

## **ELISE F. GRANEK**

Assistant Professor, Environmental Science & Management; Portland State University, PO Box 751  
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### **Education**

PhD	2006	Zoology (Marine Ecology), Oregon State University
MESc	1999	Forest Science and Conservation Biology, Yale University
BA	1993	Env. Studies & Nonwestern History, University of Pennsylvania

### *DISSERTATION AND THESES*

**PhD Dissertation:** *Linkages between mangrove forests and coral reefs: quantifying organismal and energy flow between systems*, June 2006; Co-advisors: **Jane Lubchenco, Bruce Menge**

**MESc Thesis:** *Habitat Characteristics of Pteropus livingstonii Bat Roost Sites on Anjouan and Moheli, Comoros Islands*, May 1999; Co-advisors: **Oswald Schmitz, David Skelly**

**BA Thesis:** *Desertification of the Sudan: A History and a Possible Future*, May 1993; Advisor: **Robert Giegengack**

### **Employment**

#### *RESEARCH AND TEACHING*

**Assistant Professor, Environmental Science and Management, Portland State University**,  
Jan 2007 – present; Portland, OR; **Faculty Fellow of the Institute for Sustainable Solutions**, January 2011-present

**Visiting Faculty, Department of Biology, Lewis and Clark College**,  
Sep-Dec 2006; Portland, OR

**Doctoral Research Fellow, Oregon State University**;  
September 2003 – August 2006; Corvallis, OR

**NSF GK-12 Science Fellow, Oregon State University and Westland Middle School**;  
July 2002 – June 2003; Corvallis, OR

**Teaching Assistant, Oregon State University**; 2001 –2005, Corvallis, OR

**Scientific Researcher, Smithsonian Institution- Monitoring and Assessment of Biodiversity Program**; Sept 2000- July 2001, Washington, D.C.

**Field Research Ecologist, Action Comores and Yale School of Forestry and Environmental Studies**; Jan.-Dec. 1998, Anjouan and Moheli, Comoros Islands

**Teaching Fellow, Yale University**; Jan.-May 1998 and 1999. New Haven, CT  
Sociology 180B: Development and Underdevelopment

**Environmental Educator, United States Peace Corps Volunteer**;  
Oct., 1994- Dec. 1996. Benin, West Africa and Comoros, East Africa

#### *CONSERVATION AND EDUCATION*

**Staff Ecologist, Biodiversity Conservation and Sustainable Development of Comoros – IUCN, UNDP, GEF, Comorian Ministry of the Environment**; Sept. 1999 – September 2000, Comoros

**Biodiversity Education Coordinator, Intern, The Wildlands Project**; Jan.- July 1994. Tucson, Arizona

**Seasonal naturalist/interpreter**, Pinnacle Mountain Environmental Education State Park; Sept. – Nov. 1993. Little Rock, Arkansas

### Refereed Publications

- Costanza, R., I. Kubiszewski, D. Ervin, R. Bluffstone, J. Boyd, D. Brown, H. Chang, V. Dujon, E. Granek, S. Polasky, V. Shandas, A. Yeakley. In press. Valuing ecological systems and services. *F1000 Biology Reports*.
- Aswani, S., P. Christie, N.A. Muthiga, R. Mahon, J.H. Primavera, L.A. Cramer, E.B. Barbier, **E.F. Granek**, C. Kennedy, E. Wolanski, S. Hacker. In press. The way forward with ecosystem-based management in tropical contexts: reconciling with existing management systems. *Marine Policy*
- Rodriguez del Rey, Z, **E Granek**, B Buckley. 2011. Expression of HSP70 in *Mytilus californianus* following exposure to caffeine. *Ecotoxicology* 20: 855-861.
- Ruttenberg, BI and **EF Granek**. In press. Bridging the marine-terrestrial disconnect in coastal zone science and management *Marine Ecology Progress Series*.
- Granek, E.F.**, S. Polasky, C. V. Kappel, D. M. Stoms, D. J. Reed, J. Primavera, E. W. Koch, C. Kennedy, L. A. Cramer, S. D. Hacker, G. M. E. Perillo, S. Aswani, B. Silliman, D. Bael, N. Muthiga, E. B. Barbier, E. Wolanski. 2010. Ecosystem services as a common language for coastal ecosystem-based management. *Conservation Biology* 24: 207-216.
- Koch, E.W., E.D. Barbier, B.R. Silliman, D.J. Reed, G.M.E. Perillo, S.D. Hacker, **E.F. Granek**, J.H. Primavera, N. Muthiga, S. Polasky, B.S. Halpern, C.J. Kennedy, E. Wolanski, C.V. Kappel. 2009. Non-linearity in ecosystem services: temporal and spatial variability in coastal protection. *Frontiers in Ecology and the Environment* 7: 29–37.
- Granek, E.F.**, J.E. Compton, and D. Phillips. 2009. Mangrove-exported nutrient incorporation by sessile invertebrates on adjacent coral reefs. *Ecosystems*, 12: 462-472.
- Granek, E.F.**, E.M.P. Madin, M.A. Brown, W. Figueira, D.S. Cameron, Z. Hogan, G. Kristianson, P. de Villiers, J. E. Williams, J. Post, S. Zahn and R. Arlinghaus. 2008. Engaging recreational fishers in management and conservation: global case studies. *Conservation Biology*, 22(5): 1125-1134.
- Barbier E. B., E W. Koch, B. R. Silliman, S. D. Hacker, E. Wolanski, J. Primavera, **E. Granek**, S. Polasky, S. Aswani, L. A. Cramer, D. Stoms, C. Kennedy, D. Bael, C. Kappel, G. M. E. Perillo and D. J. Reed. 2008. Ecological Quality Changes Precede Changes in Quantity in Mangrove Forests - Response. *Science*.
- Barbier, E.B., E.W. Koch, B. Silliman, S.D. Hacker, E. Wolanski, J. Primavera, **E. Granek**, S. Polasky, S. Aswani, L.A. Cramer, D. Stoms, C. Kennedy, D. Bael, C. Kappel, G.M.E. Perillo and D.J. Reed. 2008. Vegetation's role in coastal protection: Reply. *Science* 320: 176-177.
- Barbier, E.B., E.W. Koch, B.R. Silliman, S.D. Hacker, E. Wolanski, J. Primavera, **E.F. Granek**, S. Polasky, S. Aswani, L.A. Cramer, D.M. Stoms, C.J. Kennedy, D. Bael, C.V. Kappel, G.M.E. Perillo, D.J. Reed. 2008. Coastal ecosystem-based management with non-linear ecological functions and values. *Science* 319: 321-323.
- Granek, E.F.** and B.I. Ruttenberg. 2008. Changes in biotic and abiotic processes following mangrove removal. *Estuarine, Coastal & Shelf Science* 80: 555-562.

- Granek, E.F.** and B.I. Ruttenberg. 2007. Protective capacity of mangroves during tropical storms: a case study from ‘Wilma’ and ‘Gamma’ in Belize. *Marine Ecology Progress Series* 343: 101–105.
- Granek, E.F.** and K. Frasier. 2007. The impacts of red mangrove (*Rhizophora mangle*) deforestation on zooplankton communities in Bocas del Toro, Panama. *Bulletin of Marine Science* 80(3): 905–914.
- Granek, E.F.** 2006. Linkages Between Mangrove Forests and Coral Reefs: Quantifying Disturbance Effects and Energy Flow Between Systems. Oregon State University, PhD Dissertation.
- Lundquist, Carolyn J. and **Elise F. Granek**. 2005. Strategies for successful marine conservation: integrating socio-economic, political, and scientific factors. *Conservation Biology* 19(6): 1771-1778.
- Lundquist, Carolyn J. and **Elise F. Granek**, Rodrigo H. Bustamante. 2005. Special Section: Implementation and Management of Marine Protected Areas. *Conservation Biology* 19(6): 1699-1700.
- Granek, E.F.** and M.A. Brown. 2005. Co-management approach to marine conservation in Moheli, Comoros Islands. *Conservation Biology* 19(6): 1724-1736.
- Granek, Elise F.**, Daniel R. Brumbaugh, Scott A. Heppell, Selina S. Heppell, and David Secord. 2005. A blueprint for the oceans: implications of two national commission reports for conservation practitioners. *Conservation Biology* 19(4): 1008-1018
- Trewhella, W.J., K.M. Rodriguez-Clark, N. Corp, A. Entwistle, S.R.T. Garrett, **E. Granek**, K.L. Lengel, M.J. Raboude, P.F. Reason, & B.J. Sewall 2005. Environmental education as a component of multidisciplinary conservation programs: lessons from conservation initiatives for Critically Endangered fruit bats in the Western Indian Ocean. *Conservation Biology* 19(1): 75-85.
- Granek, E.F.** 2002. Conservation of *Pteropus livingstonii* based on Habitat Characteristics on Anjouan and Moheli, Comoros. *Biological Conservation* 108(1): 93-100.
- Granek, E.F.** 2000. Conservation des habitats de Roussettes de Livingstone – Les Massifs Forestiers d’Anjouan et Moheli, Comores: Utilisation d’Indicateurs sociaux et ecologiques. *Ya Mkobe*. 5-6: 131-137.
- Sewall, B.J., **E.F. Granek**, and W.J. Trewhella. 2003. Ecology and conservation of the Comoros roussette, *Rousettus obliviosus*. *Oryx* 37(3): 344-352.

### **Non-Refereed Publications and Other Creative Achievements**

- Alonso, A., F. Dallmeier, E. Granek, P. Raven. 2001. *Biodiversity: Connecting with the Tapestry of Life*. Smithsonian Institution, Monitoring and Assessment of Biodiversity and the President’s Advisory Committee on Science and Technology. Washington, D.C.
- Granek, Elise. 2003. *Marine Reserves and Protected Areas: the State of the Science*. Oregon Coast Conference, Newport, OR
- Granek, Elise and Chris Krenz. 2003. *Life in Oregon’s Coastal Environment*. Presented at the Coastal Zone Symposium at Haystack Rock, Cannon Beach, Oregon.
- Granek, E.F. 2000. *Ecologie du Milieu Forestier*. Module de Formation. Projet Conservation de la Biodiversité et Développement Durable aux Comores (DGE/FEM/PNUD), Fomboni, Comores.
- Granek, E.F. 2000. *Ecologie du Milieu Marin*. Module de Formation. Projet Conservation de la Biodiversité et Développement Durable aux Comores. Fomboni, Comores.

- Granek, E.F. 2000. *An analysis of Pteropus livingstonii roost habitat: Indicators for forest conservation on Anjouan and Moheli*. Tropical Resources Institute Newsletter. Yale University.
- Granek, Elise, Brent Sewall, Chris Moser, Jennifer Talbot, JoEllen McGann, and Melissa Myers. 1999. *Guide a l'Education Environnementale: Une ressource pour les enseignants de tous niveaux*. U.S. Peace Corps-Benin, U.S. Agency for International Development-Benin, Ministere de l'Education du Benin, Ministere de l'Environnement du Benin. Publications Pedagogiques du Ministere de l'Education, Cotonou: Benin (W. Africa). 255 pages. In French.
- Sewall, B.J. and E. Granek 2000. Les roussettes des Comores. Annex in Roby, D. 1999 *Strategie Nationale pour la Conservation de Biodiversité aux Comores*. Moroni, République Fédérale Islamique des Comores.
- Sewall, B.J., E.F. Granek, J. B. Carroll, A.T.C. Feistner, W. Masefield, M. F.E. Moutui, P. F. Reason, K. M. Rodríguez-Clark, I. Saïd, W. J. Trehwella, M. Vély, and S. Wells. In Review. *Conservation Action Plan for Livingstone's flying fox, Pteropus livingstonii*. Action Comores International Report.

### **Presentations at Professional Meetings**

#### **Invited**

- Granek, EF and Ruckelshaus M. March 2011. *Ecosystem services as a common language for coastal management: a case study of the Puget Sound Partnership*. Invited symposium speaker at Resilience 2011: Resilience, Innovation and Sustainability: Navigating the complexities of global change. Tempe Arizona.
- Granek, E.F. October 2009. *Marine Reserves and Mangroves: The land sea connection between tropical coral reefs and the coast*. Invited symposium speaker at the Coastal and Estuarine Research Federation 20<sup>th</sup> Biennial Conference. Portland, OR.
- Granek, E.F. June 2006. *Anthropogenic mangrove removal: resulting biotic and abiotic changes to coastal and marine systems*. Invited symposium speaker at the 20<sup>th</sup> Annual Society for Conservation Biology Meeting, San Jose, CA.

#### **Contributed**

- Granek, E.F. 2008. *Mangrove exported nutrient incorporation by sessile invertebrates on adjacent coral reefs*. Paper presented at the 11<sup>th</sup> International Coral Reef Symposium, Ft. Lauderdale, FL.
- Granek, E.F. 2007. *The protective capacity of mangroves during tropical storms: a case study from Wilma and Gamma in Belize*. Paper presented at the 88<sup>th</sup> Annual Western Society of Naturalists Meeting, Ventura, CA.
- Granek, E.F. and K.E. Frasier. 2006 and 2005. *Larval and zooplankton communities: Comparing intact and cleared mangrove areas in Bocas del Toro, Panama*. Paper presented at the 1<sup>st</sup> International Symposium on Mangroves as Fish Habitat, Miami, FL (2006) and the 86<sup>th</sup> Annual Western Society of Naturalists Meeting, Seaside, CA (2005).
- Granek, E.F. 2005 and 2004. *Effects of mangrove removal on algal growth: abiotic and biotic changes and potential implications for adjacent coral reefs*. Paper presented at

- Ecological Society of America, Montreal, Canada and at the 85<sup>th</sup> Annual Western Society of Naturalists Meeting, Sonoma, CA.
- Granek, Elise and Brent Sewell. 2003. *Conservation Action for an African Indicator Species: Developing a conservation framework for the critically endangered Livingstone's flying fox (Pteropus livingstonii)*. Paper presented at the 17<sup>th</sup> Annual Society for Conservation Biology Meeting, Duluth, MN.
- Granek, E.F. and M.A. Brown. 2002. *Marine Conservation in Moheli, Comoros Islads: A Co-management Approach*. Paper presented at the Western Society of Naturalists Meeting, Monterey, CA.
- Granek, E.F. and B.J. Sewall 2001. *Fruit Bat Conservation in the Comoros Islands: Past Efforts, Current Challenges, and Future Steps*. Poster presented at the 31<sup>st</sup> Annual North American Symposium on Bat Research, Victoria, BC and the 15<sup>th</sup> Annual Society for Conservation Biology Meeting, Hilo, HI.
- Sewall, B. J. and E. F. Granek. 2000. *A Natural History of the Comoros Roussette, Roussettus obliviosus*. Poster presented at the 30<sup>th</sup> Annual North American Symposium on Bat Research, Miami, FL.
- Granek, E.F. 2000 and 2001. *Conservation of Pteropus livingstonii Based on Bat Roost Site Habitat Characteristics on Anjouan and Moheli, Comoros Islands*. Paper presented at the 30<sup>th</sup> Annual North American Symposium on Bat Research, Miami, FL and at the Western Society of Naturalists, Ventura, CA.

### Honors, Grants and Fellowships

#### *Pending*

- **Oregon Sea Grant Competitive Award Proposal, PI *Impacts of watershed-based contaminants on marine species and coastal communities***; Feb 2012-2014; \$181,000
- **Washington Sea Grant Competitive Award Proposal, Co-PI *Developing Quantitative Links Between Land Use, Watershed-derived Contaminants, and the Health of Washington's Intertidal Ecosystems***; March 2012-2014; \$199,997

#### *Faculty*

##### *EXTERNAL*

- **NSF IGERT Proposal: *IGERT: Sustaining ecosystem services in a rapidly urbanizing world, Co-lead PI***; July 2010-2015; \$2,990,000
- **NSF GK-12 Proposal : *Cascades to the Coast GK-12: Enhancing STEM Education through Environmental Sustainability, Co-PI***; June 2010-2015; \$2,800,000
- **M.J. Murdock *Partners in Science Grant, PI***; April 2009-March 2011; \$15,000
- **NSF ADVANCE Workshop, Women Evolving Biological Sciences. Selected participant.** 2008.
- **Sea World/Busch Garden's Conservation Fund, PI**; Awarded September 2008-present; \$25,000
- **National Geographic Society Conservation Trust Grant, PI**; Supplemental grant awarded September 2008-2010; \$5000
- **M.J. Murdock *Partners in Science Grant, PI***; April 2008-March 2010; \$15,000
- **National Geographic Society Conservation Trust Grant, PI**; January 2008-November 2010; \$20,000

- **OR SeaGrant Program Development Grant, PI;** February 2008-February 2009; \$32,594
- **NCEAS Working Group: *Measuring ecological, economic and social values of coastal habitats to inform ecosystem-based management of land-sea interfaces*, Lead PI;** January 2007- June 2009; \$112, 300
- **OR Seagrant Program Development Grant 2006, PI;** February 2007- February 2008; \$12,701
- **NOAA Restoration Center, In-kind support;** 2007, \$9272

#### ***INTERNAL***

- **Institute for Sustainable Solutions Travel and Conference Grant, PI;** for March 2011; \$1,100
- **PSU Faculty Enhancement Grant, PI;** Winter 2008; \$9995
- **PSI Professional Travel Award, PI;** for May 2009; \$1165
- **Miller Sustainability Grant - Ecosystem Services and Sustainability: Analyzing Changes from the Marmot Dam Removal, co-PI;** January-December 2008; \$122,100
- **Miller Sustainability Grant- The Columbia River Basin Sustainable Water Resources, Energy and Climate Initiative, co-PI;** January-June 2008; \$299,392

#### ***PhD Fellowships***

- **National Science Foundation Graduate Research Fellowship;** Sept '03 – Aug '06
- **National Science Foundation GK-12 Fellowship,** Oregon State University; Jun 02-03
- **U.S. Fulbright Fellowship,** Panama; Awarded May 2003
- **National Fish and Wildlife Foundation's Budweiser Conservation Scholarship Program –** 2003 awardee
- **Smithsonian Tropical Research Institute - Supplemental Research Award,** 2004
- **Aquaculture Collaborative Research Support Program (ACRSP) Fellowship at OSU,** 2005-2006
- **Sigma Xi Grant-in-Aid of Research and Member** 2005
- **PADI Project AWARE Foundation Grant** 2005
- **Zoology Research Fund (ZoRF), Oregon State University,** 2005
- **International Undergraduate Research Program, Oregon State University - Graduate Student Mentoring Award;** 2004
- **Anchor Environmental Scholarship,** awarded 2004
- **Croasdale Fellowship;** Phycological Society of America, May, 2002

#### ***Masters Fellowships***

- **Tropical Resources Institute Research Grant,** Yale University; April 1998
- **Agrarian Studies Department Graduate Research Grant,** Yale University, April 1998

#### **Other Research and Other Creative Achievements**

- **Faculty Sustainability Fellow, PSU Institute for Sustainable Solutions,** January 2011

#### **Other Teaching, Mentoring and Curricular Achievements**

Developed 7 new courses:

**Methods in Ecological Field Research - ESM 342**

**Belize Capstone – ESM 450**

**Coastal Marine Ecology - ESM 480/580**

**Marine Conservation Science and Management - ESM 483/583**

**Ecosystem Services and Sustainability: Toolbox - ESM 590**

**Ecosystem Services and Sustainability: Field Methods - ESM 591**

**Ecological processes underlying ecosystem services – ESM 592/690**

Assisted in restructuring 1 course:

**Environmental Sustainability 588**

### Professionally-related Service

Appointed to **Oregon’s Scientific and Technical Advisory Committee to the Ocean Policy Advisory Council**, December 2010-present

**Reviewer for:** *Aquatic Biology, Bulletin of Marine Science, Conservation Biology, Ecology Letters, Estuarine Coastal and Shelf Science, Ecological Applications, Environmental Conservation, Environmental Management, International Journal of turtle and Tortoise Research, Marine Biology, Marine Ecology Progress Series, Nature.*

**Society for Conservation Biology (SCB)**

**Marine Section, Governing board member:**

Sept ember 2008- December 2010

- Education committee representative; Student affairs representative

January 2002 – December 2004

- Co-editor of Special Section in *Conservation Biology*, December 2005
- Symposium co-coordinator: *Marine Reserves: A global perspective*, SCB Annual Meeting, Duluth, MN, 2003

**Education Committee member**, June 2006-Present

**2006 Annual Meeting Steering Committee member**, August 2004 – present

- Member of review panel for submitted symposia and contributed talks
- Co-organizing Symposium: *The role of recreational fishers in conservation and management: Lessons from freshwater systems for marine practitioners* for 2006 meeting
- Invited speaker in Symposium titled: *A new conservation continuum: connecting land and sea*

### Membership in Professional Societies

**Sigma Xi** – Student member 2005-2008; Full member July 2008 – present

**Society for Conservation Biology (SCB)** – member January 2001-present

**Western Society of Naturalists (WSN)** - member, November 2001 – present

**Ecological Society of America (ESA)** – member, November 2004 – 2008