

Tyler C. Coverdale

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EDUCATION

Sc.B.	Biology, Brown University, Providence RI	2010
M.A.	Ecology and Evolutionary Biology, Princeton University, Princeton NJ	2015
Ph.D.	Ecology and Evolutionary Biology, Princeton University, Princeton NJ	2013-Present

ACADEMIC HONORS AND AWARDS

Centennial Fellowship, Princeton University	2013-2018
Honors in Biology, Brown University	2010
Magna Cum Laude, Brown University	2010
Senior Prize in Biology, Brown University	2010
Sigma Xi Society	2009

GRANTS AND FELLOWSHIPS

Lewis and Clark Fund for Exploration and Field Research	2015
National Geographic Young Explorers Grant	2014
Princeton University Field Research Grant	2014
NSF Graduate Research Fellowship Program Award	2014-2017
Princeton University Centennial Fellowship	2013-2014
Sander Buchman Memorial Long Island Sound Research Stipend, TNC	2011-2012
Harold Ward Undergraduate Teaching and Research Fellowship	2009-2010

ACADEMIC POSITIONS

Graduate Student, Pringle Lab, Princeton University	2013-Present
Lab Manager, Supervisor and Researcher, Bertness Lab, Brown University	2012-2013
Research Assistant, Bertness Lab, Brown University	2010-2012
Undergraduate Researcher, Bertness Lab, Brown University	2009-2010
Undergraduate Researcher, Swartz Lab, Brown University	2006-2008

INVITED LECTURES

Wheaton College (Freshwater and Marine Botany – Dr. Scott Shumway)	2013
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PUBLICATIONS

1. Kartzinel, TR, PA Chen, **TC Coverdale**, DL Erickson, WJ Kress, ML Kuzmina, DI Rubenstein, W Wang and RM Pringle. 2015. DNA metabarcoding illuminates dietary niche partitioning by large African herbivores. *Proceedings of the National Academy of Science* **112**: 8019-8024. [[Cover Article](#)] ([link](#))
2. Bonachela, JA, RM Pringle, E Sheffer, **TC Coverdale**, JA Guyton, KK Caylor, SA Levin and CE Tarnita. 2015. Termite mounds can increase the robustness of dryland ecosystems to climatic change. *Science* **347**: 651-655. [[Cover Article](#)] ([link](#))
3. **Coverdale, TC**, EW Young, CP Brisson and MD Bertness. 2014. Indirect human impacts reverse centuries of carbon sequestration and marsh accretion. *PLoS One* **9**(3) e93296. ([link](#))
4. Bertness, MD, CP Brisson, **TC Coverdale**, MC Bevil, SM Crotty, and ER Suglia. 2014. Experimental predator removal rapidly generates salt marsh die-off. *Ecology Letters* **17**: 830-835. ([link](#))
5. He, Q, MD Bertness, J Bruno, B Li, G Chen, **TC Coverdale**, AH Altieri, J Bai, T Sun, S Pennings, J Liu, P Ehrlich, and B Cui. 2014. Economic development and coastal ecosystem change in China. *Scientific Reports* **4**: 5995. ([link](#))
6. Brisson, CP, **TC Coverdale** and MD Bertness. 2014. Salt marsh die-off and recovery reveal disparity between the recovery of ecosystem structure and service provision. *Biological Conservation* **197**: 1-5. ([link](#))
7. **Coverdale, TC**, MD Bertness, and AH Altieri. 2013. Regional ontogeny of New England salt marsh die-off. *Conservation Biology* **27**(5): 1041-1048. ([link](#))
8. **Coverdale, TC**, EE Axelman, CP Brisson, EW Young, AH Altieri and MD Bertness. 2013. New England salt marsh recovery: opportunistic colonization of an invasive species and its non-consumptive effects. *PLoS One* **8**(8): e73823. ([link](#))
9. Altieri, AH, MD Bertness, **TC Coverdale**, EE Axelman, NC Herrmann and PL Szathmary. 2013. Facilitation drives the resilience of salt marshes and rapid reversal of die-off. *Ecology* **94**(7): 1647-1657. ([link](#))
10. Bertness, MD and **TC Coverdale**. 2013. An invasive species facilitates the recovery of salt marsh ecosystems on Cape Cod. *Ecology* **94**(9) 1937-1943. ([link](#))
11. **Coverdale, TC**, NC Herrmann, AH Altieri, and MD Bertness. 2013. Latent impacts: the role of historical human impacts in coastal habitat loss. *Frontiers in Ecology and the Environment* **11**(2): 69-74. [[Cover Article](#)] ([link](#))
12. Altieri, AH, MD Bertness, **TC Coverdale**, NC Herrmann, and C Holdredge. 2012. A trophic cascade triggers collapse of a salt-marsh ecosystem with intensive recreational fishing. *Ecology* **93**(6): 1402-1410. ([link](#))
13. **Coverdale, TC**, AH Altieri, and MD Bertness. 2012. Belowground herbivory increases vulnerability of New England salt marshes to die-off. *Ecology* **93**(9): 2085-2094. ([link](#))
14. **Coverdale, TC**, TR Kartzinel, K Grabowski and RM Pringle. *In prep.* Ecosystem engineering by elephants: destructive browsing increases understory plant biomass and species richness via enhanced associational defense. (Available upon request)

SELECTED PRESENTATIONS

- T. Coverdale**, C. Brisson and M. Bertness. *Fear of being eaten drives salt marsh recovery from consumer-driven die-off*. 2013 Benthic Ecology Meeting Presentation, Savannah GA.
- T. Coverdale**, N. Herrmann, A. Altieri and M. Bertness. *Synergistic, delayed effects of multiple human impacts on ecosystems*. 2011 Benthic Ecology Meeting Presentation, Mobile AL.
- T. Coverdale**, A. Altieri, M. Bertness, N. Herrmann, and C. Holdredge. *Recreational fishing triggers salt marsh die-off on Cape Cod, MA*. 2011 NEERS Spring Meeting, Port Jefferson NY.

T. Coverdale, A. Altieri, M. Bertness, N. Herrmann, and C. Holdredge. *Recreational fishing triggers salt marsh die-off on Cape Cod, MA*. 2011 Atlantic Research Center Science in the Seashore Research Symposium, Truro MA.

T. Coverdale and M. Bertness. *Overfishing triggers runaway herbivory and salt marsh die-off in New England*. Narragansett Bay National Estuarine Research Reserve. 2011.

T. Coverdale and N. Herrmann. *Is overfishing triggering marsh die-off in Cape Cod salt marshes?* Atlantic Research Center, Cape Cod National Seashore, 2011. ([link](#))

T. Coverdale, N. Herrmann, A. Altieri and M. Bertness. *Historical development of Cape Cod salt marshes triggers current runaway herbivory and marsh die-off*. 2010 Benthic Ecology Meeting Presentation, Wilmington NC.

SELECTED PRESS AND MEDIA

“African mammals, foodwebs, and coexistence” D. Tilman and E. Borer, Commentary, PNAS ([link](#))

“How do African grasslands support so many plant-eaters?” Ed Yong, National Geographic ([link](#))

“Termites are Guardians of the Soil”. March 2nd, 2015. The New York Times. ([link](#))

“Return of the African elephant”, January 28th, 2015. Gorongosa National Park Documentary Video ([link](#))

“The many sides of Africa’s elephants”, January 28th, 2015. E.O. Wilson Biodiversity Foundation Blog ([link](#))

“When Predators Vanish, So Does the Ecosystem”, May 15th, 2014. Carl Zimmer, The New York Times ([link](#))

“Walking in Tinley’s footsteps”, August 30th, 2013. Gorongosa National Park Bush Diaries Blog ([link](#))

“Going back in time four decades” August 30th, 2013. Gorongosa National Park Documentary Video ([link](#))

“Salt marsh equilibrium”. *Sunday Journal*, Cape Cod Broadcasting. March 10th, 2013 ([link](#))

“Depression-era drainage ditches emerge as sleeping threat to Cape Cod salt marshes”. January, 2013. Ecological Society of America ([link](#))

“Saving Cape Cod’s salt marshes, one fish at a time”. The Providence Journal Op-ed. July 27th, 2012.

“Pressures on predators lead to marshland die-offs”. June, 2012. The New York Times. ([link](#))

“Crabs put the pinch on marshlands”. September, 2011. NSF Science Nation ([link](#))

“Crabs may be killing Cape Cod’s marshes”. July, 2010. The Boston Globe ([link](#))

TEACHING OUTREACH AND SERVICE

Mentor, Princeton University Honors Thesis Program in Kenya (1 undergraduate student)	2015
Mentor, Princeton Environmental Institute Internship Program in Kenya (2 undergraduate students)	2015
Mentor, Daraja School for Girls at Mpala Research Centre	2014
Mentor, Princeton Environmental Institute Internship Program in Kenya (2 undergraduate students)	2014
Teaching Assistant, Ecology and Conservation of African Landscapes (in Kenya), Princeton University	2014
Teaching Assistant, Ecology: Species Interactions, Biodiversity and Society, Princeton University	2013
Teaching Assistant, Marine Biology, Brown University	2012
Reviewer for <i>Estuaries and Coasts</i> , <i>JEMBE</i> , <i>Ecosystems</i> , <i>Nature Climate Change</i> , <i>Journal of Vector Ecology</i> , <i>Marine Community Ecology and Conservation</i> , <i>Annals of Botany</i>	2011-2013
Teaching Assistant, Coastal Ecology and Conservation, Brown University	2010-2012
Teaching Assistant and University Tutor, Principles of Ecology, Brown University	2009

PROFESSIONAL REFERENCES

Dr. Robert M. Pringle, Assistant Professor
Dept. of Ecology & Evolutionary Biology,
Princeton University
Ph: 609-258-8273
Email: RPringle@Princeton.edu

Dr. Andrew H. Altieri, Staff Scientist
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Dr. Mark D. Bertness, Professor
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Brown University
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