

Donna Lee Riley Wolcott

CURRICULUM VITAE

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Department of Marine, Earth, and Atmospheric Sciences

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From 5/15/05-6/30/05:

North Carolina State University/CMAST

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Professional Preparation

University of California, Riverside

B.A. (Biology) 1965 summa cum laude

University of California, Berkeley

Ph.D. (Zoology) 1972

Dissertation: "Effect of Li⁺ and K⁺ on protein and nucleic acid synthesis during early development in two species of sea urchin" (supported by an NDEA Graduate Fellowship).

NC State University

Post-Doctoral Trainee 1972-73

Research Interests

Physiological ecology of aquatic and terrestrial crabs. Physiological and behavioral constraints and strategies in the blue crab, Callinectes sapidus, with emphasis on reproduction, foraging, and molting. Identification, through field observation, of environmental stressors; study of morphological, behavioral, biochemical and developmental adaptations to stress. Dispersal and recruitment and its effect on population structure and life history strategies. Nitrogen excretion and limitation in decapod crustaceans.

Appointments

1998-	Research Associate	Smithsonian Environmental Research Center
1996-	Associate Professor	North Carolina State University
1994-	Director of Undergraduate Programs	Dept. Marine, Earth, and Atmospheric Sciences
1986-96	Visiting Associate Professor	North Carolina State University
1980-86	Research Associate	North Carolina State University
1974-75	Visiting Lecturer	North Carolina Central University
1971-72	Research Associate	University of California, Riverside
1965-67	Laboratory Technician	University of California, Los Angeles

Professional and Honorary Societies and Service:

AAAS

American Geophysical Union

American Society of Limnology and Oceanography

American Women in Science

The Crustacean Society

Phi Beta Kappa

Sigma Xi

Society of Comparative and Integrative Biologists (an international society spanning all phyla),
Chair, Division of Comparative Physiology and Biochemistry (largest division in SICB), 2004-6;
Secretary, Division of Invertebrate Zoology 1995-8,.

Awards

Outstanding Faculty Service Award, Multicultural Affairs, PAMS, 2006
NCSU Academy of Outstanding Teachers 2001
NC Academy of Women, Science and Technology 1997
Outstanding Faculty/Staff Service Award, PAMS, African American Affairs 1997

Institutional Service

Inter-institutional Undergraduate Curriculum Committee for Coastal Education (DUML, IMS, CMAST)
Duke University Marine Sciences Education Consortium, NCSU representative, 2003-
College of Physical and Mathematical Sciences Committee on Undergraduate Academic Affairs 1994-, Chair, 1997-98, 2004-2005.
College of Physical and Mathematical Sciences Committee on Enrollment and Scholarships 1998-
College of Physical and Mathematical Sciences Committee on Undergraduate Assessment 2003-
Panel member, National Science Foundation, Physiological Processes-1990.
Phi Beta Kappa University Application Committee-1990-to 1994 Organizational Committee co-chair, 1994-1995; Chapter President 1996-97, Executive Committee, 1999-2000
Retired Faculty Committee-1991 to 1994
Sigma Xi membership committee, 1998-2001
University Council on Undergraduate Education 1994-5
University Course and Curriculum Committee-1995-97, Chair, 1996-97
University Committee on Undergraduate Admissions 2000-

Publications

- Wolcott, D.L.** 1981. Effect of lithium and potassium ions on protein synthesis in the sea urchin. *J. exp. Cell Res.* 132:464-468.
- Wolcott, D.L.** 1982. Does protein synthesis decline in lithium-treated sea urchin embryos because RNA synthesis is inhibited? *J. exper. Cell Res.* 137:427-431.
- Wolcott, T.G., and **D.L. Wolcott**. 1982. Larval loss and spawning behavior in land crabs, *Gecarcinus lateralis* Freminville. *Journal of Crustacean Biology* 2:477-485.
- Wolcott, D.L.**, and T.G. Wolcott. 1984. Food quality and cannibalism in the red land crab, *Gecarcinus lateralis*. *Physiological Zoology* 57:318-324.
- Wolcott, T.G., and **D.L. Wolcott**. 1984. Effects of off-road vehicles on macro-invertebrates of a mid-Atlantic beach. *Biological Conservation* 28:217-240.
- Wolcott, T.G., and **D.L. Wolcott**. 1985a. Factors influencing the limits of migratory movements in terrestrial crustaceans. *In* M. A. Rankin, Ed., *Migration: Mechanisms and Adaptive Significance* (Proceedings of the University of Texas Centennial Symposium). *Contr. Mar. Sci. Univ. Texas Mar. Lab. Suppl.* 27:257-273.
- Wolcott, T.G., and **D.L. Wolcott**. 1985b. Extrarenal modification of urine for ion conservation in ghost crabs, *Ocypode quadrata* (Fabricius). *J. exp. mar. Biol. Ecol.* 91:93-107.
- Wolcott, D.L.**, and T.G. Wolcott. 1987. Nitrogen limitation in the herbivorous land crab *Cardisoma guanhumii*. *Physiological Zoology* 60:262-268. Wolcott, T. and D. Wolcott

- Wolcott, T.G., and **D.L. Wolcott**. 1988. Availability of salts is not a limiting factor for the land crab, *Gecarcinus lateralis* (Fremenville). *J. Exp. Mar. Biol. Ecol.* 121:193-207.
- Wolcott, T.G., and **D.L. Wolcott**. 1988. When limiting factors aren't: lessons from land crabs. Pages 135-151 in: *Behavioral Adaptation to Intertidal Life* (M. Vannini and G. Chelazzi, eds), Plenum Publishing, New York.
- Wolcott, T.G. and **D.L. Wolcott**. 1990. "Land grabs by land crabs". *Natural History* 10/90:46-55.
- Wolcott, T.G. and **D.L. Wolcott**. 1991. "Ion conservation by reprocessing of urine in the land crab *Gecarcinus lateralis* (Fremenville)". *Physiological Zoology* 64:344-361.
- Wolcott, D.L.** 1991 "Nitrogen excretion is enhanced during urine recycling in two species of terrestrial crab" *J. Exp. Zool.* 259:181-187.
- Wolcott, D.L.** 1991. "Integration of cellular, organismal, and ecological aspects of salt and water balance". *Memoirs of the Queensland Museum* 31:229-239. (Invited).
- Wolcott, D.L.** and N.J. O'Connor. 1992. "Herbivory in crabs: Adaptations and ecological considerations". *Amer. Zool.* 32:370-381.
- De Vries, M.C. and **D.L. Wolcott**. 1993. "Gaseous ammonia evolution is coupled to reprocessing of urine at the gills of ghost crabs". *J. Exp. Zool.* 267:97-103.
- De Vries, M.C., **D.L. Wolcott**, and C.W. Holliday. 1994. "Urine and hemolymph composition of ghost crabs, *Ocypode quadrata*". *Biol. Bull.* 186:342-348.
- Wolcott, D.L.**, and M.C. De Vries. 1994. "Offshore megalopae of *Callinectes sapidus*: Depth of collection, molt stage and response to estuarine cues". *Mar. Ecol. Prog. Ser.* 109:157-163.
- Perkins-Visser, E., T.G. Wolcott, and **D.L. Wolcott**. 1996. "Nursery role of seagrass beds: enhanced growth of juvenile blue crabs (*Callinectes sapidus*)". *J. Exp. Mar. Biol. Ecol.* 198:155-173.
- Clark, M.E., T.G. Wolcott, **D.L. Wolcott**, and A.H. Hines. 1999 "Foraging and agonistic activity co-occur in free-ranging blue crabs (*Callinectes sapidus*): observation of animals by ultrasonic telemetry." *J. Exp. Mar. Biol. Ecol.* 233:143-160.
- Wolcott, D.L.** and T.G. Wolcott. 1999 "High mortality of Piping Plovers on beaches with abundant ghost crabs: correlation, not causation." *The Wilson Bulletin* 111:321-329.
- Clark, M.E., T.G. Wolcott, **D.L. Wolcott**, and A.H. Hines. 1999 "Intraspecific interference among foraging blue crabs *Callinectes sapidus*: interactive effects of predator density and prey patch distribution." *Mar. Ecol. Prog. Ser.* 178:69-78. Clark, M.E., T.G. Wolcott, **D.L. Wolcott**, and A.H. Hines. 2000. Foraging behavior of an estuarine predator, the blue crab *Callinectes sapidus*, in a patchy environment. *Ecography* 23:21-31.
- Kendall, M., **D.L. Wolcott**, T.G. Wolcott, and A.H. Hines. 2001. "Reproductive potential of male blue crabs, *Callinectes sapidus*, in a heavily fished population: Depletion and recovery of sperm-number and seminal fluid." *Can. J. Fish. Aquat. Sci.* 58(6):1168-1177
- Wolcott, T.G., and **D.L. Wolcott**. 2001. "Role of behavior in meeting osmotic challenges." *Amer. Zool.* 41:795-806.
- Charmantier, G. and **D.L. Wolcott**. 2001. "Introduction to the symposium: ontogenetic strategies of invertebrates in aquatic environments." *Amer. Zool.* 41:1053-1056
- Kendall, M.S., **D.L. Wolcott**, T.G. Wolcott, and A.H. Hines. 2002. "Influence of male size and mating history on sperm content of ejaculates of the blue crab, *Callinectes sapidus*." *Mar. Ecol. Prog. Ser.* 230:235-240.
- Turner, H.V., **D.L. Wolcott**, T.G. Wolcott, and A.H. Hines. 2003. "Behavior and intramolt growth in post-copulatory female blue crabs." *J. Exp. Mar. Biol. Ecol.* 295:107-130.

- Hines, A.H., P.R. Jivoff, P.J. Bushmann, J. van Montfrans, S.A. Reed, **D.L. Wolcott**, and T.G. Wolcott. 2003. Evidence for sperm limitation in the blue crab, *Callinectes sapidus*. Bull. Mar. Sci. 72(2):287-310.
- Aguilar, R., A.H. Hines, T.G. Wolcott, **D.L. Wolcott**, M.A. Kramer and R.N. Lipcius. 2005. The timing and route of movement and migration of post-copulatory female blue crabs, *Callinectes sapidus* Rathbun, from the upper Chesapeake Bay. J. Exper. Mar. Biol. Ecol. 319(1-2):117-128.
- Carver, A.M., T.G. Wolcott, **D.L. Wolcott**, and A.H. Hines. 2005. Unnatural selection: Effects of a male-focused size-selective fishery on reproductive potential of a blue crab population. J. Exper. Mar. Biol. Ecol. 319(1-2):29-41.
- Wolcott, D.L.**, C.W.B. Hopkins, and T.G. Wolcott. 2005. Early events in seminal fluid and sperm storage in the female blue crab *Callinectes sapidus* Rathbun: Effects of male mating history, male size, and season. J. Exper. Mar. Biol. Ecol. 319(1-2):43-55.
- Medici, D.A., T.G. Wolcott, and **D.L. Wolcott**. 2006. Scale dependent movements and protection of female blue crabs, *Callinectes sapidus*. Can. J. Fish. Aquat. Sci. 63:858-871.

Grants and Awards

- "Osmoregulation in land crabs"; Bermuda Biological Station Exxon Fellowship; \$2300; 6/82-8/82 (T. G. Wolcott and D.L. Wolcott).
- "Mechanisms of ion conservation in terrestrial crabs"; NSF Grant PCM-83-10465; \$44,118; 11/83-10/86 (T.G. Wolcott and D.L. Wolcott.).
- "Evaluation of Larval Transport Models through Field Experiments using a Programmable, Vertically-Migrating 'Zooplankton Mimic'" (T.G. Wolcott and D.L. Wolcott with R. B. Forward Jr.--Duke Univ. Marine Lab); NSF Ocean Sciences and Instrumentation Development; 1 Nov 89 to 31 Oct 92; \$342,642 (\$302,115 to NCSU, \$40,527 to DUMI).
- "Effects of Environmental Factors on Nitrogen Excretion in Land Crabs", NSF Regulatory Biology, 15 Aug 89-14 Aug 92; \$182,491 (additional \$13,500 matching funds from NCSU).
- "Complex predator-prey interactions in marine soft-bottom communities: crabs, clams and patch dynamics", (Tom Wolcott, Anson H. Hines, and Rom Lipcius, co-PIs), NSF Ocean Sciences, 1 June 1990-31 May 93; \$160,000.
- "Elucidation of estuary ingress mechanisms for fish larvae using a vertically-migrating 'larval mimic'", (Tom Wolcott, co-PI), Cooperative Institute for Fisheries Oceanography, 12 mo., 1992-1993: \$24,264.
- "Development and testing of a soybean based bait for blue crabs", (P. Kwanyuen and R. Wilson, co-PIs), N.C. Soybean Producers Association, 24 mo., 1993-1995: \$17,044.
- "Ghost crab predation and fledging success of piping plover", (Tom Wolcott, co-PI), US Fish and Wildlife Serv. Apr. 94- Aug. 95; \$31,500.
- "Determinants of Blue Crab Mating Behavior: Experimental Analysis of Mate Location, Pair Formation and Pair Maintenance", (A. Hines, P.I., Co-PI's: T. Wolcott, D. Wolcott, P. Bushmann, and P. Jivoff). Smithsonian Scholarly Studies Program, 24 mo. 1996-1998. \$70,000.
- "Larval dynamics and water exchange at the entrance to Narragansett Bay"; T. G. Wolcott & D. L. Wolcott; NC Sea Grant R-MRD/41, \$41,626; 01 Feb 98-31 Jan 2000 (NCSU segment of regional project with S. Cobb, J. Collie and M. Clancy, Univ. of Rhode Island).
- "Sperm allocation and potential for sperm limitation in the blue crab, *Callinectes sapidus*." (Tom Wolcott and D. Wolcott) National Science Foundation, 01 July 1997-30 June 2001, \$225,000. (NCSU portion of parallel project with A. H. Hines, Smithsonian Environmental Research Center).

- “Ontogenetic strategies of invertebrates in aquatic environments” (D.L. Wolcott, PI). National Science Foundation, 15 Dec 2000-14 Dec 2001, \$3000. (Symposium support).
- “Migration of adult female blue crabs to spawning grounds: mechanisms and routes.” (T.G. Wolcott, D.L. Wolcott and A.H. Hines, co-PIs) NOAA/CBSAC, 1 Oct. 2000- 30 Sept. 2005, \$281,088.
- "Tagging of adult female blue crabs to study migration toward and use of 'spawning sanctuaries'." (T.G. Wolcott, D.L. Wolcott, R. Doxey, D. Doxey, G. Ballance, co-Pis) N.C. Sea Grant (Fisheries Resource Grant Program) 15 May 01-15 May 03, \$68,625
- “Functional Sperm Limitation in NC Blue Crabs”. D. Wolcott and T. Wolcott. NC Sea Grant. 15 May 2002-28-Feb 2004. \$44,074.
- “Functional Sperm Limitation in NC Blue Crabs—Year 2.” D. Wolcott, T. Wolcott, and E. Ballance. 15 May 2003-14 Dec. 2005. \$41,629.
- “Addressing Dormitory Needs for the Center for Marine Sciences and Technology.” D. Green, D. Wolcott, J. Morrison. NSF. \$350,000. (submitted).

Papers Presented

- Wolcott, D.L.** (invited paper) “Integration of cellular, organismal, and ecological aspects of salt and water balance.” International Crustacean Conference, Brisbane, Australia 1990.
- Wolcott, D.L.** (invited paper) “Herbivory in crabs: adaptations and ecological considerations.” American Society of Zoologists, San Antonio, TX 1990
- Wolcott, D.L.**, and M. DeVries. “Nitrogenous excretory products and routes of excretion in two species of terrestrial crabs.” American Society of Zoologists, Atlanta, GA 1991.
- DeVries, M. and **D.L. Wolcott**. “High ammonia concentrations in urine of ghost crabs.” American Society of Zoologists, Atlanta, 1991.
- Wolcott, D.L.** “Estuarine cues enhance progress to juvenile stage in offshore blue crab megalopae.” Duke/UNC Oceanographic Symposium, 1993.
- Wolcott, D.L.**, and T.G. Wolcott. (invited talk) “Contribution of the ghost crab to poor fledging success by Piping Plover on an ocean beach.” Atlantic Coast Recovery Unit, US Fish and Wildlife, Chincoteague, VA 1995.
- Wolcott, T.G. and **D.L. Wolcott**. Electronic voyeurism among blue crabs: have the guys got what the gals want? Duke/UNC Oceanographic Consortium Symposium. Fall, 1996.
- Gavin, J.C., **D.L. Wolcott**, T.G. Wolcott. Blue crab mating behavior: do intimate relationships make scents? Marine Benthic Ecology Meetings, SC 1997.
- Wolcott, T.G. and **D.L. Wolcott**. Estuarine export and ingress of larvae: tests with larval mimics. Society of Integrative and Comparative Biology. Jan. 1998.
- Wolcott, D.L.** and A.H. Hines. Developmental shift in the relative role of structure vs. chemical cues in the decision of crustacean postlarvae to settle onto larval collectors. Marine Benthic Ecology Meetings, 1998.
- Wolcott, T.G. and **D.L. Wolcott**. Estuaries squirt, estuaries suck: transport of “larval mimics” through tidal inlets. Marine Benthic Ecology Meetings. Melbourne, FL. March 1998.
- Wolcott, T.G. and **D.L. Wolcott**. Ins and outs of inlets: investigating mechanisms of larval export and reinvasion using “Larval Mimics”. South Eastern Coastal Ocean Research Conference, Savannah, GA 1998.
- Wolcott, T.G. and **D.L. Wolcott**. Plankton mimics: from real organisms in artificial environments to artificial organisms in real environments. AGU meetings, Fall 1998.

- Wolcott, D.L.** Ocean-going experience as an adjunct to undergraduate education in marine sciences: report on NCSU's first year. Duke/UNC Oceanographic Consortium Symposium. 1998.
- Wolcott, D.L.**, P. Bushmann, A.H. Hines, and T.G. Wolcott. Direct counts of blue crab sperm reveal variation in numbers of sperm per unit weight of seminal material transferred at mating. Society of Integrative and Comparative Biology. Jan. 1999.
- Wolcott, T.G., **D.L. Wolcott** and D. Kamykowski. Use of "plankton mimics" to explore the role of vertical migration in dinoflagellate bloom dynamics. Society of Integrative and Comparative Biology. Jan. 1999.
- Wolcott, D.L.**, P. Bushmann, A.H. Hines, and T.G. Wolcott. Direct counts of blue crab sperm reveal variation in numbers of sperm per unit weight of seminal material transferred at mating. Marine Benthic Ecology Meetings, Baton Rouge, LA. March 1999.
- Turner, Heather V., **D.L. Wolcott**, and T.G. Wolcott. Telemetry and finicky females: behavioral patterns of post-copulatory female blue crabs. Marine Benthic Ecology Meetings, March 1999.
- Kendall, M., **D.L. Wolcott**, and T.G. Wolcott. Sex, size, fidelity, and sterility: effect of male size and mating history on ejaculate size and sperm limitation. Marine Benthic Ecology Meetings, March 1999.
- Wolcott, T. G., and **D.L. Wolcott**. The role of plant and animal "behavior" in confronting osmotic challenges. Invited paper for Society of Integrative and Comparative Biology, Jan. 2000 symposium, "Osmoregulation: an integrated approach". Atlanta, Jan. 2000.
- Wolcott, D.L.**, A.H. Hines, Matt Kendall, and Wynne Bost. Potential for sperm limitation in the blue crab: taking the theory to the field. Duke/UNC Oceanographic Consortium Symposium. 1999.
- Wolcott, D.L.**, A.H. Hines, J. vanMontfrans, and P.R. Jivoff. Temporal and spatial patterns of sperm stores in females blue crabs, *Callinectes sapidus*, in the Chesapeake Bay. Blue Crab Symposium. Wilmington, NC 2000
- Hines, A.H., P.J. Jivoff, P.J. Bushmann, **D.L. Wolcott**, J. vanMonfrans, S. Reed, and T.G. Wolcott. Evidence for sperm limitation in blue crabs. Blue Crab Symposium. Wilmington, NC 2000
- Motz, Adina M., **D.L. Wolcott**, and T.G. Wolcott. Operational sex ratio and sperm limitation of the blue crab, *Callinectes sapidus*. Blue Crab Symposium. Wilmington, NC 2000.
- Hopkins, Wynne Bost, **D.L. Wolcott**, A.H. Hines. Viability of stored sperm in the spermathecae of the blue crab, *Callinectes sapidus*. Blue Crab Symposium. Wilmington, NC 2000.
- Hines, A.H., J. Freire, T.G. Wolcott, G.M. Ruiz, and **D.L. Wolcott**. Cannibalism drives ontogenetic shifts in movement and habitat utilization of blue crabs. Blue Crab Symposium. Wilmington, NC 2000.
- Turner, Heather V., **D.L. Wolcott**, and T.G. Wolcott. (Biotelemetry on the Bay) Behavioral patterns of post-copulatory female blue crabs, *Callinectes sapidus*, in the Chesapeake Bay. Blue Crab Symposium. Wilmington, NC 2000.
- Clark, Mary E., T.G. Wolcott, **D.L. Wolcott**, and A.H. Hines. Interactive effects of predator density and prey patch distribution on the foraging behavior of blue crabs, *Callinectes sapidus*. Blue Crab Symposium. Wilmington, NC 2000.
- Charmantier, Guy, and **D.L. Wolcott**. Introduction to the symposium: Ontogenetic strategies of invertebrates in aquatic environments. Society of Integrative and Comparative Biology. Chicago, IL. Jan. 2001
- Motz, A.M.; T. G. Wolcott, **D.L. Wolcott**, and A.H. Hines. Sperm Limitation and Operational Sex Ratio in Blue Crabs. Society of Integrative and Comparative Biology. Chicago, IL. Jan. 2001

- Hopkins, Wynne B., **D.L. Wolcott**, T.G. Wolcott, and A.H. Hines. Variability of stored sperm in the spermathecae of the female blue crab, *Callinectes sapidus*. Marine Benthic Ecology Meetings. Durham, NH. March 2001.
- Wolcott, D.L.**, A.H. Hines, J. vanMontfrans, and P.R. Jivoff. Temporal and spatial patterns of sperm stores in female blue crabs, *Callinectes sapidus*. Marine Benthic Ecology Meetings. Durham, NH. March 2001.
- Wolcott, T.G., A.M. Motz, **D.L. Wolcott**, and A.H. Hines. Electronic voyeurism and the spectre of sperm limitation in blue crabs. Marine Benthic Ecology Meetings. Durham, NH. March 2001.
- Wolcott, D.L.** "Sperm limitation in blue crabs: red herring or red flag?" Duke/UNC Oceanographic Consortium Symposium. Nov. 16-17, 2001.
- Wolcott, D.L.**, A.M. Carver, T.G. Wolcott, and A.H. Hines. "Fishing pressure and the blue crab, *Callinectes sapidus*: reproductive consequences." Marine Benthic Ecology Meetings. Orlando, FL. 21-24 March 2002.
- Wolcott, D.L.**, and T.G. Wolcott. "Potential fecundity of female blue crabs, *Callinectes sapidus*: brood fertility and sperm stores in the NC spawning population." Benthic Ecology Meetings. Groton, CT. 28-30 March 2003.
- Wolcott, T.G., **D.L. Wolcott**, and A.H. Hines. "Migration of adult female blue crabs from mating areas to the maternity suite: when, where and who cares?" Benthic Ecology Meetings. Groton, CT. 28-30 March 2003.
- Medici, D.A., T.G. Wolcott, and **D.L. Wolcott**. "Scale dependent movements and microhabitat selection by mature female blue crabs, *Callinectes sapidus*. Benthic Ecology Meetings. Groton, CT. 28-30 March 2003.
- Wolcott, D.L.**, W.C.B. Hopkins, and T.G. Wolcott. "Longevity, viability, and storage of sperm in the blue crab, *Callinectes sapidus*." The Crustacean Society Summer Meeting, Williamsburg, VA, June 1-5, 2003
- Aguilar, R., M.A. Kramer, A.H. Hines, T.G. Wolcott, **D.L. Wolcott**, and R.N. Lipcius. "The timing and route of newly-inseminated blue crabs in the Chesapeake Bay: Aspects of female migration". The Crustacean Society Summer Meeting, Williamsburg, VA, June 1-5, 2003.
- Wolcott, D.L.**, C.W.B. Hopkins, T.G. Wolcott. "Sperm storage in the blue crab, *Callinectes sapidus*: biology, ecology, and fisheries." Society for Integrative and Comparative Biology Meetings, New Orleans, LA. 5-9 January 2004.
- Wolcott, T.G., **D.L. Wolcott**. "Exploring migration of female blue crabs to spawning grounds, using biotelemetry and CTD dataloggers." Society for Integrative and Comparative Biology Meetings, New Orleans, LA. 5-9 January 2004.
- Wolcott, D.L.** (invited paper). "Effects of a male-focused size-selective fishery on the mating system of the blue crab, *Callinectes sapidus*." 6th International Crustacean Congress, Glasgow, Scotland. 17-22 July 2005.
- Wolcott, D.L.**, T.G. Wolcott, A.H. Hines, D.A. Medici. "Migration of female blue crabs from mating areas to spawning grounds." Society for Integrative and Comparative Biology Meetings, Orlando, FL. 5-9 January 2005.
- Wolcott, T.G., **D.L. Wolcott**, D. Kamykowski, L. Waters. "Plankton mimicry: fake dinoflagellates to help understand real red tides." Society for Integrative and Comparative Biology Meetings, Orlando, FL. 5-9 January 2005.
- Wolcott, D.L.** (invited paper). "Sperm Limitation in NC Blue Crabs" 2006 Fisheries Forum, New Bern, NC, 3/14/06

Synergistic Activities-

Educational initiatives: participant in CCC/NCSU grant proposal preparation.(Coastal NC Community Colleges and NCSU: improving articulation for workforce development. NSF \$298,273) and workshop (at CMAST), “Down East Symposium for Science and Mathematics Faculty. The project’s two goals are to increase successful participation of students from rural community colleges in science and engineering majors at four-year institutions, and to provide opportunities for science faculty development. Chair of inter-institutional Undergraduate Curriculum Committee for Duke, UNC, NCSU and CCC, for education at the coast.

Outreach: Cooperative efforts with NC DMF and fishers, through NC Sea Grant auspices. Presentation on blue crabs to Connecting-in-North Carolina participants, CMAST, May 2005.

Collaborators & Other Affiliations-

Collaborators-

Bushmann, P. Anne Arundell College
Carver, A. Motz, Env. Consultant
Clark, M. Free-lance Science Writer
Forward, R. Jr., Duke Marine Lab.
Hines, A.H. Smithsonian Environmental Research Center
Hopkins, W. Bost. NC Aquarium, Nags Head.
Jivoff, P.J. Riders University
Kendall, M. NOAA
Rittschof, D. Duke Marine Lab
Turner, H. H.S. teacher
vanMontfrans, J. Virginia Institute of Marine Sciences
Wolcott, T.G. NCSU

Graduate and Postdoctoral Advisors-

Berg, William. Graduate Advisor. Deceased
Roberts, John. Postdoc advisor. NCSU emeritus

Thesis Advisor and Postgraduate-Scholar Sponsor

DeVries, Mona, post doc 1993-95.

Turner, Heather. “ Behavior and growth in post-copulatory female blue crabs.” 2000. Thesis (M.S.)--North Carolina State University.

Carver, Adina Motz “Selective Fishing Pressure on Large Male Blue Crabs Negatively Affects Male Size, Sex Ratio, and Population Reproductive Potential in Upper Chesapeake Bay.” 2001. Thesis (M.S.) -- North Carolina State University.

Hopkins, Wynne Catherine Bost. “Number and Viability of Stored Sperm in the Female Blue Crab, *Callinectes sapidus*.” 2002. Thesis (M.S.)--North Carolina State University.

Davis, John. “Implications of a Decrease in the Mature Size of Female Blue Crab, *Callinectes sapidus*.”2006 Thesis (M.S.) North Carolina State University.