

XV. Oceanography- Government

Section XV of the Modifications of Activities Planned for 2008-2009 presents final information regarding United States Antarctic Program sponsored oceanographic expeditions during the 2008-2009 season.

For actual tracks of the Research Vessels Nathaniel B. Palmer and Laurence M. Gould please see Attachment C, Cruise Tracks.

R/V Nathaniel B. Palmer

The R/V *Nathaniel B. Palmer* made six science cruises during the period of 31 March 2008 through 31 March 2009. Cruises are:

Cruise NBP08-05

09 April 2008 – 25 May 2008

Central Scotia Sea floor and the Drake Passage deep ocean current gateway and glacial radiocarbon constraints from Drake Passage deep sea corals.

G-087-N (Daiziel)

G-290-N (Robinson)

Cruise NBP08-06

31 May 2008- 30 June 2008

Free drifting icebergs; influence of floating islands on pelagic ecosystems in the Weddell Sea.

B-050-N (Smith)

Cruise NBP08-07

03-July-2008-07 July 2008 Punta Arenas, Chile

Open Period

Cruise NBP08-08

10 July 2008 -04 August 2008

Collaborative research: benthic faunal feeding dynamics on the Antarctic Shelf and the effects of global climate change on benthopelagic coupling.

B-237-N (DeMaster)

B-212-N (Smith)

Cruise NBP08-09

08 August 2008 -05 September 2008

Open Period and USCG/ABS Inspections

Cruise NBP08-10

08 September 2008-23 September 2008

Open Period

Cruise NBP08-11

24 September 2008-16 November 2008

Open Period

Cruise NBP08-12

20 November 2008-13 December 2008

Collaborative research: dynamics and transport of the Antarctic Circumpolar current in Drake Passage.

O-313-N (Chereskin)

Cruise NBP08-13

14 December 2008-23 December 2008

Open period, LARISSA Helo inspection, NSF Job Walk

Cruise NBP09-01

05 January 2009-26 February 2009

Collaborative International Research: Amundsen Sea influence on West Antarctic Ice Sheet stability and sea level rise shedding dynamic light on iron limitation. The interplay of iron limitation and dynamic irradiance conditions in governing the phytoplankton distribution in the Ross Sea.

Collaborative Research: sampling the ocean-sea ice interaction in the Pacific center of the Antarctic Dipole.

O-274-N (Jacobs)

O-216-N (Arrigo)

O-261-N (Yuan)

Cruise NBP09-02

06 March 2009-14 April 2009

Free drifting icebergs; influence of floating islands on pelagic ecosystems in the Weddell Sea.

B-050-N (Smith)

Biology & Medicine

Principal Investigator	Event	Institution
Dr. Dave Caron	B-245-N	University of Southern California
Dr. Ken Smith	B-050-N	Monterey Bay Aquarium Research Institute
Dr. Craig Smith	B-212-N	University of Hawaii, Manoa
Dr. David DeMaster	B-237-N	North Carolina State University

Oceans and Climate

Principal Investigator	Event	Institution
Dr. Teri Chereskin	O-313-N	University of California, San Diego
Dr. Kevin Arrigo	O-244-N	Stanford University
Dr. Xiaojun Yuan	O-261-N	LDEO, Columbia University
Dr. Stan Jacobs	O-274-N	LDEO, Columbia University
Dr. Bruce Huber	O-399-N	Lamont-Doherty Earth Observatory

Geology & Geophysics

Principal Investigator	Event	Institution
Dr. Joann Stock	G-071-N G-	California Institute of Technology
Dr. Steve Cande	071-N	University of California, San Diego
Dr. Ian Dalziel	G-087-N	University of Texas
Dr. Philip Bart	G-154-N	Louisiana State University Baton Rouge
Dr. Laura Robinson	G-290-N	Woods Hole Oceanographic Institute

R/V *Laurence M. Gould*

The R/V *Laurence M. Gould* made nine science cruises, eleven Palmer Station opening/ transports in the Antarctic Peninsula during the period of 31 March 2008 through 31 March 2009.

Cruise LMG08-03

22 March 2008-04 April 2008

Palmer Shuttle and Palmer Turnover

Cruise LMG08-04

08 April 2008-23 April 2008

Testing the impact of seasonality on benthic foraminifers as paleoenvironmental proxies.

G-183-L (Ishman)

Cruise LMG08-05 this cruise number was not used/assigned

Cruise LMG08-06

27 April 2008-25 May 2008

Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from Antarctic fishes.

B-037-L (Detrich)

Cruise LMG08-07

28 May 2008-19 June 2008

Protein folding and function at cold temperature: Co-evolution of the chaperonin CCT and tubulins from Antarctic fishes.

B-037-L (Detrich)

Cruise LMG08-08

24 June 2008-08 July 2008

Collaborative research: testing the impact of seasonality on benthic foraminifers as paleoenvironmental proxies.

B-183-L (Ishman)

Cruise LMG08-09

13 July 2008-09 August 2008

Environmental, organismal and evolutionary physiology of freeze avoidance in antarctic Notothenoid fishes.

B-005-L (DeVries)

Cruise LMG08-10

13 August 2008-10 September 2008

Environmental, organismal and evolutionary physiology of freeze avoidance in antarctic Notothenoid fishes.

B-005-L (DeVries)

Cruise LMG08-11

14 September 2008-28 September 2008

Palmer Station opening

Cruise LMG08-12

15 October 2008-27 October 2008

COPA and Cape Shireff Openings

Cruise LMG08-13

28 October 2008-30 November 2008

Open Period

Cruise LMG08-14

01 December 2008-29 December 2008

NSF job walk.

Cruise LMG09-01

30 December 2008-06 February 2009

*Long Term Environmental Research (LTER), Climate Migration, Ecological Response and
Teleconnections in an Ice-dominated Environment (Prey Component)*

B-013-L (Fraser)

B-019-L (Schoefield)

B-020-L (Steinberg)

B-045-L (Ducklow)

B-241-L (Martinson)

B-326-L (Bender)

Cruise LMG09-02

11 February 2009-16 March 2009

Collaborative research : Benthic Faunal Feeding Dynamics on the Antarctic Shelf and the Effects of Global Climate Change on Benthic-pelagic coupling, search for late Mesozoic vertebrate fossils on Livingston Island and causes of mass extinction during the late cretaceous age in Antarctica.

G-170-E (MacPhee)

G-436-E (Kirschvink)

B-237-L (DeMaster)

B-212-L (Smith)

(Livingston Island and James Ross Island)

Cruise LMG09-03

21 March 2009-09 April 2009

Microbial diversity in historic woods, organic substrates and soil, abrupt environmental change in the Larsen Ice shelf system.

B-038-L/P (Blanchette)

C-515-L (Domack)

Biology & Medicine

Principal Investigator	I.D. No.	Institution
Dr. Art DeVries	B-005-L	University of Illinois, Urbana
Dr. Robin Ross-Quetin	B-028-L	University of California, Santa Barbara
Dr. Wayne Trivelpiece	B-040-L	Antarctic Ecosystem Research Center (AMLR)
Dr. Doug Martinson	B-021-L	LDEO, Columbia University
Dr. William Fraser	B-013-L	Polar Oceans Research Group
Dr. Hugh Ducklow	B-045-L	Va. Institute of Marine Science
Dr. Raymond Smith	B-032-L	University of Calif., Santa Barbara
Dr. Kristen O'Brien	B-036-L	University of Alaska
Dr. William Detrich	B-037-L	Northeastern University

Dr. Maria Vernet	B-016-L	University of Calif., San Diego
Dr. Langdon Quetin	B-028-L	University of Calif., Santa Barbara
Dr. Doug Martinson	B-021-l	LDEO, Columbia University
Dr. Bruce Sidell	B-036-L	University of Maine
Dr. Craig Smith	B-212-L	University of Hawaii, Manoa
Dr Daniel Costa	B-232-L	University of California, Santa Cruz
Dr David DeMaster	B-237-L	North Carolina State University
Dr. Douglas Nowacek	B-249-L	Duke University

Ocean & Climate

Principal Investigator	I.D. No.	Institution
Dr. Doug Martinson	O-241-L	LDEO, Columbia University
Dr. Eugene Domack	C-515-L	Hamilton College

Geology & Geophysics

Principal Investigator	I.D. No.	Institution
Dr. Ross McPhee	G-170-E	American Museum of Natural History
Dr. Scott Ishman	G-183-L	Southern Illinois University
Dr. Joseph Kirschvink	G-436-E	California Institute of Technology