

KIRT WILLIAM RUSENKO, Ph.D.
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Education:

Ph.D., Marine Zoology/Biochemistry, Clemson University, Clemson, SC.
Dissertation- "Studies on the Structure and Function of Shell Matrix Proteins from the American Oyster, *Crassostrea virginica*". Professor; Hap Wheeler; GPA 4.0

MS, Biochemistry, SUNY Upstate Medical Center, Syracuse, NY.
Thesis- "Interactions of ¹²⁵I-Beta Nerve Growth Factor with its Receptor and Other Proteins". Professor; Robert Stach; GPA 3.2

BS/BA, Biology/Psychology, Syracuse University, Syracuse, NY.

Employment History:

1995-Present *Marine Conservationist, City of Boca Raton, Boca Raton, FL*
1995-1995 *Environmental Specialist, Florida Power and Light Co., Juno Beach, FL*
1994-1995 *Scientific Consultant Marinelife Center of Juno Beach, Juno Beach, FL*
1992-1994 *Research and Development Scientist, Thermo Separation Products*
1991-1992 *Product Manager, Thermo Separation Products, Riviera Beach, FL*
1989-1991 *Research Assistant Prof., Dept. of Dermatology, Univ. of North Carolina, School of Medicine, Chapel Hill, NC 27599*
1987-1989 *Research Specialist, Dept. of Dermatology, Univ. of North Carolina, School of Medicine, Chapel Hill, NC*
1986-1987 *Research Associate, Dept. of Dermatology, Univ. of North Carolina, School of Medicine, Chapel Hill, NC*

Publications:

Makowski, C., C. W. Finkl, and K. Rusenko 2013 "Suitability of Recycled Glass Cullet as Artificial Dune Fill along Coastal Environments." Journal of Coastal Research: 29(4), pp. 772-782.

Makowski, C., K Rusenko, and C. J. Kruempel 2008 "Abiotic Suitability of Recycled Glass Cullet as an Alternative Sea Turtle Nesting Substrate". Journal of Coastal Research: 24(3), pp. 771-779

Makowski, C. and K. Rusenko. 2007 "Recycled Glass Cullet as an Alternative Beach Fill Material: Results of Biological and Chemical Analysis." Journal of Coastal Research 23(3):545-552

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Mroziak, M.L, M. Salmon, and K.W. Rusenko. 2000 "Do Wire Cages Protect Sea Turtle Nests From Foot Traffic and Mammalian Predators?", Chelonian Conservation and Biology, 3(4):693-698

Rusenko, K.W., J.E. Donachy, and A.P. Wheeler. 1991 "Purification and Characterization of a Shell Matrix Phosphoprotein from the American Oyster." In- *Surface Reactive Peptides and Polymers; Discovery and Commercialization*. C.S. Sikes and A.P. Wheeler (eds.), ACS Symposium Series #444, American Chemical Society, Washington, DC

Rusenko, K.W., J-D. Fine, W.R. Gammon, and R.A. Briggaman. 1989 "The Carboxyl-Terminal Domain of Type VII Collagen is Present at the Basement Membrane in Recessive Dystrophic Epidermolysis Bullosa." J. Invest. Derm. 92:623-627.

Wheeler, A.P., K.W. Rusenko, and C.S. Sikes. 1988 "Organic Matrix from Carbonate Biomineral as a Regulator of Mineralization." In- *Chemical Aspects of Regulation of Mineralization*." C.S. Sikes and A.P. Wheeler (eds.) American Chemical Society, University of South Alabama Publication Services, Mobile, AL.

Wheeler, A.P., K.W. Rusenko, D.M. Swift, and C.S. Sikes. 1988 "Regulation of *In Vitro* and *In Vivo* CaCO₃ Crystallization by Fractions of Oyster Shell Organic Matrix." Mar. Biol. 98:71-80.

Wheeler, A.P., K.W. Rusenko, J.W. George, and C.S. Sikes. 1987 "Evaluation of Calcium Binding by Molluscan Shell Organic Matrix and its Relevance to Biomineralization." Comp. Biochem. Physiol. 87B:453-460.

Stach, R.W., and K.W. Rusenko. 1984 "Covalent Attachment of ¹²⁵I-β Nerve Growth Factor to its Receptors on Sympathetic Neurons." J. Neurochem. Res. 11:215-229.

Rusenko, K.W., and R.W. Stach. 1982 "Serum-Free Culture of Chicken Embryonic Sensory Ganglia in a Balanced Salt Solution with Nerve Growth Factor for Periods Up to Two Weeks." J. Neurosci. Res. 8:263-270.

Rusenko, K.W., and R.W. Stach. 1981 "Interaction of [¹²⁵I] β-Nerve Growth Factor with Acidic Proteins." Neurochem. Res. 6:287-300.

Abstracts

Rusenko, K.W. and M. Stadler (2014) "Do Wider Renourished Beaches Enhance Sky-Glow Effects on Sea Turtles?" *Proceedings of the Thirty-fourth Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum (in press)

Bosley, J.W., M.M. Rodgers, Z.D. Anderson, C. R. Mott, K. Rusenko, and J. Wyneken. "Record High Beach Temperatures: Implications for Loggerhead Turtle (*Caretta caretta*) Hatch and Emergence Success in Boca Raton, Florida, USA", Jones, T.T. and Wallace, B. P., compilers. 2012 (Updated November 2012) *Proceedings of the Thirty-first Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NOAA NMFS-SEFSC-631:32p.

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Rusenko, K.W., R. Newman, C. Mott, D. Anderson, T. Tyner, J. Duarte, and H. Iannozi.

2012. "Using GIS to Determine the Effect of Skyglow on Nesting Sea Turtles Over a Ten Year Period", Jones, T.T. and Wallace, B. P., compilers. 2012 (Updated November 2012) *Proceedings of the Thirty-first Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NOAA NMFS-SEFSC-631:32p.

Rusenko, K.W., R. Newman, C. Mott, D. Anderson, T. Tyner, J. Duarte, and H. Iannozi.

2012. "Mammalian Predation of Sea Turtle Nests in Boca Raton, FL- Fifteen Years of Study and the Effectiveness of Using Habanero Pepper Powder for Control", Jones, T.T. and Wallace, B. P., compilers. 2012 (Updated November 2012) *Proceedings of the Thirty-first Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NOAA NMFS-SEFSC-631:32p.

Salmon, M., C.R. Mott, K.W. Rusenko, R. Newman, M.D. Anderson, J.P. Duarte, T.J.

Tyner, and H. Iannozi, 2012, "Collection of Pre-Emergent Loggerhead Hatchlings for Research has No Adverse Impacts", Jones, T.T. and Wallace, B. P., compilers. 2012 (Updated November 2012) *Proceedings of the Thirty-first Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NOAA NMFS-SEFSC-631:32p.

Makowski, C.; Finkl, C.W., and Rusenko, K., 2011. "Using recycled glass for coastal protection: a review of geotechnical, biological, and abiotic analyses." In: Furmanczyk, K.K.; Giza, A., and Terefenko, P. (eds.), *Proceedings of the 11th International Coastal Symposium (Szczecin, Poland)*, Journal of Coastal Research, Special Issue No. 64, pp. 1362–1366.

Makowski, C. and K. Rusenko, 2007, "Recycled Glass as a Sea Turtle Nesting Substrate: Results from Abiotic Testing and Analysis", Rees, A. F., M. Frick, A. Panagopoulou, and K. Williams., compilers. 2008 *Proceedings of the Twenty-seventh Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-569, 262 p.

Child, K., R. Newman, and K. W. Rusenko, 2007, "Analysis of Sea Turtle Strandings in Southern Palm Beach County (1980-2006) Using GIS and Spatial Analyst.", Rees, A. F., M. Frick, A. Panagopoulou, and K. Williams., compilers. 2008 *Proceedings of the Twenty-seventh Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-569, 262 p.

Cassone, V., K. Child, and K. W. Rusenko, 2007, "Comparing Changes in Hatchling Success of Green and Loggerhead Sea Turtles in Boca Raton, FL.", Rees, A. F., M. Frick, A. Panagopoulou, and K. Williams., compilers. 2008 *Proceedings of the Twenty-seventh Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-569, 262 p.

Rusenko, K.W., 2007, "Evaluating Sea Turtle Nesting Data with Geographic Information Systems", Rees, A. F., M. Frick, A. Panagopoulou, and K. Williams., compilers. 2008 *Proceedings of the Twenty-seventh Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-569, 262 p.

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- Mann J. L., J. E. Moriarty, R. Albury, C. M. Walker, and K. W. Rusenko, 2005, "Total Dissolved Solids In Renourished Sand May Deter Sea Turtle Nesting: Forget The Pentetrometer", Kalb, H., Rohde, A., Gayheart, K., and Shanker, K., compilers. 2008 *Proceedings of the Twenty-Fifth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-582, 204pp.
- Rusenko, K. W., J. L. Mann, J. E. Moriarty, R. Albury, and H. L. Carter, 2005, "Is The Wavelength Of City Glow Getting Shorter? Parks With No Beachfront Lights Record Adult Aversion And Hatchling Disorientations In 2004", Kalb, H., Rohde, A., Gayheart, K., and Shanker, K., compilers. 2008 *Proceedings of the Twenty-Fifth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-582, 204pp.
- Walker, C. M., K. W. Rusenko, and H. L. Carter, 2004 "Analysis On Fox And Raccoon Predation Of Sea Turtle Hatchlings", Mast, R. B., Hutchinson, B. J., and A. H. Hutchinson, compilers. 2007. *Proceedings of the Twenty-Fourth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-567, 205 p.
- Mann, J. L., R. W. Albury, J. E. Moriarty, and K. W. Rusenko, 2004, "The Effect Of Renourishment Sand On Sea Turtle Nesting Behavior, Mast, R. B., Hutchinson, B. J., and A. H. Hutchinson, compilers. 2007. *Proceedings of the Twenty-Fourth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-567, 205 p.
- Rusenko, K.W. Callie M. Walker, Julia E. Moriarity, Jennifer L. Mann, Robert Albury, Kristin Child, H. Lynn Carter, and Kirstin Jones, 2004 "Control Of Mammalian Predation Using Habenero Pepper Powder In Conjunction With Screening Sea Turtle Nests", Mast, R. B., Hutchinson, B. J., and A. H. Hutchinson, compilers. 2007. *Proceedings of the Twenty-Fourth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-567, 205 p.
- Jones, K., J. E. Moriarty, G. Hancock, and K. W. Rusenko, 2004 "100 Hours Swimming With Turtles: Looking In On A Population Of Greens", Mast, R. B., Hutchinson, B. J., and A. H. Hutchinson, compilers. 2007. *Proceedings of the Twenty-Fourth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-567, 205 p.
- Albury, R., C. M. Walker, and K. W. Rusenko, 2004 "Effects Of Exposed Streetlights On A Sea Turtle Nesting Beach", Mast, R. B., Hutchinson, B. J., and A. H. Hutchinson, compilers. 2007. *Proceedings of the Twenty-Fourth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Technical Memorandum NMFS-SEFSC-567, 205 p.
- Rusenko, Kirt, E. de Maye, and A. Cammack, 2003 "The Use of Hot Pepper Extract and Ipecac to Control Mammalian Predators – The Year of the Fox", Seminoff, J.A., compiler. 2003. *Proceedings of the Twenty-Second Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Technical Memorandum NMFS-SEFSC-503, 308 p.
- Rusenko, Kirt, E. de Maye, and A. Cammack, 2003 "The First Year of the Spanish River Park Embedded Roadway Lighting Project: Response of Sea Turtle Hatchlings", Seminoff, J.A., compiler. 2003. *Proceedings of the Twenty-Second Annual Symposium*

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on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NMFS-SEFSC-503, 308 p.

Rusenko, K.W., E. de Maye, A. Cammack, and H. Harder. 2001. "The Use of Hot Pepper Extract to Control Mammalian Predators- A Preliminary Study." Coyne, M. S., and R. D. Clark, compilers. 2004. *Proceedings of the Twentieth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Tech. Memo. NMFS-SEFSC-528, 368 p.

Rusenko, K.W., J. Echiverra, and C. Pfistner, 2002. "Unusual Nesting Patterns on a Renourished Beach." Mosier, Andrea, Allen Foley, and Beth Brost, compilers. 2002. *Proceedings of the Twentieth Annual Symposium on Sea Turtle Biology and Conservation*, NOAA Tech. Memo. NMFS-SEFSC-477, 369 p.

Pfistner, C. and K.W. Rusenko, 2002. "Touching Eggs of *in situ* nests May Not Affect Hatch Success." Mosier, Andrea, Allen Foley, and Beth Brost, compilers. 2002. *Proceedings of the Twentieth Annual Symposium on Sea Turtle Biology and Conservation*. NOAA Tech. Memo. NMFS-SEFSC-477, 369 p.

Rusenko, K.W., C. Pfistner, A. Barker, and D. Fowler 2000 "Mammalian Predation on Boca Raton's Beach: A Year Without Cages." Abreu-Grobois, F.A., R. Briseno-Duenas, R. Marquez, and L. Sarti, Compilers. *Proceedings of the Twentieth Annual Symposium on Sea Turtle Biology and Conservation*, US Dep Commer NOAA Tech Memo. NMFS-SEFSC-436, 293 pp.

Mroziac, M.L., M. Salmon, and K.W. Rusenko. 1997 "The Effects of Mammalian Predation and Human Impact on Sea Turtle Nests on Boca Raton's Beaches: A Reevaluation of Nest Caging as a Management Strategy." Epperly, S.P. and J. Braun, compilers *Proceedings of the Seventeenth Annual Workshop on Sea Turtle Biology and Conservation*, U.S. Dept. Commer. NOAA Technical Memorandum NFMFS-SEFSC-415, 294 pp.

Rusenko, K.W. and L. Wood. 1996 "Nesting Surveys and Nest Survivabilities for Sea Turtles on Juno/Jupiter Beach, Florida During 1990-1994" Keinath, J.A., D.E. Barnard, J.A. Musick, and B.A. Bell, compilers, *Proceedings of the Fifteenth Annual Workshop on Sea Turtle Biology and Conservation*, U.S. Dept. Commer. NOAA Technical Memorandum NFMFS-SEFSC-387, 355 pp.

Gammon, W.R., K. Rusenko, E. Lee, and R.A. Briggaman. 1991 "Cloning and Sequencing of a Full Length Complementary DNA for Human Linkin." Clin. Res. 39:322A

Gammon, W.R., L. Abernethy, K. Mangum, K. Rusenko, J. Wright, and R.A. Briggaman. 1991 "Cloning of a Partial Complementary DNA for the Pro-Alpha Chain of Human Type VII Collagen." J. Invest. Dermatol. 96:532A

Rusenko, K.W., W.R. Gammon, R.A. Briggaman. 1989 "Type VII Collagen is the Antigen Recognized by IgA Anti-Sub Lamina Densa Autoantibodies." Clin. Res. 37:626A

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Swift, D.M., K.W. Rusenko, and A.P. Wheeler. 1989 "Characteristics of the Organic Matrix-Like Material Isolated from Frustules of the Fresh Water Diatom *Cyclotella meneghiniana*." In-*Abstracts of Papers Presented at the Meeting , American Chemical Society*. 197th:156 I & EC

Rusenko, K.W., J.E. Donachy, and A.P. Wheeler. 1989 "Purification and Characterization of a Shell Matrix Phosphoprotein from the American Oyster." In- *Abstracts of Papers Presented at the Meeting , American Chemical Society*. 197th:118 I & EC

Sikes, C.S., A.P. Wheeler, and K.W. Rusenko. 1989 "Regulation of Calcium Carbonate and Phosphate Formation by Matrix Proteins and Their Synthetic Analogs." Connective Tissue Res. 22:924.

Rusenko, K.W., W.R. Gammon, and R.A. Briggaman. 1988 "Micro-Scale Purification of Type VII Procollagen from WISH Cell Serum-Free Extract." J. Cell Biol. 107:807a.

Rusenko, K.W., W.R. Gammon, J-D. Fine, and R.A. Briggaman. 1988 "The Carboxyl-Terminal Domain of Type VII Collagen is Present in Recessive Dystrophic Epidermolysis Bullosa." J. Invest. Derm. 90:604.

Wheeler, A.P., C.S. Sikes, K.W. Rusenko. 1987 "The Role of Structural Features of Oyster Shell Organic Matrix in Biomineralization." Amer. Zool. 27:54A.

Wheeler, A.P., K.W. Rusenko, C.S. Sikes. 1987 "Organic Matrix from Carbonate Biomineral as a Regulator of Mineralization." Chem. Eng. News 66:62.

Rusenko, K.W., Wheeler, A.P., J.W. George, and C.S. Sikes. 1985 "Calcium Binding by Molluscan Matrix: Effects of Ionic Strength and Relevance to Biomineralization." Amer. Zool. 25:50A.

Rusenko, K.W., and R.W. Stach. 1982 "Culture of Chick Dorsal Root Ganglia in a Chemically Defined Media." Trans. Amer. Soc. Neurochem. 13:251.

Rusenko, K.W., and R.W. Stach. 1981 "Evidence for Covalent Attachment of ¹²⁵I β -Nerve Growth Factor to its Receptor." Fed. Proc. 40:1878.

Rusenko, K.W., and R.W. Stach. 1980 "Interaction of ¹²⁵I β -Nerve Growth Factor with Acidic Proteins." Fed. Proc. 39:2165.

Recent Professional Service:

Ask to serve as expert witness for the Town of Longboat Key, FL for a permeable adjustable groin project on the island, January 2014.

Invited to serve as sea turtle lighting expert for International Dark-Sky Association for a project to retrofit lighting in local, State and Federal park areas in the Florida Panhandle. (2013-2016)

Invited Appointment: Asked to review beachfront lighting plans for the Hollywood Beach, Florida Community Redevelopment Agency (2012 to present)

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Associate Editor for Journal of Coastal Research 2011 to present.

Invited Appointment: Committee Member, Sea Turtle License Plate Grant Committee, 2010-2011.

Invited Appointment: Worked with Federal, local government representatives, and residents in Costa Rica to resolve development issues in Playa Grande. (2007 and 2009)

Served as expert witness in the Palm Beach County Reach 8 Renourishment case in 2007.

Invited Appointment: Asked to serve as lighting expert on Hollywood Beach Broadwalk Redevelopment Project. Did not finish project due to an insistence to use inappropriate lighting. (2003)

Scientific Committees and Advisory Service:

Palm Beach County Groundwater and Natural Resources Protection Board,
Biologist/Chemist seat, 2012 to present.

Scientific Advisor for Sea Turtle Oversight Protection (STOP) in Broward County, 2010 to present.

Participant in Coastal Wildlife Conservation Initiative for the Florida Fish and Wildlife Conservation Commission, 2011 to present).

Invited Lectures:

FL Fish and Wildlife Conservation Commission, Marine Turtle Permit Holder's Annual Meeting: *Wide Beaches and Low Dune Profiles Enhance Sky-Glow Impacts on Sea Turtles*, February 2013.

International Dark-Sky Association (IDA): Invited to speak at annual conference, *Sky-Glow Effects on Sea Turtle Behavior*, November 2013.

Florida Shore and Beaches Preservation Association (FSBPA): Invited to speak at annual conference, *Do Wider Renourished Beaches Enhance Sky-Glow Effects on Sea Turtles?*, September 2013

American Water Resources Association: *How Florida's Sea Turtles Fare in Today's Environment*, 2012.

South East Red Fox Symposium, Wilmington, NC: *Humane Protection of Sea Turtle Nests*; Invited by the US Humane Society, 2010

Duke University Talent Identification Program (TIP) summer class, Q and A with high school TIP students on sea turtles, 2010 (via Skype).

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Coolhub, Global Science Seminars, Sponsored by Chicago Field Museum and Shedd Aquarium: *Migration and Reproductive Strategies of Loggerhead Turtles*, via SKYPE, May 2010.

North Carolina Beaches, Inlets, and Waterways Association (NCBIWA): *Controlling Mammalian Predators with Hot Pepper Powder*. Invited to speak by the Association, 2008

Scripps Howard Institute on the Environment: *Sea Turtles in South East Florida*, 2007 and 2008

Marine Animal Rescue Society: *Sea Turtle Threats and Strandings*, 2006.

Palm Beach County Reef Rescue: *Sea Turtle Nesting Behavior in Palm Beach County*, Threats and Issues.

Public Aquarium Marine Fish Health Seminar (PAMPHS): *The Natural Aquarium Environment*, 1999.

Awards, Grants, and Honors:

International Dark-Sky Association Dark-Sky Defender Award for Sea Turtle Protection, 2013.

Loggerhead Marinelife Center Blue Ambassador of the Year. 2013 The Blue Ambassador of the Year Award exemplifies significant local contributions in marine conservation through volunteer-related activities.

International Dark-Sky Association Lighting Design Award, 2012 for lighting retrofits on two beachfront condominiums in Boca Raton.

Habitat Restoration Grant to retrofit lighting on a beachfront condominium in Boca Raton, 2010.

City of Boca Raton, Recreation Services Employee of the Month, June 2009

City of Boca Raton, Recreation Services Employee of the Month, April 2009

Florida Sea Turtle License Plate Grant "Renovation of the Embedded Roadway Lighting Project" 2008

Children's Museum of Boca Raton, Award of Appreciation for coordinating their "Travelling Touch Tank Exhibit" May 1999

City of Boca Raton, Recreation Services Employee of the Month, November 1997

South Carolina Sea Grant Consortium, Co-Principal Investigator, "Proteins from Oyster Shell as a Basis for Biodegradable Water Treatment and Super-Absorbent Polymers", 1992-1995.

Henry Christian Award for Excellence in Clinical Research, Dermatology Subspecialty, American Federation for Clinical Research, 1991.

National Sea Grant Student Research Award, Ph.D. Level. For Excellence in Applied Marine Research, 1986.

Positions Descriptions:

City of Boca Raton, Gumbo Limbo Environmental Complex, 1801 N. Ocean Blvd., Boca Raton, FL 33432

Marine Conservationist, December 4, 1995 to Present. Principal Sea Turtle Permit holder for the City of Boca Raton (Permit #041). Responsible for care of educational display Loggerhead Sea Turtles, Sea Turtle nesting surveys for the City of Boca Raton, supervise and train six Sea Turtle Specialists and one Sea Turtle Specialist II for nesting surveys, maintain and supply specimens in outdoor exhibit sea water tanks, conduct public Turtlewalks and sea turtle hatchling releases, develop interpretive programs for public education, conduct Marine Mammal/Sea Turtle Stranding and Salvage Activities. Responsible for sea turtle data analysis and filing reports to city, county, and state authorities. Responsible for reporting data for beach construction projects within the City of Boca Raton. Responsible for evaluating rehabilitated sea turtles for releaseability as a rehabilitation "half-way house". Established a Sea Turtle Rehabilitation Facility at Gumbo Limbo in 2010. It is now one of 4 facilities in the State that cares for green turtles with fibropapillomatosis. Responsible for maintaining and operating four 10,000 to 30,000 gallon seawater display tanks and their ocean water pumping systems as well as coordinating these operations with staff and faculty from Florida Atlantic University. Supervise one full time Aquarist to manage the seawater tanks and exhibits Work with Planning and Zoning for all construction projects involving the Coastal Construction Control Line and review all sea turtle lighting plans in Boca Raton for new construction and fixture replacement at beachfront residences. Work with the City's GIS Department to provide accurate sea turtle nesting data that has all sea turtle crawls located by GPS (Global Positioning Satellites) in Boca Raton since 2001. Review beachfront construction permits and report potential impacts to sea turtle nest for the City of Boca Raton's Development Services Department. Monitor renourishment projects in Boca Raton for sea turtle nesting and shore bird monitoring.

Florida Power and Light, St. Lucie Nuclear Plant, US Highway One, Jensen Beach, FL

Environmental Specialist, February 1, 1995 to September 30, 1995. Marine Biology Research on Hutchinson Island. Capture/Rescue, tagging, and release of Sea Turtles and Fish in the Ocean Intake Canal of the plant. Sea Turtle nesting surveys of North Hutchinson Island. Conduct stranding and salvage evaluation of Sea Turtles and Marine Mammals. Assist Land Utilization Department with management of wildlife in the Intake Canal, Marine Educational Facility, and Beach and Mangrove Restoration projects. Collect fish, sharks, and rays for various municipal and state aquariums. SCUBA diving intake and discharge canals for sea turtle capture and specimen collection. Computer data analysis. Level 1 security clearance. Listed on T.P. # 99 (DEP).

Marinelife Center of Juno Beach, 1200 U.S. Highway One, Juno Beach, FL 33408

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Scientific Consultant, April 1994 to December 1995. Set up and maintain museum exhibits and mount specimens. Conduct Turtlewalks, Sea Turtle nesting surveys, nest survivability studies. Assist with necropsies and veterinary procedures. In charge of computer data analysis. Write publications and grants for external funding of Marinelife Center projects. Care and rehabilitation of rescued Sea Turtles, Marine Fish and Invertebrates. Design and setup of laboratory facilities on site as well as coordinating the acquisition of laboratory equipment. Maintain or repair operating equipment for survival of resident marine life. Listed on T.P. # 77 (DEP).

Thermo Separation Products, 3661 Interstate Park Rd. N., Riviera Beach, FL 33419

Research and Development Scientist. December 1992 to August 1994; Product Manager: August 1991 to December 1992: Co-Project Leader for Chiral Detector, responsible for organizing appropriate team members, component troubleshooting and design, design of chemical analysis experiments for design validation. Wrote proposals for research and development of new detectors and pumps, devised new chemical analysis methods (automated and manual) for new and existing equipment. Worked with other departments to develop project design specifications as set by ISO9001 standards. Lead the conceptual and design aspects of LCtalk, a Windows-based HPLC Control and Data Analysis Program for Chemical Analysis. Worked on the initial development and specification of Hgtalk, a Windows based program to collect data from an automated mercury analysis system that analyses the data according to EPA standards. Final development of Mercury analysis system. Taught clients the use of the company's HPLC and Mercury analysis equipment, LCtalk and Microsoft Windows software. Member of Hazardous materials and chemical safety committee. Wrote manuals and Windows Help Files.

Department of Dermatology, University of North Carolina, School of Medicine, Chapel Hill, NC 27599

Research Assistant Professor June 1989-August 1991; Research Specialist, November 1987-June 1989; Research Associate, November 1986-November 1987: Supervised research labs in dermatology with 2-3 MD/Ph.D. fellows and 5-8 technicians. Responsible for hiring and training technicians, assigning duties and guiding their research projects. Worked on the purification, characterization, and DNA sequencing of a novel skin protein, Linkin. Obtained DNA and protein sequence data of Type VII collagen. Responsible for purification and characterization of Type VII collagen from human skin (normal and patients with epidermolysis bullosa) and developed serum free cell culture techniques for the collection of Type VII collagen and developed large scale purification of Type VII collagen from the cell culture media.

Additional Professional Service/Positions Held:

Research Consultant for the Department of Biological Science, University of South Alabama, Mobile, AL. Subject- Biochemical analysis of molluscan shell organic matrix proteins and synthetic analogs. June 1986-June 1987.

Research Assistant for Jerry Hubbard, Ph.D., Georgia Institute of Technology, September 1977- May 1978. Membrane transport of amino acids in halophilic bacteria, Viking Mission to Mars Data Analysis and verification.

Research Assistant for David Dusenberry, Ph.D., Georgia Institute of Technology, March, 1976-March 1977. Chemotactic response of soil nematodes.

Research Assistant for Warren Lambert, Ph.D., Clinical Psychology. Institute for Personal and Social Development, Syracuse, NY, 1975-76. Psychometry (MMPI, Weschler Adult Intelligence Scale, etc.). Evaluation of behavior modification techniques.

Research Associate for Robert Stach, Ph.D. Research Foundation of SUNY, Syracuse, NY, 1975-76. Helped set up new laboratory, train technicians in tissue culture and microdissection techniques. Protein purification and analysis, bioassays.

Lab Technician/Phlebotomist, Crouse-Irving Memorial Hospital, Syracuse, NY. 1974-1975. Performed Simple Lab Tests and blood sampling.

Research Intern, New York City Medical Examiner's Office, July 1971. Assisted Medical Examiners during autopsy procedures.

Psychiatric Aide, St. Joseph's Hospital Health Center, Syracuse, NY. 1970-1975. Therapy for inpatients, Suicide Prevention Service phone duties.

Graduate Thesis Committee Member

Current:

Michelle Zielinski, Nova Southeastern University, MS Biology.

Past:

Mellissa Mroziak, Florida Atlantic University, MS Biology 1999.

Presentations:

Average 30 presentations per year since 2004 regarding sea turtles to K-12 schools, Rotary and Kiwanis Clubs, a variety of other clubs and organizations. Have given presentations to the International Sea Turtle Symposiums, Florida Marine Turtle Permit Holder's Meetings, and the Marathon Sea Turtle Hospital Workshops.

2008-2013. University of London, Royal Holloway School, UK- Presentations to visiting class from the university on sea turtles and other marine issues in South Florida, annually

Media:

Appeared in *The City Dark* documentary, film version and PBS version as an expert in sea turtles and sky-glow. (2011)

Credited in the movie *Turtle- The Incredible Journey* for assisting film crew with sea turtle "stars". (2010)

Radio interview on the Canadian Broadcasting Network regarding the sea turtle cold-stun event of 2010.

Interviewed on local NPR station 4 times regarding sea turtle issues, one interview with Carl Safina in the studio.

Featured in the book *The Voyage of the Turtle* by Carl Safina, chapter 3, 2006.

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Often interviewed by local TV and print press for information/news regarding sea turtles and other marine issues. Occasional interviews by press outside of Florida.

Professional Memberships:

- Member:** Florida Association for Environmental Professionals (2012 to present)
- Member:** National Association of Environmental Professionals (2012 to present)
- Member:** Coastal Education & Research Foundation 2011 to present.
- Member:** Rotary International (2011 to present)
- Member:** Society for Conservation Biology (2009 to present)
- Member:** International Dark-Sky Association 2004-2009, 2012 to present.
- Member:** International Sea Turtle Society (1996 to present)
- Member:** Sigma Xi Scientific Research Society (1988 to present)
- Member:** American Association for the Advancement of Science (1982 to present)

Selected Training:

Using Mobile GIS, Florida Atlantic University 2011.

Advanced Pictometry, City of Boca Raton GIS Department, 2010

Pictometry Basics, City of Boca Raton GIS Department, 2009

Additional Experience:

SCUBA certified- experienced, Certified in Underwater Photography.

Experienced in Film and Digital Photography and Photoshop.

Extensive PC experience with a variety of programs, MS Office, ArcPad, ArcGIS, and Pictometry.

Extensive experience designing GIS data collection software with consultant and collecting GIS data in the field

References:

Buddy Parks, Deputy Director, Recreation Services, 201 W. Palmetto Park Rd., Boca Raton, FL, 33432

Michael Bresette, Senior Environmental Specialist, FPL-St. Lucie Nuclear Plant, Alt. A1A, Jensen Beach, FL (561-465-3550- ext. 3312 or 3852)

Dr. A.P. (Hap) Wheeler, Professor and Chairman, Dept. of Biological Sciences, Clemson Univ., Clemson, SC (803-656-0317)