12/2004 11/12/2004 11/14/2004	PUQ CS PAL PMN COPA/ Jubany/Frei	11/10/2004 11/11/2004 11/12/2004 11/14/2004 11/18/2004	CS PAL PMN COPA/ Jubany/Frei PUQ
LMG04-14	Relevance of planktonic larval dispersal to endemism and biogeography of antarctic benthic invertebrates Salpa thompsoni in the Sourther Ocean: Bioenergetics, population dynamics and biogeochemical impact Antarctic Data Repository for LMG04-14	Kenneth Halanych B-281-L Pat Kremer B-307-L	11/23/2004 12/17/2004	PUQ PAL	12/16/2004 12/22/2004	PAL PUQ
LMG05-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu Antarctic Data Repository for LMG05-01	Bill Fraser BP-013-O Maria Vernet BP-016-O Doug Martinson BP-021-O Langdon Quetin Robin Ross BP-028-O Ray Smith BP-032-O Hugh Ducklow BP-045-O	12/29/2004 1/4/2005 2/2/2005	PUQ PAL PAL	1/2/2005 2/1/2005 2/6/2005	PAL PAL PUQ
LMG05-02	Paleohistory of the Larsen Ice Shelf: Phase III	Eugene Domack G-096-L	2/11/2005	PUQ	3/12/2005	PUQ
LMG05-03	Palmer Station Shuttle and Turnover	N/A	3/15/2005 3/24/2005 3/25/2005	PUQ PAL PMN	3/19/2005 3/24/2005 3/28/2005	PAL PMN PUQ
LMG05-04	Mysticete Whale Acoustic Census in the GLOBEC West Antarctic Project Area	John Hildebrand B-239-L	4/2/2005 4/11/2005	PUQ PAL	4/7/2005 4/15/2005	PAL PUQ
LMG05-05	Cold body Temperature as an Evolutionary Shaping Force in the Physiology of Antarctic Fishes	Bruce Sidell B-036-L	4/20/2005 4/26/2005 5/2/2005 5/4/2005 5/8/2005	PUQ PAL PAL PAL PAL	4/25/2005 4/28/2005 5/3/2005 5/6/2005 5/12/2005	PAL PAL PAL PAL PUQ
LMG05-06	Cold body Temperature as an Evolutionary Shaping Force in the Physiology of Antarctic Fishes	Bruce Sidell B-036-L	5/18/2005 5/22/2005 5/27/2005 5/31/2005 6/5/2005	PUQ PAL PAL PAL PAL	5/22/2005 5/25/2005 5/28/2005 6/1/2005 6/9/2005	PAL PAL PAL PAL PUQ
LMG05-07	Tracers of Biological Productivity and Gas Exchange Palmer Station hazardous waste pickup Antarctic Data Repository for LMG05-07	Steven Emerson O-271-L	6/13/2005 6/24/2005	PUQ PAL	6/18/2005 6/28/2005	PAL PUQ
LMG05-08	Northbound hazardous waste run to Port Hueneme, CA	N/A	7/3/2005	PUQ	7/31/2005	PTH
LMG05-09	Southbound Transit to PUQ Stopover in Puerto Montt for Distinguished Visitor pickup	N/A	8/15/2005 9/7/2005	PTH PMC	9/6/2005 9/11/2005	PMC PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
Note: cruise number LMG05-10 was not used						
LMG05-11	Palmer Station opening.	N/A	9/16/2005 9/23/2005	PUQ PAL	9/20/2005 9/29/2005	PAL PUQ
LMG05-11A	LMG Drydock	N/A	10/1/2005 10/13/2005	PUQ TAL	10/9/2005 10/19/2005	TAL PUQ
LMG05-12	COPA Opening	N/A	10/22/2005 10/28/2005 10/30/2005	PUQ COPA PAL	10/26/2005 10/29/2005 11/3/2005	COPA PAL PUQ
Note: cruise number LMG05-13 was not used						
LMG05-14	Long-Term Data Collection at Select Antarctic Peninsula Visitor Sites. Cape Shirreff Field Camp Put-in/Opening. LTER Site Visit Nov. 14, 15, 16.	Ronald Naveen B-086-E	11/7/2005 11/11/2005 11/12/2005 11/17/2005	PUQ CS PMN PAL	11/10/2005 11/12/2005 11/13/2005 11/21/2005	CS PMN PAL PUQ
LMG05-14A	Free drifting icebergs: Influence of floating islands on pelagic ecosystems in the Weddell Sea	Ken Smith B-050-L	11/25/2005 11/29/2005 12/23/2005 12/24/2005	PUQ PAL PAL CS	11/29/2005 12/23/2005 12/24/2005 12/27/2005	PAL PAL CS PUQ
LMG06-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icesb.ucsb.edu	Bill Fraser B-013-L/P Maria Vernet B-016-L/P Doug Martinson B-021-L Langdon Quetin Robin Ross B-028-L/P Ray Smith B-032-L/P Hugh Ducklow B-045-L/P	1/1/2006 1/7/2006 2/5/2006	PUQ PAL PAL	1/5/2006 2/4/2006 2/9/2006	PAL PAL PUQ
LMG06-02	Salpa thompsoni in the Southern Ocean: Bioenergetics, population dynamics and biogeochemical impact Antarctic Data Repository for LMG06-02	Laurence Madin B-307-L	2/14/2006 2/20/2006 3/11/2006 3/12/2006	PUQ PAL PMN PAL	2/19/2006 3/11/2006 3/11/2006 3/16/2006	PAL PMN PAL PUQ
LMG06-03	Processes driving spatial and temporal variability of surface pCO2 in the Drake Passage	Taro Takahashi O-214-L/N	3/21/2006 3/31/2006	PUQ PAL	3/29/2006 4/4/2006	PAL PUQ
LMG06-03A	Palmer Station Shuttle Antarctic Data Repository for LMG06-03A	N/A	4/8/2006 4/15/2006	PUQ PAL	4/12/2006 4/22/2006	PAL PUQ
LMG06-04	Palmer Station Turnover Antarctic Data Repository for LMG06-04	N/A	4/25/2006 5/3/2006	PUQ PAL	4/30/2006 5/7/2006	PAL PUQ
LMG06-05	Relevance of planktonic larval dispersal to endemism and biogeography of antarctic benthic invertebrates Antarctic Data Repository for LMG06-05	Kenneth Halanych B-281-L	5/13/2006 5/21/2006 6/9/2006	PUQ PAL PAL	5/20/2006 6/8/2006 6/14/2006	PAL PAL PUQ
LMG06-06	Palmer Station Shuttle Day trip to Vernadsky Station	N/A	6/19/2006 6/25/2006 6/25/2006 6/28/2006	PUQ PAL VRN PAL	6/24/2006 6/25/2006 6/26/2006 7/2/2006	PAL VRN PAL PUQ
LMG06-07	Open Period	N/A	7/3/2006	PUQ	8/6/2006	PUQ
LMG06-08	Palmer Station Shuttle Antarctic Data Repository for LMG06-08	N/A	8/6/2006 8/11/2006	PUQ PAL	8/10/2006 8/16/2006	PAL PUQ
LMG06-09	Open Period	N/A	8/18/2006	PUQ	9/10/2006	PUQ
LMG06-10	Palmer Station Opening	N/A	9/15/2006 9/25/2006	PUQ PAL	9/20/2006 9/30/2006	PAL PUQ
LMG06-11	COPA Opening	N/A	10/5/2006 10/10/2006 10/12/2006	PUQ COPA PAL	10/9/2006 10/11/2006 10/16/2006	COPA PAL PUQ
LMG06-11A	Open Period	N/A	10/20/2006	PUQ	10/25/2006	PUQ
LMG06-11B	Long-Term Data Collection at Select Antarctic Peninsula Visitor Sites Antarctic Data Repository for LMG06-11B	Ronald Naveen B-086-L	10/28/2006 11/1/2006 11/3/2006 11/3/2006 11/4/2006	PUQ CS PAL PMN COPA	11/1/2006 11/2/2006 11/3/2006 11/4/2006 11/8/2006	CS PAL PMN COPA PUQ
LMG06-12	NSF Operations Antarctic Data Repository for LMG06-12	N/A	11/12/2006 11/16/2006 11/17/2006 11/20/2006 11/23/2006 11/24/2006 11/26/2006 11/27/2006	PUQ PAL PMN ROT OHG ESP DEC KGI	11/16/2006 11/17/2006 11/19/2006 11/23/2006 11/24/2006 11/25/2006 11/27/2006 12/1/2006	PAL PMN ROT OHG ESP DEC KGI PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG06-13	Palmer Station Shuttle	N/A	12/6/2006 12/10/2006	PUQ PAL	12/9/2006 12/14/2006	PAL PUQ
LMG06-14	Palmer Station Shuttle Antarctic Data Repository for LMG06-14	N/A	12/18/2006 12/23/2006	PUQ PAL	12/22/2006 12/27/2006	PAL PAL
LMG07-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu	Bill Fraser B-013-L/P Maria Vernet B-016-L/P Doug Martinson B-012-L Robin Ross B-028-L/P Ray Smith B-032-L/P Hugh Ducklow B-045-L/P	1/1/2007 1/7/2007 2/7/2007	PUQ PAL PAL	1/5/2007 2/6/2007 2/11/2007	PAL PAL PUQ
LMG07-02	Peterman Island pick-up Close Cape Shirreff Close COPA	N/A	2/16/2007 2/20/2007 2/22/2007 2/22/2007 2/24/2007 2/26/2007	PUQ COPA PAL PMN CS COPA	2/20/2007 2/21/2007 2/22/2007 2/24/2007 2/26/2007 3/1/2007	COPA PAL PMN CS COPA PUQ
LMG07-03	Palmer Station Shuttle	N/A	3/8/2007 3/15/2007	PUQ PAL	3/12/2007 3/19/2007	PAL PUQ
LMG07-04	Palmer Station Turnover	Robert Blanchette B-038-E	3/23/2007 4/2/2007	PUQ PAL	3/28/2007 4/6/2007	PAL PUQ
LMG07-05	Differential Expression of Oxygen-Binding Proteins in Antarctic Fishes Affecting Nitric Oxide-Mediated Pathways of Angiogenesis and Mitochondrial Biogenesis. Habitat Utilization of Southern Ocean Seals: Foraging Behavior of Crabeater and Elephant Seals Using Novel Methods of Oceanographic Data Collection	Bruce Sidell B-036-L Dan Costa B-232-L	4/11/2007 4/17/2007 4/20/2007 4/30/2007 5/5/2007	PUQ PAL PAL PAL PAL	4/15/2007 4/20/2007 4/28/2007 5/3/2007 5/8/2007	PAL PAL PAL PAL PUQ
LMG07-06	Differential Expression of Oxygen-Binding Proteins in Antarctic Fishes Affecting Nitric Oxide-Mediated Pathways of Angiogenesis and Mitochondrial Biogenesis. Habitat Utilization of Southern Ocean Seals: Foraging Behavior of Crabeater and Elephant Seals Using Novel Methods of Oceanographic Data Collection Antarctic Data Repository for LMG07-06	Bruce Sidell B-036-L Dan Costa B-232-L	5/12/2007 5/17/2007 5/27/2007 5/30/2007	PUQ PAL VRN PAL	5/16/2007 5/27/2007 5/27/2007 6/3/2007	PAL VRN PAL PUQ
LMG07-07	Hazardous waste shuttle Antarctic Data Repository for LMG07-07	N/A	6/7/2007	PUQ	6/11/2001	PAL
LMG07-08	Northbound hazardous waste run	N/A	6/18/2007 6/25/2007	PAL PUQ PAN	6/23/2007 7/19/2007	PUQ PAN FCH
Note: cruise number LMG07-09 was not used						
LMG07-10	Drydock	N/A	7/19/2007	FCH	8/11/2007	FCH
LMG07-11	Southbound Transit to Punta Arenas, Chile	N/A	8/11/2007	FCH	9/6/2007	PUQ
LMG07-12	Palmer Station Opening Antarctic Data Repository for LMG07-12	N/A	9/13/2007 9/24/2007	PUQ PAL	9/17/2007 9/29/2007	PAL PUQ
LMG07-13	COPA Opening Antarctic Data Repository for LMG07-13	N/A	10/8/2007 10/13/2007 10/15/2007	PUQ COPA PAL	10/12/2007 10/14/2007 10/20/2007	COPA PAL PUQ
LMG07-14	Open Period	N/A	10/25/2007	PUQ	10/31/2007	PUQ
LMG07-15	Cape Shirreff Opening Petermann Island Camp Put-In Antarctic Data Repository for LMG07-15	N/A	11/4/2007 11/7/2007 11/8/2007 11/9/2007 11/12/2007	PUQ CS PAL PMN PAL	11/7/2007 11/8/2007 11/9/2007 11/10/2007 11/16/2007	CS PAL PMN PAL PUQ
Note: cruise number LMG07-16 was not used						
LMG07-17	Vertebrate Paleontology of Livingston Island, South Shetlands, Antarctica Collaborative Research: Testing the Polar Gateway Glaciation Hypothesis: the Kinematic, Sedimentary, Water-Mass, and Ice-Volume Record of Drake Passage Opening Antarctic Data Repository for LMG07-17	Ross MacPhee G-170-E David Barbeau G-432-E	11/22/2007 12/2/2007 12/2/2007 12/4/2007 12/10/2007 12/16/2007 12/16/2007	PUQ LIV VRN PAL LIV SEY ESP	11/26/2007 12/2/2007 12/3/2007 12/8/2007 12/11/2007 12/16/2007 12/22/2007	LIV VRN PAL LIV SEY ESP PUQ
LMG08-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.icess.ucsb.edu	Bill Fraser B-013-L/P Maria Vernet B-016-L/P Doug Martinson B-012-L Langdon Quetin Robin Ross	12/30/2007 1/5/2008 2/5/2008	PUQ PAL PAL	1/3/2008 2/3/2008 2/9/2008	PAL PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	Antarctic Data Repository for LMG08-01	B-028-L/P Hugh Ducklow B-045-L/P				
LMG08-02	Collaborative Research: Benthic faunal feeding dynamics on the Antarctic Shelf and the effects of global climate change on betho-pelagic coupling Antarctic Data Repository for LMG08-02	David DeMaster B-237-L Craig Smith B-212-L	2/14/2008 2/20/2008 3/13/2008	PUQ PAL PAL	2/19/2008 3/12/2008 3/17/2008	PAL PAL PUQ
LMG08-03	Palmer Station Turnover Antarctic Data Repository for LMG08-03	N/A	3/22/2008 3/31/2008	PUQ PAL	3/26/2008 4/4/2008	PAL PUQ
LMG08-04	Collaborative Research: Testing the impact of seasonality on benthic formanifers as paleoenvironmental proxies. Antarctic Data Repository for LMG08-04	Scott Ishman G-183-L	4/8/2008 4/19/2008	PUQ PAL	4/17/2008 4/23/2008	PAL PUQ
Note: cruise number LMG08-05 was not used						
LMG08-06	Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from antarctic fishes	Bill Detrich B-037-L	4/27/2008 5/4/2008 5/9/2008 5/13/2008 5/17/2008 5/21/2008	PUQ PAL PAL PAL PAL PAL	5/2/2008 5/6/2008 5/12/2008 5/17/2008 5/19/2008 5/25/2008	PAL PAL PAL PAL PAL PUQ
LMG08-07	Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from antarctic fishes Antarctic Data Repository for LMG08-07	Bill Detrich B-037-L	5/28/2008 6/3/2008 6/7/2008 6/15/2008	PUQ PAL PAL PAL	6/2/2008 6/6/2008 6/9/2008 6/19/2008	PAL PAL PAL PUQ
LMG08-08	Collaborative Research: Testing the impact of seasonality on benthic formanifers as paleoenvironmental proxies. Antarctic Data Repository for LMG08-08	Scott Ishman G-183-L	6/24/2008 7/4/2008	PUQ PAL	7/2/2008 7/8/2008	PAL PUQ
LMG08-09	Environmental, organismal and evolutionary physiology of freeze avoidance in antarctic Notothenoid fishes Antarctic Data Repository for LMG08-09	Art Devries B-005-L	7/13/2008 7/22/2008 7/26/2008 7/30/2008 8/5/2008	PUQ PAL PAL PAL PAL	7/18/2008 7/24/2008 7/28/2008 8/4/2008 8/9/2008	PAL PAL PAL PAL PUQ
LMG08-10	Environmental, organismal and evolutionary physiology of freeze avoidance in antarctic Notothenoid fishes Antarctic Data Repository for LMG08-10	Art Devries B-005-L	8/13/2008 8/19/2008 8/26/2008 8/28/2008 8/30/2008 9/5/2008	PUQ PAL PAL KGI PAL PAL	8/18/2008 8/25/2008 8/27/2008 8/29/2008 9/3/2008 9/10/2008	PAL PAL KGI PAL PAL PUQ
LMG08-11	Palmer Station Opening	N/A	9/14/2008 9/24/2008	PUQ PAL	9/18/2008 9/28/2008	PAL PUQ
LMG08-12	COPA/Cape Shirreff Opening	N/A	10/15/2008 10/19/2008 10/23/2008 10/24/2008	PUQ COPA PAL CS	10/19/2008 10/22/2008 10/24/2008 10/27/2008	COPA PAL CS PUQ
LMG08-13	Open Period	N/A	10/28/2008	PUQ	11/30/2008	PUQ
LMG08-14	NSF Job Walk	N/A	12/1/2008	PUQ	12/29/2008	PUQ
LMG09-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) Antarctic Data Repository for LMG09-01	Doug Martinson B-241-L Hugh Ducklow B-045-L Deborah Steinberg B-020-L Oscar Schofield B-019-L Bill Fraser B-013-L Michael Bender O-326-L	12/30/2008 1/6/2009 2/2/2009	PUQ PAL PAL	1/4/2009 2/1/2009 2/6/2009	PAL PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG09-02	Collaborative Research: Benthic faunal feeding dynamics on the Antarctic Shelf and the effects of global climate change on betho-pelagic coupling Search for late Mesozoic vertebrate fossils on Livingston Island Causes of mass extinction during the late Cretaceous age in Antarctica. Antarctic Data Repository for LMG09-02	David DeMaster	2/11/2009	PUQ	2/15/2009	LIV
		B-237-L	2/15/2009	LIV	2/16/2009	JRI
		Craig Smith	2/16/2009	JRI	2/18/2009	LIV
		B-212-L	2/18/2009	LIV	2/19/2009	PAL
		Ross MacPhee	2/20/2009	PAL	3/9/2009	PAL
		G-170-E	3/10/2009	PAL	3/11/2009	JRI
		Joseph Kirschvink	3/11/2009	JRI	3/12/2009	COC
LMG09-03	Microbial diversity in historic woods, organic substrates and soil Abrupt environmental change in the Larsen Ice Shelf system Antarctic Data Repository for LMG09-03	Robert Blanchette	3/21/2009	PUQ	3/26/2009	DEC
		B-038-L/P	3/29/2009	DEC	3/30/2009	PAL
		Eugene Domack	3/31/2009	PAL	4/1/2009	VER
		C-515-L	4/2/2009	VER	4/4/2009	PAL
			4/5/2009	PAL	4/9/2009	PUQ
Note: cruise number LMG09-04 was not used						
LMG09-05	Collaborative Research: the ecological role of a poorly studied Antarctic krill predator: the humpback whale. Linkages among mitochondrial form, function and thermal tolerance of Antarctic notothenioid fishes Antarctic Data Repository for LMG09-05	Douglas Nowacek	4/21/2009	PUQ	4/25/2009	PAL
		B-249-L	4/26/2009	PAL	4/28/2009	PAL
		Kristin O'Brien	4/29/2009	PAL	5/10/2009	PAL
		B-036-L	5/11/2009	PAL	5/14/2009	PAL
			5/14/2009	PAL	5/23/2009	PAL
			5/24/2009	PAL	5/27/2009	PAL
			5/27/2009	PAL	6/5/2009	PAL
			6/7/2009	PAL	6/11/2009	PUQ
LMG09-06A	Hazardous waste shuttle	N/A	6/15/2009	PUQ	6/19/2009	PAL
			6/20/2009	PAL	6/21/2009	PAL
			6/26/2009	PAL	7/1/2009	PUQ
LMG09-07	Hazardous Waste Run / Dry dock	N/A	7/4/2009	PUQ	7/27/2009	FCH
LMG09-07A	Dry dock, Port Hueneme cargo loading	N/A	7/31/2009	FCH	8/15/2009	FCH
LMG09-08	Transit to Punta Arenas	N/A	8/16/2009	FCH	9/11/2009	PUQ
LMG09-09	Surface pCO2 and the effects of winter overturning in the Drake Passage Antarctic Data Repository for LMG09-09	Colm Sweeney	9/16/2009	PUQ	9/24/2009	PAL
		O-214-L	9/27/2009	PAL	9/28/2009	PAL
			10/1/2009	PAL	10/8/2009	PUQ
LMG09-10	COPA/Cape Shirreff Opening	N/A	10/14/2009	PUQ	10/20/2009	PAL
			10/22/2009	PAL	10/27/2009	PUQ
	Open Period	N/A	11/3/2009	PUQ	11/18/2009	PUQ
LMG09-11	Geoscience island field camps Antarctic Data Repository for LMG09-11	David Barbeau	11/23/2009	PUQ	11/27/2009	PAL
		G-432-E	12/6/2009	JRI	12/9/2009	JRI
		Ross MacPhee	12/10/2009	LIV	12/10/2009	LIV
		G-170-E	12/11/2009	SNO	12/11/2009	SNO
		Joseph Kirschvink	12/12/2009	KGI	12/22/2009	PUQ
	G-436-E					
LMG-10-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) Antarctic Data Repository for LMG10-01	Doug Martinson	12/30/2009	PUQ	1/3/2010	PAL
		B-241-L	1/5/2010	PAL	2/2/2010	PAL
		Hugh Ducklow	2/3/2010	PAL	2/7/2010	PUQ
		B-045-L				
	B-020-L					
	Oscar Schofield					
	B-019-L					
	Bill Fraser					
	B-013-L					
	Michael Bender					
	O-326-L					
LMG10-02	Palmer Station Logistics Support	N/A	2/13/2010	PUQ	2/17/2010	PAL
			2/20/2010	PAL	2/22/2010	PAL
			2/27/2010	PAL	3/2/2010	PAL
			3/21/2010	PAL	3/25/2010	PUQ
LMG10-02A	RPSC/ECO Cooperative vessel equipment maintenance	N/A	3/26/2010	PUQ	4/9/2010	PUQ
LMG10-03	Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from antarctic fishes Antarctic Data Repository for LMG10-03	Bill Detrich	4/10/2010	PUQ	4/16/2010	PAL
		B-037-L	4/19/2010	PAL	4/21/2010	PAL
		(cruise 1 of 2)	4/22/2010	PAL	4/23/2010	PAL
			4/25/2010	PAL	4/29/2010	PUQ
LMG10-04	Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from antarctic fishes Antarctic Data Repository for LMG10-04	Bill Detrich	5/4/2010	PUQ	5/8/2010	PAL
		B-037-L	5/10/2010	PAL	5/15/2010	PAL
		(cruise 2 of 2)	5/17/2010	PAL	5/22/2010	PAL
			5/24/2010	PAL	5/30/2010	PAL
			6/4/2010	PAL	6/8/2010	PUQ
LMG10-05	Open Period, Puerto Natales, Chile	N/A	6/19/2010	PUQ	6/21/2010	PNT
			9/5/2010	PNT	9/6/2010	PUQ
LMG10-06	Ammonia Oxidation Versus Heterotrophy in Crenarchaeota Populations from Marine Environments West of the Antarctic Peninsula Antarctic Data Repository for LMG10-06	James Hollibaugh	9/13/2010	PUQ	9/19/2010	PAL
		B-114-L	9/22/2010	PAL	9/24/2010	PAL
			9/26/2010	PAL	10/1/2010	PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG10-07	COPA Opening Palmer Station Opening	N/A	10/6/2010 10/10/2010 10/16/2010	PUQ COP PAL	10/10/2010 10/12/2010 10/20/2010	COP PAL PUQ
LMG10-08	Cape Shirreff Opening Haz Waste Pickup	N/A	10/31/2010 11/3/2010 11/13/2010	PUQ SHF PAL	11/3/2010 11/4/2010 11/17/2010	SHF PAL PUQ
LMG10-10	Acoustic Assessment of Southern Ocean Salps and Their Ecosystem Impact Antarctic Data Repository for LMG10-10	Joseph Warren B-393-L	11/25/2010 11/30/2010 12/16/2010	PUQ PAL PAL	11/29/2010 12/15/2010 12/20/2010	PAL PAL PUQ
LMG11-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) Antarctic Data Repository for LMG11-01	Doug Martinson B-241-L Hugh Ducklow B-045-L Deborah Steinberg B-020-L Oscar Schofield B-019-L Bill Fraser B-013-L James Hollibaugh B-114-L	1/1/2011 1/7/2011	PUQ PAL	1/5/2011	PAL PUQ
LMG11-02	Geoscience island field camps Antarctic Data Repository for LMG11-02	David Barbeau G-432-E Ross MacPhee G-170-E Joseph Kirschvink G-436-E	2/14/2011 2/19/2011 3/8/2011	PUQ PAL PAL	2/18/2011 3/7/2011 3/13/2011	PAL PAL PUQ
LMG11-03	Palmer Station Turnover	N/A	3/23/2011 4/5/2011	PUQ PAL	3/27/2011 4/8/2011	PAL PUQ
LMG11-04	Redox balance in Antarctic notothenioid fishes: Do icefishes have an advantage? Antarctic Data Repository for LMG11-04	Krisin O'Brien B-036-L	4/13/2011 4/18/2011 4/22/2011	PUQ PAL PAL	4/17/2011 4/21/2011 4/27/2011	PAL PAL PUQ
LMG11-05	Redox balance in Antarctic notothenioid fishes: Do icefishes have an advantage? Collaborative Research: Fjord Ecosystem Structure and Function on the West Antarctic Peninsula - Hot Spots of Productivity and Biodiversity? (FjordEco)	Krisin O'Brien B-036-L Craig Smith G-246-L	5/2/2011 5/10/2011 5/13/2011 5/21/2011 5/27/2011 6/7/2011	PUQ PAL PAL PAL PAL PAL	5/9/2011 5/12/2011 5/20/2011 5/24/2011 5/30/2011 6/11/2011	PAL PAL PAL PAL PAL PUQ
LMG11-06	Open Period, Punta Arenas, Chile	N/A	6/12/2011	PUQ	7/31/2011	PUQ
LMG11-06A	Collaborative Research: Functional Genomics and Physiological Ecology of Seasonal Succession in Antarctic Phytoplankton: Adaptations to Light and Temperature Diapycnal and Isopycnal Mixing Experiment in the Southern Ocean	Deneb Karentz B-466-L James Ledwell O-124-L	8/1/2011 8/12/2011	PUQ PAL	8/7/2011 8/20/2011	PAL PUQ
LMG11-07	Open Period	N/A	8/21/2011 8/31/2011	PUQ PUQ	8/30/2011 9/1/2011	PUQ PUQ
LMG11-08	Palmer Station Opening Antarctic Data Repository for LMG11-08	N/A	9/13/2011 9/26/2011	PUQ PAL	9/18/2011 10/1/2011	PAL PUQ
LMG11-09	Palmer Station Opening Antarctic Data Repository for LMG11-09	N/A	10/7/2011 10/20/2011	PUQ PAL	10/13/2011 10/24/2011	PAL PUQ
LMG11-10	Cape Shirreff Opening Collaborative Research: Gene expression profiles of the Southern Ocean salp, <i>Salpa thompsoni</i> Acoustic Assessment of Southern Ocean Salps and Their Ecosystem Impact Antarctic Data Repository for LMG11-10	Ann Bucklin B-285-L Joseph Warren B-393-L	11/2/2011 11/9/2011 11/27/2011	PUQ PAL PAL	11/7/2011 11/26/2011 12/1/2011	PAL PAL PUQ
LMG11-11	LTER Site Review Antarctic Data Repository for LMG11-11	N/A	12/5/2011 12/12/2011	PUQ PAL	12/9/2011 12/19/2011	PAL PUQ
LMG11-12	LTER Cargo Onload, Punta Arenas, Chile	N/A	12/24/2011	PUQ	12/28/2011	PUQ
LMG12-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) Antarctic Data Repository for LMG12-01	Hugh Ducklow B-045-L Nicolas Cassar O-405-L Deborah Steinberg B-020-L Oscar Schofield B-019-L Bill Fraser B-013-L Douglas Martinson B-021-L	12/29/2011 1/4/2012 2/2/2012	PUQ PAL PAL	1/2/2012 2/1/2012 2/7/2012	PAL PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG12-02	Impact of recent climate warming on active-layer dynamics, permafrost, and soil properties on the western Antarctic Peninsula Collaborative Research: Antarctic Automatic Weather Station Program 2013-2017 Antarctic Data Repository for LMG12-02	James Bockheim	2/13/2012	PUQ	2/17/2012	PAL
		G-239-E	2/24/2012	PAL	2/26/2012	PAL
		Matthew Lazzara	2/27/2012	PAL	3/2/2012	PAL
		O-283-L	3/5/2012	PAL	3/11/2012	PUQ
LMG12-03	Microtubule Function, Protein Folding, and Embryogenesis in Antarctic Fishes: An Integrative Approach Developmental Mechanisms for the Evolution of Bone Loss Antarctic Data Repository for LMG12-03	William Detrich	3/17/2012	PUQ	3/22/2012	PAL
		B-037-L	3/24/2012	PAL	3/27/2012	PAL
		John Postlethwait B-029-L	3/29/2012	PAL	4/3/2012	PUQ
LMG12-04	Microtubule Function, Protein Folding, and Embryogenesis in Antarctic Fishes: An Integrative Approach The role of reactive oxygen species in the skeletal development of Antarctic notothenioids Developmental Mechanisms for the Evolution of Bone Loss	William Detrich	4/8/2012	PUQ	4/12/2012	PAL
		B-037-L	4/14/2012	PAL	4/17/2012	PAL
		Jeffrey Grim	4/19/2012	PAL	4/22/2012	PAL
		B-038-L John Postlethwait B-029-L	4/24/2012	PAL	4/27/2012	PUQ
LMG12-05	Microtubule Function, Protein Folding, and Embryogenesis in Antarctic Fishes: An Integrative Approach Developmental Mechanisms for the Evolution of Bone Loss Antarctic Data Repository for LMG12-05	William Detrich	5/2/2012	PUQ	5/7/2012	PAL
		B-037-L	5/9/2012	PAL	5/11/2012	PAL
		John Postlethwait	5/17/2012	PAL	5/18/2012	PAL
		B-029-L	5/21/2012	PAL	5/23/2012	PAL
			5/27/2012	PAL	5/30/2012	PUQ
LMG12-06	Microtubule Function, Protein Folding, and Embryogenesis in Antarctic Fishes: An Integrative Approach Antarctic Data Repository for LMG12-06	William Detrich	6/6/2012	PUQ	6/11/2012	PAL
		B-037-L	6/13/2012	PAL	6/16/2012	PAL
		Haz Waste Pickup	6/21/2012	PAL	6/25/2012	PUQ
LMG12-07	Transit to dry dock maintenance period	N/A	6/28/2012	PUQ	7/23/2012	FCH
LMG12-08	Haz waste offload / dry dock	N/A	7/24/2012	FCH	8/16/2012	FCH
LMG12-09	Transit to Punta Arenas Antarctic Data Repository for LMG12-09	N/A	8/17/2012	FCH	9/11/2012	PUQ
LMG12-10	Palmer Station Opening Antarctic Data Repository for LMG12-10	James Ledwell	9/18/2012	PUQ	9/22/2012	PAL
		O-124-L	9/28/2012	PAL	10/4/2012	PUQ
LMG12-11	Continuation of the LARISSA continuous GPS network in view of Observed Dynamic Response to Antarctic Peninsula Mass Balance and Required Geologic Constraints. COPA Opening/ Palmer Station Opening Antarctic Data Repository for LMG12-11	Eugene Domack	10/10/2012	PUQ	10/16/2012	PAL
		C-515-L	10/17/2012	PAL	10/18/2012	PAL
			10/21/2012	PAL	10/30/2012	PUQ
LMG12-12	Palmer Station Opening Cape Shirreff Opening	N/A	11/4/2012	PUQ	11/9/2012	PAL
			11/18/2012	PAL	11/23/2012	PUQ
LMG12-13	NSF	N/A	11/28/2012	PUQ	12/2/2012	PAL
			12/3/2012	PAL	12/7/2012	PUQ
LMG12-13A	Collaborative Research: Submarine Groundwater and Freshwater Inputs Along the Western Antarctic Peninsula	David Corbett	12/10/2012	PUQ	12/20/2012	PAL
		O-176-L	12/20/2012	PAL	12/24/2012	PUQ
LMG13-01	Long-Term Ecological Research on the Antarctic Marine Ecosystem: An Ice-Dominated Environment (LTER) http://www.ices.ucsb.edu Antarctic Data Repository for LMG13-01	Hugh Ducklow	12/30/2012	PUQ	1/3/2013	PAL
		B-045-L	1/5/2013	PAL	1/19/2013	ROTHERA
		Deborah Steinberg	1/20/2013	ROTHERA	1/27/2013	ROTHERA
		B-020-L	1/27/2013	ROTHERA	2/2/2013	PAL
		Oscar Schofield	2/3/2013	PAL	2/7/2013	PUQ
		B-019-L William Fraser B-013-L Doug Martinson B-021-L Nicolas Cassar O-405-L				
LMG13-02	Cape Shirreff Close COPA Close Antarctic Data Repository for LMG13-02	N/A	2/12/2013	PUQ	2/16/2013	PAL
			2/21/2013	PAL	2/26/2013	SHF
			2/26/2013	SHF	2/27/2013	COPA
			2/27/2013	COPA	3/4/2013	PUQ
LMG13-03	Developmental Mechanisms for the Evolution of Bone Loss Antarctic Data Repository for LMG13-03	John Postlethwait	3/10/2013	PUQ	3/15/2013	PAL
		B-029-L	3/21/2013	PAL	3/23/2013	PAL
			3/26/2013	PAL	3/27/2013	PAL
			4/3/2013	PAL	4/7/2013	PUQ
LMG13-04	Redox balance in Antarctic notothenioid fishes: Do icefishes have an advantage?	Kristin O'Brien	4/12/2013	PUQ	4/15/2013	Carlini Base
		B-036-L	4/16/2013	Cierva Point	4/18/2013	PAL
			4/22/2013	PAL	4/23/2013	Maxwell Bay
			4/24/2013	PAL	4/25/2013	PAL
			4/28/2013	PAL	5/2/2013	PAL
LMG13-05	Developmental Mechanisms for the evolution of bone loss Impact of recent climate warming on active-layer dynamics, permafrost, and soil properties on the western Antarctic Peninsula Antarctic Data Repository for LMG13-04 Antarctic Data Repository for LMG13-05	John Postlethwait B-029-L	5/6/2013	PUQ	5/15/2013	PAL
		James Bockheim G-239-L	5/16/2013	PAL	5/18/2013	PAL
					5/23/2013	PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG13-06	Redox balance in Antarctic notothenioid fishes: Do icefishes have an advantage? Developmental Mechanisms for the evolution of bone loss Antarctic Data Repository for LMG13-06	Kristin O'Brien B-036-L John Postlethwait B-029-L	6/3/2013 6/6/2013	PUQ ROT	6/6/2013 6/7/2013 7/1/2013	ROT meet NBP PUQ
LMG13-08	OPEN/Standby period 7/7-9/9/13 LMG13-09 Pal Sta turnover Antarctic Data Repository for LMG13-09	N/A	9/13/2013 9/23/2013	PUQ PAL	9/17/2013 9/27/2013	PAL PUQ
LMG13-10	NOAA Antarctic Data Repository for LMG13-10	NOAA	10/4/2013 10/8/2013 10/13/13	PUQ COPA PAL	10/7/2013 10/9/13 10/20/13	COPA PAL PUQ
LMG13-11	In collaboration with KOPRI, the LARISSA PI team will return to the northern Peninsula region to complete data collection related to current LARISSA grant, and remove all US installations and gear for transfer to KOPRI. Antarctic Data Repository for LMG13-11	Eugene Domack C-515-L	10/27/2013 10/31/2013 11/3/2013 11/9/2013	PUQ SHF PAL PAL	10/30/2013 11/1/2013 11/8/2013 11/13/2013	SHF PAL PAL PUQ
LMG13-12	Provide evolutionary understanding of how marine benthic organisms are genetically structured and physically distributed in the Western Antarctic; examine larval distributions and assess if distributions are consistent with patterns of genetic connectivity within Antarctic waters. Antarctic Data Repository for LMG13-12	Ken Halanych B-281-L	11/22/2013 12/16/2013	PUQ PAL	11/26/2013 12/20/2013	PAL PUQ
LMG14-01	LTER- Long-Term Ecological Research Physiological and ecosystem structure forcings on carbon fluxes in the Southern Ocean mixed layer Antarctic Data Repository for LMG14-01	Oscar Schofield B-019-L Nicolas Cassar O-405-L	12/29/2013 2/2/2014	PUQ PAL	1/2/2014 2/9/14	PAL PUQ
LMG14-02	Collaborative Research: Submarine Groundwater and Freshwater Inputs Along the Western Antarctic Peninsula Antarctic Data Repository for LMG14-02	David Corbett O-176-P Matthew Lamanna G-182-L	2/13/2014	PUQ	3/18/2014	PUQ
LMG14-03	Palmer Station Turnover- winter staffing	N/A	3/21/2014 3/30/2014	PUQ PAL	3/25/2014 4/4/2014	PAL PUQ
LMG14-04	Microtubule Function, Protein Folding, and Embryogenesis in Antarctic Fishes: An Integrative Approach Antarctic Data Repository for LMG14-04	William Detrich B-037-L	4/7/2014 5/15/2014	PUQ PAL	4/13/2014 5/19/2014	PAL PUQ
LMG14-05	Dry Dock in Talcahuano, Chile	N/A	5/20/2014	PUQ	6/21/2014	PUQ
LMG14-06	Environmental, organismal and evolutionary physiology of freeze avoidance in antarctic Notothenioid fishes Antarctic Data Repository for LMG14-06	Chi-Hing Cheng B-010-L	6/22/2014 8/17/2014	PUQ PAL	6/28/2014 8/21/2014	PAL PUQ
LMG14-07	OPEN Period	N/A	8/14/2014		9/9/2014	
LMG14-08	Palmer Station Opening Antarctic Data Repository for LMG14-08	N/A	9/13/2014 9/23/2014 10/17/2014	PUQ PAL PAL	9/17/2014 9/27/2014 10/21/2014	PAL PUQ PUQ
LMG14-09	Palmer Station Science Opening Antarctic Data Repository for LMG14-09	N/A	10/5/2014 10/17/2014	PUQ PAL	10/10/2014 10/21/2014	PAL PUQ
LMG14-10	Study impact of local physical processes on Adelie penguin foraging ecology in the vicinity of Palmer Deep canyon off Anvers Island; WAP (Kohut) Analysis of acoustic Doppler current profilers records from 1999 to present	Josh Kohut B-005-L Valerie Loeb B-268-L	10/27/2014 11/18/2014	PUQ PAL	11/6/2014 11/22/2014	PAL PUQ
LMG14-11	Continuously monitor the fronts in the southern Drake Passage by deploying and piloting a pair of ocean gliders to collect approx. 1000 profiles of temp, salinity, dissolved oxygen, fluorescence and optical backscatter Antarctic Data Repository for LMG14-11	Andrew Thompson O-275-L	11/27/2014 12/17/2014	PUQ PAL	12/1/2014 12/21/14	PAL PUQ
LMG15-01	LTER-Long-Term Ecological Research To document/understand the phenology and variability in sea ice dynamics, primary production, zooplankton ecology, Adelie penguin demography, microbial and biogeochemical processes in the Antarctic marine ecosystem.	Hugh Ducklow C-045 Debbie Steinberg C-020 Oscar Schofield C-019 William Fraser C-013 Doug Martinson C-021 Ari Friedlander C-024-L Robert Sherrell B-203-L	12/27/2014 2/3/2015	PUQ PAL	1/3/2015 2/8/2015	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	Antarctic Data Repository for LMG15-01					
LMG15-02	To assess the status, viability, and ecological impacts of populations of potentially invading, predatory king crabs in the Bellingshausen Sea.	Richard Aronson B-002-L	2/13/2015 3/11/2015	PUQ PAL	2/18/2015 3/16/2015	PAL PUQ
	Antarctic Data Repository for LMG15-02					
LMG15-03	Palmer Station Turnover	N/A	3/20/2015 3/31/2015	PUQ PAL	3/25/2015 4/4/2015	PAL PUQ
LMG15-04	To understand the physiological and biochemical mechanisms that define thermal tolerance of Antarctic notothenioids.	Kristin O'Brien B-036-L	4/7/2015 5/7/2015	PUQ PAL	4/12/2015 5/11/2015	PAL PUQ
	Antarctic Data Repository for LMG15-04					
LMG15-05	To understand the physiological and biochemical mechanisms that define thermal tolerance of Antarctic notothenioids.	Kristin O'Brien B-036-L	5/15/2015 6/12/2015	PUQ PAL	5/19/2015 6/17/2015	PAL PUQ
	Antarctic Data Repository for LMG15-05					
LMG15-05B	XBT/XCTD Shuttle Run	N/A	6/20/2015 6/26/2015	PUQ PAL	6/24/2015 6/30/2015	PAL PUQ
	Antarctic Data Repository for LMG15-05B					
LMG15-06	OPEN	N/A	7/4/2015	PUQ	9/23/2015	PAL
LMG15-07	NSF SITE VISIT	N/A	9/24/2015	PUQ	9/26/2015	PAL
LMG15-08	Palmer Station Turnover	N/A	10/2/2015 10/13/2015	PUQ PAL	10/08/2015 10/18/2015	PAL PUQ
	Antarctic Data Repository for LMG15-08					
LMG15-09	To sample the measured convergence and divergence zones with the context of the semi-diurnal tidal regimes. To collect the non-seasonal, brooding scleractinian <i>Flabellum impensum</i> to be brought back to Palmer Station for a month long climate change experiment	Joshua Kohut B-006 Valerie Loeb B-288 Rhian Waller B-248	10/22/2015 11/08/2015	PUQ PAL	10/31/2015 11/13/2015	PAL PUQ
LMG15-10	To determine whether sub-polar WAP fjords are regionally significant hotspots of productivity and biodiversity	Craig Smith B-212	11/19/2015 12/24/2015	PUQ PAL	11/23/2015 12/28/2015	PAL PUQ
	Antarctic Data Repository for LMG15-10					
LMG16-01	To build on preliminary surface distribution trace metal data, by launching a major effort to quantify the 3-D distributions of, and processes driving, dissolved concentrations of Fe, but also of the bioactive metals Mn (manganese), Zn (zinc), Co (cobalt), Cu (copper), and build on our preliminary surface distribution trace metal data, by launching a major effort to quantify the 3-D distributions of, and processes driving, dissolved concentrations of Fe, but also of the bioactive metals Mn (manganese), Zn (zinc), Co (cobalt), Cu (copper), and Ni (nickel) on the WAP shelf. LTER-Long-Term Ecological Research To document/understand the phenology and variability in sea ice dynamics, primary production, zooplankton ecology, Adelie penguin demography, microbial and biogeochemical processes in the Antarctic marine ecosystem.	Robert Sherrell B-203 Hugh Ducklow C-045 Debbie Steinberg C-020 Oscar Schofield C-019 William Fraser C-013 Doug Martinson C-021 Ari Friedlander C-024	1/3/2016 2/13/2016	PUQ PAL	1/8/2016 2/17/2016	PAL PUQ
	Antarctic Data Repository for LMG16-01					
LMG16-02	To increase our understanding of current biogeography and diversity by providing in-depth knowledge of soil community composition and complexity as it relates to environmental (above- and belowground) and climatic characteristics; and (2) determine the nature of aboveground-belowground community linkages over varying spatial scales, quantifying how the strength of linkages changes along the gradient.	Rebecca Ball B-300	2/21/2016 3/18/2016	PUQ PAL	2/27/2016 3/24/2016	PAL PUQ
	Antarctic Data Repository for LMG16-02					
LMG16-03	PALMER TURNOVER (XBT/XCTD)	N/A	3/29/2016 4/9/2016	PUQ PAL	4/2/2016 4/13/2016	PAL PUQ
	Antarctic Data Repository for LMG16-03					

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG16-04	To understand the molecular and physiological capacities of Antarctic notothenioid fishes to acclimatize and/or adapt to rapid oceanic warming Antarctic Data Repository for LMG16-04	William Dietrich B-037	4/17/2016 5/13/2016	PUQ PAL	4/24/2016 5/17/2016	PAL PUQ
LMG16-05	To understand the molecular and physiological capacities of Antarctic notothenioid fishes to acclimatize and/or adapt to rapid oceanic warming Antarctic Data Repository for LMG16-05	William Dietrich B-037	5/21/2016 6/17/2016	PUQ PAL	5/25/2016 6/21/2016	PAL PUQ
LMG16-06	To introduce students to the diversity of biological organisms in Antarctic polar regions, to study unique aspects of biology that permit life in such extreme environments and to provide the opportunity for scientists new to the Antarctic to learn about and appreciate the logistical possibilities and constraints of working in this extreme environment.	Donal Manahan B-301	6/25/2016 7/31/2016	PUQ PAL	6/29/2016 8/4/2016	PAL PUQ
LMG16-07	Open	N/A	8/8/2016	PUQ	8/31/2016	PUQ
LMG16-08	Open	N/A	9/1/2016	PUQ	9/27/2016	PUQ
LMG16-09	XBT/XCTD Palmer Station Opening Antarctic Data Repository for LMG16-09	N/A	10/2/2016 10/13/2016	PUQ PAL	10/06/2016 10/17/2016	PAL PUQ
LMG16-10	Palmer Science Movements/Shirreff Opening	N/A	10/21/2016 11/1/2016	PUQ PAL	10/27/2016 11/05/2016	PAL PUQ
LMG16-11	Logistics Cruise	N/A	11/9/2016 11/25/2016	PUQ PAL	11/13/2016 11/29/2016	PAL PUQ
LMG16-12	Characterization of the diurnal, and seasonal variability in the CO2 system on the West Antarctic Peninsula continental shelf from autonomous moored platforms.	Elizabeth Shadwick O-270	12/3/2016 12/13/2016	PUQ PAL	12/7/2016 12/20/2016	PAL PUQ
LMG17-01	LTER-Long-Term Ecological Research To document/understand the phenology and variability in sea ice dynamics, primary production, zooplankton ecology, Adelie penguin demography, microbial and biogeochemical processes in the Antarctic marine ecosystem. Antarctic Data Repository for LMG17-01	William Fraser C-013 Oscar Schofield C-019 Deborah Steinberg C-020 Doug Martinson C-021 Ari Friedlander C-024 Hugh Ducklow C-045	12/30/16 2/6/17	PUQ PAL	1/4/2017 2/10/2017	PAL PUQ
LMG17-02	This multi-platform field study will investigate the impact of coastal physical processes, e.g., tides, currents, upwelling events, and sea ice, on Adelie penguin foraging ecology in the vicinity of Palmer Deep off Anvers Island, WAP. The goals of this project are to (1) Determine whether sub-polar WAP fjords are regionally significant hotspots of productivity and biodiversity! (2) Elucidate and model the physical, biological, and chemical processes that interact in these fjords to enhance productivity and biodiversity; and (3) Evaluate, through dynamic modeling, the sensitivity of physical, chemical, and biological processes driving WAP fjord productivity/diversity to changes in meltwater and sediment input. Antarctic Data Repository for LMG17-02	Josh Kohut B-005 Craig Smith B-212	2/14/2017 3/15/2017	PUQ PAL	2/18/2017 3/21/2017	PAL PUQ
LMG17-03	PALMER TURNOVER (XBT NB) This project seeks to enhance the capability to observe the ocean's transport and storage of heat and carbon dioxide and the response of these processes to climate change with autonomous technology by deploying a Liquid Robotics Wave Glider SV3 for five months to measure surface wave, temperature and salinity, upper-oceans current, barometric pressure, and winds. Antarctic Data Repository for LMG17-03	James Girton O-226	3/25/2017 4/5/2017	PUQ PAL	3/29/2017 4/9/2017	PAL PUQ
LMG17-04	To understand the physiological and biochemical mechanisms that define thermal tolerance of Antarctic notothenioids.	Kristin O'Brien B-036	4/13/2017 5/24/2017	PUQ PAL	4/19/2017 5/28/2017	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	(1) Characterization of the diurnal, and seasonal variability in the CO2 system on the West Antarctic Peninsula continental shelf from autonomous moored platforms. (2) Identification of the dominant physical and biological controls on seasonal CO2 system seasonal variability (i.e., the balance between: photosynthesis, respiration, air-sea CO2 exchange, freshwater dilution, onshore intrusion of upper circumpolar deep water, calcification, and carbonate mineral dissolution) and determination of the annual source/sink status with respect to atmospheric CO2. Antarctic Data Repository for LMG17-04	Elizabeth Shadwick O-270				
LMG17-05	DRY DOCK	N/A	6/8/2017	TAL	7/2/2017	TAL
LMG17-06	Compare miRNA regulation in 1) Antarctic vs. temperate fish to learn the roles of miRNA regulation in adaptation to constant cold; and in 2) bottom-dwelling, red-blooded Notothenioids vs. high buoyancy white-blooded icefish to understand miRNA regulation after loss of hemoglobin genes and red blood cells, enlarged heart and vasculature, and increased buoyancy due to decreased bone mineralization and increased lipid deposition. Antarctic Data Repository for LMG17-06	John Postlethwait B-029	7/12/2017 7/29/2017	PUQ PAL	7/16/2017 8/9/2017	PAL PUQ
LMG17-07	Compare miRNA regulation in 1) Antarctic vs. temperate fish to learn the roles of miRNA regulation in adaptation to constant cold; and in 2) bottom-dwelling, red-blooded Notothenioids vs. high buoyancy white-blooded icefish to understand miRNA regulation after loss of hemoglobin genes and red blood cells, enlarged heart and vasculature, and increased buoyancy due to decreased bone mineralization and increased lipid deposition. Antarctic Data Repository for LMG17-07	John Postlethwait B-029	8/12/17 8/29/17	PUQ PAL	8/16/17 9/2/17	PUQ PAL
LMG17-08	This study seeks to better understand the spatial distribution of mixing rates that drive the MOC in this region, especially in the currently under-sampled surface boundary layer (upper 1000 meters). Antarctic Data Repository for LMG17-08	Louis St. Laurent O-204	9/8/2017	PUQ	9/18/2017	PUQ
LMG17-09	XBT/XCTD Palmer Station Opening Antarctic Data Repository for LMG17-09	N/A	10/2/2017 10/13/2017	PUQ PAL	10/06/2017 10/17/2017	PAL PUQ
LMG17-10	Palmer Science Movements/Shirreff Opening (XBT) Antarctic Data Repository for LMG17-10	N/A	10/21/2017 10/31/2017	PUQ PAL	10/26/2017 11/04/2017	PAL PUQ
LMG17-11	Characterization of the diurnal, and seasonal variability in the CO2 system on the West Antarctic Peninsula continental shelf from autonomous moored platforms. Antarctic Data Repository for LMG17-11	Elizabeth Shadwick O-270	11/14/2017 11/25/2017	PUQ PAL	11/18/2017 11/29/2017	PAL PUQ
LMG17-12	LTER SITE VISIT Antarctic Data Repository for LMG17-12	N/A	12/9/2017 12/16/2017	PUQ PAL	12/13/2017 12/20/2017	PAL PUQ
LMG18-01	LTER-Long-Term Ecological Research To document/understand the phenology and variability in sea ice dynamics, primary production, zooplankton ecology, Adelie penguin demography, microbial and biogeochemical processes in the Antarctic marine ecosystem. Antarctic Data Repository for LMG18-01	William Fraser C-013 Oscar Schofield C-019 Deborah Steinberg C-020 Doug Martinson C-021 Ari Friedlaender C-024 Hugh Ducklow C-045	12/30/2017 2/8/2018	PUQ PAL	1/3/2018 2/12/2018	PAL PUQ
LMG18-02	New constraints on post glacial rebound and Holocene environmental history along the northern Antarctic Peninsula from raised beaches. Foraging behavior and ecological role of the least studied Antarctic krill predator, the Antarctic minke whale. Antarctic Data Repository for LMG18-02	Alexander Simms G-412 Ari Friedlaender B-206	2/16/2018 3/16/2018	PUQ PAL	2/20/2018 3/21/2018	PAL PUQ
LMG18-03	Palmer Station Turnover Antarctic Data Repository for LMG18-03	N/A	3/24/2018 4/4/2018	PUQ PAL	3/30/2018 4/9/2018	PAL PUQ
LMG18-04	To understand the molecular and physiological capacities of Antarctic notothenioid fishes to acclimatize and/or adapt to rapid oceanic warming through analysis of their underlying genomic and transcriptomic "toolkits."	William Detrich B-037	4/13/2018 5/9/2018	PUQ PAL	4/19/2018 5/15/2018	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	Investigate the ability of the leopard seal, an apex predator, to cope with a changing environment using two complementary research themes that integrates cells to ecosystems. Antarctic Data Repository for LMG18-04	Daniel Costa B-232				
LMG18-05	To understand the molecular and physiological capacities of Antarctic notothenioid fishes to acclimatize and/or adapt to rapid oceanic warming through analysis of their underlying genomic and transcriptomic "toolkits." Antarctic Data Repository for LMG18-05	William Detrich B-037	5/19/2018 6/15/2018	PUQ PAL	5/23/2018 6/19/2018	PAL PUQ
LMG18-06	OPEN PERIOD	N/A	6/23/2018	PUQ	7/26/2018	PUQ
LMG18-07	OPEN PERIOD	N/A	7/27/2018	PUQ	9/25/2018	PUQ
LMG18-08	Palmer Station Opening (XBT) Antarctic Data Repository for LMG18-08	N/A	10/2/2018 10/13/2018	PUQ PAL	10/6/2018 10/17/2018	PAL PUQ
LMG18-09	Palmer Science Movements Antarctic Data Repository for LMG18-09	N/A	10/21/2018 10/30/2018	PUQ PAL	10/25/2018 11/3/2018	PAL PUQ
LMG18-10	The science team will apply new, highly sensitive techniques using high-mass-resolution mass spectrometry to understand the connections between UVR, ROS, oxylipins, and carbon cycling. (XBT) Antarctic Data Repository for LMG18-10	Benjamin Van Mooy B-032	11/7/2018 11/28/2018	PUQ PAL	11/11/2018 12/2/2018	PAL PUQ
LMG18-11	The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery. Palmer Cargo; Shirreff Opening Antarctic Data Repository for LMG18-11	George Watters B-006	12/7/2018 12/16/2018	PUQ PAL	12/12/2018 12/20/2018	PAL PUQ
LMG19-01	LTER-Long-Term Ecological Research To document/understand the phenology and variability in sea ice dynamics, primary production, zooplankton ecology, Adelie penguin demography, microbial and biogeochemical processes in the Antarctic marine ecosystem. Antarctic Data Repository for LMG19-01	William Fraser C-013 Oscar Schofield C-019 Deborah Steinberg C-020 Doug Martinson C-021 Ari Friedlaender C-024 Hugh Ducklow C-045	12/30/2018 2/8/2019	PUQ PAL	1/3/2019 2/12/2019	PAL PUQ
LMG19-02	To reconstruct the record of Quaternary sea-level changes within the South Shetland Islands To use a suite of new technological tools to measure the underwater behavior of the whales and better understand how they exploit the sea-ice habitat. The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery. Antarctic Data Repository for LMG19-02	Alexander Simms G-412 Ari Friedlaender B-206 George Watters B-006	2/16/2019 3/15/19	PUQ PAL	2/21/2019 3/21/2019	PAL PUQ
LMG19-03	Palmer Turnover	N/A	3/25/2019 4/5/2019	PUQ PAL	3/29/2019 4/9/2019	PAL PUQ
LMG19-04	Investigate the ability of the leopard seal, an apex predator, to cope with a changing environment using two complementary research themes that integrates cells to ecosystems. To quantitatively document macroalgal communities at multiple sites between Anvers and Adelaide islands using a combination of diving, video surveys, and algal collections. Antarctic Data Repository for LMG19-04	Daniel Costa B-232 Charles Amsler B-236	4/14/2019 5/23/2019	PUQ PAL	4/18/2019 5/28/2019	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG19-05A	Transit	N/A	6/6/2019	PUQ	6/13/2019	TAL
LMG19-05B	Drydock	N/A	6/13/2019	TAL	7/10/2019	TAL
LMG19-05C	Transit	N/A	7/10/2019	TAL	7/18/2019	PUQ
LMG19-06	OPEN PERIOD	N/A	7/18/2019	PUQ	8/5/2019	PUQ
LMG19-07	OPEN PERIOD	N/A	8/6/2019	PUQ	9/25/2019	PUQ
LMG19-08	Palmer Opening (XBT)	N/A	10/2/2019 10/13/2018	PUQ PAL	10/6/2019 10/17/2019	PAL PUQ
LMG19-09	Palmer Science Movements Advance knowledge and understanding about using telepresence communication technology at high latitudes. It will inform the design of Antarctic research broader impact activities and increase Antarctic scientists' understanding of how to successfully broadcast from sea and the field. This project continues the field development of an autonomous surface vehicle (https://www.liquid-robotics.com/wave-glider/overview/) to better measure and study these processes in the remote Southern Ocean, where continuous timeseries measurements are otherwise very difficult to obtain. Antarctic Data Repository for LMG19-09	Gail Scowcraft Y-604 James Girton O-202	10/21/2019 10/31/2019	PUQ PAL	10/25/2019 11/4/2019	PAL PUQ
LMG19-10	This project has two goals. The first is to investigate the responses of Antarctic krill <i>Euphasia superba</i> to flow and chemical stimuli indicating food and predation risk, the interaction of these cues, and how krill responses to these cues depend on the photic environment. This project will determine threshold responses, the ability of krill to orient to horizontal and vertical flows, whether chemical cues polarize responses to flow and whether this differs with attractive vs. aversive cues, and how these responses are affected by light intensity. (XBT) Antarctic Data Repository for LMG19-10	Marc Weissburg B-198	11/08/2019 11/21/2019	PUQ PAL	11/16/2019 11/25/2019	PAL PUQ
LMG19-11	The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery. The first is to investigate the responses of Antarctic krill <i>Euphasia superba</i> to flow and chemical stimuli indicating food and predation risk, the interaction of these cues, and how krill responses to these cues depend on the photic environment. This project will determine threshold responses, the ability of krill to orient to horizontal and vertical flows, whether chemical cues polarize responses to flow and whether this differs with attractive vs. aversive cues, and how these responses are affected by light intensity. To fulfill NOAA's mandate of providing scientific advice that supports United States interests related to resource management by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Antarctic Data Repository for LMG19-11	George Watters B-006 Marc Weissburg B-198 Douglas Krause X-591	12/2/2019 12/16/2019	PUQ PAL	12/8/2019 12/20/2019	PAL PUQ
LMG20-01	LTER-Long-Term Ecological Research (XBT) This project will integrate a modeling and field program that will target the processes responsible for transporting and concentrating phytoplankton and krill biomass to known penguin foraging locations. To document and understand the phenology and variability in water mass characteristics, transport, sea ice dynamics, primary production, zooplankton ecology, seabird and marine mammal demography, and microbial and biogeochemical processes in the Antarctic marine ecosystem, including identifying the mechanisms of ecosystem response to rapid climate change. Processes driving spatial and temporal variability of surface pCO ₂ in the Drake Passage.	Josh Kohut B-005 William Fraser C-013 Oscar Schofield C-019 Deborah Steinberg C-020 Douglas Martinson C-021 Ari Friedlaender C-024 Hugh Ducklow C-045 David Munro O-214	12/30/2019 2/8/2020	PUQ PAL	1/3/2020 2/12/2020	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	<p>This project continues a long-term study of ocean properties and variability in the Antarctic Circumpolar Current (ACC) by repeat transects across the Drake Passage from Punta Arenas, Chile to Palmer Station. This project will provide information about long-term trends and variability in Southern Ocean fronts, surface water mass properties, heat, and salinity budgets. This study will contribute to understanding the ACC response to atmospheric forcing on climate-relevant time scales, and its role in driving the Southern Ocean's meridional overturning circulation.</p> <p>This project's objective is (1) to maintain a global 5x5 degree array of 1,250 ARGOS-tracked surface drifting buoys to meet the need for an accurate and globally dense set of in-situ observations of mixed-layer currents, sea-surface temperature, atmospheric pressure winds, and salinity; and (2) to provide a data processing system for scientific use of these data.</p> <p>Antarctic Data Repository for LMG20-01</p>	<p>Teri Chereskin O-317</p> <p>Shaun Dolk X-592</p>				
LMG20-02	<p>This group will undertake a systematic survey and study to reconstruct ecosystem and climate change for the coastal low-elevation areas on the western Antarctic Peninsula (WAP).</p> <p>The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery</p> <p>This project will compare adaptations, genome sequences, and population characteristics of four midge species that span an environmental gradient from sub-Antarctic to Antarctic habitats.</p> <p>This project continues the field development of an autonomous surface vehicle (https://www.liquid-robotics.com/wave-glider/overview/) to better measure and study these processes in the remote Southern Ocean, where continuous timeseries measurements are otherwise very difficult to obtain.</p> <p>To fulfill NOAA's mandate of providing scientific advice that supports United States interests related to resource management by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).</p> <p>Antarctic Data Repository for LMG20-02</p>	<p>Zicheng Yu G-094</p> <p>George Watters B-006</p> <p>Nicholas Teets B-046</p> <p>James Girton O-202</p> <p>Douglas Krause X-591</p>	<p>2/16/2020 3/14/2020</p>	<p>PUQ PAL</p>	<p>2/25/2020 3/21/2020</p>	<p>PAL PUQ</p>
LMG20-03	<p>Palmer Turnover (XBT)</p> <p>Antarctic Data Repository for LMG20-03</p>	N/A	<p>6/3/2020 6/17/2020</p>	<p>PUQ PAL</p>	<p>6/10/2020 6/21/2020</p>	<p>PAL PUQ</p>
LMG20-04	OPEN PERIOD	N/A	6/27/2020	PUQ	7/19/2020	PUQ
LMG20-05	OPEN PERIOD	N/A	7/20/2020	PUQ	8/19/2020	PUQ
LMG20-06	OPEN PERIOD	N/A	8/20/2020	PUQ	9/24/2020	PUQ
LMG20-07	OPEN PERIOD	N/A	9/25/2020	PUQ	9/30/2020	PUQ
LMG20-08	OPEN PERIOD	N/A	10/1/2020	PUQ	10/4/2020	PUQ
LMG20-09	OPEN PERIOD	N/A	10/5/2020	PUQ	11/26/2020	PUQ
LMG20-10	<p>Palmer Station Opening</p> <p>Antarctic Data Repository for LMG20-10</p>	N/A	<p>11/27/20 12/25/20</p>	<p>PUQ PAL</p>	<p>12/4/20 12/29/20</p>	<p>PAL PUQ</p>
LMG21-01	OPEN PERIOD	N/A	1/2/2021	PUQ	2/2/2021	PUQ
LMG21-02	OPEN PERIOD	N/A	2/3/2021	PUQ	3/18/2021	PUQ
LMG21-03	OPEN PERIOD	N/A	3/19/2021	PUQ	4/29/2021	PUQ
LMG21-04	<p>Palmer Station Turnover</p> <p>Antarctic Data Repository for LMG21-04</p>	N/A	<p>5/1/2021 5/24/2021</p>	<p>PUQ PAL</p>	<p>5/11/2021 5/29/2021</p>	<p>PAL PUQ</p>
LMG21-05	OPEN PERIOD	N/A	6/4/2021	PUQ	6/19/2021	PUQ
LMG21-06	OPEN PERIOD	N/A	6/20/2021	PUQ	7/1/2021	PUQ
LMG21-07	OPEN PERIOD	N/A	7/4/2021	PUQ	8/19/2021	PUQ
LMG21-08	OPEN PERIOD	N/A	8/20/2021	PUQ	9/2/2021	PUQ
LMG21-09	OPEN PERIOD	N/A	9/3/2021	PUQ	9/25/2021	PUQ
LMG21-10	<p>Palmer Station Opening</p> <p>This project will deploy two acoustic moorings to record sound impacts prior to, during and after Palmer Station pier construction.</p> <p>Antarctic Data Repository for LMG21-10</p>	Ari Friedlaender C-024	<p>10/4/2021 10/20/2021</p>	<p>PUQ PAL</p>	<p>10/11/2021 10/27/2021</p>	<p>PAL PUQ</p>
LMG21-11	<p>Pier Construction Support (XBT)</p> <p>Antarctic Data Repository for LMG21-11</p>	N/A	<p>12/19/2021 12/29/2021</p>	<p>PUQ PAL</p>	<p>12/26/2021 1/3/2022</p>	<p>PAL PUQ</p>

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG21-12	Pier Construction Support; NOAA The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery. Antarctic Data Repository for LMG21-12	George Watters B-006	2/28/2022 3/10/2022	PUQ PAL	3/8/2022 3/16/2022	PAL PUQ
LMG22-01	OPEN PERIOD	N/A	3/18/2022	PUQ	3/24/2022	PUQ
LMG22-02	Pier Construction Support; Moffat (XBT) This project, with full support from ASC Marine Staff, will deploy three moorings and recover one mooring. Antarctic Data Repository for LMG22-02	Carlos Moffat C-021	3/27/2022 4/6/2022	PUQ PAL	4/3/2022 4/13/2022	PAL PUQ
LMG22-03	OPEN PERIOD	N/A	4/14/2022	PUQ	4/20/2022	PUQ
LMG22-04	Palmer Station Turnover This project will deploy two acoustic moorings to record sound impacts prior to, during and after Palmer Station pier construction. Antarctic Data Repository for LMG22-04	Ari Friedlaender C-024	4/21/2022 5/6/2022	PUQ PAL	4/28/2022 5/11/2022	PAL PUQ
LMG22-05	OPEN PERIOD	N/A	5/12/2022	PUQ	5/14/2022	PUQ
LMG22-06	Pier Construction Support	N/A	5/15/2022 5/26/2022	PUQ PAL	5/22/2022 5/30/2022	PAL PUQ
LMG22-07	OPEN PERIOD	N/A	5/31/2022	PUQ	6/3/2022	PUQ
LMG22-08a	Transit	N/A	6/6/2022	PUQ	6/13/2022	TAL
LMG22-08b	Drydock	N/A	6/13/2022	TAL	7/12/2022	TAL
LMG22-08c	Transit	N/A	7/12/2022	PUQ	7/18/2022	PUQ
LMG22-09	OPEN PERIOD	N/A	7/22/2022	PUQ	8/15/2022	PUQ
LMG22-10	OPEN PERIOD	N/A	8/16/2022	PUQ	9/27/2022	PUQ
LMG22-11	Palmer Station Opening (XBT) This project has two goals. The first is to investigate the responses of Antarctic krill <i>Euphasia superba</i> to flow and chemical stimuli indicating food and predation risk, the interaction of these cues, and how krill responses to these cues depend on the photic environment. This project will determine threshold responses, the ability of krill to orient to horizontal and vertical flows, whether chemical cues polarize responses to flow and whether this differs with attractive vs. aversive cues, and how these responses are affected by light intensity. (XBT) To fulfill NOAA's mandate of providing scientific advice that supports United States interests related to resource management by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Antarctic Data Repository for LMG22-11	Marc Weissburg B-198 Douglas Krause X-591	10/2/2022 10/15/20	PUQ PAL	10/7/2022 10/20/2022	PAL PUQ
LMG22-12	OPEN PERIOD	N/A	10/24/2022	PUQ	11/23/2022	PUQ
LMG22-13	Palmer Science Movements Pier Construction Support This project has two goals. The first is to investigate the responses of Antarctic krill <i>Euphasia superba</i> to flow and chemical stimuli indicating food and predation risk, the interaction of these cues, and how krill responses to these cues depend on the photic environment. This project will determine threshold responses, the ability of krill to orient to horizontal and vertical flows, whether chemical cues polarize responses to flow and whether this differs with attractive vs. aversive cues, and how these responses are affected by light intensity. The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery.	Marc Weissburg B-198 George Watters B-006	11/28/2022 12/13/2022	PUQ PAL	12/4/2022 12/17/2022	PAL PUQ
LMG23-01	LTER-Long-Term Ecological Research (XBT) The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery.	George Watters B-006 Benjamin Van Mooy C-045 Ari Friedlander C-024 Carlos Moffat C-021	12/23/2022 2/2/2023	PUQ PAL	12/26/2022 2/6/2023	PAL PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	<p>Aims to improve understanding of the dynamics of freshwater discharge around the Antarctic continent by having an observational deployment to measure a specific, previously identified example of a coastal freshwater-driven current, the Antarctic Peninsula Coastal Current.</p> <p>To address the sensitive and ecological role of the Western Antarctic Peninsula (WAP) microbial loop through a series of grazing experiments to assess bacteria mortality by bacterivorous protists and bacteriophage. These experiments will be coupled with observations of ecophysiology to identify how specific Antarctic heterotrophic bacterial taxa respond to the physiological and ecological stress of the WAP environment.</p>	<p>Deborah Steinberg C-020 Oscar Schofield C-019 Megan Cimino C-013 Carlos Moffat O-263</p> <p>Jeff Bowman B-285</p>				
LMG23-02	<p>Palmer Science Movements This project will compare adaptations, genome sequences, and population characteristics of four midge species that span an environmental gradient from sub-Antarctic to Antarctic habitats.</p> <p>This project will integrate a modeling and field program that will target the processes responsible for transporting and concentrating phytoplankton and krill biomass to known penguin foraging locations.</p> <p>One glider from the Moffat project, O-263 event was successfully recovered. Two gliders were recovered from around Low and Hoseason Island for the NOAA, Waters B-006 group.</p> <p>Antarctic Data Repository for LMG23-02</p>	<p>Nicholas Teets B-046</p> <p>Josh Kohut B-005</p> <p>Carlos Moffat O-263 George Watters B-006</p>	<p>2/10/2023 3/16/2023</p>	<p>PUQ PAL</p>	<p>2/14/2023 3/20/2023</p>	<p>PAL PUQ</p>
LMG23-03	<p>Palmer Station Closing Antarctic Data Repository for LMG23-03</p>	N/A	<p>3/26/2023 4/7/2023</p>	<p>PUQ PAL</p>	<p>3/31/2023 4/11/2023</p>	<p>PAL PUQ</p>
LMG23-04	<p>Palmer Science Movements To understand the physiological and biochemical mechanisms that define thermal tolerance of Antarctic notothenioids. Antarctic Data Repository for LMG23-04</p>	<p>Kristin O'Brien B-036</p>	<p>4/15/2023 4/28/2023</p>	<p>PUQ PAL</p>	<p>4/19/2023 5/2/2023</p>	<p>PAL PUQ</p>
LMG23-05	<p>Palmer Science Movements The research is centered on two overarching objectives: (1) to experimentally determine the effect of diet (herbivory versus carnivory) on the physiology and condition of juvenile krill in autumn and winter, and (2) to investigate year-to-year variability in seasonal changes in physiology and condition of AC1 krill in situ from autumn through winter.</p> <p>To understand the physiological and biochemical mechanisms that define thermal tolerance of Antarctic notothenioids. Antarctic Data Repository for LMG23-05</p>	<p>Kim Bernard B-459 Luis Huckstadt B-038</p> <p>Kristin O'Brien B-036</p>	<p>5/6/2023 6/22/2023</p>	<p>PUQ PAL</p>	<p>5/12/2023 6/26/2023</p>	<p>PAL PUQ</p>
LMG23-06	<p>Palmer Science Movements Ocean warming in the western Antarctic Peninsula and Scotia Sea winter is among the highest worldwide. The goal of researchers on this project is to quantify the impact of ocean warming on seabirds. The objectives are to 1) identify changes in krill, bird, and mammal abundance that have occurred since the 1990s; 2) identify pairings of species that benefit each other in searching for prey; and 3) make predictions about how these changes in species pairing might continue given predicted future changes in climate. Antarctic Data Repository for LMG23-06</p>	<p>Richard Veit B-319</p>	<p>7/5/2023</p>	<p>PUQ</p>	<p>7/31/2023</p>	<p>PUQ</p>
LMG23-07	OPEN PERIOD	N/A	8/10/2023	PUQ	8/30/2023	PUQ
LMG23-08	OPEN PERIOD	N/A	8/31/2023	PUQ	9/28/2023	PUQ

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
LMG23-09	<p>Palmer Station Opening (XBT) This project services and calibrates the automated radionuclide air particulate (RN73 RASA) monitoring system in the International Monitoring Station (IMS) building (Terra Lab) at Palmer Station. The IMS continuously collects and automatically analyzes daily air samples for radiation. The collected filter-media samples from the radionuclide aerosol sampler/analyzer (RASA) are sent to Vienna, Austria quarterly for archiving. Filter samples are shipped, upon request, to various laboratories elsewhere in the world.</p> <p>This project continues a long-term study of ocean properties and variability in the Antarctic Circumpolar Current (ACC) by repeat transects across the Drake Passage from Punta Arenas, Chile to Palmer Station. This project will provide information about long-term trends and variability in Southern Ocean fronts, surface water mass properties, heat, and salinity budgets. This study will contribute to understanding the ACC response to atmospheric forcing on climate-relevant time scales, and its role in driving the Southern Ocean's meridional overturning circulation.</p> <p>On frequent crossings of the Drake Passage by the US Antarctic vessel ARSV Laurence M. Gould (LMG), a range of underway measurements are taken. These data represent one of the few repeating annual shipboard measurements in the Southern Ocean, with close to two decades of data now available. The primary science objectives of this project are to continue to analyze the Drake Passage time series. In collaboration with Chereskin (O-317-L), this project continues a long-term study of ocean properties and variability in the Antarctic Circumpolar Current (ACC) utilizing repeat transects across the Drake Passage from Punta Arenas, Chile to Palmer Station. This aspect of the project measures the seasonal to interannual variability of upper-ocean temperature and geostrophic transport through the Drake Passage with closely spaced eXpendable BathyThermograph (XBT) deployments.</p> <p>Processes driving spatial and temporal variability of surface pCO2 in the Drake Passage. Antarctic Data Repository for LMG23-09</p>	<p>Bouvard Hosticka T-998</p> <p>Teri Chereskin O-317</p> <p>Janet Sprintall O-260</p> <p>David Munro O-214</p>	<p>10/5/2023 10/20/2023</p>	<p>PUQ PAL</p>	<p>10/11/2023 10/24/2023</p>	<p>PAL PUQ</p>
LMG23-10	<p>Palmer Science Opening The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery.</p> <p>To address the sensitive and ecological role of the Western Antarctic Peninsula (WAP) microbial loop through a series of grazing experiments to assess bacteria mortality by bacterivorous protists and bacteriophage. These experiments will be coupled with observations of ecophysiology to identify how specific Antarctic heterotrophic bacterial taxa respond to the physiological and ecological stress of the WAP environment.</p> <p>This project operates, maintains, upgrades, calibrates, and services the joint U.S. Comprehensive Nuclear Test Ban Treaty (CTBT) Infrasound Array at Windless Bight. Windless Bight's location on the Ross Ice Shelf is unique for its low wind levels, which makes infrasound detection possible. Infrasound can detect volcanic eruptions, winds over distant mountain ranges, large storms at sea, auroral and meteor events, earthquakes, and avalanches, as well as human-caused events, like large explosions, at great distances from the sound-producing events. Detection of events occurring worldwide are routinely made at the Windless Bight site. Antarctic Data Repository for LMG23-10</p>	<p>Megan Cimino C-013</p> <p>Deborah Steinberg C-020</p> <p>Benjamin Van Mooy C-045</p> <p>Jeff Bowman B-285</p> <p>Lukas Blom T-396</p>	<p>10/30/2023 11/10/2023</p>	<p>PUQ PAL</p>	<p>11/4/2023 11/14/2023</p>	<p>PAL PUQ</p>
LMG23-11	OPEN PERIOD	N/A	11/15/2023	PUQ	11/23/2023	PUQ
LMG23-12	<p>Palmer Station Support; NOAA The objectives of this work are 1) to quantify and understand interactions between krill, krill predators (e.g., penguins and seals), and the Antarctic krill fishery; 2) to estimate krill flux through and standing biomass in areas where krill, predators, and the fishery overlap in space and time; and 3) to identify sustainable harvest strategies for the krill fishery. Antarctic Data Repository for LMG23-12</p>	<p>George Watters B-006</p>	<p>11/24/2023 12/6/2023</p>	<p>PUQ PAL</p>	<p>12/1/2023 12/10/2023</p>	<p>PAL PUQ</p>
LMG24-01	<p>LTER The objective of this work is to seek to gain new mechanistic and</p>	<p>Megan Cimino C-013</p>	<p>12/20/2023 12/27/2024</p>	<p>PUQ PAL</p>	<p>12/24/2023 1/25/2024</p>	<p>PAL PAL</p>

CRUISE #	CRUISE by NAME	PIs	Departure	PORT	Arrival	PORT
	<p>predictive understanding of ecosystem changes in response to disturbances spanning long-term, subdecadal, and higher-frequency "pulses" driven by a range of processes, including long-term climate warming, natural climate variability, and storms.</p> <p>To collect observations of the partial pressure of carbon dioxide (pCO₂) in the surface ocean needed to assess the current state and long-term change of the flux of carbon dioxide (CO₂) between the atmosphere and ocean.</p> <p>This work aims to analyze the Drake Passage time series and describe and relate the seasonal and long-term ocean energy distribution to wind, buoyancy, and topographic forcing and sinks. Also to describe and relate seasonal and long-term changes in the Antarctic Circumpolar Current (ACC) fronts, water masses, and upwelling to biogeochemical and climate variability.</p>	<p>Oscar Schofield C-019 Deborah Steinberg C-020 Carlos Moffat C-021 Ari Friedlander C-024 Benjamin Van Mooy C-045</p> <p>David Munro O-214</p> <p>Teri Chereskin O-317 Janet Sprintall O-260</p>	1/26/2024	PAL	1/31/2024	PUQ
LMG24-02	OPEN PERIOD	N/A	2/7/2024	PUQ	2/29/2024	PUQ
LMG24-03	OPEN PERIOD	N/A	3/1/2024	PUQ	3/26/2024	PUQ
LMG24-04	<p>Palmer Station Turnover</p> <p>To collect observations of the partial pressure of carbon dioxide (pCO₂) in the surface ocean needed to assess the current state and long-term change of the flux of carbon dioxide (CO₂) between the atmosphere and ocean.</p> <p>This work aims to analyze the Drake Passage time series and describe and relate the seasonal and long-term ocean energy distribution to wind, buoyancy, and topographic forcing and sinks. Also to describe and relate seasonal and long-term changes in the Antarctic Circumpolar Current (ACC) fronts, water masses, and upwelling to biogeochemical and climate variability.</p>	<p>David Munro O-214</p> <p>Teri Chereskin O-317 Janet Sprintall O-260</p>	<p>3/31/2024</p> <p>4/11/2024</p>	<p>PUQ</p> <p>PAL</p>	<p>4/4/2024</p> <p>4/15/2024</p>	<p>PAL</p> <p>PUQ</p>
LMG24-05	OPEN PERIOD	N/A	4/16/2024	PUQ	4/30/2024	PUQ
LMG24-06	OPEN PERIOD	N/A	5/1/2024	PUQ	5/31/2024	PUQ
LMG24-07	TRANSIT TO DRY DOCK	N/A	6/1/2024	PUQ	7/2/2024	USTPA
N/A	END OF CHARTER WITH NSF	N/A	N/A	N/A	7/16/2024	USTPA