

Jacalyn Toth Sullivan

Stockton University School of Natural Sciences and Mathematics

Galloway, NJ 08205

Jacalyn.Toth@Stockton.edu

Education

Rutgers University New Brunswick, NJ (2004 – 2006)

Master of Science in Ecology and Evolution

Thesis: Aspects of the ecology of bottlenose dolphins (*Tursiops truncatus*) in New Jersey

Eckerd College St. Petersburg, FL (1997 – 2001)

Bachelor of Science in Marine Biology with a Minor in Chemistry

Interests

Marine mammal ecology; anthropogenic impacts on marine mammal biology, behavior, distribution patterns and essential habitat. Dynamics of New Jersey's seasonal population of bottlenose dolphins and harbor seals; occurrence, movement patterns, stock structure, seasonal site fidelity, food habits.

Experience

Project PinniPoD – Pinniped Population Dynamics Great Bay, NJ

Principle Investigator (September 2021 – September 2024) (Orsted \$242,000)

Research director of harbor seal population monitoring and food habits study in Great Bay, NJ. Manage and analyze remote camera monitoring system/hardware/software/imagery, collect harbor seal fecal samples (scat) for prey hard parts and eDNA analysis, stress hormone analysis (collaboration with Mystic Aquarium), manage Stockton University undergraduate and graduate research students. Experience with field and lab techniques for eDNA analysis.

Stockton University Protected Species Observer Course Galloway, NJ

Project Lead (September 2022 – October 2023)

Research, design, develop, and deliver classroom and vessel-based Protected Species Observer course (BOEM/NMFS certified) through the Continuing Education Program at Stockton University. Focus on hands-on field methods, monitoring/mitigation, and marine mammal species identification in the mid-Atlantic.

Stockton University Galloway, NJ

Adjunct Professor (2011 – present)

'Marine Mammalogy': An overview of the biology and ecology of marine mammals. Emphasis on marine mammal evolution, systematics, functional biology, physiological adaptations of major taxa, and research techniques.

'Marine Mammals and Mankind': A historical and current analysis of human / marine mammal interactions and implications.

Research responsibilities: Coordinating, training, advising undergraduate students research on local bottlenose dolphin and harbor seal populations; marine mammal photo-identification, food habits analysis, field and laboratory techniques.

Rutgers University Marine Field Station Tuckerton, NJ (2001-2004, 2010 – 2012)

Marine Biology Field and Laboratory Technician – Estuarine fishes

Geo-Marine, Incorporated Plano, TX (2008)

Marine Science Research Associate – Marine Mammals

NOAA Southeast Fisheries Science Center, Cetacean and Sea Turtle Team Beaufort, NC (2003 – 2007)

Graduate Research Assistant and Contractor – Marine Mammals

Publications (*denotes Stockton undergraduate co-authors)

Toth J., S. Evert, E. Zimmermann, M. Sullivan, L. Dotts*, K.W. Able, R. Hagan and C. Slocum. 2018. Annual Residency Patterns and Diet of *Phoca vitulina concolor* (Western Atlantic Harbor Seal) in a Southern New Jersey Estuary. Northeast Naturalist 25(4):611-626

Toth J.L., A.A. Hohn, and K.W. Able. 2011. Defining bottlenose dolphin (*Tursiops truncatus*) population units based on environmental, physical, and behavioral characteristics. Marine Mammal Science DOI: 10.1111/j.1748-7692.2011.00497.x

Toth J.L., A.A. Hohn and K.W. Able. 2011. Patterns of seasonal occurrence, distribution and site fidelity of coastal bottlenose dolphins in southern New Jersey, U.S.A. *Marine Mammal Science* 27: 94–110

Toth-Brown J. and A.A. Hohn. 2007. Occurrence of the barnacle, *Xenobalanus globicipitis*, on coastal bottlenose dolphins (*Tursiops truncatus*) in New Jersey, U.S.A. *Crustaceana* 80:1271-1279

Toth J.L. 2007. Aspects of the ecology of bottlenose dolphins (*Tursiops truncatus*) in New Jersey. Masters Thesis. Rutgers University. 93 pp.

Select Harbor seal Oral Presentations/Posters (*denotes Stockton undergraduate co-authors)

Toth J. 2022. An examination of potential impacts of wind farm operations on population dynamics and food habits of the common harbor seal (*Phoca vitulina*) in southern New Jersey. Accepted for SMM conference West Palm Beach, FL, July 2022

Baier L.* and Toth J. 2022. Impacts of wind farm operations on local pinniped populations: A review. Accepted for SMM conference West Palm Beach, FL, July 2022

Zembricki E.*, Toth J., Ambrose D., Zimmermann E., Evert S. 2022. Harbor seal population dynamics in Great Bay: Preliminary results from a remote monitoring system. Stockton University Undergraduate Research Symposium. April, 2022.

Tolentino C.*, Campbell J.*, Jones S.*, Alicea M.*, Toth J., Luke T.H. (2022) Diets of pinnipeds in Great Bay. Stockton University Undergraduate Research Symposium. April, 2022.

Dotts L.*, Toth J., Evert S., Zimmermann E., Sullivan M., Hagan R., Able K., and Slocum C. 2019. Population and Diet of Common Harbor Seals (*Phoca vitulina concolor*) in a Southern New Jersey Estuary; a Story of Perseverance and Collaboration, Years in the Making! Southeast and mid-Atlantic Marine Mammal Symposium, March 29-31 Washington DC

Toth J., Evert S., Zimmermann E., Sullivan M., Dotts L.*, Able K.W., Hagan R. and Slocum C. 2018. Diet of Common Harbor Seals (*Phoca vitulina concolor*) in a Southern New Jersey Estuary; A Story of Perseverance and Collaboration, Years in the Making. Atlantic Fisheries Society Annual Meeting. Atlantic City, NJ.

Toth J., Evert S., Zimmermann E., Sullivan M., Dotts L.*, Able K.W., Hagan R. and Slocum C. 2017. Annual residency patterns and diet of common harbor seals (*Phoca vitulina concolor*) in a southern New Jersey estuary. 24th World Biennial Conference on Marine Mammals. October 2017. Halifax, Nova Scotia.

Ulmke A.H., Toth J.L., Able K.W. 2011. Seasonal variation in harbor seal fish prey in Great Bay, New Jersey. Rutgers University summer RIOS internship poster presentation. New Brunswick, NJ

Dotts L.J.*, Toth J.L., Tanedo S.J.*, Sullivan, M.C., Evert S.P., Slocum C.J. 2011. Prey determination and feeding seasonality of the Great Bay Harbor Seal colony. Stockton College Undergraduate Research Day. Pomona, NJ

Tanedo S.A.*, Sullivan M.C., Dotts L.J.*, Toth J.L., Evert S.P., Slocum C.J. 2011. Imaging fish otoliths retrieved from seal scat samples; acquisition, identification, and fish length reconstruction. Stockton College Undergraduate Research Day. Pomona, NJ

Certifications/Permits

NOAA Marine Mammal Research Permit co-Principal Investigator (2003-2008) - Bottlenose dolphin research

NOAA Marine Mammal Biopsy Sampling Permit (2005-2007) - Bottlenose dolphin biopsy sampling

NOAA Marine Mammal Drone Use Permit (2022-2028) - Harbor seal research

PADI certified Advanced SCUBA (1997)

Protected Species Observer (PSO) certified (AIS, Inc) (October 2021)

USCG/Fishing Partnership Boater Safety / Cold-water training certified (August 2021)

Robert A. DiGiovanni Jr.
CURRICULUM VITAE

General Information
Hampton Bays, New York 11946

Phone(C): (631)599-0611
Citizenship: USA

Education

Master's Degree State University of New York at Stony Brook, Stony Brook, New York
December 2002 concentration in applied ecology

Bachelor of Science in Biology, Long Island University Southampton, Southampton,
New York, December 1996 *cum laude*

Suffolk Community College, Riverhead, New York, Fall 1991 to Spring 1994
Dean's List: '92, '93, Spring '94. Who's Who Among Junior College Students 1994.
Member Student Advisory Committee, 1993

Teaching Experience

January 2006 to 2016: I created and was the instructor for the marine mammal and sea turtle rehabilitation and research (MAR 375) course offered at Stony Brook University. This course was developed specifically for the winter session of '06 and has now been incorporated into a full semester course offered in the spring. The course included practical fieldwork and interaction with marine mammal and sea turtle rescue and rehabilitation team. I have also taught courses on biology and conservation of marine mammals and sea turtles.

Work Experience

September 2016 to Current; **Executive Director/ Chief Scientist**, Atlantic Marine Conservation Society (AMCS), Hampton Bays, NY. I am responsible for working with our network partners to support the mission of the Atlantic Marine Conservation Society (AMCS). I coordinate daily activities related to promoting marine conservation, generate reports, write grants and evaluate stranding procedures and protocols. I work with our network partners conducting stranding investigations and health assessment projects on seals. These projects include post release monitoring of rehabilitated and wild caught seals and sea turtles, working with staff and volunteers to build citizen science programs and the continued operation of the Specially Trained Animal Response Team (START). I have responded to over 5,400 marine mammal and sea turtle stranding represented by 24 different species. I have satellite and radio tagged over 250 marine mammals and sea turtles including the first ever Risso's dolphin when I work with the Riverhead Foundation for Marine Research and Preservation. I conduct surveys for marine mammals and sea turtles in the New York Bight and work closely with National Oceanographic Atmospheric Administration (NOAA Fisheries), Northeast Fisheries Science Center (NEFSC) on survey projects.
Supervisor: Tom Telesca President AMCS Board of Directors

Marine Mammal and Sea Turtle Experience

11/96 to July 2016: Executive Director / Senior Biologist, Riverhead Foundation for Marine Research and Preservation, Riverhead, New York. I was responsible for all aspects of the Foundations operations, from the development of education programs, research programs, facility design and upgrade, fundraising, grant writing and development. During my tenure the foundation has grown from a staff of three full time biologists and an operating budget of \$350,000 to \$1,200,000 in 2015. I was principal investigator on the aerial survey conducted in the mid-Atlantic surveying for sea turtles and marine mammals. These surveys covered the coastal waters from Virginia to Delaware and the Chesapeake Bay. Between 2010 and 2016 I was responsible for securing and managing \$2.7 million in state, federal and local grants and contracts to conduct research and support stranding responses. I also coordinated the open water capture of two bottlenose dolphins that were in distress. I coordinated the efforts related to the first mass stranding of common dolphins in New York. I have served as on scene coordinator on the humpback whale and bottlenose dolphin unusual mortality events in the northwest Atlantic. This project integrated incident command system (ICS) into the stranding network at an incident management Team (IMT) level.

Current Research Projects

Grey seal health assessment project in the northwest Atlantic (2017 through 2025). Collect biological and life history samples from wild population of gray seals in MA and ME. Satellite tag animals to understand behavior, habitat use and distribution. This project is funded as a collaboration between NOAA fisheries, Naval Underseas Warfare Center, Atlantic Marine Conservation Society, Marine Mammals of Maine. Orsted has provided ~ \$100K per year for tags and data analysis for up to ten tags per year. The Naval Underseas Warfare Center is contributing through subcontracts ~45K per year for equipment and team support. The funding here is matched by other partners through staff, resources, vessels, and equipment.

Harbor seal health assessment project in the northwest Atlantic (2016 through 2025). Collect biological and life history samples from wild population of harbor seals in VA working with the Navy Marine Species Monitoring Program. Satellite tag animals to understand behavior, habitat use and distribution. Conduct a pilot study during the fall of 2020 in the waters around New York to conduct health assessment, satellite tag animals to understand habitat

use and distribution. This project has been funded at ~\$65K per year through contracts from HDR from NAVFAC. This funding level only provides support for a fraction of the team of 12 individuals that were funded through separate sources.

Harbor and Gray seal surveys in the New York Bight to assess changes in population and distribution (ongoing). Conduct aerial, boat and land-based surveys to monitor the changing seal population in the waters around New York.

Skills and Certifications

PADI Advanced open water, rescue diver and Enriched air certification
Certification of completion in CPR training, Certification of completion in survival course on Aircraft
Emergency Egress ,Certified in 40hr Hazardous Workplace Operations Training
Completed ICS 100, 200, 300, 400 and Incident Commander and Operation Section Chief Training with the NY Wildfire Academy October 2015, Certification in Boater Safety

Selected Presentations / Publications

DiGiovanni R.A. and A.M. Sabrosky: A note on seal watching in the Northeast United States. In Harbor Seals in the North Atlantic and the Baltic. NAMMCO Scientific Publications, Volume 8. Tromsø 2010.

DiGiovanni R., K. Durham, J. Wocial.: How do we measure success?-a case study of nine satellite- tracked animals. Abstract from the 2007 Northeast Regional Stranding Conference hosted by Mystic Aquarium and Cape Cod Stranding Network.

DiGiovanni R., K. Durham, J. Wocial, Pisciotta. R. D.V.M., Hanush, R. D.V.M. Chaillet, A, Sabrosky, A and Scott, R.: Post Release Monitoring of a male Risso's dolphin (*Grampus griseus*) rehabilitated and released in New York waters. Abstract from the 16th Biennial Conference on the Biology of Marine Mammals, San Diego, CA .

Gerle. E., DiGiovanni. R., An Evaluation of Human Impacts and Natural Versus Human Induced Mortality in Sea Turtles In The New York Bight. Abstract from the Proceedings of the 17th Annual Symposium on Sea Turtle Biology and Conservation.

Lockhart, G.G.; Swingle, W.M.; Bort, J.; Lynott, M.C.; Barco, S.G.; DiGiovanni, R.A., "A crowded ocean: Including biological monitoring results in marine spatial planning efforts," in *Oceans, 2012* , vol., no., pp.1-8, 14-19 Oct. 2012 doi: 10.1109/OCEANS.2012.6404958

Robinson N., #Deguzman K., Bonacci-Sullivan L., DiGiovanni R., Pinou T. 2020. Do rehabilitated sea turtles resume typical migratory behaviors? Satellite tracking juvenile loggerhead, green, and kemp's ridley turtles in the northeastern USA. Endangered Species Research. ENSR-2020-03-003/R2.

Sadove. S., R. Pisciotta, and R. DiGiovanni . Assessment and Initial Treatment of Cold-Stunned Sea Turtles. *Chelonian Conservation and Biology*, 1998, 3(1): 84-87.

Stepanuk JEF, Heywood EI, Lopez JF, DiGiovanni RA Jr, Thorne LH (2021) Age-specific behavior and habitat use in humpback whales: implications for vessel strike. *Mar Ecol Prog Ser* 663:209-222. <https://doi-org.ezproxy.lib.umb.edu/10.3354/meps13638>

Waring GT, DiGiovanni RA Jr, Josephson E, Wood S, Gilbert JR. 2015. 2012 population estimate for the harbor seal (*Phoca vitulina concolor*) in New England waters. NOAA Tech Memo NMFS NE-235; 15 p.

Waring G.T., J.R. Gilbert, D. Belden, A. Van Atten and R.A. DiGiovanni: A review of the status of harbor seals (*Phoca vitulina*) in the Northeast United States of America. In Harbour Seals in the North Atlantic and the Baltic. NAMMCO Scientific Publications, Volume 8. Tromsø 2010.

Waring G. T. , R. DiGiovanni, A. Ferland, and S. Wood, Review of Criteria for Index Sites for Monitoring Seal Abundance and Trends: Application to southern New England. Abstract NAMCO conference on harbour seals.

Waring, G.T., R.A. DiGiovanni Jr, E. Josephson, S. Wood, and J.R. Gilbert. 2015a. 2012 population estimate for the harbor seal (*Phoca vitulina concolor*) in New England waters. NOAA Tech. Memo. NMFS NE-235. 15 pp.

Wells, Randall S., Deborah A. Fauquier, Frances M. D. Gulland, Forrest I. Townsend and Robert A. DiGiovanni Jr. Evaluating postintervention survival of free-ranging odontocete cetaceans Marine Mammal Science Volume 29, Issue 4, October 2013, Pages: E463–E483, Article first published online : 30 NOV 2012, DOI: 10.1111/mms.1200