## Curriculum Vitae: Leibold, Mathew A.

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http://www.biosci.utexas.edu/ib/faculty/leibold/lab/ E-mail: mleibold@mail.utexas.edu

#### Education

| B.S. University of Arizona, Tucson, AZ. 1980              |                              |
|-----------------------------------------------------------|------------------------------|
| M.S. University of Arizona, Tucson, AZ. 1980              | advisor: JH Brown            |
| Ph.D. Michigan State University, E. Lansing, MI. 1988     | advisor: EE Werner & DJ Hall |
| Post-doc. Duke University, Durham, NC 1989-90             | advisor: HM Wilbur           |
| Post-doc. Michigan State University, E. Lansing, MI. 1990 | advisor: AJ Tessier          |

## **Professional Experience**

| 2006-present | Professor, Section of Integrative Biology, U. Texas at Austin             |  |
|--------------|---------------------------------------------------------------------------|--|
| 2002-2006    | Associate Professor, "                                                    |  |
| 1998-2001    | Chair, Committee on Evolutionary Biology, University of Chicago.          |  |
| 1997-2002    | Associate Professor, The University of Chicago Dept. of Ecology and       |  |
|              | Evolution, Committee on Evolutionary Biology, Committee on the            |  |
|              | Conceptual Foundations of Science,                                        |  |
| 1991-1997    | Assistant Professor, """""                                                |  |
| 1991-present | Adjunct Professor (Visiting), Kellogg Biological Station, Mich. St. Univ. |  |
| 1989-1990    | Research Associate, Dept. of Zoology, Duke University.                    |  |
| 1988-1991    | Research Associate, Kellogg Biological Station, Michigan State Univ.      |  |
| 1988         | Instructor, Gifted and Talented Science Student Program, Kellogg          |  |
|              | Biology Station.                                                          |  |
| 1981-1986    | Research/Teaching Assistant, Mich. State University.                      |  |
| 1978-1981    | Technician, U. Arizona, Dept. Ecology and Evolutionary Biology.           |  |
|              |                                                                           |  |

**Thesis:** 'Habitat Structure and Species Interactions in Plankton Communities of Stratified Lakes'. Advisors: Earl E. Werner and Donald J. Hall

### **Current Research Interests:**

- Regulation of trophic structure (allocation of biomass to different functional groups within ecological communities)

- Regulation of biodiversity of phytoplankton and zooplankton at different spatial scales
- Niche relations among phytoplankton and zooplankton at different spatial scales
- Effects of biodiversity on stability of ecosystems, communities, and populations
- Metacommunity ecology
- Evolutionary ecology of interacting species at different spatial scales

- 'Meta-community' phylogeography of lake organisms

## **Professional Societies:**

Ecological Society of America American Society of Naturalists

### Honors:

Bold Regents Professor at University of Texas at Austin Nominated for President of American Society of Naturalists

## Grants:

- **NIMBioS** (2010-2011) Synthesizing metacommunity and stoichiometry ecology theory. NSF-DEB 0717370 (2007-2011) Evolution in pond metacommunities. \$478,000
- NSF-DEB 0710200 (2007-2009) Dissertation Research: The effects of local adaptation on community composition and species interactions. \$12,000 (J.H. Pantel)
- NSF-DEB 0640302 (2007-2008) OPUS: Food Web Dynamics in Pond Metacommunities. \$183,077
- Texas Water Development Board (2007-2008) Using satellite imagery to study algal blooms in Texas estuaries, bays and coastal ponds. \$25,000
- NCEAS (2006-2008): Evolution in Metacommunities Working Group (co-leader with Mark Urban, NCEAS). \$87,000
- NSF-DEB 0235579 (2003-2006): Collaborative Research: Compensatory VS Amplifying Effects of Community Structure on Ecological Systems in Response to Environmental Fluctuations". \$400,000 (PI with Amy Downing, Ohio Wesleyan).
- NSF-DEB 0508068 (2005-2007) Dissertation Research: Impacts of Migration on Pond Food Web Structure: Insights From Metacommunity Biology and Implications for Multi-Scale Diversity (J. Howeth)
- NCEAS (2001-2003) Working Group: "The Meta-Community Concept: A Framework for Large-Scale Community Ecology?" \$35,000.
- NSF-DEB 9815799 (1998-2003): "Testing Community Theories with Trait-by-gradient Correlations: A Comparative and Experimental Approach" (P.I., Collaborative Research with V.H. Smith, U. Kansas) \$300,000.
- NSF-DEB 9509004 (1995-1998): "Biodiversity, trophic structure, and productivity—An experimental test in pond ecosystems" (P.I., Collaborative Research with V.H. Smith, U. Kansas) \$180,000.
- NSF-DEB 9701120 (1997-1999): "Dissertation Research: Size-Refugia, Alternative States and Trophic Cascades in Pond Benthic Food Webs (J.M. Chase) \$9,000.
- NSF-DEB-9972655 (1999-2001): "Dissertation Research: Biodiversity's Effects on Ecosystem Function and Stability in Ponds." (A.L. Downing): \$11,000.
- NSF-DEB-9972656 (1999-2001): "Dissertation Research: Local vs. Regional Control of Zooplankton Community Structure." (J.B. Shurin): \$9,000.
- NSF-DEB-0105014 (2001-2003): "Dissertation Research: Incorporating Ecological Stoichiometry into a Multi-trophic, Multi-resource Community Framework (S.R. Hall): \$10,000.
- NSF-DEB-0206015 (2002-2004): "Dissertation Research: Spatial Subsidies and the Stability of Planktonic Food Webs in Ponds" (P. Geddes) \$5,000.

- NSF Graduate Research Training Grant. 1994-1999. "Environmental Regulation of Biodiversity: An Integrated Multilevel Training Program" (PI with J. Altmann and J. Sepkoski) \$537,500.
- USDE Graduate Advancement in Areas of National Needs 1998-2001. "Training Grant in Quantitative and Experimental Ecology" (P.I. of proposal with Co-PI's J. Bergelson, C. Pfister, E. Simms and T. Wootton). \$450,000.
- NSF-BSR 8817806 (1989-1990): "Food Web Responses to Environmental Productivity and Predation: a Direct Experimental Test in Field Mesocosms". (Co-PI with H.Wilbur, Duke, U.) \$200,000.
- NSF-BSR 9007597 (1990-1994): "Habitat Selection and the Ecological Consequences of Lifehistory Evolution in <u>Daphnia</u>". (Co-PI with A. Tessier, Mich. St. U.) \$250,000.
- US-Israel Binational Science Foundation 1999261 (2000-2003) "Community Structure in Deserts the Productivity-as-Structure Hypothesis" (Co-PI with Dr. Yoram Ayal, Ben Gurion University of the Negev), \$100,000.
- USDE Graduate Advancement in Areas of National Needs. 1994-1998. "Training Grant in Quantitative and Experimental Ecology" (Co-PI and coauthor of proposal with E. Simms, M. Wade and T. Wootton,). \$900,000.
- USDE Graduate Advancement in Areas of National Needs. 2001-2003. "Training Grant in Quantitative and Experimental Ecology" (Co-P.I. and coauthor of proposal with J. Bergelson, C. Pfister, E. Simms and T. Wootton). \$573,300.

# Publications

Un-refereed publications are marked with an asterisk (\*). List of Published Papers

- 1 Leibold, M. A. 1989. Resource edibility and the effects of predators and productivity on consumer-resource interactions. **American Naturalist** 134:922-949.
- 2 Leibold, M. A. 1990. Resources and predation can affect the vertical distribution of zooplankton. Limnology and Oceanography 35:938-944.
- 3 Leibold, M. A. 1991. Trophic interactions and habitat segregation between competing *Daphnia*. **Oecologia** 86:510-520.
- 4 Leibold, M. A. and A. J. Tessier. 1991. Contrasting patterns of body size for *Daphnia* species that segregate by habitat. **Oecologia** 86:342-348.
- Leibold, M.A. and H.M. Wilbur. 1992. Interactions between food web structure and nutrients on pond organisms. Nature 360:341-343. (Reviewed in Nature's "News&Views")
- 6 Tessier, A. J., A. Young, and M. A. Leibold. 1992. Population dynamics and body size selection in *Daphnia*. Limnology and Oceanography 37:1-13.
- 7 Leibold, M. A. and C. West. 1993. Experimental methods for measuring the effect of light acclimation on vertical migration by *Daphnia* in the field. Limnology and Oceanography 38:638-643.
- 8 Leibold, M. A., A. J. Tessier, and C. West. 1994. Genetic, acclimatization and ontogenetic effects on habitat selection in *Daphnia pulicaria*. Evolution 48:1324-1332.
- 9 Leibold, M.A. 1995. The niche concept revisited: mechanistic models and

community context. Ecology 76:1371-1382 (Special Feature: Concepts Section).

- 10 Power ME. et al. 1995. The role of experiments in ecology. Science 270:561-561.
- 11 Leibold, M.A. 1996. A graphical model of keystone predation: effects of productivity on abundance, incidence and ecological diversity in communities. American Naturalist 147:784-812.
- 12 Leibold, M.A. 1997. Do nutrient competition models predict nutrient availabilities in limnetic ecosystems? **Oecologia** 110:132-142.
- 13 Tessier, A.J. and M.A. Leibold. 1997. Habitat use and ecological specialization within lake *Daphnia* populations. **Oecologia** 104:561-570.
- 14 Leibold, M.A., J.M Chase, J. Shurin and A. Downing. 1997. Species turnover and the regulation of trophic structure. Annual Review of Ecology and Systematics 28:467-497.
- Leibold, M.A. 1998. Similarity and local coexistence of species from regional biotas.
  Evolutionary Ecology 12:95-110.
- 16 Leibold, M.A. 1999. Biodiversity and nutrient enrichment in pond plankton communities. **Evolutionary Ecology Research** 1:73-95.
- 17 Tessier, A.J., M.A. Leibold, and J.I. Tsao. 2000. A fundamental trade-off in resource exploitation by *Daphnia*. **Ecology** 81:826-841.
- 18 Chase, J.M., M.A. Leibold, A. Downing and J.B. Shurin. 2000. Effects of productivity, herbivory and plant species turnover in grassland food webs. Ecology 81:2485-2497.
- 19 Shurin, J.B., J.E. Havel, M.A. Leibold, and B. Pinel-Alloul. 2000. Local and regional zooplankton species richness: a scale-independent test for saturation. Ecology 81:3062-3073.
- Chase, J.M., M.A. Leibold and E.L. Simms. 2000. Plant tolerance and resistance in food webs: Community-level prediction and evolutionary implications.
  Evolutionary Ecology 14:289-314.
- 21 Leibold, M.A. and G.M. Mikkelson. 2002. Coherence, species turnover, and boundary clumping: Elements of meta-community structure. **Oikos** 97:237-250.
- 22 Chase, J.M. and M.A. Leibold. 2002. Spatial scale dictates the productivitybiodiversity relationship. **Nature** 416:427-430.
- 23 Downing, A.L. and M.A. Leibold. 2002. Ecosystem consequences of species richness and composition in pond food webs. **Nature** 416:838-841.
- 24 Horner-Devine, M.C., M.A. Leibold , V.H. Smith and B.J.M. Bohannan. 2003. Bacterial diversity patterns along a gradient of primary productivity. **Ecology** Letters 6:613-622.
- 25 Shurin, J.B., P. Amarasekare, J.M. Chase, R.D. Holt, M. Hoopes and M.A. Leibold. 2003. Alternative stable states and regional community structure. Journal Theoretical Biology 227:359–368.
- 26 Steiner, C.F. and M.A. Leibold. 2004. Cyclic assembly trajectories and the generation of scale-dependent productivity-biodiversity relationships. **Ecology** 85:107-113.
- 27 Leibold, M.A. and J. Norberg. 2004. Plankton metacommunities as self-organized adaptive systems. Limnology and Oceanography 49: 1278-1289. (Special Issue:Plankton Biodiversity)

- 28 Leibold, M.A., M. Holyoak, N. Mouquet, R.D. Holt, D. Tilman and 7 others. 2004. The metacommunity concept: a framework for large scale community ecology? Ecology Letters 7:601-613.
- 29 Hall SR, Leibold MA, Lytle DA, and Smith VH. 2004. Stoichiometry and planktonic grazer composition over gradients of light, nutrients, and predation risk. Ecology 85:2291-2301.
- 30 Hall SR, Smith VH, Lytle DA, and Leibold MA. 2005. Constraints on primary producer N : P stoichiometry along N : P supply ratio gradients. **Ecology** 86:1894-1904.
- 31 Smith, V.A., B.L. Foster, J.P. Grover, R.D. Holt, M.A. Leibold, and F. deNoyelles. 2005. Phytoplankton species richness patterns: Scale-invariance from laboratory microcosms to the world's largest lakes. **PNAS** 102:4393-4396
- 32 Hall SR, Leibold, MA, Lytle DA and Smith VH. 2006. Inedible producers in food webs: Controls on stoichiometric food quality and composition of grazers. American Naturalist 167:628-637.
- 33 Leibold, M.A. and M.A. McPeek. 2006. Coexistence of the niche and neutral perspectives in community ecology (invited 'Special Features' paper on 'The neutral theory of biodiversity'). **Ecology** 87:1399-1410.
- 34 Hall SR, Leibold MA, Lytle DA, Smith VH. 2007. Grazers, producer stoichiometry, and the light : nutrient hypothesis revisited. **Ecology** 88:1142-1152
- 35 Horner-Devine MC, Silver JM, Leibold MA, Bohannan BJM, Colwell RK, Fuhrman JA, Green JL, Kuske CR, Martiny JBH, Muyzer G, Ovreas L, Reysenbach AL, Smith VH. 2007. A comparison of taxon co-occurrence patterns for macro- and microorganisms. Ecology 88:1345-1353
- 36 Loeuille N and Leibold MA. 2008. Evolution in metacommunities: on the relative importance of species sorting and monopolization in structuring communities. American Naturalist 171:788-799.
- 37 Howeth, JG and Leibold MA. 2008. Planktonic dispersal dampens temporal trophic cascades in pond metacommunities. **Ecology Letters** 11:245-257.
- 38 Urban MC, Leibold MA, Pantel JH, Loeuille N, Vellend M, Amarasekare P, Klausmeier CA, Norberg J, De Mazancourt C, Gomulkiewicz R, Hochberg ME, Strauss SY, De Meester L, Wade MJ. 2008. Evolutionary ecology of metacommunities. Trends in Research In Ecology and Evolution 23:311-317.
- 39 Loeuille N and Leibold MA. 2008. Ecological consequences of evolution in plant defenses in a metacommunity. **Theoretical Population Biology** 74:34-45.
- 40 Downing AL, Brown BL, Perrin EM, Keitt TH and Leibold MA. 2008. Environmental fluctuations induce scale-dependent compensation and increase stability in plankton ecosystems. **Ecology** 89:3204-3214.
- 41 \* Leibold MA. 2008. Ecology Return of the Niche. Nature 454:39-40
- 42 Carpenter, SR., Armbrust, B, Arzberger P. Chapin FS,... Leibold MA, ...(19 authors). 2009. Synthesis must be accelerated in ecology and environmental sciences. **BioScience** 59:699-701.
- 43 Howeth JG and Leibold MA. 2010. Species dispersal rates alter diversity and ecosystem stability in pond metacommunities. Ecology 91:2727-2741.

- 44 Howeth JG and Leibold MA. 2010. Prey dispersal rate affects prey species composition and trait diversity in response to multiple predators in metacommunities. accepted pending revisions. Journal of Animal Ecology 79:1000-1011.
- 45 Downing AL and Leibold MA. 2010. Species richness facilitates ecosystem resilience in aquatic food webs. Freshwater Biology 55:2123-2137 Leibold MA, Economo EP and Peres-Neto-P. 2010. Metacommunity phylogenetics: separating the roles of environmental filters and historical biogeography. Ecology Letters 13:1290-1299.

# **Chapters in Books**

- 45 Mittlebach, G., C. Osenberg, and M. Leibold. 1988. Trophic relations and ontogenetic niche shifts in aquatic ecosystems. In B. Ebenman and L. Persson (eds). Size-structured Populations: Ecology and Evolution. Springer-Verlag, Berlin.
- 46 Leibold, M.A. and A.J. Tessier. 1997. Habitat structure and the structure of lake plankton communities. In B. Streit, T. Stadler and C.J. Lively (eds). **Ecology and Evolution of Freshwater Animals**. Birkhouser Publ., Basel.
- 47 Leibold, M.A. and A.J. Tessier. 1998. Experimental compromise and mechanistic approaches to the evolutionary ecology of *Daphnia* assemblages. In W.J. Resetarits and J. Bernardo (eds.). **Perspectives in Experimental Ecology**. Oxford U. Press.
- 48 Leibold, M.A. and T.E. Miller. 2003. From metapopulations to metacommunities. In I. Hanski and O. Gaggioti (eds). Ecology, Genetics, and Evolution of Metapopulations.
- 49 Leibold, M.A., S.R. Hall and O. Bjornstad. 2005. Food web architecture and its effects on consumer resource oscillations in experimental pond ecosystems. In J. Moore and P. deRuyter and V. Wolters (eds). Food Webs. Academic Press.
- Leibold, M.A., M. Holyoak and R.D. Holt. 2005. Adaptive and co-Adaptive dynamics in metacommunities. In Holyoak, Leibold and Holt (eds).
  Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.
- 51 Holyoak, M., M.A. Leibold, N. Mouquet and R.D. Holt. 2005. Metacommunities: a framework for large scale community ecology. In Holyoak, Leibold and Holt (eds). Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.
- 52 Chase, J., N. Mouquet, P. Amarasekare, R.D. Holt, M. Holyoak, M. Hoopes, M.A. Leibold, M. Loreau, J. Shurin, and D. Tilman. 2005. Competing theories for competitive metacommunities. In Holyoak, Leibold and Holt (eds). Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.
- 53 Holt, R.D., M Holyoak and M.A. Leibold. 2005. Future directions in metacommunity ecology. In Holyoak, Leibold and Holt (eds). Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.
- 54 Holyoak, M., M.A. Leibold and R.D. Holt. 2005. Coda. In Holyoak, Leibold and Holt

(eds). Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.

- 55 Law, R. and M.A. Leibold. 2005. Assembly dynamics in metacommunities. In Holyoak, Leibold and Holt (eds). Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. University of Chicago Press.
- 56 Leibold MA. in press. Spatial dynamics and metacommunities. In S. Levin and M. Loreau (eds). Guide to Ecology. Princeton U. Press.
- 57 Leibold MA. in press. The metacommunity concept and its theoretical underpinnings. In: Scheiner, SM and Willig MR (eds). The Theory of Ecology.

### Books

- 58 Elton, C. "**Animal Ecology**", 1927. Reprinting with *additional text* by MA Leibold and JT Wootton, 2001. U. Chicago Press.
- 59 Chase, J.M. and M.A. Leibold. 2003. "Ecological Niches", U. Chicago Press.
- 60 Leibold, M.A. "Food Webs and Productivity: A Meta-Community Approach". Princeton Monographs in Population Biology Series. (advanced contract).
- 61 Holyoak, M., M.A. Leibold, and R. Holt (eds). 2005. Metacommunity Ecology: Emerging views of community structure and dynamics above the local scale. In press, University of Chicago Press.

# Surveys, Editorials, and Reviews

| 62 | Leibold, M. A. 1992. Population dynamics and the <u>Tribolium</u> model (book review). | * |
|----|----------------------------------------------------------------------------------------|---|
|    | Science 56:1838.                                                                       |   |
| 63 | Leibold, M.A. 1994. Mutualism and community organization (book review).                | * |
|    | Quarterly Review of Biology 69:542-543.                                                |   |
| 64 | Mikkelson, G.M. and M.A. Leibold. 1995. The ecosystem concept, schism or               | * |
|    | synthesis? (book review). Perspectives in Biology and Medicine 38:297-299.             |   |
| 65 | Leibold, M.A. 1996. Versatility in ecology (book review). Ecology                      | * |
| 66 | Leibold, MA. 2002. "Ecological Niche": entry in N. Eldredge (ed). "The                 | * |
|    | Encyclopedia of Ecology, Evolution, and Biodiversity". ABS-CLIO, Santa                 |   |
|    | Barbara, Ca.                                                                           |   |

# **University Courses Taught**

### Undergraduate

<u>At University of Chicago</u> Evolutionary Ecology Animal Behavior Environmental Ecology At The University of Texas at Austin Ecology (BIO 373) – for Spring 2005-2006 Limnology (BIO456) – Fall 2006

#### Graduate

<u>At University of Chicago</u> Experimental Evolutionary Ecology Species Diversity Conservation Biology Concepts in Ecology Community Ecology Grant Writing and Publications

<u>At The University of Texas at Austin</u> Issues in Population Biology (384L) – Fall 2003 Community and Ecosystems Ecology (384K) – Spring 2004 Topics in Ecology (384K) – Fall 2004 Introduction to Ecology, Evolution, and Behavior (384C) – Fall 2004-2008 Community and Population Dynamics (384K) – Fall 2006

### **Tutorials and Short Courses Taught**

15 taught at U. Chicago on various ecological topics

#### **Ph.D.** Dissertations Supervised

- Chase, JM. Size-structured interactions and multiple domains of attraction in pond food webs. Assist. Prof. Washington University, St. Louis, MO.
- Airame, S. Population structure and viability of stream-dwelling frogs on Borneo (Anura). Science and Policy Coordinator, Partnership for Interdisciplinary Studies of Coastal Oceans, University of California, Santa Barbara. Researcher, NOAA, Santa Barbara.
- Shurin, J. Local and regional influences on the structure of freshwater zooplankton communities. Assistant Professor, University of British Columbia, Vancouver
- Downing, AL. The role of biological diversity for the functioning and stability of pond ecosystems. Assistant Professor, Ohio Wesleyan University, Delaware OH
- Hall, SR. Species sorting and biomass partitioning along light:nutrient:predation risk gradients in planktonic pond ecosystems. Assistant Prof., Indiana University, Bloomington, Ind.
- Geddes, P. Effects of allochthonous inputs and subsidies on pond ecosystems. Assistant Prof, Northern Illinois University, DeKalb, IL.

Howeth, JG. Post-doc, Yale University.

Pantel, JH. Post-doc, U. Illinois Champaign-Urbana.

#### **Masters Theses Supervised**

Mikkelson, GM. How do food webs fall apart? Assistant Prof., McGill University, Montreal, Canada.

# **Undergraduate Honors Theses Supervised**

Bordalen, A. Social behavior of giraffe in Tanzania. Grad student, U. Minnesota. Franke, D. Grazer mediated competition in duckweeds. Post-doc, U.C.-Davis. Cohen, G. Dispersal in pond zooplankton. Conservation Scientist, NY City, NY.

## Service

# **Departmental Committees:**

| At University of Chicago                               |              |
|--------------------------------------------------------|--------------|
| Plant Population Biologist Search Committee            | 1991         |
| Evolutionary Ecologist Search Committee                | 1992         |
| Department Curriculum Committee                        | 1992-1993    |
| Natural History Seminar coordinator                    | 1991-1994    |
| Ecologist Search Committee                             | 1993         |
| Department Seminar coordinator                         | 1992-1998    |
| G.A.A.N.N. training grant steering committee           | 1994-1998    |
| Ecology & Evolution Grad Admissions Committee          | 1997-1998    |
| Ecology & Evolution Dept. Executive Committee          | 1997-1998    |
| Ecology & Evolution Student Advisory Committee (chair) | 1997-2000    |
| Behavior Search Committee                              | 1997         |
| Ecology and Evolution Search Committee (co-chair)      | 1998         |
| Ecology & Evolution Dept. Seminar Committee            | 2001-2003    |
| At The University of Texas at Austin                   |              |
| Ecology Search Committee                               | 2003-2004    |
| Third-year evaluation committee (M. Litvak)            | 2003-2004    |
| Graduate Student Evaluation and Fellowship Committee   | 2004-present |
| Third-year evaluation committee (T. Keitt)             | 2004-2005    |
| Ecology Search Committee                               | 2005-2006    |
| Graduate Admissions Committee                          | 2006-present |
| Ecology Search Committee (chair)                       | 2007-present |

# **College/University Service**

| At University | y of Chicago |
|---------------|--------------|
|               |              |

| Chair, Committee on Evolutionary Biology (CEB)                | 1998-2001  |
|---------------------------------------------------------------|------------|
| Univ. Rep. to the Organization for Tropical Studies           | 1991-1995  |
| Res. Train. Grant proposal Committee, CEB                     | 1991-1992  |
| CEB Graduate Student Advisory Committee                       | 1992-1998  |
| Bio. Sci. Div. Dept. Rev. Com. for Com. Hu. Nut. & Nut. Biol. | 1995       |
| CEB Grad. Admissions Committee                                | 1997-1998  |
| Bio. Sci. Div. Inter-cluster Grad. Stud. Steering Comm.       | 1997-2003  |
| University Board of University Publications                   | 1997-2000  |
| BSCD Ad Hoc Tenure Review Committee                           | 1998, 2000 |
| University-wide Committee on International Programs           | 2000-2001  |
| CEB Grad. Admissions Committee                                | 2001-2003  |
|                                                               |            |

| CEB Animal Care Committee (chair)  | 2001-2003 |
|------------------------------------|-----------|
| At University of Texas             |           |
| Marine Modeller Search UTMSI       | 2004-2005 |
| Coastal Ecology Search UTMSI       | 2006-2007 |
| Committee on Promotions and Tenure | 2007-2008 |

# **Conference Speaker Presentations (all were invited presentations)**

- 1987 American Society of Limnology and Oceanography (ASLO). Symposium on Predator-Induced Prey Responses, Madison, Wi.
- 1987 Effects of vertical migration on *Daphnia* competition. Zooplankton Behavior Symposium, Skidaway Institute, U. of Georgia, Savannah, Georgia.
- 1989 Effects of habitat partitioning on competition between *Daphnia* species. Davis Conference on Population Structure, U. C. Davis.
- 1991 ASLO Special Symposium: Food Quality for Consumers in Marine and Freshwaters. Halifax, Nova Scotia.
- 1992 ASLO Symposium on Trophic Interaction in Aquatic Communities. Santa Fe.
- 1995 American Society of Zoology Symposium on Experimental Community Ecology.
- 1997 Conference on Biodiversity and Conservation, Kyoto, Japan
- 1999 Ecological Society of America (ESA) Symposium on "Plant Herbivore Interactions in an Ecosystem Context".
- 2000 ASLO Symposium on "The interface between theory and field experiment: getting beyond yes-or-no answers". Copenhagen.
- 2001 ESA Symposium on "Metacommunities". Madison Wisc.
- 2001 Gordon Conference on Plant-Herbivore Interactions. Ventura, Ca.
- 2002 Plankton Biodiversity Symposium/Workshop. Ann Arbor, Mich.
- 2003 Food-web Symposium, Giessen. Germany
- 2004 Niche Concept Symposium. Keynote speaker. Buenos Aires, Argentina 2004
- 2005 ASLO, Plenary Speaker on Biodiversity in Aquatic Ecosystems. Salt Lake City, 2005
- 2005 Shallow Lakes Congress, Aquatic Biodiversity & Ecosystem Functioning, Keynote Speaker, the Netherlands
- 2007 Metacommunity Workshop. Fribourg, Switzerland. Keynote speaker.
- 2008 Metacommunity Program. Uppsala, Sweden. Keynote lecturer.
- 2008 Texas A&M Annual Ecological Integration Symposium Keynote speaker

### Colloquia and Workshop Talks (all were invited talks)

- 2009 Southern Illinois University Carbondale Cornell University U. North Carolina
   2008 Iowa State University
- Katholik University Leuven (Belgium)
- 2007 CNRS Montpellier Rice University Louisiana State University

**2006** Pennsylvania State University **2005** Georgia Tech University **2004** McGill University, Montreal University of Amsterdam Stanford University Dartmouth College **2003** University of Ludwig Maximilian Munich National Center for Ecological Analysis and Synthesis - Santa Barbara 2002 Universite de Montreal Gettysburg College The University of Texas-Austin Yale University **SUNY-** Binghamton 2001 University of Chicago University of Michigan- Ann Arbor Conceptual Foundations of Science Workshop. University of Chicago Ecole Normale Superieure, Paris 2000 University California-Berkeley. University of Missouri, St. Louis. University of California - Davis University of Tennessee, Knoxville, (annual graduate student special speaker) University of Umea, Umea, Sweden (four seminars, special speaker in ecology) Kellogg Biological Station, Michigan St. Univ. Swedish Agricultural University, Uppsala 1999 Laboratoire d'Ecologie, Ecole Normale Superieure, Paris, France Centre for Population Biology, Imperial College, Silwood, England (two seminars) Dept. Biol. Rice University, Houston, TX. Dept. Geosci. University of Chicago. Dept. Biol., Univ. Maryland **1998** Dept. Biology, University of New Mexico Committee on the Conceptual Foundations of Science, U Chicago Department of Biology, University of Kansas, Lawrence, KA. 1997 Center for Microbial Ecology grad-student retreat, Michigan State University Section on Ecology and Evolution, U. California, Davis (2 seminars) Department of Ecology and Evolution, University of California, Irvine. (2 seminars) Department of Ecology, Behavior and Evolution, U. Minnesota (2 seminars) Department of Ecology and Evolution, SUNY-Stony Brook, N.Y. **1996** Department of Biology Utah State University, UT. Pymatuning Biology Station, University of Pittsburg, PA. Department of Zoology, University of Washington, Seattle, WA. Nelson Labs., Rutgers University, Piscataway, N.J. Ecology and Evolutionary Biology Program, Michigan State Univ., E. Lansing, MI. Department Ecology and Evolution, University of Chicago, Chicago, IL. **1995** Dept. Biol. Sci. Univ. California-Santa Barbara, CA.

|                                                                                | Div. Biol. Sci. Univ. Michigan, Ann Arbor, MI.                   |                              |  |
|--------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------|--|
|                                                                                | Dept. Bio. Sci. Miami University, Miami, OH.                     |                              |  |
| 1994                                                                           | Dept. Ecol. Ethol. Evol., Univ. Illinois-Urbana, IL.             |                              |  |
|                                                                                | Dept. Zool., Univ. Brit. Columbia, Vancouver, B.C.               |                              |  |
|                                                                                | Dept. Biol., Northern Illinois, Dekalb,Il.                       |                              |  |
|                                                                                | Sec. Ecol. & Syst. Cornell Univ. Ithaca, N.Y.                    |                              |  |
|                                                                                | Dept. Biosci., Dartmouth College, Hanover, N.H.                  |                              |  |
| 1993                                                                           | Dept. Biol., University of Illinois, Chicago, IL.                |                              |  |
|                                                                                | Kellogg Biological Station, Kalamazoo, MI.                       |                              |  |
|                                                                                | Dept. Geophys. (EvMorph), Univ. Chicago, Chicago, IL.            |                              |  |
| 1992                                                                           | Dept. of Biological Sciences, Florida State University.          |                              |  |
|                                                                                | Dept. Ecol. Evol. (NHS), Univ. Chicago, Chicago, IL.             |                              |  |
|                                                                                | Argonne National Laboratories, Chicago, IL.                      |                              |  |
|                                                                                | Department of Biological Sciences, Indiana University.           |                              |  |
| 1991                                                                           | Dept. of Biological Sciences, Univ. Illinois-Chicago.            |                              |  |
|                                                                                | Dept. of Zoology, Univ. Wisconsin-Milwaukee.                     |                              |  |
|                                                                                | Ecology and Evolutionary Biology Program, Michigan Sta           | te Univ.                     |  |
| 1990                                                                           | Kellogg Biological Station, Hickory Corners                      |                              |  |
|                                                                                | Dept. of Biology, S.U.N.YBinghamton.                             |                              |  |
|                                                                                | Dept. of Ecology and Evolution, University of Chicago, IL        |                              |  |
| 1989                                                                           | Population and Genetics Seminar Group, Duke University.          |                              |  |
|                                                                                | Dept. of Biological Science. University of Notre Dame.           |                              |  |
| 1988                                                                           | Dept. of Biology, Ohio State University.                         |                              |  |
|                                                                                | Dept. of Biological Science, University of Michigan.             |                              |  |
| 1987                                                                           |                                                                  |                              |  |
|                                                                                | Savannah River Ecology Laboratory, University of Georgi          | a                            |  |
| <b>Professional</b>                                                            | Services:                                                        |                              |  |
|                                                                                | ing and Editorial Boards                                         |                              |  |
|                                                                                | can Naturalist – Associate Editor                                | 1998-2002                    |  |
|                                                                                | rsity of Chicago Press - University Board of Publications        | 1997-2000                    |  |
|                                                                                | gical Research – Associate Editor                                | 2007-present                 |  |
|                                                                                | y of 1000 – Editor (Biodiversity)                                | 2005-present                 |  |
|                                                                                | can Naturalist – Associate Editor                                | 2008- present                |  |
| -                                                                              | nd Specialized Conference Program Committees                     |                              |  |
|                                                                                | al Center for Ecological Analysis and Synthesis (NCEA            | AS) working group on         |  |
|                                                                                | Evolution in Metacommunities (co-leader)                         |                              |  |
| National Center for Ecological Analysis and Synthesis (NCEAS) working group on |                                                                  |                              |  |
|                                                                                | Metacommunities (leader)                                         | X.                           |  |
|                                                                                | NCEAS working group on microbial diversity (invited participant) |                              |  |
|                                                                                | S working group on 'universal phenomena in ecology' (inv         |                              |  |
|                                                                                | Workshop on Directions in Zooplankton Population Biolog          | gy, 1989. Kellogg Biological |  |
|                                                                                | Station, Hickory Corners, Michigan. (invited participant)        |                              |  |
|                                                                                | shop in Microbial Community Ecology. Center for Microb           | bial Ecology, Michigan State |  |
| l                                                                              | Jniversity. 1995. (invited participant)                          |                              |  |

Workshop on Future Directions in Ecology of Pitcher Plants, Wakulla, FL., 2001 (invited participant)

Workshop on Synthesis of Plankton Diversity. Woods Hole, MA., 2001 (invited participant)

# Journal, Conference, and Book Reviewing

Science Nature PNAS Proc. Roy. Soc London American Naturalist Ecology Theoretical Population Biology Journal Theoretical Biology Oecologia Oikos **Ecology** Letters **Botanical Gazette Evolutionary Theory** Israel Journal of Zoology Archiv fur Hydrobiologie Can. J. Fish. and Aquat. Sci. University of Chicago Press Prentice Hall **Blackwell Press** 

### **Grant Proposal Reviewing**

- NSF Grant review panelist: Ecology 1998,1999,2000,2001, 2005, 2009; Diss. Improv. Grants 2002
- NSF peer review of grant proposals: Ecology, Population Biology, Oceanography (typically about 5/year in addition to service on panel)
- Additional reviews for:
- National Geographic Society
- NSERC (Canada)
- Fonds pour la Formation de Chercheurs et l'Aide a la Recherche (Canada),
- Israel National Science Foundation
- Netherlands Organization for Scientific Research
- **Dutch National Science Foundation**

Belgian Center for Science Research

### **Other Service**

- 1999.2002 National Center for Ecological Analysis and Synthesis, Science Advisory Board.
- Resilience Alliance (Conservation Ecology) Member's Board 2002-2006
- Ecological Society of America E.S.A. Research Committee 1999-2008
- 2003 Ecological Society of America – E.S.A. Nomination Committee

Tenure and promotion evaluations: U. Oklahoma, U.C. Davis, U. Pittsburgh, Yale U., U.

Victoria (Canada), U. Washington, Ben Gurion University (Israel), U. Montana, U. Illinois. U. York (Canada)

NSF-NEON advisory workshop

Graduate Program Evaluation – University of Oklahoma (for graduate program in Ecology, Evolution and Behavior)