

Eugene Walter Domack

Professor, Department of Geosciences
Hamilton College, 198 College Hill Road, Clinton, NY 13323
(315) 859-4711, 859-4807 (fax)
edomack@hamilton.edu

BIOGRAPHY: Born 15 April, 1956 in Milwaukee, Wisconsin, son of Benjamin and Vivian Domack (Krush)

Wife: Judith Friedman

Children: Madison Adele Domack (born 8/3/2003)

EDUCATION: Brookfield Central High School, graduate class of 1974
BS, 1978 - University of Wisconsin-Madison (Geology & Geophysics)
MA, 1980 - Rice University (Geology)
PhD, 1982 - Rice University (Geology)

PROFESSIONAL EMPLOYMENT:

1985-present – Department of Geosciences, Hamilton College, Clinton, NY
1986-1990 - Colgate University, Hamilton, NY, Lecturer, Writing Program (half time)
1984-1985 - University of Wisconsin-Eau Claire, Visiting Associate Prof., Geology Dept.
1982-1984 – UNOCAL, Exploration Geologist, Gulf of Mexico Region, Frontier District, Houston, Texas

TEACHING AND RESEARCH INTERESTS:

Teaching interests include Sediments and Paleoenvironments, Sedimentary Rocks, Geology of the Southern Hemisphere, Glacial Geology, Marine Geology/Oceanography, Quaternary Geology and, Environmental Remote Sensing.

Research interests remain focused on development of Quaternary paleoenvironmental record for circum-Antarctic offshore region, glacial and marine sedimentation in Antarctica, Late Paleozoic geochemical stratigraphy in Tasmania Basin, Australia, and Neoproterozoic glacial stratigraphy within “Snowball Earth” basins of SW Africa and East Greenland. Local projects include developing sediment history for Oneida Lake and impacts of development upon natural deposystems within the watershed.

COLLEGE SERVICE:

Chair, Department of Geology (1992-1996, 2004-2005)
Environmental Studies Committee (1993-present, chair)
Co-Director, Geoarchaeology Program (1996-2001)
Appeals Board, Chair (1992-1994)
Committee on Academic Standing (1990)
Board of Advisors (1986-1991)
President, Hamilton College Chapter of Sigma Xi (1989)

ORGANIZATIONS:

International Glaciological Society
American Geophysical Union
Sigma Xi, Scientific Research Soc.
Amer. Assoc. Adv. Science

SYNERGISTIC ACTIVITIES & PROFESSIONAL SERVICE

Organized NSF funded workshop on the Geomorphology of Glacial Sediments, June 2006
Session Co-Chair, AGU Ocean Sciences Meeting, 2006
Session Co-Chair, AGU Fall Meeting, 2005
Invited Participant, JOIDES Educational Workshop, URI, May, 2003
Lead organizer of NSF funded international workshop on Antarctic Peninsula Climate Variability: A Historical and Paleoenvironmental Perspective, April, 2002 see: <http://academics.hamilton.edu/workshops/antarctica/index.htm>
NSF IGERT Panel Review committee
Co-organizer of NSF sponsored international workshop on Antarctic radiocarbon dating methods at WHOI, 1998.
Formative member of SHALDRILL for development of shallow drilling methods on Antarctic continental shelf
Member, Antarctic Research Vessel Oversight Committee 1999-2001
Member, Antarctic Working Group on Geology and Geophysics
Editorial Board, GEOLOGY 1990-1993, 2004-present

FIELD EXPERIENCE

Chief Scientist *NB Palmer* 2006-03, NW Weddell Sea 4/12/06-5/9/06
Chief Scientist *LM Gould* 2005-2, Antarctic Peninsula, NW Weddell Sea 2/12/05-3/12/05
Chief Scientist *LM Gould* 2004-4, Antarctic Peninsula, South Orkney Is. 4/12/04-5/10/04
Chief Scientist *NB Palmer* 2001-7, Antarctic Peninsula 12/6/01-1/12/02
Co-Principle Investigator *NB Palmer* 2001-03, East Antarctica, 1/26/01-2/31/01
Chief Scientist *NB Palmer* 2000-03, NW Weddell Sea 5/18/00- 6/2/00
Chief Scientist *NB Palmer* 1999-03, Antarctic Peninsula
Chief Scientist *LMG Gould* 1998-02, Antarctic Peninsula
Ship based Sedimentologist *JOIDES Resolution* ODP Leg 198, Ant. Peninsula
Research Scientist *RV Aurora Australis* 186 East Antarctica 1/26/97-4/1/97
Co-Chief Scientist *NB Palmer* 1995-02, Ross Sea Antarctica
Chief Scientist *RV Polar Duke* 1991-07, Antarctic Peninsula
Chief Scientist *RV Polar Duke* 1990-3, Antarctic Peninsula
Co-Chief Scientist *RV Polar Duke* 1987-7, Antarctic Peninsula
Research Scientist USCGC *Glacier*, Deep Freeze 1981, North Victoria Land
Research Scientist USCGC *Glacier*, Deep Freeze 1979, Wilkes Land

North Central Greenland, August 2004 (NSF supported)
Namibia, May-June 2003, August 2006 (NSF and Guggenheim supported)
Iceland, 2002
Swiss and Austrian Alps, July 1996
Tasmania, Australia, 1988, 1991, 2001 (PRF supported)
Whidbey Island Washington, 1980, 1981 (PRF supported, PhD project)

ACADEMIC AND PROFESSIONAL AWARDS

2005 Nominee to National Academy of Sciences
2004 John Simon Guggenheim Fellow
2000 Nominee for Kirk Bryan Award Geol. Soc. of Amer. for outstanding paper in Quat. Geology or Geomorphology.
1980 Maurice Ewing Graduate Fellowship in marine geology, Rice University
1975-1976 V. L. Hirsch Scholarship, Univ. of Wisconsin School of Agricultural and Life Sciences.

SIGNIFICANT INVITED LECTURES AND SEMINARS

2006 Antarctic Peninsula Climate Variability: Observations, Models, and Plans for IPY Research, Univ. of Colorado, Boulder CO, http://nsidc.org/events/IPY_APCV/. Third International Antarctic Peninsula Workshop,
2006 Snowball Earth Conference, 16-21 July, Monte Verito Switzerland, sponsored by ETH-Zurich and Swiss National Science Foundation
2004 Keynote for 2nd Antarctic Peninsula Workshop, Scott Polar Res. Ctr, Cambridge University, September
2004 Short course taught at University of Barcelona-Spain, June
2004 GEOSUR: Geology of the Southern Andes, Patagonia, and Antarctic Peninsula, Buenos Aires, Nov.
2004 International Antarctic Institute organizational mtg, Univ. of Tasmania, Hobart Tasmania, Australia, November

- 2004 SCAR International Science meeting, Bremen Germany, July
 2005 Lamont-Doherty Geological Observatory, May
 2000-2001 Distinguished Lecturer, USSAC Ocean Drilling Program
 Scripps Inst. Oceanography, Univ. Alaska-Fairbanks, NW Missouri State, Northern Illinois Univ.,
 Rice University, Univ. California Santa Barbara
 1999 Annual Meeting of the Association for the Advancement of Science
 1998 Woods Hole Oceanographic Institution, Radiocarbon Workshop
 1997 Korean Inst. Oceanography, Ansan Korea
 1996 Lecture series, University of Tasmania Antarctic and Southern Ocean CRC
 1997 American Meteorological Society, Workshop on Polar Processes, Cancun Mexico.

GRANTS AND FELLOWSHIPS AWARDED

Date	Source	Project Title
6/1/87 6/1/90	NSF-DPP DPP86-13565	Depositional Environments of the Antarctic Continental Shelf NSF Shalldrill grant
7/1/88 7/1/90	ACS/PRF	Organic Carbon and Facies Variation in Glacial Marine Mudrocks: a paleoclimatic indicator
9/1/90 2/28/94	NSF-OPP 8915977	RUI: Depositional Processes and Stratigraphy of Antarctic Fjords & Ice Shelf Environments
6/1/92 11/30/96	NSF-OPP 9118462	Geological Record of Late Wiscon/Holocene Ice Sheet Advance and Retreat from Ross Sea
9/15/94 8/31/95	NSF-ARI 9412792	Acquisition of a Rapid Sediment Analyzer
3/15/95 5/31/99	NSF-OPP 9418153	Undergraduate Research Initiative: Antarctic Marine Geology and Geophysics
7/1/97 6/30/00	NSF-OPP 9615053	Holocene Paleoenvironmental Change Along the Antarctic Peninsula: A Test of the Solar/Bi-Polar Signal
7/1/99 6/30/02	NSF-OPP 9814383	Paleohistory of the Larsen Ice Shelf: Evidence from the Marine Record
9/15/00 8/31/03	NSF-OPP 0003060	Collaborative Research: Development of a Luminescence Dating Capability for Antarctic Glaciomarine Sediments: Tests of Signal Zeroing at the Antarctic Peninsula
7/1/01 6/30/02	NSF-OPP 0123382	Antarctic Peninsula Climate Variability: A Historical and Paleoenvironmental Perspective
5/15/03 12/31/05	NSF-OPP 0230089	Collaborative Research: Constraining the Temporal Resolution and Geochronology of Holocene Sediment Records from the Antarctic Continental Shelf
4/15/04 3/31/07	NSF-OPP 0338142	Collaborative Research: Paleohistory of the Larsen Ice Shelf System: Phase II
4/15/04 12/30/08	NSF-OPP 0352731	Collaborative Research: Glacial History of Snowball Earth
7/15/06 6/30/07	NSF-OPP 0630156	Micromorphology of Glaciogenic Deposits: A Workshop
3/4/04 3/4/05	JS Guggenheim	Testing the Snowball Earth Hypothesis by Comparison to Antarctic Marine Deposystems
10/1/02 12/31/04	NY DEC/ CNRPDP	Oneida Lake & Watershed Management Planning Project NSF ANTIME grant
98-99	JOI/USSSP	Grant in support of post Leg 178 drilling in Palmer Deep: A Test of the Pre LGM Hypothesis

LIST OF PUBLICATIONS

Books and Book Chapters

- Domack, E. W., 2006. Continental Shelves and Slopes, in B. Riffenburgh (Ed) **Encyclopedia of the Antarctic**, Routledge, New York, p. 286-290.
- Domack, E., A. Leventer, A. Burnett, R. Bindshadler, P. Convey, and M. Kirby (editors) **Antarctic Peninsula Climate Variability: Historical and Paleoenvironmental Perspectives**, Antarctic Research Series, v. 79, American Geophysical Union, Washington D. C., 2003.
- Domack, E. W., and Domack, C. R., 1991. **Cenozoic Glaciation: The Marine Record Established by Ocean Drilling**. A supplement to undergraduate curricula. Joint Oceanographic Institutions Inc., Washington D. C. (now on-line)
- Deynoux, M., Miller, J. M. G., Domack, E. W., Eyles, N., Fairchild, I. J., and Young, G. M., (editors) 1994. **The Earth's Glacial Record**. Cambridge University Press, 266 pp.
- Powell, R. D., and Domack, E. W., Modern Glacimarine Environments, In. J. Menzies (Ed.) **Glacial Processes and Environments**, p. 445-486, Butterworth, 1994. (now in revised student version)

Peer Reviewed Journals/Periodicals

- Hoffman, P. F., Halverson, G. P., Domack, E. W., Husson, J., and Schrag, D. P., Are basal Ediacaran (653 Ma) post-glacial cap dolostones" diachronous. **Earth Planetary Science Letters**, (in preparation).
- Willmott, V., Domack, E. W., and Canals, M. (in press). Glacio-marine sediment drifts from Gerlache Strait, Antarctic Peninsula. In "Glacial Sedimentary Processes and Products." (N. Glasser, and M. J. Hambrey, Eds.). IAS Special Publication, **Sedimentology**.
- Leventer, A., Domack, E., Dunbar, R., et al., 2007. Marine sediment record from the East Antarctic margin reveals dynamics of ice sheet recession. **GSA Today**, 16, 4-10.
- Willmott, V., Domack, E. W., Canals, M., and Brachfeld, S., 2006. A high resolution relative paleointensity record from the Gerlache-Boyd Strait paleo-ice stream region, northern Antarctic Peninsula. **Quaternary Research**, 66, 1-11.
- Maddison, E. J., Pike, J., Leventer, A., Domack, E. W., 2006. Deglacial seasonal and sub-seasonal diatom record from Palmer Deep, Antarctica. **Journal of Quaternary Science**, 20, 435-446.
- Hodgson, D. A., Bentley, C. R., Roberts, S. J., Smith, A. J., Sudgen, D. E., and Domack, E. W., 2006. Examining Holocene stability of Antarctic Peninsula ice shelves. **EOS Transactions of the American Geophysical Union**, 87, 305-308.
- Madison, E. J., Pike, J., Leventer, A., Dunbar, R., Brachfeld, S., Domack, E. W., Manley, P. McClennen, C., 2006. Post-glacial seasonal diatom record of the Mertz Glacier Polynya, East Antarctica, **Marine Microplaeontology**, 60, 66-88.
- Ivany, L. C., Van Simaey, S., Domack, E. W., and Samson, S. D., (2006). Evidence for an earliest Oligocene ice sheet on the Antarctic Peninsula, **Geology**, 34, 377-380.
- Domack, E. W., Duran, D., Leventer, A., Ishman, S., Doane, S., McCallum, S., Amblas, D., Ring, J., Gilbert, R., and Prentice, M. 2005. Stability of the Larsen B ice shelf on the Antarctic Peninsula during the Holocene epoch. **Nature**, v. 436, 681-685.
- Domack, E. W., Ishman, S., Leventer, A., Sylva, S., Willmott, V., and Huber, B., 2005. A chemotrophic ecosystem found beneath Antarctic Ice Shelf, **Eos, Transactions, Amer. Geoph. Union**, v. 86, 269, 271-272.
- Domack, E. W. Amblas, D., Gilbert, R., Brachfeld, S., Camerlenghi, A., Rebesco, M., Canals, M., and Urgeles, R., 2005. Subglacial morphology and glacial evolution of the Palmer deep outlet system, Antarctic Peninsula. **Geomorphology** 75, 125-142.
- McMullen, K., Domack, E. W., Leventer, A., Olsen, C., Dunbar, R., and Brachfeld, S., 2005. Glacial geomorphology and sediment formation in the Mertz Trough, East Antarctica. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 231, 169-180.
- Evans, J., Pudsey, C. J., O'Coiffaigh, C., Morris, P., and Domack, E. 2005. Late Quaternary glacial history, flow dynamics and sedimentation along the eastern margin of the Antarctic Peninsula Ice Sheet. **Quaternary Science Reviews** 24, 741-774.
- Stickley, C. E., Pike, J., Leventer, A., Dunbar, R., Domack, E. W., Brachfeld, S., Manley, P., and McClennan, C. 2005. Deglacial ocean and climate seasonality in laminated diatom sediments, Mac.Robertson Shelf, Antarctica. **Palaeogeography, Palaeoclimatology, Palaeoecology** 227, 290-310.
- Gilbert, R., Domack E.W., and Tewksbury, D. 2004. Sediment content in Antarctic iceberg fragments sufficient to sink the ice. **Géographie physique et Quaternaire**, 58, 147-149.
- Domack, E. W., Burnett, A., and Leventer, A., 2003. Environmental setting of the Antarctic Peninsula. in Domack, E. W., ed., **Antarctic Peninsula Climate Variability: A Historical and Paleoenvironmental Perspective**, **Ant. Research Series** American Geophysical Union, 1-13.

- Domack, E. W., Leventer, A., Root, S., Ring, J., Williams, E., Carlson, D., Hirshorn, E., Wright, W., Gilbert, R., and Burr, G., 2003, Marine sedimentary record of natural environmental variability and recent warming in the Antarctic Peninsula, in Domack, E. W., ed., *Antarctic Peninsula Climate Variability: A Historical and Paleoenvironmental Perspective*, *Antarctic Research Series*, 79, American Geophysical Union, 205-224.
- Domack, E. W., 2003. Clues to global warming found in Antarctica. In; White, K. and Urquhart, E. (eds.) *Ocean Drilling Project Highlights*. Joint Oceanographic Institutions, Washington D. C., 16-17.
- Brachfeld, S., E. W., Domack, C. Kissel, C. Laj, A. Leventer, S. Ishman, R. Gilbert, A. Camerlengi, and L. B. Eglinton, 2003. Holocene history of the Larsen-A Ice Shelf constrained by geomagnetic paleointensity dating. *Geology*, 31, No. 9, pp. 749–752.
- Gilbert, R., E. W., Domack, and A. Camerlengi, 2003. Deglacial history of the Greenpeace Trough: ice sheet to ice shelf transition in the northwestern Weddell Sea, in Domack, E. W., ed., *Antarctic Peninsula Climate Variability: A Historical and Paleoenvironmental Perspective*, *Antarctic Research Series*, 79, American Geophysical Union, 195-204.
- Howat, I., and Domack, E. W., 2003. Reconstructions of western Ross Sea palaeo-ice-stream grounding zones from high-resolution acoustic stratigraphy, *Boreas*, 32, 56-75.
- Gilbert, R., and Domack, E. W., 2003, The sedimentary record of disintegrating ice shelves in a warming climate, Antarctic Peninsula: *Geochem.y, Geophysics, Geosystems*, v. 4, 1038, doi:10.29/2002GC000441. <http://www.agu.org/journals/gc/>
- Domack, E. W., 2002. A synthesis for Site 1098: Palmer Deep. In, Barker, P. F., Camerlengi, A., Acton, G. D., and Ramsay, A. T. S., (Eds.), *Proc. ODP, Sci. Results*, 178: College Sta. TX (Ocean Drilling Program), Chapter 34, 1-14.
- Leventer, A., Domack, E. W., Barkoukis, A., McAndrews, B., and Murray, J. W. 2002. Laminations from the Palmer Deep: A diatom-based interpretation. *Paleoceanography* 17, 10.1029/2001PA000624.
- Canals, M., Casamor, J. L., Urgeles, R., Calafat, A. M., Domack, E. W., Baraza, J., Farran, M., and DeBatist, M., 2002. Seafloor evidence of a subglacial sedimentary system off the northern Antarctic Peninsula, *Geology*, 30, 603-606.
- Warner, N. R. and Domack, E. W., 2002. Millennial to decadal scale palenvironmental change during the Holocene in the Palmer Deep, Antarctica, as recorded by particle size analysis. *Paleoceanography*, v. 17, 10.1092
- Leventer, A., Domack, E. W., et al., 2002. Laminations from the Palmer Deep: a diatom based interpretation. *Paleoceanography*, 17, 1-15.
- Domack, E., Leventer, A., Gilbert, R., Brachfeld, S., Ishman, S., Camerlengi, A., Gavahan, K., Carlson, D., and Barkoukis, A., 2001. Cruise reveals history of Holocene Larsen Ice Shelf. *Eos Transactions of the American Geophysical Union*, v. 82, p. 13, 16-17
- Domack, E. W., A. Leventer, R. Dunbar, F. Taylor, S. Brachfeld, C. Sjunneskog, and ODP Leg 178 Scientific Party, 2001, Chronology of the Palmer Deep site, Antarctic Peninsula: a Holocene palaeoenvironmental reference for the circum-Antarctic, *The Holocene*, 11, 1-9.
- Domack, E. W., and Bacon, C., 2001. Tasmanite, a geologic enigma. *40° SOUTH TASMANIA*, No. 24, 32-35.
- Taylor, F., Whitehead, J., and Domack, E. W., 2001. Holocene paleoclimate change in the Antarctic Peninsula: evidence from the diatom, sedimentary, and geochemical record. *Marine Micropaleontology*, 41, 25-43.
- Camerlengi, A., Domack, E., Rebesco, M., Gilbert, R., Ishman, S., Leventer, A., Brachfeld, S., and Drake, A. ('02), 2001. Glacial morphology and post-glacial contourites in northern Prince Gustav Channel (NW Weddell Sea, Antarctica). *MARINE GEOPHYSICAL RESEARCHES*, v. 22, 417-443.
- Pudsey, C. J., Evans, J., Domack, E. W., Morris, P., and DelValle, R. A., 2001. Bathymetry and acoustic facies beneath the former Larsen-A and Prince Gustav ice shelves, north-west Weddell Sea. *Antarctic Science*, v. 13, p. 312-322.
- Domack, E. W., Hall, B., and Hayes, J. M., 1999, Accurate Antarctic dating techniques sought by Quaternary community: *Eos Transactions American Geophysical Union*, v. 80, p. 591,596.
- Domack, E.W., E. A. Jacobson, S.S. Shipp, and J.B. Anderson, 1999. Late Pleistocene/Holocene retreat of the West Antarctic Ice Sheet in the Ross Sea: Part 2 – sedimentologic and stratigraphic signature, *Geological Society of America Bulletin*, 111, 1517-1536. (nominated for the 2003, Kirk Bryan Award of GSA)
- Domack, E. W. and P. A. Mayewski, 1999. Bi-polar ocean linkages: evidence from late-Holocene marine and ice core records, *The Holocene*, 9, 247-251.
- Domack, E. W., Taviani, M. and Rodriguez, A., 1999. Recent sediment remolding on a deep shelf, Ross Sea, implications for radiocarbon dating of Antarctic marine sediments, *Quaternary Science Reviews/QG*, 18, 1445-1451
- Andrews, J. T., Domack E. W., Cunningham, W. L., Leventer, A., Licht, K. J., Jull, A. J. T., DeMaster, D. J., and Jennings, A., E. 1999. Problems and possible solutions concerning radiocarbon dating of surface marine sediments, Antarctica, *Quaternary Research*, 52, 206-216.
- Harris, P. E., Domack, E. W., Manley, P., Gilbert, R., and Leventer, A., 1999. The Andvord Drift: a new type of inner shelf deposystem from the Antarctic Peninsula, *Geology*, 27, 683-686.

- O'Brien, P. E., DeSantis, L., Harris, P. T., Domack, E. W., and Quilty, P. G., Palaeo ice shelf grounding zones of western Prydz Bay, Antarctica – Sedimentary Processes from seismic and sidescan images, *Antarctic Science*, 11, 78-91.
- Smith, R. C., Domack, E. W., Emslie, S., Fraser, W., Ainley, D., Baker, K., Kennett, J., Leventer, A., Mosely-Thompson, E., Stammerjohn, S., and Vernet, M., 1999. Marine ecosystem sensitivity to historical climate change: Antarctic Peninsula, *Bioscience*, 49, 393-404.
- Shipp, S., Anderson, J. B., and Domack, E. W., 1999 Late Pleistocene/Holocene retreat of the West Antarctic Ice-Sheet system in the Ross Sea: Part 1 – geophysical results, *Geological Society of America Bulletin*, 111, 1486-1516. **(nominated for the 2003, Kirk Bryan Award of GSA)**
- Domack, E. W., O'Brien, P., Harris, P., Taylor, F., Quilty, P. G., DeSantis, L., and Raker, B., 1998. Late Quaternary sediment facies in Prydz Bay, East Antarctica and their relationship to glacial advance onto the continental shelf. *Antarctic Science*, v. 10, p. 236-246.
- Kirby, M. E., Domack, E. W., and McClennen, C. E., 1998. Magnetic stratigraphy and sedimentology of Holocene glacial marine deposits in the Palmer Deep, Bellingshausen Sea, Antarctica: implications for climate change? *Marine Geology*, v. 152, p. 247-259.
- Rebesco, M., Camerlenghi, A., DeSantis, L., Domack, E. W., and Kirby, M., 1998. Seismic stratigraphy of Palmer Deep: a fault-bounded late Quaternary sediment trap on the inner continental shelf, Antarctic Peninsula margin, *Marine Geology*, v. 151, p. 89-110.
- Domack, E. W., 1998. Mysteries of the Palmer Deep revealed during ODP Leg 178, Antarctic Peninsula, JOIDES journal. ..., Licht, K. J., Cunningham, W. L., Andrews, J. T., Domack, E. W., and Jennings, A. E., 1998. Establishing chronologies from acid insoluble organic ¹⁴C dates on Antarctic (Ross Sea) and Arctic (North Atlantic) marine sediments. *Polar Research*, 17, 202-216.
- Barker, P. F., Barrett, P. J., Camerlenghi, A., Cooper, A. K., Davey, F. J., Domack, E. W., Escutia, C., Kristoffersen, Y., and O'Brien, P. E., 1998. Ice sheet history from Antarctic continental margin sediments: the ANTOSTRAT approach. *Terra Antarctica*, 5, 737-760.
- Harris, P. T., Taylor, F., Domack, E., DeSantis, L., Goodwin, I., Quilty, P. G., and O'Brien, P. E., 1997. Glacimarine siliciclastic muds from Vincennes Bay, East Antarctica: preliminary results of an exploratory cruise in 1997. *Terra Antarctica*, v. 4, p. 11-20.
- Domack, E. W., and P. Harris, 1998 A new depositional model for ice shelves based upon sediment cores recovered in the Ross Sea and Mac.Robertson Shelf, Antarctica, in press, *Annals of Glaciology*, 27, 281-284.
- Yoon, H. I., Park, B. -K., and Domack, E. W., and Kim, Y., 1998. Distribution and dispersal pattern of suspended particulate matter in Maxwell Bay and its tributary, Marian Cove, in the South Shetland Islands, West Antarctica. *Marine Geology*, 152, 261-275.
- Domack, E. W., 1997. Millennial to Decadal Scale Variability in the Antarctic Peninsula Shelf Sediment Record: Linkages with Oceanographic and Atmospheric Changes. *American Meteorological Society*, Special Report, Workshop on Polar Processes, 145-148,
- Shevenell, A. E., E. W. Domack, and G. M. Kernan, 1996. Record of Holocene paleoclimate change along the Antarctic Peninsula: evidence from glacial marine sediments, Lallemand Fjord. In, Banks, M. R., and Brown (eds.) *Papers and Proceedings of the Royal Society of Tasmania*, v. 130, Pt. 2. *Climate Succession and Glacial Record of the Southern Hemisphere*, p. 55-64.
- Domack, E. W., and McClennen, C. E., 1996. Accumulation of glacial marine sediments in fjords of the Antarctic Peninsula and their use as late Holocene paleoenvironmental indicators. In, R. Ross, E. Hoffman, and L. Quetin (eds.) *Foundations for Ecosystem Research West of the Antarctic Peninsula*, *Antarctic Research Series*, American Geophysical Union, Washington D.C., 70, 135-154.
- Leventer, A. R., Domack, E. W., Ishman, S. E., Brachfeld, S., McClennen, C. E., and Manley, P. 1996. Productivity cycles of 200-300 years in the Antarctic Peninsula region: understanding linkages among the sun, atmosphere, oceans, sea ice, and biota. *Geological Society America Bulletin*, 108, 1626-1644.
- Domack, E. W., Ishman, S. E., Stein, A. B., McClennen, C. E., and Jull, A.J. T., 1995, Late Holocene advance of the Müller Ice Shelf, Antarctic Peninsula: sedimentologic, geochemical, and paleontological evidence. *Ant.c Science*, 7, 159-170.
- Domack, E. W., 1995. Comment on "Hydrocarbon biomarkers, thermal maturity, and depositional setting of tasmanite oil shales from Tasmania, Australia" *Geochimica et Cosmochimica Acta*, 59, 2393-2396.
- Ishman, S. E., and Domack, E. W., 1994, Oceanographic controls on benthic foraminifers from the Bellingshausen margin of the Antarctic Peninsula. *Marine Micropaleontology*, 24, 119-155.
- Domack, E. W., Foss, D. J. P., Syvitski, J. P. M., and McClennen, C. E., 1994, Transport of suspended particulate matter in an Antarctic fjord. *Marine Geology*, 121, 161-170.

- Domack, E. W., Mashiotta, T. A., Burkley, L. A., and Ishman, S. E., 1993. 300 year cyclicality in organic matter preservation in Antarctic fjord sediments. In Kennett J. P. and Warnke D. A. (eds.) *The Antarctic Paleoenvironment: A Perspective on Global Change (Part 2) Antarctic Research Series*, v. 60, Amer. Geophysical Union, Washington D. C., p.265-272.
- Domack, E. W. and Ishman, S. E., 1993. Oceanographic and physiographic controls on modern sedimentation within Antarctic fjords. *Geological Society of America Bulletin*, v. 105, p. 1175-1189.
- Domack, E. W., Burkley, L. A., Domack, C. R., and Banks, M. R., 1993. Facies analysis of glacial marine pebbly mudstones in the Tasmania Basin: implications for regional paleoclimates during the Late Paleozoic. In, Findlay, Unrug, Banks, and Veevers (Eds.) *Gondwana Eight*, Balkema, Rotterdam, p. 471-484.
- Fitzsimons, S. J., and Domack, E. W., 1993. Evidence for Early Holocene deglaciation of the Vestfold Hills, east Antarctica. *The Polar Record*, v. 29, p. 237-240.
- Domack, E. W., Jull, A. J. T., and Nakao, 1991. Advance of East Antarctic outlet glaciers during the hypsithermal: implications for the volume state of the Antarctic Ice Sheet under global warming, *Geology*, 19, 1059-1062.
- Domack, E. W., Jull, A. J. T., and Donahue, D. J., 1991. Holocene chronology for the unconsolidated sediments at Hole 740A: Prydz Bay, East Antarctica, In: Barron, J., Larsen, B. et al., Proceedings ODP, *Scientific Results*, 119, College Station, TX (Ocean Drilling Program).
- Domack, E. W., Jull, A. T. J., Anderson, J. B., and Linick, T. W., 1991. Mid-Holocene ice-sheet recession from the Wilkes Land continental shelf, East Antarctica. In: Thompson, M. R. A., Crame, J. A., and Thomson, J. W., (eds.) *Geological Evolution of Antarctica*. Cambridge University Press, Cambridge, England, pp. 693-698.
- Domack, E. W., and Williams, C. R., 1990. Fine-structure and suspended sediment transport in three Antarctic fjords. *Antarctic Research Series*, American Geophysical Union, 50, 71-89.
- Domack, E. W., 1990. Laminated terrigenous sediments from the Antarctic Peninsula: the role of subglacial and marine processes. In: Dowdeswell, J. A., and Scourse, J., D. (eds.) *Glacimarine Environments: Processes and Sediments*. Geological Society of London, Special Publication, No. 53, pp. 91-104.
- Domack, E. W., Jull, A. T. J., Anderson, J. B., Williams, C. R., and Linick, T. W., 1989. Application of tandem accelerator mass-spectrometer dating to late Pleistocene-Holocene sediments of the East Antarctic continental shelf. *Quaternary Research*, v. 31, p. 277-287.
- Domack, E. W., 1988. Biogenic facies in the Antarctic glacimarine environment: basis for a polar glacimarine summary. *Paleogeography, Paleoclimatology, Paleocology*, 63, 357-372.
- Domack, E. W., 1987. Preliminary stratigraphy for a portion of the Wilkes Land continental shelf; evidence from till provenance. In, Eittrheim, S. L., and Hampton, M. A., (eds.). *The Antarctic Continental Margin: Geology and Geophysics of Offshore Wilkes Land*. Circum-Pacific Council for Energy and Mineral Resources, v. 5A: Houston, Texas, pp. 195-204.
- Domack, E. W., and Lawson, D. E., 1985. Pebble fabric in an ice-rafted diamicton. *Journal of Geology*, 93, p. 577-591.
- Dunbar, R. B., Anderson, J. B., Domack, E. W., and Jacobs, S. S., 1985. Oceanographic influences on sedimentation along the Antarctic continental shelf. In: S. S. Jacobs (ed) *Oceanology of the Antarctic Continental Shelf, Antarctic Research Series*, 43, American Geophysical Union, Washington, D. C., pp. 291-312.
- Domack, E. W., 1984. Rhythmically bedded glaciomarine sediments on Whidbey Island, Washington. *Jour. of Sedimentary Petrology*, 54, p. 589-602.
- Domack, E. W., and Anderson, J. B., 1983. Marine geology of the George V continental margin: combined results of Deep Freeze 1979 and the 1911-1914 Australasian expedition. In Jago, J. B. (ed), *Antarctic Earth Science*, Fourth International Symposium on Antarctic Earth Sciences, Adelaide, Australia, pp. 402-406.
- Domack, E. W., 1983. Facies of Late Pleistocene glacial-marine sediments on Whidbey Island Washington: an isostatic glacial marine sequence, In: Molnia, B. (ed), *Glacial-Marine Sediments*, Plenum Press, New York, pp. 535-570.
- Anderson, J. B., Brake, C., Domack, E. W., Meyers, N. 1983. Sedimentary dynamics of the Antarctic continental shelf. In: Jago, J. B., (ed.) *Antarctic Earth Science*, Fourth International Symposium on Antarctic Earth Sciences, Adelaide, Australia, pp. 387-389.
- Anderson, J. B., and others, 1983. Antarctic glacial-marine sedimentation. In: Molnia, B. (ed) *Glacial-Marine Sediments*, Plenum Press, New York, pp. 233-264.
- Domack, E. W., 1982. Sedimentology of glacial and glacial marine deposits on the George V -Adelie continental shelf, East Antarctica, *Boreas*, 11, 79-97.
- Anderson, J. B., Kurtz, D. D., and Domack, E. W., 1981. Cenozoic glacial marine sediments: Bellingshausen Sea, George V Coast, Weddell Sea, Antarctica, In: Hambrey, M. J., and Harland, W. B., (eds.) *The Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, England, pp. 196-198.
- Domack, E. W., Anderson, J. B., and Kurtz, D. D., 1980. Clast shape as an indicator of transport and depositional mechanisms in glacial marine sediments: George V continental shelf, Antarctica. *Journal of Sedimentary Petrology*, 50, 813-820.

- Domack, E. W., Fairchild, W. W., and Anderson, J. B., 1980. Lower Cretaceous sediment from the East Antarctic continental shelf. *Nature*, 287, 625-626.
- Anderson, J. B., Kurtz, D. D., Domack, E. W., and Balshaw, K. M., 1980. Glacial and glacial marine sediments of the Antarctic continental shelf. *Journal of Geology*, 88, 399-414.
- Anderson, J. B., Domack, E. W., and Kurtz, D. D., 1980. Observations of sediment laden icebergs in Antarctic waters: implications to glacial erosion and transport, *Journal of Glaciology*, 25, p. 387-396.

PRESENTATIONS AT AGU AND GSA (2003-2006)

* STUDENT PAPERS

- Shevenell, A., Ingalls, A., Domack, E. W., Emerson, S., 2006. Atmospheric forcing of Holocene climate variability along the western Antarctic Peninsula: novel insights from the TEX86 paleotemperature record of Palmer Deep. *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract PP21D-08
- *Mueller, R. D., Padman, L., Domack, E. W., Huber, B., Willmott, V., Leventer, A., Brachfeld, S., 2006. Ocean/Ice-Shelf interactions around collapsing Antarctic Peninsula Ice Shelves, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract C41C-0346
- *Day, M. B., Domack, E. W., Rosenheim, B. E., Hayes, J. M., 2006. Radiocarbon studies of organic carbon in Antarctic ice-shelf sediments, Geological Society America, Abstracts with Programs, 38, p. 50. **(INVITED)**
- *Roe, K. M., Sylva, S., Domack, E. W., 2006. Particulate carbon distribution and composition beneath ice shelves, examples from the Larsen system, Antarctica. Geological Society America, Abstracts with Programs, 38, p. 482.
- Domack, E. W., Brachfeld, S., Gilbert, R., Halverson, G., Huber, B., Ishman, S., Leventer, A., Rathburn, A., Rebesco, M., Willmott, V., 2006. Deep access to the Larsen Ice Shelf-B embayment: an international geologic and geophysical expedition (NB Palmer 2006-3). Geological Society America, Abstracts with Programs, 38, p. 72.
- *Willmott, V., Parent, A., Domack, E. W., Rebesco, M., Zgur, F., 2006. Chirp acoustic facies from the former Larsen B area, north western Weddell Sea, Geological Society America, Abstracts with Programs, 38, p. 229.
- *Mention, A. R., Domack, E. W., Huber, B., Leventer, A., Brachfeld, S., Padman, L. 2006. Transport of suspended particulate material by ice shelf water cold tongues: a new observation from the Spillane Fjord (Crane Glacier), Antarctica. Geological Society America, Abstracts with Programs, 38, p. 229.
- Domack, E., Sedwick, P., McMurtry, G., Schrum*, H., Hayes, J., and Zoppi, U. (2006) Temporal resolution and geochronology of Holocene sediment records from the Antarctic continental shelf and adjacent fjords. *Eos Trans. AGU*, 87 (36) Ocean Sci. Meet. Suppl. Abstract, OS25H-06.
- *Schrum, H. N., Hayes, J. M., Domack, E. W., (2006) Refining the radiocarbon dating of Antarctic marine sediment via stepped combustion, *Eos Trans. AGU*, 87 (36) Ocean Sci. Meet. Suppl. Abstract OS25Q-12.
- *Willmott, V., Domack, E. W., Canals, M., (2006) Marine productivity and terrigenous supply in Holocene sediments from the Antarctic Peninsula, a geochemical and sedimentologic approach, *Eos Trans. AGU*, 87 (36) Ocean Sci. Meet. Suppl. Abstract OS25H-07
- Leventer, A., Olson, C., Domack, E., Dunbar, R., Taylor, F., (2006) Coherence of Southern Ocean floral response to Holocene climate change. *Eos Trans. AGU*, 87 (36) Ocean Sci. Meet. Suppl. Abstract OS25H-08.
- Hoffman, P. F., Domack, E. W., Maloof, A. C., and Halverson, G. P., (2006) Falsifying the sikussak-oasis hypothesis for the Tillite Group, East Greenland: implications for Trezona-like carbon isotope excursions beneath Neoproterozoic glacials. *Eos Trans. AGU*, 87(36), Jt. Assem. Suppl., Abstract U51A-05 **(INVITED)**
- Das, S.B. and Domack, E.W. (2005), Siple Dome vs Palmer Deep: Resolving a Dichotomy in Antarctic Holocene Paleoenvironmental Records from Marine Sediments and Ice Cores, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP41A-0628
- Domack, E. W. and Leventer, A. (2005), Response of the Antarctic Ice Sheet Periphery to Late Pleistocene MWP-1a Event: Sedimentologic, Geomorphologic, and Chronologic Evidence, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract C11B-07
- Huber, B., Domack, E.W., Padman, L. (2005), Oceanographic Conditions at the Larsen B Ice Shelf Front Before and After the 2002 Breakout, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract C21B-1102
- Ishman, S., Prentice, M., McCallum, M., Leventer, A., Domack, E.W. (2005), Biogenic and Stable Isotopic Evidence for Holocene Stability of the Larsen-B Ice Shelf, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract C21B-1101
- Leventer, A., Domack, E.W., Ishman, S., Sylva, S., Willmott, V., Huber, B., Padman, L. (2005), Chemotrophic Ecosystem Beneath the Larsen Ice Shelf, Antarctica, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract C12B-08 **INVITED**
- Leventer, A., Domack, E.W., Ishman, S., Willmott, V., Smith, J., Huber, B., Brachfeld, S., Gilbert, R., Padman, L. (2005), What Lay Beneath the Larsen B Ice Shelf: Results of the First Survey of a Large Modern Sub Ice Shelf Deposystem, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract C21B-1103

- *Patterson, M., Leventer, A., Drake*, A., Domack, E.W., Buffen, A., Ishman, S., Szymcek, P., Brachfeld, S., Backman, E. (2005), Mid Holocene Warmth in the Antarctic Peninsula: evidence from the Vega Drift, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP41A-0629
- *Perez, R.B., Brachfeld, S., Gorrying, M., Leventer, A., Maritz, A., Domack, E.W., Ishman, S., Gilbert, R. (2005), Geochemical and rock-magnetic analyses of kasten cores from the Joinville-d'Urville Trough, Northeastern Antarctic Peninsula: Results and correlation with the Western Antarctic Peninsula, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP41A-0624
- *Quinones, G., Brachfeld, S., Gorrying, M., Prezant, R.S., Domack, E.W. (2005), A Benthic Invertebrate Survey of Jun Jaegyu Volcano: An active undersea volcano in Antarctic Sound, Antarctica, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP41A-0636
- *Willmott, V., Domack, E.W., Canals, M. (2005), Correlation of Holocene Paleoenvironmental Events Across the Antarctic Peninsula, a Marine Sedimentary Perspective, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP41A-0627
- *Draucker, S., Berger, G.W., Gilbert, R., Domack, E.W. (2004), Luminescence Dating Tests of Detrital Grains From Sediment Traps, Andvord Bay and Brialmont Cove, Antarctic Peninsula, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract PP54A-07
- *Hatfield, A., Bailey, D., Domack, E.W., Brachfeld, S., Gilbert, R., Ishman, S., Krahnmann, G., Leventer, A. (2004), Jun Jaegyu Volcano: A Recently Discovered Alkali Basalt Volcano in Antarctic Sound, Antarctica, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract T11A-1248
- *Kirkwood, G., Domack, E.W., Brachfeld, S. (2004), Solar vs. Tidal Forcing of Centennial to Decadal Scale Variability in Marine Sedimentary Records from the Western Antarctic Peninsula, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract PP51E-1360 (**AGU OUTSTANDING STUDENT PAPER AWARD**)
- *Schrum, H., Domack, E.W., DeSantis, L., Leventer, A., McMullen, K., Escutia, C. (2004), A Glimpse at Late Mesozoic to Early Tertiary Offshore Stratigraphy from Wilkes Land, East Antarctica: Results of Strategic Dredging of the Mertz-Ninnis Trough, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract PP51E-1359
- *Bachman, E., Domack, E.W. (2003), Depositional Architecture and Seafloor Mapping of the Vega Drift, Erebus and Terror Gulf, Antarctic Peninsula, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract PP31B-0256
- *Chapman, G.E., Kanfoush, S.L., Domack, E.W. (2004), Fine sediment in ODP Site 1094 (South Atlantic); eolian versus hemipelagic determination, Geological Society of America, Northeastern Section, 38th annual meeting; Geological Society of America, Southeastern Section, 53rd annual meeting, Abstracts with Programs - Geological Society of America, 36, no. 2 (200403): 154
- *McCallum, S.D., Ishman, S.E., Domack, E.W. (2003), Recent benthic foraminiferal distributions associated with the collapse of the Larsen-B ice shelf, Geological Society of America, North-Central Section, 37th annual meeting, Abstracts with Programs - Geological Society of America, 35, no. 2 (200302): 53
- *Hiscott, E.C., Domack, E.W., Rayne, T.W., Tchakirides, T.T. (2000), Paleoenvironmental development of eastern shoreline of Oneida Lake; evidence from surficial mapping and shallow geophysics, Geological Society of America, Northeastern Section, 35th annual meeting, Abstracts with Programs - Geological Society of America, 32, no. 1 (200002): 24-25

Student Theses Supervised

I have supervised 123 undergraduate student senior theses since 1988
 3 on Oneida Lake problems, 3 on local Quaternary problems, 1 on Tasmania project, 114 on Antarctic or Southern Ocean problems, 2 on geoarchaeology problems of the great basin
 Six of these have resulted in student first author publications in peer reviewed literature

Review or Committee Panel for Graduate Degrees at other Institutions

Duane White, Macquarie University, 2006
 Andrew Jones, University of Queensland, 2003
 Dennis Franklin, University of Tasmania, 1997.
 Rob Wellner, Syracuse University, 1989
 Scott Ishman, Ohio State University, 1986