

LEIGH G. TORRES

301 Evans Bay Parade • Hataitai, Wellington, New Zealand • +64 04 382 1628 • e-mail: l.torres@niwa.co.nz

Career Interests: Ecosystem based conservation management of marine animals with emphasis on the behavioral and distribution ecology of upper trophic level predators. Specialties are spatial analysis, predator-prey interactions, behavioral ecology, fisheries by-catch mitigation, visual media, education and advocacy.

EDUCATION

- | | |
|--|--|
| Duke University , Beaufort and Durham, North Carolina, Duke Marine Laboratory
<i>Ph. D.</i> , Marine Ecology, Nicholas School of the Environment and Earth Sciences
Committee: Andrew J. Read (advisor), Patrick Halpin, Mike Heithaus, Hans Paerl
<i>Dissertation:</i> Distribution and foraging ecology of top predators in Florida Bay, Florida
Taught: Green By Design, Conservation Biology, Marine Mammal Biology, Marine Ecology
<i>Masters in Coastal Environmental Management</i> | DATES:
June 2002 – Dec. 2007

May 2001 |
| <i>Thesis:</i> Improving management of overlapping bottlenose dolphin ecotypes in the
NW Atlantic through spatial distribution analysis and genetics
Courses in resource management, marine ecology, marine policy, marine mammals, GIS,
remote sensing, ocean governance, ocean ecosystems, ecology of coral reef fishes | |
| American University , Washington D.C., Bachelor of Arts, <i>cum laude</i>
Visual Media major in School of Communication and Environmental Science minor. | May 1997 |
| University of Oregon , Eugene, OR
Completed graduate courses in Molecular Biology, Animal Behavior, Community Ecology | Sept. 1998 – June 1999 |

RESEARCH & PROFESSIONAL OVERVIEW

PhD research integrated spatial and behavioral ecology with biological and physical variables to determine upper trophic level habitat selection in Florida Bay, Florida. The goal was to establish habitat preference patterns of dolphins and piscivorous birds and relate this data to fish community composition, predator effect of shark distribution, and habitat quality. Funding secured through NOAA's Center for Sponsored Coastal Ocean Research.

Other research has utilized spatial analysis to (1) analyze distribution patterns of bottlenose dolphins in US mid-Atlantic waters, (2) classify habitat use patterns of overlapping bottlenose dolphin ecotypes in NW Atlantic, and (3) determine spatial distribution of ice variability along east coast of Canada to compare with seal pupping and nursing habitat.

Co-founder of *The Green Wave*, the Duke Marine Lab's student-led greening initiative. Goal: raise environmental consciousness of students, faculty and staff and to improve the lab's everyday practices to be more sustainable and eco-friendly. Projects included: taught course on environmental sustainability (Green By Design), ran public seminar series, Clean Marina certification, transportation challenge, stormwater runoff mitigation, environmental audit of the lab.

PUBLICATIONS

- Torres, L.**, P. Rosel, A. Read, and C. D'Agrosa. 2003. Improving management of overlapping bottlenose dolphin ecotypes through spatial analysis and genetics. *Marine Mammal Science* 19(3):502-514.
- Torres, L.G.**, and D. Urban. 2005. Using spatial analysis to assess bottlenose dolphins as an indicator of healthy fish habitat. in: *Estuarine Indicators*. Ed: Stephen A. Bortone. CRC Press.
- Torres, L.G.**, W.A. McLellan, E.M. Meagher, and D.A. Pabst. 2005. Seasonal distribution and relative abundance of bottlenose dolphins, *Tursiops truncatus*, along the US mid-Atlantic Coast. *Journal of Cetacean Research and Management* 7(2).
- Johnston, D.W., A.S. Friedlaender, **L.G. Torres**, and D.M. Lavigne. 2005. Variation in ice cover on the east coast of Canada, 1969-2002: climate variability and implications for harp and hooded seals. *Journal of Climate Research* 29:209-222.
- Redfern, J.V., M.C. Ferguson, E.A. Becker, K.D. Hyrenbach, C. Good, J. Barlow, K. Kaschner, M.F. Baumgartner, K.A. Forney, L. Balance, P. Fauchald, P. Halpin, T. Hamazaki, A. Pershing, S.S. Qian, A. Read, S.B. Reilly, **L.Torres**, R. Werner. 2006. Techniques for cetacean-habitat modeling. *Marine Ecology Progress Series* 310:271-295.
- Torres, L.G.**, M.R. Heithaus and B. Delius. 2006. Influence of teleost abundance on the distribution and abundance of sharks in Florida Bay, USA. *Hydrobiologia* 569:449-455.
- Torres, L.G.**, A.J. Read and P. Halpin. 2008. Fine-scale habitat modeling of a top marine predator: Do prey data improve predictive capacity? *Ecological Applications* 18(7): 1702-1717.
- Torres, L.G.** 2009. A kaleidoscope of mammal, bird and fish: Habitat use patterns of top predators and their prey in Florida Bay, Florida. *Marine Ecology Progress Series* 375: 289-304.
- Torres, L.G.** and A.J. Read. In press. Where to catch a fish? The influence of foraging tactics on the ecology of bottlenose dolphins (*Tursiops truncatus*) in Florida Bay, Florida. *Marine Mammal Science*.

LEIGH G. TORRES

301 Evans Bay Parade • Hataitai, Wellington, New Zealand • +64 04 382 1628 • e-mail: l.torres@niwa.co.nz

PROFESSIONAL MARINE ECOLOGY EXPERIENCE

	DATES:
Post-Doc , National Institute of Water and Atmospheric Research, Wellington, New Zealand ✓ Build habitat models of seabird distributions; Assess interactions with commercial fishing activities; Expanding research to include marine mammals & sharks of New Zealand.	Feb. 4, 2008 - Present
Research Scientist , Duke University Marine Lab, Mid-Atlantic Bight, NC ✓ Observer, data recorder, photo-id specialist during fisheries by-catch mitigation study between pilot whales and long-line fishing gear.	Sept. 2006 & May 2007
Research Scientist , Pamlico Sound, NC ✓ Boat driver and photographer during mark-recapture photo-identification survey of bottlenose dolphins in bays, sounds and estuaries of North Carolina.	July 2006 & July 2000
Co-Chief Scientist , Sailboat " <i>Russamee</i> ", SPLASH cruise ✓ Organized, facilitated and managed Mexican and Latin American field component of multi-national humpback whale abundance census: survey effort, small boat ops., photo-id, biopsy.	Feb. – April 2005
Research Scientist , UNC Wilmington, Wilmington, North Carolina ✓ Observer and co-coordinator of Mid-Atlantic Right Whale aerial surveys – identified the mid-Atlantic region as critical right whale habitat; new animals identified in small population ✓ Analyzed 5 years of aerial survey data to determine N/S and inshore/offshore distribution patterns of depleted and poorly understood mid-Atlantic bottlenose dolphin population	Jan. – June 2002
Research Scientist , NOAA/NMFS, NOAA R/V David Starr Jordan ✓ Observer aboard ORCAWALE, a marine mammal abundance and distribution survey ✓ Tasks included species identification, group size estimation, photo-id, and biopsy work	July – Dec. 2001
Mote Marine Lab (Sarasota, FL) & Marine Mammal Research Program (Galveston, TX) <i>Intern</i> for Dr. Randy Wells & Dr. Bernd Würsig. Assisted with various research projects ✓ Conducted population and behavioral surveys of bottlenose dolphins ✓ Photo-id of dolphins and Gray whales: site-fidelity, behavior and distribution analysis	Sept 1997 - June 1998
Woods Hole Oceanographic Institute Summer Fellowship , Woods Hole, MA ✓ Mapped the sediment substrate and contaminant environments in the Boston Harbor ✓ Analyzed side scan sonar and field data; utilized computer mapping and illustration systems	June - August 1997

HONORS, AWARDS AND SOCIETY MEMBERSHIPS

Academic:

Invited Speaker, UNC-Chapel Hill, Institute of Marine Science, Seminar Series	Sept. 19 th 2006
Presenter, Oral, 91 st Annual Ecological Society of America Conference, Memphis, TN	August 2006
Presenter, Oral, 14 th and 15 th Biennial Marine Mammal Conference	Dec. 2003 & 2005
Recipient of Duke Marine Lab Fellowship	2005-2007
Best Pre-Doctoral Student Oral Presentation, 14 th Biennial Marine Mammal Conference	Dec. 3, 2001
Best Student Presentation at Southeast and Mid Atlantic Marine Mammal Symposium	April 2001 & March 2007
Recipient of Sussman Fund Fellowship	May 2000
Scholar - Athlete for Colonial Athletic Association	Fall 1993 - Spring 1997

Soccer:

Soccer Coach of numerous girls and boys teams, and camps	1994-Present
<i>College:</i> Starter on Division I team for four years	1993-1997
<i>High School:</i> Two time First Team All-Dade; three time MVP; Captain	1989 – 1993

Society Memberships:

Member of <i>The Society For Marine Mammalogy</i>	1997-Present
Member of <i>The Ocean Conservancy</i>	2002-Present

COMPUTER AND SPECIAL SKILLS

Extensive experience: scuba diving, snorkeling, sailing, boat operation, canoeing, camping

Computer: Highly skilled in ArcGIS software, S-Plus, R, Matlab, Sigma Plot, Distance, Erdas Imagine, Adobe Photoshop & Illustrator, SOCPROG, ACDSee, Endnote, Microsoft Word, Excel, Powerpoint, and Access.

Languages/Travel: Proficient in Spanish. Able to read, write and communicate effectively. Extensive travel and living throughout Central and South America, Philippines, Australia, New Zealand, and Europe.