

William K. Cornwell

CONTACT INFORMATION

Vrije Universiteit Amsterdam
Faculty of Earth and Life Sciences
Systems Ecology
De Boelelaan 1085
1081 HV Amsterdam

PAST RESEARCH POSITIONS

University of California at Berkeley
Moore Foundation Funded post-doc; 2009 - 2010

University of British Columbia, Biodiversity Research Centre
Biodiversity Post-Doc; 2007-2009

Stanford University, Dept of Biological Sciences, PhD

National Science Foundation Research Fellowship; Stanford Graduate Fellowship
Advisor: David Ackerly, Committee: Peter Vitousek, Chris Field, Brendan Bohannan 2001 - 2006

Cambridge University, Dept of Plant Sciences, M. Phil

Winston Churchill Foundation Research Fellowship
Advisor: Peter Grubb; Sept 2000 - Sept 2001

Cornell University, Dept. of Natural Resources, B.S.

Distinction in Research *Summa Cum Laude*, May 2000

GRANTS, HONORS, AND AWARDS

2010 NESCent working group grant to be held 2011-2012 (\$46800)
2010 NWO Dutch Science Foundation open round grant (€220000)
2007 Biodiversity Research Center Institutional Post-doc, UBC
2007 Presidential Award for Best Paper in American Naturalist
2006 Rubicon Fellowship; Dutch Science Foundation (€55000)
2004 National Science Foundation: Doctoral Dissertation Improvement Grant
2003 Research Grant from Center for Evolutionary Studies, Stanford University
2001 Stanford Graduate Fellowship
2001 National Science Foundation: Graduate Research Fellowship
2000 Churchill Fellowship, Cambridge University
2000 Cornell Academic Excellence award for Natural Resources graduates
1998 and 1999 Morris K. Udall Fellowship

PEER REVIEWED SCIENTIFIC PUBLICATIONS (21)

1. **Cornwell, W.K.** and D.D. Ackerly. 2010. A link between plant traits and abundance: evidence from woody plants in coastal California. *Journal of Ecology* 98: 814-821.
2. Kooyman R., M. Rosetto, **W.K. Cornwell** and M. Westoby. *in press*. Phylogenetic tests of community assembly across regional to continental scales in tropical and sub-tropical rainforests. *Global Ecology and Biogeography*.
3. Hudson, J.M.G., G.H.R. Henry, and **W.K. Cornwell**. *in press*. Taller and larger in the Arctic: shifts in leaf traits after 16 years of experimental warming. *Global Change Biology*
4. Sack, L., **W.K. Cornwell**, and 6 others. 2010. A unique web resource for physiology, ecology and the environmental sciences: PrometheusWiki. *Functional Plant Biology* 37: 687-693
5. Kembel, S.W., P.D. Cowan, M.R. Helmus, **W.K. Cornwell**, and 4 others. 2010. Picante: R tools for integrating phylogenies and ecology. *Bioinformatics* 26: 1462-1464.

6. Kooyman R., **W.K. Cornwell** and M. Westoby. 2010. Partitioning functional trait variation into within- and among-community components for Australian sub-tropical rainforest. *Journal of Ecology* 98: 517-525.
7. D.D. Ackerly, S.R. Loarie, **W.K. Cornwell** and 4 others. 2010. The geography of climate change: implications for conservation biogeography. *Diversity and Distributions*. 16: 476-487.
8. **Cornwell, W.K.** and 9 others. 2009. Plant traits and wood fates across the globe—rotted, burned, or consumed? *Global Change Biology*. 15: 2431-2449.
9. M. Vellend, **W.K. Cornwell**, K. Magnuson-Ford, and A. O. Mooers. Measuring phylogenetic biodiversity *in* Biological diversity: frontiers in measurement and assessment Eds. Anne Magurran and Brian McGill. Oxford University Press. *in press*.
10. **Cornwell, W.K.** and D.D. Ackerly. 2009. Community assembly and shifts in the distribution of functional trait values across an environmental gradient in coastal California. *Ecological Monographs*. 79: 109-126.
11. Weedon J.T., **W.K. Cornwell**, J.H.C. Cornelissen, A. Zanne, C. Wirth and D. Coomes. 2009. Global meta-analysis of wood decomposition rates: the role of wood traits. *Ecology Letters*. 12: 45-56.
12. Cernusak, L.A., G. Tcherkez, C. Keitel, **W.K. Cornwell**, and 11 others. 2009. Within plant variation in stable carbon isotopes: why are non-photosynthetic tissues generally $\delta^{13}\text{C}$ enriched compared to leaves? *Functional Plant Biology* 36: 199-213.
13. **Cornwell, W.K.**, J.H.C. Cornelissen and 28 others. 2008. Plant species traits are the predominant control on litter decomposition rates within biomes worldwide. *Ecology Letters* 11: 1065-1071.
14. **Cornwell, W.K.**, R. Bhaskar, L. Sack, S. Cordell, and C.K. Lunch. 2007. Adjustment of structure and function of Hawaiian *Metrosideros polymorpha* at high vs. low precipitation. *Functional Ecology* 21: 1063-1071.
15. Kraft, N.J.B., **W.K. Cornwell**, C.O. Webb, and D.D. Ackerly. 2007. Trait evolution, community assembly, and the phylogenetic structure of ecological communities. *American Naturalist* 170: 271-283.
16. Ackerly, D.D., and **W.K. Cornwell**. 2007. A trait-based approach to community assembly: partitioning of species trait values into within- and among-community components. *Ecology Letters* 10: 135-145.
17. **Cornwell, W.K.**, D.W. Schwilk, and D.D. Ackerly. 2006. A trait-based test for habitat filtering: convex hull volume. *Ecology* 87: 1465-1471.
18. Preston, K.A., **W.K. Cornwell**. and J. Denoyer. 2006. Wood density and vessel traits as distinct correlates of ecological strategy in 51 California coast range angiosperms. *New Phytologist* 170: 807-818.
19. **Cornwell, W.K.** and P.J. Grubb. 2003. Regional and local patterns of plant species richness with respect to resource availability. *Oikos* 100: 417-428.
20. Flecker A.S., B.W. Taylor, E.S. Bernhardt, J.M. Hood, **W.K. Cornwell**, S.R. Cassatt, M.J. Vanni, and N.S. Altman. 2002. Interactions between herbivorous fishes and limiting nutrients in a tropical stream ecosystem. *Ecology* 83: 1831-1844.
21. **Cornwell W.K.**, B.L. Bedford, and C.T. Chapin. 2001. Occurrence of arbuscular mycorrhizal fungi in a phosphorus-poor wetland and mycorrhizal response to phosphorus fertilization. *American Journal of Botany* 88: 1824-1829.

PUBLICATIONS IN THE REVIEW PROCESS (2) Moles, A.T., I.R. Wallis, W.J. Foley, D.I. Warton, A.J. Bisigato, L.C. Pizarro, C.J. Clark, P.S. Cohen, **W.K. Cornwell**, and 30 others. Putting plant defenses on the map: are tropical plants nastier. *New Phytologist*. *in review*

Bennett, J., M. Vellend, P.L. Lilley, **W.K. Cornwell**, and P. Arcese. Patterns of abundance and rarity reveal invasion debt in fragmented ecosystems. *Proceedings of the Royal Society B*. *in review*

WORKING GROUPS ORGANIZED **ARC-NZ Network for Vegetation Function working group**
Global meta-analysis of plant trait and plant type control over litter decomposition rates (co-organizers Hans Cornelissen and Will Cornwell)
14-18 November 2006—Publication in *Ecology Letters* above

ARC-NZ Network for Vegetation Function working group
Water use efficiency: relating $\delta^{13}\text{C}$ to instantaneous measures (co-organizers Louis Santiago and Will Cornwell)
May 2007—Publication in *Functional Plant Biology* above

ARC-NZ Network for Vegetation Function working group
The fate of woody litter in ecosystems worldwide (co-organizers Hans Cornelissen and Will Cornwell)
Jan 2008—One publication in *Ecology Letters* and another in review

INVITED SEMINARS

- 2011 International Botanical Conference Melbourne Australia, Organized Symposium
- California Native Plant Society, October 2010
- Golden Gate National Recreation Area, August 2010
- Point Reyes National Seashore, July 2010
- Texas Tech University, Sept 2010
- University of Missouri, St. Louis, May 2010
- 2009 Intecol symposium: Plants: from genes to geosciences,
- 2009 Intecol workshop: Plant traits, August
- Western Washington University, February 2009
- Simon Fraser University, “Les Ecoles” seminar series February 2008
- “Current Perspectives in Functional Ecology”, Amsterdam, 14-17 April 2008
- American Geophysical Union Fall Meeting, Symposium on Patterns and Processes in Litter Decomposition: Toward a Global Synthesis, December 2007
- Utrecht University, April 2007
- San Francisco State University, February 2007

INVITED WORKING GROUPS (PARTICIPANT)

- Modeling C fluxes from decomposition: leaves and wood, Christchurch NZ, 2010
- Plant functional types in global models, Paris, 2008
- Vegetation schemes in earth system models, Sydney, 2005
- Third-generation models of carbon assimilation and water expenditure, Sydney, 2005
- Towards consistent site descriptions worldwide, Sydney, 2005

PEER REVIEWER (PARTIAL LIST)

American Naturalist	Ecology	Ecology Letters
NSF	PNAS	American Journal of Botany
Aquatic Botany	New Phytologist	Journal of Tropical Ecology
Journal of Arid Environments	Austral Ecology	Functional Ecology
Ecological Applications	Plant Ecology	Journal of Ecology
Ecography	New Zealand Journal of Ecology	Oikos

TEACHING EXPERIENCE

- Guest lecture for Plant Ecology, Texas Tech University (Fall 2010)
- Guest lectures for Introduction to Ecology, University of California, Berkeley (Fall 2009)

- Led a graduate seminar class on current topics in ecology and evolutionary biology, University of British Columbia (Spring and Fall 2008)
- Co-taught Plant Systematics (with Katherine Preston and Peter Ray);, Stanford University
Designed lecture and laboratory class; gave 8 lectures (Spring 2003)
- Teaching Assistant Plant Ecology and Evolution (David Ackerly; Spring 2002)
- Teaching Assistant Biostatistics (Mark Feldman; Winter 2002)
- Tutor and demonstrator at Cambridge University ecology curriculum (2000-2001)
- Field staff: Northwest Youth Corps 2001: youth (age 16-18, including at-risk youth) environmental education and job training
- Teaching Assistant: Field Biology at Cornell University (Tom Gavin, Fall 1998)

SERVICE

- Associate editor Journal of Ecology
- Editorial Board of Protocols and Methods and Updated Standards in Ecology. A new journal/interactive website of CSIRO publishing, launching August 2010
- Organized the 2008 UVic / SFU / UBC Ecology and Evolution weekend retreat for 70 ecologists in the BC area
- Jasper Ridge Biological Preserve Steering Committee, helped draft Jasper Ridge Strategic Plan
- Volunteer instructor, Quest Scholars, Stanford University: mentorship and leadership-training program for exceptionally bright, low-income students