

CURRICULUM VITAE

JOHN M. MELACK

Bren School of Environmental Science and Management, and
Department of Ecology, Evolution and Marine Biology
University of California
Santa Barbara, CA 93106
805-893-4339 or -3879 (805-893-7612, fax)
melack@lifesci.ucsb.edu

Education:

A.B.	Cornell University, Ithaca, NY	1969	Biological Sciences
Ph.D.	Duke University, Durham, NC	1976	Zoology (Limnology)

Professional Employment:

1987 - present	Professor, University of California, Santa Barbara
1982 - 1987	Associate Professor, University of California, Santa Barbara
1977 - 1982	Assistant Professor, University of California, Santa Barbara
1977	Postdoctoral Fellow, University of Michigan

Awards:

Elected Fellow, American Association for the Advancement of Science
Gleddon Fellow, University of Western Australia
NSF Energy-related Postdoctoral Fellowship

Selected Service to Professional Societies:

U.S. National Representative (elected to series of 3 year terms),
International Society of Limnology (1992 - present)
Chair and Member, Conservation Committee,
International Society of Limnology (1987- 2003)
Member, Water Quality Committee of Hydrology Section,
American Geophysical Union (1996 - present)
Editor and Member of Board, International Society of Salt Lake Research (2003- 2006)
President (elected), International Society of Salt Lake Research (1999 - 2002)
Board of Directors (elected), American Society of Limnology and Oceanography (1999 -
2002)

Editorial Service:

Editorial Board, Biogeochemistry (2003 – present)
Editorial Board, Hydrobiologia (1985-present)
Advisory Board, Internationale Revue der gesamten Hydrobiologie (1995 - present)
Editorial Board, Ecological Applications (1999 - 2002)
Deputy Editor, Water Resources Research (2000-2002)
Special Topics Editor, Limnology and Oceanography (1995-1998)
Editor, Saline Lakes. Developments in Hydrobiology volumes 44 and 162
Co-Editor, Special Issue of Limnology and Oceanography dedicated to Peter Kilham

Reviewer of manuscripts (selected from over 50 journals):
Science, Nature, Ecology, PNAS, Ecological Monographs, Limnology and Oceanography, Ecological Applications, Ecosystems, Aquatic Sciences, Transactions of American Fisheries Society, Hydrobiologia, Journal of Phycology, Canadian Journal of Fisheries and Aquatic Sciences, American Naturalist, Water Resources Research, Biogeochemistry, Biotropica, Journal of Geophysical Research, Lake and Reservoir Management, Water, Air and Soil Pollution, Environmental Science and Technology, Archiv fur Hydrobiologie, Journal of the North American Benthological Society, Global Biogeochemical Cycles, Climate Change, Estuaries, Conservation Ecology, Remote Sensing of Environment, Australian Journal of Ecology, Australian Journal of Marine and Freshwater Research, Restoration Ecology, Global Change Biology

Selected Professional Activity

Co-convenor, Societas Internationalis Limnologiae, Workshop on African Limnology, Phytoplankton and primary productivity and Saline lakes groups, Nairobi, Kenya. 1979.

Invited participant, NSF sponsored workshop on carbon transport and processing in the Amazon Basin, Friday Harbor, Washington. 1980.

Invited speaker, Public Hearing for Kapiloff Acid Deposition Bill, San Francisco, California. 1980.

Invited participant, U.S. Geological Survey - National Parks Water Quality Program, Sequoia and Yosemite National Parks, California. 1981.

Expert witness to California Assembly Committee on Water, Parks and Wildlife at Public Hearing - The Future of Mono Lake, Sacramento. 1981.

Member, AIBS Review Panel for proposals submitted to NASA's Global Biology Program, Washington, D.C. 1983 - 84.

Invited participant, Planetary Biology Committee's (Space Science Board) Workshop to write Towards a Science of the Biosphere under auspices of NAS/NRC, 1983.

Member, Science and Mission Requirements Working Group for NASA's System Z, a permanent, adaptable, space facility for scientific study of the earth in the 1990s, Washington, D.C. 1983-84.

Invited speaker and rapporteur, Symposium on Savanna and Woodland Ecosystems in Tropical America and Africa, Brasilia, Brazil. 1983.

Invited speaker and participant, International Workshop on Transport of Carbon and Minerals in Major World Rivers. Caracas, Venezuela. 1984.

Invited speaker, Mono Lake: Beyond the Public Trust Doctrine - Public Policy Program, UCLA. Los Angeles. 1984.

Member, Science Steering Committee for NASA's Earth Observing System, Washington, D.C. 1984-87.

Organizer and Chairman of Third International Symposium on Inland Saline Waters, Nairobi, Kenya. 1985.

Member, EPA National Surface Water Survey: Eastern Lake Survey - Phase II, Peer Review Panel. 1985.

Member, Imaging Spectrometer Science Advisory Group, Jet Propulsion Lab (NASA). 1985-87.

Member, National Academy of Science - Mono Basin Ecosystem Study Committee. 1985-87.

Invited participant and speaker. Workshop on Ecological Principles for Watershed Management, East-West Center, Honolulu, Hawaii. 1986.

Invited participant and group leader. Basic issues in Great Lakes research. NSF (ocean sciences) sponsored workshop. Kellogg Biological Station, Michigan. 1986.

Invited contributor. Regional Case Studies, EPA sponsored project for National Acid Precipitation Assessment Program. 1986-1989.

Invited participant. Complex interactions in lake communities. NSF (ecology) sponsored workshop. Notre Dame, Indiana. 1987.

Invited participant. Factors controlling community structure and function in tropical versus temperate streams. NSF (ecology) sponsored workshop. Flathead Lake Biological Station, Montana. 1987.

Visiting scientist. Centers for Water Research, Environmental Fluid Dynamics and Limnological Modeling, University of Western Australia, Perth, Australia. 1987-88.

Invited plenary speaker. Second Symposium on International Satellite Land Surface Climatology Project, Niamey, Niger. 1988.

Invited plenary speaker. Second Congress of Brazilian Limnology, Cuiaba, Brazil. 1988. (presentation in Portuguese).

Member and subpanel Chair. NASA EOS Interdisciplinary Science Peer Review Panel, Washington, D.C. 1988.

Invited speaker and participant. Lotic Ecosystem Recovery, EPA sponsored symposium. Duluth, Minnesota. 1988.

Invited participant. Workshop on Ecosystem Risk Assessment and Monitoring, National Research Council, Washington, D.C. 1989.

Member. High Resolution Imaging Spectrometer Science Team, NASA. 1989-1995.

Member. Shuttle Imaging Radar Experiment Science Team. NASA. 1989-1998.

Invited participant. Cary Conference on Comparative Analyses of Ecosystems: Patterns, Mechanisms and Theories, Institute of Ecosystem Studies, Millbrook, N.Y. 1989.

Member. EPA Direct/Delayed Response Project. Peer Review Panel. Corvallis, OR. 1989.

Invited speaker and participant. Implementation group for lake studies of US/USSR. Earth Sciences Joint Working Group. Leningrad, USSR. 1989.

Invited plenary speaker. Troubled waters of the greenhouse Earth. NABS-EPA-NASA symposium. Blacksburg, Virginia. 1990.

Co-organizer, Special Symposium - A tribute to Peter Kilham, Biology and Geology - Life at the Interface. Annual Meeting, American Society of Limnology and Oceanography, 1990.

Deputy chairperson. US/USSR Earth Sciences Joint Working Group. Leningrad, USSR. 1990.

Chairperson, Wetlands Monitoring session, International Symposium on Ecological Indicators. Ft. Lauderdale, Florida, 1990.

Invited speaker, Eutrophication of tropical waters. World Bank and SCOPE. Washington, D.C., 1990.

Invited plenary speaker, 2nd International Limnology Week. National Water Commission. Guadalajara, Mexico, 1991.

Invited speaker, Phosphorus cycles in terrestrial and aquatic ecosystems. SCOPE and UNEP. Nairobi, Kenya, 1991.

Member, Science Steering Committee. Lake Biwa Transport Experiment. Planning meetings Kyoto, Japan and Barcelona, Spain, 1992.

Invited plenary speaker, Investigators' Working Group of NASA's EOS Program. Keystone, CO, 1992.

Co-Chair, SIL Working Group on Saline Inland Waters. 1992-2001.

Member, Review Panel for proposals submitted to NASA's Sea-Viewing Wide-Field-of-View Sensor program. Washington, D.C., 1992.

Member, Review Panel for proposals submitted to EPA's Environmental Monitoring and Assessment Program, Washington, D.C., 1993

Invited speaker and chair, Phosphorus cycles in terrestrial and aquatic ecosystems. SCOPE Synthesis Meeting. Budapest, Hungary, 1993.

Co-Chair and Member, User Working Group, Oak Ridge National Laboratory-Data Active Archive Center, 1993- 1999

Invited plenary speaker, North American Benthological Society, Orlando, FL . 1994

Co-Chair, Ecology working group: Spaceborne synthetic aperture radar: current status and future directions. Report to Committee on Earth Sciences, Space Science Board, National

Academy of Sciences. 1994-1995

Invited plenary speaker, International Congress of Societas Internationalis Limnologiae, São Paulo, Brazil. 1995

Chair, Biogeochemistry Panel, and Member, Executive Committee, Investigators' Working Group of NASA's Earth Observing System. 1995 - 2000

Co-Chair, International Geosphere Biosphere Program wetlands project. 1995 - 2001

Co-Chair, Inter-American Institute workshop on experimental and time series analyses in limnology, Manitoba, Canada, and follow up activities 1996 - 1998

Invited participant, SCOPE workshop on nitrogen in terrestrial and aquatic systems, Termas do Chillan, Chile and follow up activities 1996 - 1997.

Invited participant, EPA/NASA workshop on water monitoring, remote sensing and advanced technologies, Washington, D.C., 1996

Member, NCEAS Working Group on Intrinsic and Extrinsic Variability in Community Dynamics, 1997 - 1998

Member, Expert Panel for Environmental Defense Fund on Paraguay-Pantanal Hidrovia, 1996-1997

Member, Data Information System Working Group for Large-scale Atmosphere-Biosphere Experiment in the Amazon, 1997-2000

Member, National Research Council sponsored Panel to Review the Alaska Distributed Active Archive Center, Fairbanks, Alaska, and follow up activities. 1997-1999

Chair, Review Committee for Ecotoxicology Program at UC Davis, Toxic Substances Research and Training Program, 1998

Invited plenary speaker, International Symposium of the North American Lake Management Society, Banff, Canada 1998

Member, SCOPE/NCEAS Working Group on Regional and Landscape-Scale Nitrogen Budgets, 1998 - 1999.

Invited participant, ESA workshop on Atmospheric Deposition: the Ecological Response, Washington, D.C., 1999

Co-organizer, LBA workshop on remotely sensed land surface properties, Cachoeira Paulista, Brazil, 1999

Organizer and Chairman of Seventh International Symposium on Inland Saline Waters, Death Valley, California, 1999.

Member, External Review of Centre for Water Research and Department of Environmental Engineering, University of Western Australia, Perth. 1999

Plenary speaker, International Symposium on High Mountain Lakes and Streams, Innsbruck, Austria, 2000

External Reviewer, Global Change program, Oak Ridge National Laboratory, 2002

Science Advisory Committee, Center for Ecological Health Research (UC Davis), 1999 – 2002

Member, Medea (Advisory group on environmental science to federal agencies), 1996 – 2003

External Reviewer, CALFED In-Delta Storage project, 2002-2003

Member, Independent Science Board, California Bay-Delta Authority's CALFED Bay-Delta Program, 2003 – 2006

Invited plenary speaker, International symposium entitled "Water: histories, cultures, ecologies", University of Western Australia, Perth, Australia, 2003

Member, Water Management Science Board, California Bay-Delta Authority's CALFED Bay-Delta Program, 2005 – 2006

Member, NRC/NAS Committee on Geophysical and Environmental Data, 1999 - 2005.

Member, Hydroecology Committee of National NEON Committee, 2005

Member, LTER Planning Committee, 2005-2006

Member, Science Advisory Panel, Land Processes-Data Active Archive Center. 1994 – present

Member, Standard Methods Committee, American Water Works Association, 1999 – present

Member, Science Steering Committee, Large-scale Atmosphere-Biosphere Experiment in the Amazon. 1996-present

Member, NCEAS working group on aquatic-terrestrial linkages in carbon dynamics, 2005 - 2008

Member, NCEAS working group on methane dynamics, 2006 - present

Member, Board of Santa Barbara Community Environmental Council, 2006 – present

Member, NCEAS working group on pelagic system dynamics, 2007 – present

Invited participant, 2nd Workshop on greenhouse status of freshwater reservoirs, Foz do Iguacu, Brazil, 2007

Plenary speaker, 11th LBA-ECO Science meeting, Salvador, Brazil, 2007

DRERIP Review Panel for conceptual models of the Bay Delta (related to CALFED), 2007

Member, Working Group on the greenhouse gas status of freshwater reservoirs (sponsored by

UNESCO, World Bank and International Hydrological Association), 2007-2009

Member, STREON science team, 2007-2009

Scientific Advisory Committee and Participant, 8th INTECOL International Wetlands Conference, Cuiaba, Brazil, July 2008

Scientific Organizing Committee and Participant, Chapman Conference on ‘Lakes and Reservoirs as Sentinels, Integrators, and Regulators of Climate Change’, Incline Village, Nevada, Sept. 2008

Scientific Committee, Session Chair and Participant, International Scientific Conference – ‘Amazon in Perspective: Integrated Science for a Sustainable Future’, Manaus, Brazil, November 2008

LTER EcoTrends Biogeochemistry working group, 2009

Panelist (invited), Seminar on Hydroelectric Power and GHG Emissions, International Hydroelectric Association World Congress, Reykavik, Iceland, June 2009

Reviewer of proposals for NSF, NASA, AIBS, California Space Institute, Universities Council on Water Resources, University-wide Energy Research Group, NOAA, DOE, MAB, EPA, NERC (U.K.), NSERC (Canada), InterAmerican Institute

Presented over 170 papers at professional meetings, universities and government laboratories.

Selected University Service:

Systemwide:

Faculty Advisor, Sierra Nevada Aquatic Research Laboratory and Valentine Reserve, Mammoth Lakes, California. 1979-present.

Member, University Committee on Research Policy (2003 – 2004)

Member, Coordinating Board for UC Water Resources Center. 1995- 2002

Member, Science Advisory Committee, EPA Center for Ecological Health Research. 1999- 2002

Member, Executive Committee of UC Toxic Substances Research and Teaching Program. 1991-1999

Campus:

Acting Dean, Bren School, 2005 and 2009

Associate Dean, Bren School, 2006-2009

Chair and Member, Advisory Committee for Institute for Computational Earth System Science. 1992-1996, 2001-present

Executive Committee, Santa Barbara Channel LTER. 2001- present

Chair, Academic Senate Council of Research and Instructional Resources, 2002-2004

Chair, Search Committee for Dean of Bren School, 2004-2005

Member, Academic Senate Executive Committee, 2002-2004

Chair and Member, Academic Senate Committee on Research. 1990-1994, 1995- 1997.

Member, Academic Senate Committee on Educational Policy and Academic Planning. 2000-2001

Member, Academic Senate Committee on Capital Projects, 1996 – 2000

Chair, Executive Committee (Bren School). 2001 - 2004
Chair, Building and Space Committee (Bren School). 1990-2003.
Chair and Member, Committee on Recruitment and Admissions (Bren School). 1999-2001
Chair, Campus Wetlands Committee. 1985-1990, 1993-2001.
Chair, Academic Development Committee for School of Environmental Science and Management. 1993 - 1994.
Chair, Chancellor's Task Force for a School of Environmental Science and Management. 1988-1991.
Member, Advisory Committee for Marine Science Institute. 1988-1995.
Member, Pacific Rim Committee. 1991-1994, 1995-1997
Member, Environmental Studies Advisory Committee. 1993-1995.

Departmental:

Chair, Section of Aquatic and Population Biology. 1989-1991.
Member, Aquatic Biology Oversight Committee. 1997-2004
Chair and Member, Academic Personnel Review Committees. 1982-present.
Graduate Advisor, Section of Aquatic and Population Biology. 1985-1987.
Education Abroad Advisor (Biology). 1970-1991, 1997
Chair and Member, Resources Committee (EEMB). 1998-2001
Faculty Search Committees
Aquatic Ecologist (Biology) 1978-1980.
Plant Ecologist (Biology) 1981-1983.
Terrestrial Remote Sensing Geographer (Geography) 1993.
Ecosystem Ecologist (Biology) 1993-1994.
Earth System Scientist and Environmental Economist (ESM) 1995
Biogeochemist, Earth System Scientist, Applied Ecologist
and Environmental Economist (ESM) 1996
Environmental Microbiologist (ESM). 1996-1997
Applied Ecologist (ESM) 1997-1998
Environmental Economist and Environmental Policy Analyst (ESM), 1998-2000
Corporate Environmental Management (ESM), 1999-2000
Ecosystem Ecologist (EEMB) 2000-2003
Freshwater Ecologist (EEMB) 2003-2004

Courses Taught:

Ecological Processes in Aquatic Environments (upper class course for Aquatic Biology majors), 1977- 2001.
Chemical and Physical Methods in Aquatic Environments (upper class lab), 1977-2000.
Biological Limnology (upper class and graduate course), 1978-1986.
Tropical Ecology (upper class and graduate course), 1987-1996.
Stream Ecology (upper class and graduate course), 1993-1995.
Graduate Seminar in Aquatic Biology, 1977-present.
Ecology of Lakes and Wetlands, 2003-2004.
Graduate Seminar in Environmental Science, 1996 - present.
Environmental Biogeochemistry (Masters of Environmental Science and Management course), 1997 - present

Supervision of Graduate Students (Chair or Co-Chair)

Petra H. Lenz, Ph.D 1982 (Research Scientist, University of Hawaii)
"Population studies on *Artemia* in Mono Lake, California" 230 p.

- Stephen G. Njuguna, Ph.D. (Univ. of Nairobi) 1983 (University of Nairobi, Nairobi, Kenya)
 “Nutrient - productivity relationships in tropical Naivasha basin lakes, Kenya” 300 p.
- John L. Stoddard, Ph.D. 1986 (Research Scientist, EPA, Corvallis, Oregon)
 “Nutritional status, microcrustacean communities and susceptibility to acid precipitation of high elevation lakes in the Sierra Nevada, California” 189 p.
- Lance F.W. Lesack, Ph.D. 1988 (Professor, Simon Fraser University, British Columbia, Canada)
 “Mass balance of nutrients, major solutes and water in an Amazon floodplain lake and its biogeochemical implications for the Amazon basin” 494 p.
- Mark W. Williams, Ph.D. 1991 (Professor, University of Colorado Boulder)
 “Hydrologic and geochemical controls on the hydrochemistry of a seasonally snow-covered basin: the Emerald Lake watershed, Sierra Nevada, California” 185 p.
- Robert S. Jellison, Ph.D. 1992 (Associate Research Biologist, Sierra Nevada Aquatic Research Laboratory)
 “Limnology of hypersaline Mono Lake, California, during the onset, persistence and breakdown of meromixis” 247 p.
- Yong Wang, Ph.D. 1992. (Professor, University of North Carolina, Greensboro)
 “Radar backscatter modeling and applications in forested environments“ 94p.
- Diana L. Engle, Ph.D. 1993 (Environmental Consultant, Larry Walker Associates)
 "Effects of sediment and nutrient inputs on seston dynamics and epiphytic algae and aquatic invertebrates of floating meadows" 260 p.
- Stephen K. Hamilton, Ph.D. 1994 (Professor, Kellogg Biological Station, Michigan State University)
 “Aquatic biogeochemistry of the Orinoco River floodplain (Venezuela) and the Pantanal wetland (Brazil)” 236 p.
- Solange Filoso, Ph.D. 1996 (Research Scientist, University of Maryland)
 “Throughfall and aquatic biogeochemistry in the Anavilhanas Archipelago, Negro River, Brazil” 197 p.
- Dalton Valeriano, Ph.D. 1996 (Research Scientist, Brazilian Space Institute (INPE))
 “Relationship between tropical forest structure and remotely sensed synthetic aperture radar data” 148 p.
- Jose Romero, Ph.D. 1996 (Environmental Consultant, Perth, Western Australia)
 “Stratification and mixing in hypersaline Mono Lake, California” 238 p.
- Michael R. Williams, Ph.D. 1997 (Staff Researcher, EPA Chesapeake Bay Program)
 “Sources of solutes in precipitation and surface runoff of mixed-conifer and alpine catchments in the Sierra Nevada, California” 183 p.
- Tim Hovanec, Ph.D. 1998 (Director of Aquatic Research, Aquaria, Inc., Moorpark, CA)
 “Characterization of the nitrifying bacteria in aquaria and Mono Lake, California, using molecular methods” 183 p.

- Osni de Sousa, Ph.D. 1998. (Research Scientist, EMBRAPA, Brazil; deceased)
 "Sediment transport and geomorphology of the Taquari River, Pantanal" 135 p.
- Jeff Chambers, Ph.D. 1998. (Associate Professor, Tulane University)
 "The role of large wood in the carbon cycle of central Amazon rain forest" 117 p.
- Laura Hess, Ph.D. 1999. (Project Scientist, ICESS, UCSB)
 "Radar remote sensing of inundation and wetland vegetation."
- Al Leydecker, 2000: Ph.D. (Postdoctoral Researcher, Marine Science Institute, UCSB; retired)
 "Evaporation, episodic lake acidification, and weathering as the proximate source of silica and base cations in seasonally snow covered catchments in Sierra Nevada, California" 206 p.
- Veronique La Capra, 2000: Ph.D. (Staff Researcher, EPA, Washington, D.C.)
 "Biogeochemistry of floodplain waters in burned and unburned areas of the Pantanal wetland of Brazil" 312 p.
- Antonio Beaumord, 2000: Ph.D. (Associate Professor, Univali, Itajai, Santa Catarina, Brazil)
 "Ecology and ecomorphology of fish assemblages of the Parana-Paraguay basin in Brazil" 123 p.
- James Sickman, 2001: Ph.D. (Assistant Professor, University of California, Riverside)
 "Comparative analyses of nitrogen biogeochemistry In high elevation ecosystems" 343p.
- Kevin Taulbee, 2004: Ph.D. (Postdoctoral Fellow, EPA)
 "Effects of light and nutrients on algae and invertebrate grazers in streams" 138 p.
- Tim Robinson, 2006: Ph.D. (Biologist, Cachuma Water Authority)
 "Catchment and subcatchment scale linkages between land use and nutrient concentrations and fluxes in coastal California streams" 280 p.
- Julie Simpson, 2006: Ph.D. (Postdoctoral Fellow, Brown University)
 "The effects of natural and anthropogenic perturbations on stream primary producer communities in southern California " 249 p.
- Darcie Goodman, 2008: Ph.D. (Habitat Restoration Director, Save the Bay, San Francisco)
 "Effective estuarine management: A case study of a California estuary and its ecological and political characteristics" 358 p.
- Craig Nelson, 2008: Ph.D. (Postdoctoral Researcher, Marine Science Institute, UCSB)
 "The phenology, biogeography, and metabolism of bacteria in high-elevation lakes of the Sierra Nevada, California" 227 p.
- Steve Sadro, 2005 – present: Ph.D.
 "Landscape effects on limnological characteristics and metabolic balance of high elevation lakes of the Sierra Nevada, California"
- Victoria Minnich, 2008 – present: Ph.D.
- Conrado Rudorff, 2008 – present: Ph.D.

Blair Goodridge, 2008 – present: Ph.D.

Frank V. Setaro: M.A. 1983

“Responses of phytoplankton to experimental fertilization with nitrogen and phosphorus in an Amazon floodplain lake” 119 p.

Patricia Pinheiro, M.Sc.: (Fed. Univ. of Amazonas) 1985

“Estudio sazonal dos efeitos das adicoes de nutrientes sobre o crescimento do fitoplankton en um lago de varzeo (Lago Calado--Amazonia central)” 88 p.

Luis Rodrigues: M.A. 1986

Masters by course work.

James O. Sickman: M.A. 1991

“Planktonic primary productivity and responses of phytoplankton to acid and nutrient additions in Emerald Lake, Sierra Nevada, California” 143 p.

Suzanne Sippel: M.A. 1993

“Microwave remote sensing of inundated areas in the Amazon River floodplain, Brazil” 71 p.

Scott Coombs, M.Sc.: 2006.

“The impact of fire on hydrology and suspended sediment and nutrient export in southern California chaparral watersheds” 117 p.

Jana Carey, Mark de la Garza, Tyra Gebhard, Julie Harris and Gwen Heistand. Bren School MESM 1998

"Investigating the cumulative impacts of land use change on local wetland watersheds: Goleta and Devereux Sloughs, Santa Barbara County, California"

Joanna D.E. Athanassopoulos, James S. Dalton and Adam Fischer. Bren School MESM. 1999

"Offshore oil platform decommissioning: A comparative study of strategies and ecological, regulatory, political and economic issues involved in decommissioning planning" 123 p.

Dana L. Armanino, Jon A.G. Clemens, Chris H. Coburn, Noah P. Molotch, Stephanie A. Oakes and Jill K. Richardson. Bren School MESM 2000

“Analysis of alternative watershed management strategies for the Lauro Canyon watershed, Santa Barbara, California” 69 p.

Andrew Breibart, Robin E. Cathcart, Karin A. Didriksen and J. Lauren Everett. Bren School MESM 2001

"Mammoth groundwater extraction: A hydrological analysis of potential recharge to an eastern Sierra Nevada watershed" 160 p.

Peter Choi, Paola Gomez-Priego, Bill Sears and Alex Tuttle. Bren School MESM 2002

"Arroyo Hondo management plan"

Lisa Ackerman, Jeffrey Bannon, Achira Leophairatana and Kazuhiko Yamada. Bren School MESM 2003.

“Assessment of seawater desalination as a water supply strategy for San Diego County”

Erin Darling, Augusto Bedoya, Danny Kahn and David Beard. Bren School MESM 2004.
“Wiring the Farm: Operational practices for sustainable agriculture”

Kristi Birney, Amber Griffin, Jonathan Gwiazda, Johnny Kefauver, Takehiko Nagai and Douglas Varchol. Bren School MESM 2006.
“Potential deep-sea mining of seafloor sulfides: A case study in Papua New Guinea”

Mike Rossiter, Maya Debner, Joanne Siew, Christy Ciarametaro and Drew Beckwith. Bren School MESM 2007.
“Evaluation of rainfall-runoff relationships to inform development of an incentive program for stormwater pollution reduction in South Coast watersheds”

PUBLICATION LIST: JOHN M. MELACK

Reviewed Publications:

- 1972 Kilham, P. and J.M. Melack. Primary northupite deposition in Lake Mahega, Uganda. *Nature* 238: 123.
- Melack, J.M. and P. Kilham. Lake Mahega: a mesothermic sulphatochloride lake in western Uganda. *Afr. J. Hydrobiol. Fish.* 2: 141-150.
- 1974 Melack, J.M. and P. Kilham. Photosynthetic rates of phytoplankton in East African alkaline, saline lakes. *Limnol. Oceanogr.* 19: 743-755.
- 1976 Melack, J.M. Primary production and fish yields in tropical lakes. *Trans. Amer. Fish. Soc.* 105: 575-580.
- 1978 Melack, J.M. Morphometric, physical and chemical features of the volcanic crater lakes of western Uganda. *Arch. Hydrobiol.* 84: 430-453.
- 1979 Melack, J.M. Photosynthesis and growth of *Spirulina platensis* (Cyanophyta) in an equatorial lake (Lake Simbi, Kenya). *Limnol. Oceanogr.* 24: 753-760.
- Melack, J.M. Temporal variability of phytoplankton in tropical lakes. *Oecologia* 44: 1-7.
- Melack, J.M. Photosynthetic rates in four tropical African fresh waters. *Freshwat. Biol.* 9:555-571.
- 1980 Melack, J.M. An initial measurement of photosynthetic productivity in Lake Tanganyika. *Hydrobiologia* 72:243-247.
- Simpson, H.J., R.M. Trier, C.R. Olson, D.E. Hammond, E. Ege, L. Miller and J.M. Melack. Fallout plutonium mobility in an alkaline, saline lake. *Science* 207: 1071-1072.
- 1981 Melack, J.M. Photosynthetic activity of phytoplankton in tropical African soda lakes. Pages 71-85 In: W.D. Williams, (ed.), *Salt Lakes*. Developments in Hydrobiology 5. Dr. W. Junk, Publ. The Hague. (Also appeared in *Hydrobiologia* 81: 71-85)

- Liang, Y., J.M. Melack and J. Wang. Primary production and fish yields in Chinese ponds and lakes. *Trans. Amer. Fish. Soc.* 110: 346-350.
- Schlesinger, W.H. and J.M. Melack. Transport of organic carbon in the world's rivers. *Tellus* 33: 172-187.
- Gaudet, J.J. and J.M. Melack. Major ion chemistry in a tropical African lake basin. *Freshwat. Biol.* 11: 309-333.
- Vareschi, E., J.M. Melack and P. Kilham. Saline waters. Pages 93-102 In: J.J. Symoens, M. Burgis and J.J. Gaudet, (eds.), The Ecology and Utilization of African Inland Waters. United Nations Environmental Programme, Nairobi.
- Lemoalle, J.A., A. Adeniji, P. Compere, G.G. Ganf, J.M. Melack and J.F. Talling. Phytoplankton. Pages 37-50 In: J.J. Symoens, M. Burgis and J.J. Gaudet, (eds.), The Ecology and Utilization of African Inland Waters. United Nations Environment Programme, Nairobi.
- Melack, J.M., P. Kilham and T.R. Fisher. Responses of phytoplankton to experimental fertilization with ammonium and phosphate in an African soda lake. *Oecologia* 52: 321-326.
- 1982 MacIntyre, S. and J.M. Melack. Meromixis in an equatorial African soda lake. *Limnol. Oceanogr.* 27: 595-609.
- Melack, J.M. Photosynthetic activity and respiration in an equatorial African soda lake. *Freshwat. Biol.* 12: 381-400.
- Melack, J.M., J.L. Stoddard and D.R. Dawson. Acid precipitation and buffer capacity of lakes in the Sierra Nevada, California. Pages 465-471 In: A.J. Johnson and R.A. Clark, (eds.), *Proc. Internat. Symp. on Hydrometeorology*. Amer. Water Res. Assoc., Bethesda, MD.
- 1983 Melack, J.M. Large, deep salt lakes: a comparative limnological analysis. Pages 223-230 In: U.T. Hammer, (ed.), Saline Lakes. *Developments in Hydrobiology* 16. Dr. W. Junk Publ., The Hague (also appeared in *Hydrobiologia* 105: 223-230).
- Melack, J.M. and T.R. Fisher. Diel oxygen variations and their ecological implication in Amazon floodplain lakes. *Arch. Hydrobiol.* 98: 422-442.
- Fisher, T.R., J.M. Melack, B. Robertson, E. Hardy and L. Fernando. Vertical distribution of zooplankton and physico-chemical conditions during a 24-hour period in an Amazon floodplain lake (Lago Calado, Brazil). *Acta Amazonica* 13: 475-487.
- 1984 Livingstone, D.A. and J.M. Melack. Some lakes of subsaharan Africa. Chap. 19, pages 467-497 In: F.B. Taub, (ed.), Lake and Reservoir Ecosystems. Ecosystems of the World. v. 23, Elsevier Science Publ.
- Lesack, L.F.W., R.E. Hecky and J.M. Melack. Transport of carbon, nitrogen, phosphorus and major solutes in the Gambia River, West Africa. *Limnol. Oceanogr.* 28: 816-830.

- Talbot, M.R., D.A. Livingstone, P.C. Palmer, J. Maley, J.M. Melack, G. Delibrias and S. Gulliksin. Preliminary results from sediment cores from Lake Bosumtwi, Ghana. *Paleoecology of Africa* 16: 173-192.
- Setaro, F.V. and J.M. Melack. Responses of phytoplankton to experimental nutrient enrichment in an Amazon lake. *Limnol. Oceanogr.* 28: 972-984.
- Melack, J.M. Inland aquatic resources and biogeochemical cycles. Pages A15-A17 In: Science and Mission Requirements Working Group Report. *Earth Observing System*. NASA Tech. Memorandum 86129.
- Melack, J.M. Amazon floodplain lakes: Shape, fetch and stratification. *Verh. Internat. Verein. Limnol.* 22: 1278-1282.
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