

**W. DAVID LIDDELL
CURRICULUM VITAE**

September 1, 2003

<http://cc.usu.edu/~davel/index.html>

ADDRESS:

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ACADEMIC POSITIONS:

Department of Geology, Utah State University, Assistant Professor (Dec. 1981 - June 1986), Associate Professor (July 1986 - June 1991), Professor (July 1991 - present). Geology Graduate Program Director (Aug. 1, 2000 - present).

Department of Biology, Utah State University, Adjunct Professor (Aug. 1994 - present).

Utah State University Ecology Center Associate (1982 - present).

Department of Earth Sciences, University of New Orleans, Assistant Professor (Aug. 1979 - Dec. 1981).

EDUCATION:

UNIVERSITY DEGREE AND YEAR

University of Michigan; Ann Arbor Ph.D., Geology

(Paleoecology/Marine Ecology) 1980 Dissertation: Population variability and resource utilization patterns of Caribbean comatulid crinoids (Echinodermata).

University of Michigan; Ann Arbor M.S., Geology 1975

Thesis: Biostratigraphy and ecology of a Middle Ordovician echinoderm assemblage from Kirkfield, Ontario.

Miami University; Oxford, Ohio B.A., Zoology 1973

SOCIETY MEMBERSHIPS:

International Society for Reef Studies

Society of Economic Paleontologists and Mineralogists

Utah Geological Association

PUBLICATIONS: (* indicates student author)

Web-based Instruction -

I have developed the following site to be used as a web resource for geology educators.

Liddell, W.D. and S. L. Ohlhorst. 2000. Geologic Field Trips in Northern Utah, a Web Resource for Teachers. <http://cc.usu.edu/~sharohl/geology.html>

Articles -

- Liddell, W. D. and W.E. Avery. 2002. Temporal change in hard substrate communities 10-250m, the Bahamas. Proc. 9th Int Coral Reef Symp., Bali, Indonesia 2:1053-1058.
- Box, J. B., R. M. Dorazio and W.D. Liddell. 2002. Relationship between streambed substrate properties and freshwater mussels (*Bivalvia: Unionidae*) in coastal plain streams. J North American Benthological Society 21:253-260.
- Avery*, W.E. and W.D. Liddell. 1997. Sessile community recruitment patterns on western Atlantic shallow and deep-reef hard substrata. Proc. 8th Int. Coral Reef Symp., Panama 2:1179-1184.
- Eagan*, K.E. and W.D. Liddell. 1997. Stromatolite biostromes as bioevent horizons: An example from the Middle Cambrian Ute Formation of the Northeastern Great Basin. In Brett, C.E. and G.C. Baird (eds.), Paleontologic Events: Stratigraphic, Ecologic and Evolutionary Implications, Columbia Univ. Press:493-535.
- Liddell, W. D., W.E. Avery* and S.L. Ohlhorst. 1997. Patterns of benthic community structure, 10-250m, the Bahamas. Proc. 8th Int. Coral Reef Symp., Panama 1:437-442.
- Liddell, W.D., S.H. Wright* and C.E. Brett. 1997. Sequence stratigraphy and paleoecology of the Middle Cambrian Spence Shale in northern Utah and southern Idaho. Brigham Young Geol. Stud. 42:59-78.
- Martin, R.E., J.F. Wehmiller, S. Harris*, and W.D. Liddell. 1996. Comparative taphonomy of bivalves and foraminifera from Holocene tidal flat sediments, Bahia la Choya, Sonora, Mexico (northern Gulf of California): Taphonomic grades and temporal resolution. Paleobiology 22:80-90.
- Martin, R.E., M.S. Harris* and W.D. Liddell. 1995. Taphonomy and time- averaging of foraminiferal assemblages in Holocene tidal flat assemblages, Bahia la Choya, Sonora, Mexico (northern Gulf of California). Marine Micropaleontology 26:187-206.
- Torruco, D., M.A. Gonzalez and W.D. Liddell. 1993. Integracion ecologia de grupos funcionales en la laguna arrecifal de Alacranes, Yucatan, Mexico. Berensia 39-40:37-49.
- Kotler*, E., R.E. Martin, and W.D. Liddell. 1992. Experimental analysis of abrasion and dissolution resistance of modern reef-dwelling Foraminifera: Implications for the preservation of biogenic carbonate. Palaios 7:244-276.

- Liddell, W.D. and S.L. Ohlhorst. 1992. Ten years of disturbance and change on a Jamaican fringing reef. 7th Int. Coral Reef Symp., Guam:149- 155.
- Novak*, M.J., W.D. Liddell and D. Torruco. 1992. Sedimentology and community structure of reefs of the Yucatan Peninsula. 7th Int. Coral Reef Symp., Guam:269-276.
- Kotler*, E., R.E. Martin, and W.D. Liddell. 1991. Abrasion-resistance of modern reef-dwelling Foraminifera from Discovery Bay, Jamaica -- Implications for test preservation. Proc. Vol. Fifth Symp. Geol. of the Bahamas:125-138.
- Liddell, W.D. and S.L. Ohlhorst. 1991. Sampling of sessile organisms. In Magill's Survey of Science: Life Science Series, Pasadena, CA:2473-2479.
- Martin, R.E. and W.D. Liddell. 1991. Taphonomy of foraminifera in modern carbonate environments: Implications for the formation of foraminiferal assemblages. In S.K. Donovan (ed.), Fossilization: The Processes of Taphonomy, Belhaven Press, London:170-194.
- Liddell, W.D. 1990. Reefs. In Magill's Survey of Science: Earth Science Series, Pasadena, CA.:2158-2165.
- Martin, R.E. and W.D. Liddell. 1989. Relation of counting methods to taphonomic gradients and biofacies zonation of foraminiferal sediment assemblages. Marine Micropaleontology 15:67-89.
- Liddell, W. D., S. K. Boss*, C. V. Nelson* and R. E. Martin. 1988. Sedimentological and foraminiferal characterization of shelf and slope environments (1-234m), North Jamaica. Proc. Vol. Third Symp. on the Geology of the Bahamas:91-98.
- Liddell, W.D. and S.L. Ohlhorst. 1988. Hard substrata community patterns, 1-120m, North Jamaica. Palaios 3:413-423.
- Liddell, W.D. and S.L. Ohlhorst. 1988. Comparison of Western Atlantic coral reef communities. Proc. Sixth Int. Coral Reef Symp., Townsville, Australia 3:281-286.
- Liddell, W.D., S.L. Ohlhorst, and S.K. Boss*. 1988. The significance of Halimeda as a space-occupier and sediment-producer, 1-750m, North Jamaica. Proc. Sixth Int. Coral Reef Symp., Townsville, Australia 3:127-132.
- Martin, R.E. and W.D. Liddell. 1988. Foraminiferal biofacies on a north coast fringing reef (1-75m), Discovery Bay, Jamaica. Palaios 3: 298-314.
- Ohlhorst, S.L. and W.D. Liddell. 1988. The effect of substrata microtopography on reef community structure 60-120m. Proc. Sixth Int. Coral Reef Symp., Townsville, Australia 3:355-360.
- Ohlhorst, S.L., W.D. Liddell, R.J. Taylor and J.M. Taylor*. 1988. Evaluation of reef census techniques. Proc. Sixth Int. Coral Reef Symp., Townsville, Australia 2:319-324.
- Segars*, M.T. and W.D. Liddell. 1988. Microhabitat analyses of Silurian stromatoporoids as substrata for epibionts. Palaios 3:391-403.
- Boss*, S.K. and W.D. Liddell. 1987. Back reef and fore reef analogs in the Pleistocene of North Jamaica: Implications for facies recognition and sediment flux in fossil reefs. Palaios 2:219-228.

- Boss*, S.K. and W.D. Liddell. 1987. Patterns of sediment composition of Jamaican fringing reef facies. *Sedimentology* 34:77-87.
- Liddell, W.D. and S.L. Ohlhorst. 1987. Patterns of reef community structure, North Jamaica. *Bull. Mar. Sci.* 40:311-329.
- Liddell, W.D. and S.L. Ohlhorst. 1986. Changes in benthic community composition following the mass mortality of *Diadema* at Jamaica. *J. Exp. Mar. Biol. Ecol.* 95:1-8.
- Ohlhorst, S.L. and W.D. Liddell. 1985. Temporal patterns of zooplankton migration. In M.L. Reaka (ed.), *The Ecology of Deep and Shallow Coral Reefs*, NOAA Symp. Ser. for Undersea Res., NOAA, Rockville, MD, Vol. 3:117-128.
- Warnock, R.E. and W.D. Liddell. 1985. Oxygen consumption in two shallow-water comatulid crinoids. *J. Exp. Mar. Biol. Ecol.* 91:169-182.
- Liddell, W.D., S.L. Ohlhorst and S.K. Boss*. 1984. Community patterns on the Jamaican fore reef (15-56m). *Paleont. Americana* 54:385-389.
- Liddell, W.D., S.L. Ohlhorst and A.G. Coates. 1984. *Modern and Ancient Carbonate Environments of Jamaica*. U. of Miami Press:101 pp.
- Brett, C.E., W.D. Liddell and K. Derstler. 1983. Late Cambrian hard substrate communities from Montana/Wyoming: the oldest known hardground encrusters. *Lethaia* 16:281-289.
- Liddell, W.D. 1982. Suspension feeding by Caribbean comatulid crinoids. In J.M. Lawrence (ed), *International Echinoderm Conference, Tampa Bay, FL, Proc. Vol., A.A. Balkema, Rotterdam:33-39*
- Liddell, W.D. and C.E. Brett. 1982. Skeletal overgrowths among epizoans from the Silurian (Wenlockian) Waldron Shale. *Paleobiology* 8:67-78.
- Liddell, W.D. and S.L. Ohlhorst. 1982. Morphological and electrophoretic analyses of Caribbean comatulid crinoid populations. In J.M. Lawrence (ed), *International Echinoderm Conference, Tampa Bay, FL, Proc. Vol., A.A. Balkema, Rotterdam:173-182*.
- Liddell, W.D. and S.L. Ohlhorst. 1981. Geomorphology and community composition of two adjacent reef areas, Discovery Bay, Jamaica. *J. Mar. Res.* 39:791-804.
- Liddell, W.D. 1979. Shallow-water comatulid crinoids (Echinodermata) from Barbados, West Indies. *Can. Jour. Zool.* 57:2413-2420.
- Brett, C.E. and W.D. Liddell. 1978. Preservation and paleoecology of a Middle Ordovician hardground community. *Paleobiology* 4:329-348.

Recent Presentations and Abstracts -

I have published some sixty-five abstracts. A complete listing is available upon request. The following are some of the most recent.

- Langenburg*, E.S. and Liddell, W.D. and Dehler, C.M. 2002. Geochemistry And Sequence Stratigraphy of the Middle Cambrian Wheeler Formation: Support for Trilobite Chronostratigraphy. *Geol. Soc. Am. Abstr. w/ Prog.* 33:
- Langenburg*, E.S., Liddell, W.D., Nelson, S. and Dehler, C. 2002. High-resolution Chemostratigraphic Correlation within the Middle Cambrian Wheeler Shale. *Geol. Soc. Am. Abstr. w/ Prog.* 33:
- Liddell, W. D. and W. E. Avery*. 2000. Temporal change in hard substrate communities, 10-250m, the Bahamas. 9th Int. Coral Reef Symp., Bali, Abstr.:244.
- Rodriguez, A. and W. D. Liddell. 2000. Ecology of oil production platforms and adjacent reef areas in the Gulf of Mexico. 9th Int. Coral Reef Symp., Bali, Abstr.:246.
- Avery*, W.E. and W.D. Liddell. 1996. Sessile community recruitment patterns on Bahamian shallow and deep hard substrata. 8th Int. Coral Reef Symp., Panama, Abstr.:9.
- Liddell, W.D., W.E. Avery* and S.L. Ohlhorst. 1996. Patterns of benthic community structure, 10-250m, the Bahamas. 8th Int. Coral Reef Symp., Panama, Abstr.:117.
- Ohlhorst, S.L. and W.D. Liddell. 1996. Choosing a sampling method: Is it as simple as flipping a coin? 8th Int. Coral Reef Symp., Panama, Abstr.:148.
- Allison, P.A., C.E. Brett, W.D. Liddell and E.J. Wright*. 1995. Repetitive tapho-, bio- and lithofacies within the Middle Cambrian Swazey Limestone-Wheeler Shale transition of Utah. *Geol. Soc. Am. Abstr. w/ Prog.* 27:A-374.
- Avery*, W.E. and W.D. Liddell. 1995. Patterns of recruitment in Western Atlantic coral-reef and associated deep-reef communities. *Ecol. Soc. Am. Ann. Mtg.*, Park City, UT.
- Liddell, W.D., E.J. Wright*, S.H. Wright*, P.A. Allison, G.C. Baird and C.E. Brett. 1995. A sequence stratigraphic model for Middle Cambrian trilobite assemblages from the eastern Great Basin. *Geol. Soc. Am. Abstr. w/ Prog.* 27:A-374.
- Martin, R.E., J.F. Wehmiller, M.S. Harris* and W.D. Liddell. 1995. Taphonomic grades and temporal resolution of foraminiferal and bivalve assemblages in Holocene tidal flat sediments, Bahia La Choya, Sonora, Mexico. *Geol. Soc. Am. Abstr. w/Prog.* 27:A-135.
- Wright*, S.H., W.D. Liddell and C.E. Brett. 1995. Taphonomic signatures of fourth- and fifth-order sedimentary cycles within the Middle Cambrian Spence Shale in northeastern Utah and southeastern Idaho. *Geol. Soc. Am. Abstr. w/ Prog.* 27:61.

GRANTS:

- 2002 Ecology of PEMEX oil platforms, Southwestern Marine Zone: \$100,000 (USU portion). PEMEX, through University Nacional Autonomia de Mexico and the Artificial Reef Research Institute, Corpus Christi, TX. Approved, pending finalization of contract between USU and ARRI. (PI with W.E. Avery, S. L. Ohlhorst and A. Rodriguez).
- 1998 Science across the seasons: Promoting inquiry field experiences. Utah System of Higher Education, Eisenhower Professional Development Funds: \$12,000 (with S.L. Ohlhorst, PI).
- 1996 Evaluation of rates of change in Bahamian deep-water (30-300m) communities. National Oceanic and Atmospheric Administration: \$10,000 plus ship time and facilities use (PI with S.L. Ohlhorst and W.E. Avery).
- 1993 A model procedure for combining field studies and computer simulations to develop optimal censusing strategies for reef communities. National Oceanic and Atmospheric Administration: \$70,000 plus facilities use (Co-PI with S.L. Ohlhorst).
- 1993 Evaluation of rates of change in Bahamian deep-water (30-300m) communities. National Oceanic and Atmospheric Administration: \$35,000 plus ship time and facilities use (PI with S.L. Ohlhorst and W.E. Avery).
- 1992 Integration of digital imaging techniques in undergraduate and graduate geology courses. Course Enhancement Proposal, Office of the Provost, Utah State University: \$11,359.
- 1992 Contribution of long-term monitoring to the evaluation of changes in Jamaican reef communities. National Oceanic and Atmospheric Administration: \$15,000 (PI with S.L. Ohlhorst).
- 1990 Integrated field and laboratory studies of foraminiferal taphonomy in Quaternary carbonate and siliciclastic depositional environments. National Science Foundation #EAR-9017968: \$180,000 (Co-PI with R.E. Martin).
- 1989 Experimental analyses of foraminiferal taphonomy: Implications for the formation of foraminiferal assemblages. National Science Foundation #EAR-8815876: \$58,000 (PI with R.E. Martin).
- 1988 Distribution of living foraminifera in fringing reef environments (1-60m), North Jamaica: Implications for the formation of foraminifera thanatocoenoses. American Chemical Society #19619-B2: \$20,000.
- 1987 Quantitative analysis of coral reef community patterns on the Campeche Bank. Fulbright Research Grant: \$18,900.
- 1987 Quantitative analysis of coral reef community patterns on the Campeche Bank, Yucatan, Mexico. Utah State University Faculty Research Grant: \$3,000.
- 1986 Deep reef community patterns at Jamaica (50-130m). National Geographic Society #3429-86: \$18,000 (PI, with S.L. Ohlhorst and J.D. Woodley).

1984 Sedimentological and biological characterization of the Jamaican deep fore reef and upper island slope (60-300m): A possible analog of ancient deep-water basin-bank settings. Utah State University Faculty Research Grant: \$13,619.

1982 The dynamics of diel migratory activity of reef-dwelling demersal zooplankton. National Oceanic and Atmospheric Administration #NA82AAA01345: \$4,150 for travel costs, mission cost \$40,000 (PI, with S.L. Ohlhorst).

1982 Diel migratory behavior of demersal reef zooplankton. Lerner-Gray Fund for Marine Research (American Museum of Natural History): \$600 (PI, with S.L. Ohlhorst).

TEACHING EXPERIENCE:

<u>Undergraduate</u>	<u>Graduate</u>
History of life (evolution)	Coral reef ecology
Introductory geology - physical	Marine carbonate environments
Introductory geology - historical	Quantitative geology
Introductory field methods	Paleoecology
Geology of the world=s oceans	Graduate advisement (thesis)
Geology field excursions	
Field geology (summer field camp)	
Invertebrate paleontology	
Sedimentation and stratigraphy	

I have developed web-based instructional sites for the majority of the above courses. These are accessed at <http://cc.usu.edu/~davel/index.html>

INVITED PRESENTATIONS:

2001 Bridgerland Audubon Society, Logan, UT

1999 Great Basin Friends of Paleontology, SLC, UT

1997 Department of Geology, University of Utah

1993 Department of Biology, Utah State University

1992 Department of Geology, Idaho State University

College of Science, Utah State University

1990 Department of Geology & Geophysics, University of Utah

Utah Geological Association

Department of Fisheries and Wildlife, Utah State University

Department of Geology and Geophysics, University of New Orleans

1989 Society of Sigma Xi, Utah State University

1988 Centro de Investigacion y de Estudios Avanzados del I.P.N. Unidad, Merida, Yucatan, Mexico

- 1985 Department of Geology & Geophysics, University of Utah
Department of Geology, Brigham Young University
Centro de Investigacion y de Estudios Avanzados del I.P.N. Unidad, Merida, Yucatan,
Mexico
Ecological Society of America Symposium on Factors Affecting Coral Reef Benthic
Community Structure
- 1984 Department of Geology, Idaho State University
Centro de Investigacion y de Estudios Avanzados del I.P.N. Unidad, Merida, Yucatan,
Mexico

RECOGNITION:

Selected as the College of Science Researcher of the Year at Utah State
University, 1993.

PROFESSIONAL ACTIVITIES:

- Paleoecology and marine ecology editor for journal Ecology Letters, Blackwell, Paris
(Jan. 2000 - present).
- International - thesis committee member for PhD student from CINVESTAV, Merida,
Yucatan, Mexico (1999 - present).
- Field trip leader for Geological Society of America Annual Meeting - Sequence
stratigraphy and paleoecology of the Middle Cambrian Spence Shale in northern
Utah and southern Idaho (1997).
- Symposium organizer for Fourth North American Paleontological Convention Factors
Controlling the Composition and Diversity of Ancient and Modern Hard Substrata
Communities (1986).
- Field trip leader for Fourth International Symposium on Fossil Cnidaria Cretaceous to
Holocene Corals and Reefs of Jamaica (1983).
- Reviewer of proposals for American Chemical Society, Idaho State Board of Education,
National Geographic Society, National Science Foundation, National Oceanic and
Atmospheric Administration and Smithsonian Institution (ongoing).
- Reviewer of books or articles for Bioscience, Brigham Young University Press,
Conservation Monitoring Centre (UK), Coral Reefs, W.H. Freeman and Co.,
Historical Biology, J. of Foraminiferal Research, J. of Paleontology, MacMillan
Publishing Co., Marine Biology and Palaios (ongoing).