

CURRICULUM VITAE

Joel Claude Trexler

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EDUCATION

- 1982-1986 Florida State University; Ph.D. in Biology. Dissertation title: Geographic variation in size in the sailfin molly, *Poecilia latipinna*. Advisor: Joseph Travis
- 1983 Organization for Tropical Studies; Costa Rican natural history course 83-1
- 1979-1982 Florida State University; M. Sc. in Biology, Thesis Title: Host density and intragenerational parasitism rates by a eulophid parasitoid. Advisor: Daniel Simberloff
- 1975-1979 University of South Carolina; B. Sc. in Marine Science

POSITIONS HELD

- 2003 - present **Professor of Biological Sciences, Florida International University**
- 2009 - present **Director, Marine Sciences**
- 2006 - 2007 **Interim Director, Marine Sciences**
- 2000 - 2003 **Director, Biology Graduate Program**
- 1996 - 2003 **Associate Professor, FIU**
- 1991 - 2002 **Assistant Professor, FIU**
- 1989 -1991 **Assistant Professor, University of Mississippi**
- 1986 -1989 **Assistant Professor, Eckerd College**
- 1989 -1991 **Summer Research Associate**, population biology with J. Travis, Florida State University
- 1987 **Summer Visiting scientist**, foraging ecology with E. Ranta, University of Helsinki, Finland

TEACHING, COURSES TAUGHT AND HONORS

Florida International University

Courses: Ecology lecture and lab, Advanced Ecology, Marine Ecology lecture and lab, Population Biology, Ichthyology lecture and lab, Genetics, Population Genetics, Evolution, Workshop on Data Management for Ecologists

Resource person, Organization for Tropical Studies courses 92-10 & 93-10 Costa Rican Biodiversity

Invited instructor, Marine Protected Areas course taught at Instituto de Ciencias del Mar y Limnología, Puerto Morelos, Quintana Roo, Mexico. Offered jointly by Universidad Nacional Autónoma de México and FIU, 2006-09

Invited instructor, Monitoring in Coastal Wetlands. A 3-day course taught at Unidad Multidisciplinaria de Docencia e Investigación, Sisal, Yucatán, Universidad Nacional Autónoma de México, 2008, 2009
Teaching Incentive Program (TIP) Award for Excellence in teaching, 1996
Excellence in Research Award, 2004
Finalist (1 of 3 university wide), FIU Council of 100 Outstanding Professor of the Year Award, 2007
Ralph W. Yerger Lecturer in Biology, Florida State University, April 2008

University of Mississippi

Courses: Introductory Genetics, General Biology (one of three member team)
Outstanding Teacher Award, 1991, Alpha Epsilon Delta, pre-med honor society

Eckerd College

Courses: General Biology, Ecology, Advanced Ecology, Marine Ecology, Conservation Biology, Vertebrate Biology, Biology of Fishes, Experimental Analysis of Fish Ecology, Natural History of the Galapagos Islands (a four week course, two weeks in Galapagos Islands), Costa Rican Natural History (a four week course, two weeks in Costa Rica), Western Heritage I & II (liberal arts survey courses for freshmen)

PROFESSIONAL SERVICE

Editorial Boards: Ecology (2011 – pres); Biological Invasions (2011 – pres); Oecologia (2002 - 2011); Hydrobiologia (2006-2008), Hydrobiologia Advisory Board (2008-pres); Wetlands Ecology and Management (2009 to pres)
Guest Editor: Hydrobiologia special issue on Florida Coastal Everglades LTER project (2005); Ecological Indicators special issue on assessment of Everglades restoration (2009)
Member, Design Team for DECOMP physical model, DECOMP Adaptive Management Team working group (2005-2007)
Contributor, Environmental Assessment of Tamiami Trail Bridge, Everglades National Park (2005)
Technical lead, Aquatic Ecology Group, IOP Congressional Report, Everglade National Park (2003-04)
Registrar, annual meeting of the American Society of Naturalists (2002)
Treasurer, American Society of Naturalists (1999-01); Past Treasurer (2001 – 2005)
Expert Witness, FL State Environmental Regulatory Commission. Presented testimony on nutrient enrichment and food webs in the Everglades (2002) *see Dec 1, 2007 news article in Environmental Science & Technology, <http://pubs.acs.org/doi/pdfplus/10.1021/es0726512>*
Member of Graduate Committees: University of Miami, member of three PhD committees; Louisiana State University, member of one PhD committee; University of New Mexico, member of one PhD committee; University of Florida, member of one PhD committee; Valdosta State University, member of one MS committee
Editor, Aquatic Ecology Section newsletter, Ecological Society of America (1993-98)

Consultant, statistical analysis and fish ecology, South Florida Water Management District
Membership on Panels: Resource Damage Assessment Team for Everglades National Park after Hurricane Andrew (1992); NOAA technical advisory team, maritime fishery reserves in the U.S. SE Atlantic (1994); Hole-In-The-Donut restoration Technical Proposal Evaluation Committee, Everglades National Park (1995-97); Florida Keys Carrying Capacity Analysis Model Framework development team (1999-2000); Technical Review Committee, Miami-Dade County Watershed Study (2003-06)
External Reviewer: Florida Keys Carrying Capacity Plan for US Army Corps (1998)

PUBLICATIONS

Peer-Reviewed Journal Articles

- 77 Belicka, L. L., E. R. Sokol, J. M. Hoch, R. Jaffé, and **J. C. Trexler**. 2012. A molecular and stable isotopic approach to investigate the importance of algal and detrital energy pathways in a freshwater marsh. *Wetlands* DOI 10.1007/s13157-012-0288-6
- 76 McElroy, T. C., K. L. Kandl, and **J. C. Trexler**. 2011. Temporal population-genetic structure of eastern mosquitofish in a dynamic aquatic landscape. *Journal of Heredity* 102:678-687
- 75 Sargeant, B. L., E. E. Gaiser, and **J. C. Trexler**. 2011. Indirect and direct controls of macroinvertebrates and small fish by abiotic factors and trophic interactions in the Florida Everglades. *Freshwater Biology* 56:2334–2346
- 74 Ruehl, C. B., and **J. C. Trexler**. 2011. Comparisons of snail density, standing stock, and body size among freshwater ecosystems: A review. *Hydrobiologia* 665:1–13
- 73 Parkos, J. J., C. R. Ruetz III, and **J. C. Trexler**. 2011. Disturbance regime and limits on benefits of refuge use for fishes in a fluctuating hydroscape. *Oikos* 120:1519-1530
- 72 Obaza, A., D. L. DeAngelis, and **J. C. Trexler**. 2011. Using data from an encounter sampler to model fish dispersal. *Journal of Fish Biology* 78:495–513
- 71 Jopp, F., D. L. DeAngelis, **J. C. Trexler**. 2010. Modeling seasonal dynamics of small fish cohorts in fluctuating freshwater marsh landscapes. *Landscape Ecology* 25: 1041-1054.
- 70 DeAngelis, D. L., **J. C. Trexler**, C. Cosner, A. Obaza, and F. Jopp. 2010. Fish population dynamics in a seasonally varying wetland. *Ecol. Modelling* 221:1131-1137.

- 69 Sargeant, B., E. E. Gaiser, and **J. C. Trexler**. 2010. Biotic and abiotic determinants of community trophic diversity in an Everglades food web. *Marine and Freshwater Ecology* 61:11-22.
- 66 Doren, R. F., **J. C. Trexler**, A. D. Gottlieb, and M. Harwell. 2009. Ecological indicators for system-wide assessment of the Greater Everglades Ecosystem Restoration Program. *Ecological Indicators* 9:S2-S16
- 65 **Trexler, J. C.**, and C. W. Goss. 2009. Aquatic fauna as indicators for Everglades restoration: Applying dynamic targets in assessments. *Ecological Indicators* 9S:S108-S119.
- 64 DeAngelis, D. L., **J. C. Trexler**, and D. D. Donalson. 2008. Food web dynamics in a seasonally varying wetland. *Mathematical Biosciences and Engineering* 5:877-887.
- 63 Gaiser, E. E., J. H. Richards, **J. C. Trexler**, R. F. Doren, P. V. McCormick, and S. Newman. 2008. Comment on "Estimating ecological thresholds for phosphorus in the Everglades." *Environmental Science & Technology* 42:6770-6771.
- 62 Liston, S. E., S. Newman, and **J. C. Trexler**. 2008. Macroinvertebrate community response to eutrophication in an oligotrophic wetland: An in situ mesocosm experiment. *Wetlands* 28:686-694
- 61 Chick, J. H., P. Geddes, and **J. C. Trexler**. 2008. Periphyton mat structure mediates trophic interactions in a subtropical wetland. *Wetlands* 28:378-389
- 60 Dorn, N., and **J. C. Trexler**. 2007. Crayfish assemblage shifts in a large drought-prone wetland: the roles of hydrology and competition. *Freshwater Biology* 52, 2399-2411
- 59 Zambrano, L., E. Vázquez-Domínguez, D. García-Bedoya, W. F. Loftus, and **J. C. Trexler**. 2006. Fish community structure in freshwater karstic wetlands of the Yucatan Peninsula, Mexico. *Ichthyological Explorations* 17:193-206
- 58 Green, D., **J. C. Trexler**, J. Lorenz, C. McIvor, and T. Philippi. 2006. Spatial patterns of fish communities along two estuarine gradients in southern Florida. *Hydrobiologia* 569:387-399
- 57 Williams, A. J., and **J. C. Trexler**. 2006. A preliminary analysis of the correlation of food-web characteristics with hydrology and nutrient gradients in the southern Everglades. *Hydrobiologia* 569: 493-504

- 56 Rehage, J. S., and **J. C. Trexler**. 2006. Assessing the net effect of anthropogenic disturbance on aquatic communities in wetlands: Community structure relative to distance from canals. *Hydrobiologia* 569:359-373
- 55 Dorn, N. J., **J. C. Trexler**, and E. E. Gaiser. 2006. Exploring the role of large predators in marsh food webs: evidence for a behaviorally-mediated trophic cascade. *Hydrobiologia* 569:375-386
- 54 Creer, D. A., and **J. C. Trexler**. 2006. New polymorphic microsatellite loci in two fish species: bluefin killifish (*Lucania goodei*) and yellow bullhead (*Ameiurus natalis*). *Molecular Ecology Notes* 6:167-169
- 53 Gaiser, E. E., D. L. Childers, R. D. Jones, J. H. Richards, L. J. Scinto and **J. C. Trexler**. 2006. Periphyton responses to eutrophication in the Florida Everglades: Cross-system patterns of structural and compositional change. *Limnology and Oceanography* 51:617-630.
- 52 Liston, S. E., and **J. C. Trexler**. 2005. Spatial and temporal scaling of macroinvertebrate communities inhabiting floating periphyton mats in the Florida Everglades. *Journal of the North American Benthological Society* 24:832-844
- 51 **Trexler, J. C.**, W. F. Loftus, and S. Perry. 2005. Disturbance frequency and community structure in a twenty-five year intervention study. *Oecologia* 145:140-152
- 50 DeAngelis, D. L., **J. C. Trexler**, and W. F. Loftus. 2005. Life history trade-offs and community dynamics of small fishes in a seasonally pulsed wetland. *Canadian Journal of Fisheries and Aquatic Sci.* 62:781-790
- 47 Dorn, N. J., R. Urgelles, and **J. C. Trexler**. 2005. Evaluating active and passive sampling methods to quantify crayfish density in a freshwater marsh. *Journal of the North American Benthological Society* 24:346-356
- 46 Gaiser, E. E., **J. C. Trexler**, J. H. Richards, D. L. Childers, D. Lee, A. L. Edwards, L. J. Scinto, K. Jayachandran, G. B. Noe, R. D. Jones. 2005. Exposure to above-ambient phosphorus causes ecosystem state change in the Everglades. *Journal of Environmental Quality* 34: 717-723
- 45 Ruetz, C. R., III, **J. C. Trexler**, F. Jordan, W. F. Loftus, and S. A. Perry. 2005. Population dynamics of wetland fishes: Spatiotemporal patterns shaped by hydrological disturbance? *Journal of Animal Ecology* 74:322-332
- 44 Gaff H, J. Chick J, **J. Trexler**, D. DeAngelis, L. Gross L, and R. Salinas. 2004. Evaluation of and insights from ALFISH: a spatially explicit, landscape-level simulation of fish populations in the Everglades. *Hydrobiologia* 520: 73-87.

- 43 Wolski, L. F., **J. C. Trexler**, E. B. Nelson, T. Philippi, and S. A. Perry. 2004. Assessing visitor impacts from long-term sampling of wetland communities in the Everglades. *Freshwater Biology* 49:1381-1390
- 42 Chick, J. H., C. R. Ruetz III, and **J. C. Trexler**. 2004. Spatial scale and abundance patterns of large fish communities in freshwater marshes of the Florida Everglades. *Wetlands* 24:652-664
- 41 Kobza, R. M., **J. C. Trexler**, W. F. Loftus, and S. A. Perry. 2004. Community structure of fishes inhabiting aquatic refuges in a threatened karstic wetland and its implication for ecosystem management. *Biological Conservation* 116:153-165
- 40 Gaiser, E. E., L. J. Scinto, J. H. Richards, K. Jayachandran, D. L. Childers, **J. C. Trexler**, and R. D. Jones. 2004. Phosphorus in periphyton mats provides best metric for detecting low-level P enrichment in an oligotrophic wetland. *Water Research* 38:507-516
- 39 **Trexler, J. C.** and D. L. DeAngelis. 2003. Resource allocation in offspring provisioning: an evaluation of the conditions favoring the evolution of matrotrophy. *American Naturalist* 165:574-585
- 38 Geddes, P., and **J. C. Trexler**. 2003. Uncoupling of omnivore-mediated positive and negative effects on periphyton mats. *Oecologia* 136:585-595
- 37 McElroy, T. C., L. L. Kandl, J. Garcia and **J. C. Trexler**. 2002. Extinction-colonization dynamics structure genetic variation of spotted sunfish (*Lepomis punctatus*) in the Florida Everglades. *Molecular Ecology* 12:355-368.
- 36 Noe, G.B., D.L. Childers, A.L. Edwards, E. Gaiser, K. Jayachandaran, D. Lee, J. Meeder, J. Richards, L. J. Scinto, **J. Trexler**, and R. D. Jones. 2002. Short-term changes in phosphorus storage in an oligotrophic Everglades wetland ecosystem receiving experimental nutrient enrichment. *Biogeochemistry* 59: 239-267.
- 35 Collins, T., **J. C. Trexler**, L. G. Nico, and T. Rawlings. 2002. Genetic diversity in a morphologically conservative invasive taxon: Multiple swamp eel introductions in the southeastern United States. *Conservation Biology* 16:1024-1035
- 34 Taylor, R. C., **J. C. Trexler**, and W. F. Loftus. 2001. Separating the effects of intra- and interspecific age-structured interactions in an experimental fish assemblage. *Oecologia* 127: 143-152
- 33 **Trexler, J. C.**, W. F. Loftus, F. Jordan, J. Lorenz, J. Chick, and R. M. Kobza. 2001. Empirical assessment of fish introductions in a subtropical wetland: an evaluation of contrasting views. *Biological Invasions* 2:265-277

- 32 **Trexler, J. C.**, and J. Travis. 2000. Can marine protected areas conserve stock attributes? *Bulletin of Marine Science* 66:853-873
- 31 Schirripa, M. J., and **J. C. Trexler**. 2000. Effects of mortality and gear selectivity on the otolith radius-total length relation. *Fisheries Research* 46:83-89
- 30 Turner, T. F., **J. C. Trexler**, J. L. Harris, and J. L. Haynes. 2000. Nested cladistic analysis indicates population fragmentation shapes genetic diversity in a freshwater mussel. *Genetics* 154:777-785
- 29 Chick, J. H., S. Coyne, and **J. C. Trexler**. 1999. Effectiveness of airboat electrofishing for sampling fishes in shallow vegetated habitats. *North American Journal of Fisheries Management* 19:957-967
- 28 Turner, A. M., **J. C. Trexler**, F. Jordan, S. J. Slack, P. Geddes, and W. Loftus. 1999. Targeting ecosystem features for conservation: Standing crops in the Florida Everglades. *Conservation Biology* 13:898-911
- 27 Turner, T. F., and **J. C. Trexler**. 1998. Ecological and historical associations of gene flow in darters (Teleostei: Percidae). *Evolution* 52:1781-1801
- 26 **Trexler, J. C.** 1997. Resource availability and offspring provisioning: Plasticity in embryo nourishment in sailfin mollies. *Ecology* 78:1370-1381
- 25 **Trexler, J.C.**, J. Travis, and A. Dinop. 1997. Variation among populations of the sailfin molly in the rate of concurrent multiple paternity and its implications for mating-system evolution. *Behavioral Ecology and Sociobiology* 40:297-305
- 24 Jordan, C. F., S. Coyne, and **J. C. Trexler**. 1997. Sampling fishes in heavily vegetated habitats: the effects of habitat structure on sampling characteristics of the 1-m² throw trap. *Transactions of the American Fisheries Society* 126:1012-1020
- 23 DeAngelis, D. L., W. F. Loftus, **J. C. Trexler**, and R. E. Ulanowicz. 1997. Modeling fish dynamics in a hydrologically pulsed ecosystem. *Journal of Aquatic Ecosystem Stress and Recovery* 6:1-13
- 22 Turner, A., and **J. C. Trexler**. 1997. Sampling invertebrates from the Florida Everglades: a comparison of alternative methods. *Journal of the North American Benthological Society* 16:694-709
- 21 Turner, T., **J. C. Trexler**, D. Kuhn, and H. Robison. 1996. Life history variation and comparative phylogeography of darters (Pisces:Percidae) from the North American central highlands. *Evolution* 50:2023-2036

- 20 **Trexler, J. C.** 1995. Restoration of the Kissimmee River: A conceptual model of past and present fish communities and its consequences for evaluating restoration success. *Restoration Ecology* 3:195-210
- 19 Roman, C. T., N. G. Aumen, **J. C. Trexler**, R. J. Fennema, W. F. Loftus, and M. A. Soukup. 1994. Hurricane Andrew's impact on freshwater resources. *BioScience* 44:247-255
- 18 Turner, T. F., **J. C. Trexler**, G. L. Miller, and K. E. Benson. 1994. Temporal and spatial dynamics of larval and juvenile fish abundance in a temperate floodplain river. *Copeia* 1994:174-183
- 17 **Trexler, J. C.**, R. C. Tempe, and J. Travis. 1994. Size-selective predation of sailfin mollies by two species of heron. *Oikos* 69:250-258
- 16 **Trexler, J. C.**, and J. Travis. 1993. Nontraditional regression analyses. *Ecology* 74:1629-1637
- 15 **Trexler, J. C.**, J. Travis, and M. McManus. 1992. Effects of habitat and body size on mortality rates of *Poecilia latipinna*. *Ecology* 73:2224-2236
- 14 Avise, J., **J. Trexler**, J. Travis, and W. S. Nelson. 1991. *Poecilia mexicana* is the recent female parent of the unisexual fish *P. formosa*. *Evolution* 45:1530-1533
- 13 **Trexler, J.**, and J. Travis. 1990. Phenotypic plasticity in the sailfin molly (Pisces: Poeciliidae). I. Field experiment. *Evolution* 44:143-156
- 12 **Trexler, J.**, J. Travis, and M. Trexler. 1990. Phenotypic plasticity in the sailfin molly (Pisces: Poeciliidae). II. Laboratory experiments. *Evolution* 44:157-167
- 11 Travis, J., **J. Trexler**, and M. Mulvey. 1990. Multiple paternity and its correlates in female *Poecilia latipinna* (Pisces, Poeciliidae). *Copeia* 1990:722-729
- 10 **Trexler, J.** 1990. The genetic architecture of behavior in fishes. *Annales Zoologici Fennici* 27:149-163
- 9 Travis, J., J. A. Farr, M. McManus, and **J. Trexler**. 1989. Environmental effects on adult growth patterns in the male sailfin molly (*Poecilia latipinna*). *Environmental Biology Fishes* 26:119-127
- 8 **Trexler, J.**, C. McCulloch, and J. Travis. 1988. How can the functional response best be determined? *Oecologia* 76:206-214
- 7 **Trexler, J.** 1988. Hierarchical organization of genetic variation in the sailfin molly, *Poecilia latipinna* (Pisces, Poeciliidae). *Evolution* 42:1006-1017

- 6 Farr, J., J. Travis, and **J. Trexler**. 1986. Behavioral allometry and intrademic variation in sexual behavior of the sailfin molly *Poecilia latipinna*. *Animal Behaviour* 34:497-509
- 5 Travis, J., and **J. Trexler**. 1986. Interactions among factors affecting growth, development and survival in experimental populations of *Bufo terrestris*. *Oecologia* 69:110-116
- 4 **Trexler, J.** 1985. Density-dependent parasitism by a eulophid parasitoid: tests of an intragenerational hypothesis. *Oikos* 44:415-422
- 3 **Trexler, J.** 1985. Variation in the degree of viviparity in the sailfin molly, *Poecilia latipinna*. *Copeia* 1985:999-1004
- 2 **Trexler, J.** 1984. Aggregative response and homing in a chrysidid wasp. *Oikos* 43:133-137
- 1 Travis, J., and **J. Trexler**. 1984. Investigations on control of the color polymorphism in *Pseudacris ornata*. *Herpetologica* 40:252-247

Edited Books and Journal Issues

- 3 Dorn, R. F., **J. C. Trexler**, M. C. Harwell, and G. R. Best (Editors) 2009. Ecological Indicators for Everglades Restoration. *Ecological Indicators* 9(S1):S1-S160 (special issue with 14 articles)
- 2 **Trexler, J. C.**, E. E. Gaiser, and D. Childers (Editors) 2006. Interaction of hydrology and nutrients in controlling ecosystem function in oligotrophic coastal environments of South Florida. *Hydrobiologia* 569:1-544 (special issue with 37 articles)
- 1 Busch, D. E. and **J. C. Trexler** (Editors) 2003. *Monitoring Ecosystems: Interdisciplinary Approaches for Evaluating Ecoregional Initiatives*. Island Press, Washington. 447pp

Book Chapters

- 12 Chick, J. H., and **J. C. Trexler**. 2010. Box 10.5. Habitat Improvement, Ecosystem Restoration, and What to Measure: The Case of the Everglades, pp 313-315. In W.A. Hubert and M. Quist (editors) *Inland Fisheries Management in North America*, 3rd edition. American Fisheries Society, Bethesda, MD.
- 11 Gaiser, E. E., **J. C. Trexler**, and P. R. Wetzel. 2011. The Florida Everglades. In: Batzer D. P., and A. H. Baldwin (eds) *Wetland Habitats of North America: Ecology and Conservation Concerns*. Berkeley: Univ. California Press. *In Press*

- 10 Jopp, F., D. L. DeAngelis, and **J. C. Trexler**. 2011. Chapter 18. Trophic Cascades and Food Web Stability in Fish Communities of the Everglades, pp 257-268. In: Jopp, F., H. Reuter, and B. Breckling (Eds.) *Modelling Complex Ecological Dynamics- An Introduction into Ecological Modeling for Students, Teachers & Scientists*. Springer-Verlag, Berlin, Heidelberg.
- 9 **Trexler, J. C.**, D. L. DeAngelis, and J. Jiang. 2011. Chapter 9. Community assembly and mode of reproduction: predicting the distribution of livebearing fishes, pp 95-108. In: Evans, J., A. Pilastro, and I. Schlupp, Eds. *Ecology and Evolution of Poeciliid Fishes*. University of Chicago Press.
- 8 **Trexler, J. C.**, and D. L. DeAngelis. 2011. Modeling the evolution of complex reproductive adaptations in poeciliid fishes: Matrotrophy and superfetation. In Uribe, M.C., and H. J. Greer, Eds. *Viviparous Fishes II*. New Life Publications, Homestead, FL, *in press*
- 7 DeAngelis, D. L., **J. C. Trexler**, and D. D. Donalson. 2010. Competition dynamics in a seasonally varying wetland: importance of temporal variability and spatial heterogeneity, pp 1-13. In S. Cantrell, C. Cosner, and S. Ruan (eds), *Spatial Ecology*. Chapman Hall/CRC Press.
- 6 **Trexler, J. C.**, W. F. Loftus, and J. Chick. 2003. Setting and monitoring restoration goals in the absence of historical data: The case of fishes in the Florida Everglades, pp 351-376. In D. Busch and J. C. Trexler. *Monitoring Ecoregional Initiatives: Interdisciplinary Approaches for Determining Status and Trends of Ecosystems*. Island Press
- 5 **Trexler, J. C.** and D. E. Busch. 2003. Monitoring, assessment, and ecoregional initiatives: a synthesis, pp 405-424. In D. Busch and J. C. Trexler. *Monitoring Ecosystems: Interdisciplinary Approaches for Evaluating Ecoregional Initiatives*. Island Press.
- 4 D. E. Busch and **Trexler, J. C.** 2003. The importance of monitoring in regional ecosystem initiatives, pp 1-23. In D. Busch and J. C. Trexler. *Monitoring Ecosystems: Interdisciplinary Approaches for Evaluating Ecoregional Initiatives*. Island Press
- 3 **Trexler, J. C.**, W. F. Loftus, C. F. Jordan, J. Chick, K. L. Kandl, T. C. McElroy, and O. L. Bass. 2001. Ecological scale and its implications for freshwater fishes in the Florida Everglades. Pp. 153 – 181, in J. W. Porter and K. G. Porter (eds.) *The Everglades, Florida Bay, and Coral Reefs of the Florida Keys: An Ecosystem Sourcebook*. CRC, Boca Raton.
- 2 Childers, D.L., R.D. Jones, **J. Trexler**, C. Buzzelli, S. Dailey, A.L. Edwards, E. Gaiser, K. Jayachandaran, A. Kenne, D. Lee, J. Meeder, M.Nair, J. Pechman, A.

- Renshaw, J. Richards, M. Rugge, L. Scinto, P. Sterling, and W. Van Gelder. 2001. Quantifying the effects of low-level phosphorus enrichment on unimpacted Everglades wetlands with in situ flumes and phosphorus dosing. Pp. 127 – 152, in: J. W. Porter and K. G. Porter (eds.) *The Everglades, Florida Bay, and Coral Reefs of the Florida Keys*. CRC, Boca Raton.
- 1 **Trexler, J.** 1989. Phenotypic plasticity in poeciliid life histories. Pp. 201-214, in G. Meffe and F.F. Snelson, Jr. (eds.), *Ecology and Evolution of Poeciliid Fishes*. Prentice Hall, Englewood Cliffs, NJ
- Selected Technical Reports and Proceedings***
- 19 Doren, R.F., **Trexler, J.C.**, Harwell, M., and Best, G.R., Editors, 2008. System-wide Indicators for Everglades Restoration 2008 Assessment. So. FL. Everglades Restoration Task Force, US Dept. Interior, Technical Report. 39pp.
- 18 Sikkema, D., et al. 2005. An Assessment of the Interim Operational Plan. South Florida Natural Resources Center, Everglades National Park. Report to Congress. 61pages
- 17 **Trexler, J. C.**, and W. F. Loftus. 2005. Population Structure and Spatial Delineation of Consumer Communities in the Everglades National Park. Report to US Geological Survey Cooperative No. CA 1445-CA09-95-0112, Subagreement No. 1
- 16 **Trexler, J. C.**, W. F. Loftus, and K. C. Tarboton. 2004. Fish habitat suitability index, Chapter 6. In: Tarboton, K. C. et al. *Habitat suitability indices for evaluating water management alternatives*. Report: South Florida Water Management District.
- 15 **Trexler, J. C.** 2002. Response of invertebrates and fish to changes in phosphorus levels in the central and southern Everglades, 167 – 229. In Newman, S. et al. *Effects of changes in phosphorus levels on the central and southern Everglades*. EPA Cooperative Agreement #CR827565-01-0
- 14 **Trexler, J. C.**, T. Tuten, E. Gaiser, and D. Childers. 2001. Patterns of Fish and Decapod Crustacean Assemblages Along Gradients of Nutrient Enrichment in the Florida Everglades, Chapter 5 in Childers, D. et al. *Using Transect Sampling to Relate a Phosphorus Addition Flume Study to Long-term Water Quality Impacts in Everglades Marshes*. Final Report to Everglades National Park, Cooperative Agreement CA 5280-9-9003.
- 13 **Trexler, J. C.** and W. F. Loftus. 2001. Analysis of relationships of Everglades Fish with Hydrology Using Long-Term Databases from the Everglades National Park. Cooperative Agreement CA5280-8-9003, 101pp.

- 12 Loftus, W. F., M. C. Bruno, K. J. Cunningham, S. A. Perry, and **J. C. Trexler**. 2001. The ecological role of the karst wetlands of southern Florida in relation to system restoration, pp 8-15. In U.S. Geological Survey Karst Interest Group Proceedings, St. Petersburg, FL, Feb. 13-16, 2001. Water-Resources Investigations Report 01-4011.
- 11 Stober, Q.J., K. Thornton, R. Jones, J. Richards, C. Ivey, R. Welch, M. Madden, **J. Trexler**, E. Gaiser, D. Scheidt, and S. Rathbun. 2001. South Florida Ecosystem Assessment: Phase I/II (Technical Report)- Everglades Stressor Interactions: Hydropatterns, Eutrophication, Habitat Alteration, and Mercury Contamination. EPA 904-R-01-003.
<http://www.epa.gov/Region4/sesd/reports/epa904r01003/p2report.pdf>
- 10 **Trexler, J.**, and F. Jordan. 1997. Fish and macroinvertebrate population studies in the Water Conservation Areas. South Florida Water Management District contract no. C-E6636.
- 9 Loftus, W. F., **J. Trexler**, and R. D. Jones. 1998. Mercury transfer through an Everglades aquatic food web. Florida Department of Environmental Protection contract no. SP-329.
- 8 Stober, Q.J., D. Scheidt, R. Jones, K. Thornton, L. Gandy, D. Stevens, **J. Trexler**, and S. Rathbun. 1998. South Florida Ecosystem Assessment: Final Technical Report, Phase I. Monitoring for Adaptive Management. EPA 904-R-98-002, <http://www.epa.gov/region4/sesd/reports/epa904r98002.html>
- 7 **Trexler, J.**, W. F. Loftus, O. Bass, and F. Jordan. 1997. High water assessment: The consequences of hydroperiod on marsh fish communities, pp. 103 - 123. T. V. Armentano, ed. Proceedings of the Conference: Ecological Assessment of the 1994 - 1995 High Water Conditions in the Southern Everglades. Everglades National Park, Homestead, FL.
- 6 Loftus, W. F., O. L. Bass, and **J. C. Trexler**. 1997. Long-term monitoring in the Everglades: looking beyond the Park boundary. Proceedings of the 9th Conference on Research and Resource Management in Parks and Public Lands, The George Wright Society, pp 389-392.
- 5 **Trexler, J.**, L. Richardson, and K. Spitze. 1996. Effects of Hurricane Andrew on the structure and function of Everglades aquatic communities. Everglades National Park, CA5280-3-9014, 206pp.
- 4 **Trexler, J.** and T. Turner. 1996. Molecular genetic status of the Ouachita and Ozark populations of the longnose darter, *Percina nasuta*. U.S. Forest Service report, Cooperative Agreement No. 19-91-074

- 3 Roberts, Ballantine, Buxton, Dayton, Crowder, Milon, Orbach, Pauly, **Trexler**, Walters. 1995. Review of the use of maritime fishery reserves in the U.S. Southeastern Atlantic. NOAA Technical Memorandum NFS-SEFSC-376, 31pp.
- 2 Howard, K.S., W.F. Loftus, and **J. Trexler**. 1995. Seasonal dynamics of fishes in artificial culvert pools in the C-111 basin, Dade County, Florida. Final Report to Everglades National Park, Cooperative Agreement #CA5280-2-9024, 67pp + 5 appendices.
- 1 Travis, J., and **J. Trexler**. 1987. Regional variation in habitat requirements of the sailfin molly with special reference to the Florida Keys. FL Game & FW Fish Comm Nongame Wildl Prog Tech Rep No 3, 47 pp

Graduate and Post-Graduate Supervision

Post-docs supervised and their projects

- J. Matt Hoch (09-pres) Habitat connectivity and effects of permanent aquatic refuges on spatial ecology of fish communities. Ph. D. SUNY, Stony Brook.
- Joseph Parkos (08-pres) Effects of landscape on fish dispersal. Ph.D. University of Illinois.
- Mandy Banet (10-11) Ecological forecasting for management. Ph.D. UC, Riverside.
Current: Post-doc, Univ of British Columbia
- Eric Sokel (09-11) Effects of environmental gradients on macroinvertebrates. Ph.D. Virginia Tech University. Current: Post-doc, Virginia Tech Univ.
- Brooke Sargeant (06-08) Food-web patterns in the Everglades revealed by stable isotope analysis of data collected for EPA-REMAP, Ph.D. Georgetown University.
- Tish Robertson (04-07) CERP trophic ecology monitoring. Ph.D. Rutgers University, Newark; Current: Biological Scientist, Virginia Department of Environment
- Alexander Hernandez (05-06) Food-web patterns in short-hydroperiod marshes, Ph.D. Rutgers University, New Brunswick. Current: JSPS Fellow, Kyoto University, Japan.
- Nathan Dorn (03-05) Role of crayfish in Everglades foodweb. Ph.D. Michigan State Univ. Current: Asst. Prof., Florida Atlantic University
- Doug Creer (03-05) Pop. genetics Everglades fishes. Ph.D. Washington Univ., St Louis. Current: Visiting Assist. Prof., Concord Univ, West VA.
- Jennifer Rehage (03-04) Impact of canals on dispersal and abundance of non-native fishes in South Florida. Ph.D. Univ. of Kentucky. Current: Assist. Prof., Nova Southeastern University
- Carl Ruetz (01-02) Population dynamics of Everglades fishes. Ph.D. Univ. of Minn. Current: Asst. Research Sci., Annis Water Resources Ctr, MI.
- Tom McElroy (99-02) Population genetics of Everglades fishes. PhD Miss. State Univ. Current: Asst. Prof at Kennesaw State Univ.
- John Chick (97-00) Size-structured predator-prey interactions in Everglades marshes. Ph.D. Univ. of Georgia. Current: Director, Great Rivers Research Station., Illinois Natural History Survey.

Joe Pechmann (97-99) Ecology of macroinvertebrates in Everglades wetlands. Ph.D. Univ. of Georgia. Current: Assist. Prof., Western Carolina Univ.
Karen Kandl (97-99) Population genetics of Everglades aquatic animals. Ph.D. Univ. of Georgia. Current: Part-time Assist. Prof., Western Carolina Univ.
Andrew Turner (95-97) Ecology of macroinvertebrates in Everglades wetlands. Ph. D. Michigan State Univ. Current: Assoc. Prof., Clarion University, Clarion, PA.

Ph.D. Students and their projects

Mike Bush, Ph.D. candidate
Liz Harrison, Ph.D. candidate
Clifton Ruehl, Ph.D. awarded 8/10. Controls and impacts of snails as grazers in an oligotrophic wetland. Current: Post-doc, East Carolina University
Shawn Liston, Ph. D. awarded 12/04. Defining the role of floating periphyton mats in shaping food-web dynamics in the Florida Everglades. FIU Presidential Fellowship, EPA-STAR Fellowship. Current: Research Scientist, National Audubon Society
William Loftus, Ph. D. awarded 12/00. Bioaccumulation of mercury in Everglades food webs. Current: Research Scientist, USGS-Biological Resources Division, FL-Caribbean Science Center
Tom Turner, Ph. D. awarded 12/96. A comparative study of life history and gene flow in darters (Pisces: Percidae). Current: Associate Professor, Dept. of Biology, University of New Mexico
Michael Schirripa, Ph. D. awarded, 4/96. Evaluation of growth rate estimation from fish otoliths using a striped bass bioenergetics model. Current: Fisheries Biologist, NOAA, NMFS, Portland, OR

M.S. Students and their projects

Ann Hejuelos, M. S. candidate.
Raul Urgelles, M. S. awarded 4/10. Community dynamics of dragonfly naiads in Everglades wetlands. Current: Biological Scientist, NPS
Adam Obaza, M. S. awarded 9/09. Use of drift fence encounter rate to estimate fish movement rate. Current: Fisheries Scientist, NOAA, NMFS
David Green, M. S. awarded 8/07. Community structure and physiological stresses of oligohaline zone fishes in South Florida. Current: lecturer, FGCU.
Charles Goss, M.S. awarded 12/06. Dispersal-competition trade-off in two fish co-existing in the Everglades. Current: PhD candidate, Ohio State Univ.
Jade Williams, M.S. awarded 4/04. Effect of productivity and hydroperiod on food-chain length in the Everglades. EPA-STAR Fellowship. Current: Environmental Consulting Firm
Shawna Baker, M.S. awarded 4/04. Effects of hydroperiod on life-history parameters of *Lucania goodei* (Fundulidae) in the Florida Everglades. Current: Biol. Sci., Texas Game and Fish.
Lawrence Lopez, M.S. awarded 4/04. Effect of seed predation by rodents on plant recruitment on islands in Lago Guri, Venezuela. Current: Biological Scientist, FIU.

Tim Konnert, M.S. awarded 12/02. Effects of hydrology on life age-specific vital rates of livebearing fishes in the Everglades, Fisheries Biologist, Federal Energy Regulatory Com., Washington, DC.

Kyoko Nakamura, M.S. awarded 12/01. Pedigree analysis of genetic markers in sailfin mollies. Current: Biology Technician, USDA Tropical Horticulture Institute

Robert Kobza, M.S. awarded 5/01. Community structure of fishes inhabiting hydrological refuges in a threatened karstic habitat. Current: Biological technician, South Florida Water Management District

Xavier Pagan, M.S. awarded 12/00. Effects of water level and predation on survival of spotted sunfish larvae in the Florida Everglades. Current: Biologist, FL DOT

Pamela Geddes, M.S. awarded 9/99. Role of grazers in regulation of periphyton dynamics. Current: Ph.D. Univ. of Chicago; post-doc Univ Ill, Chicago.

Ryan Taylor, M.S. awarded 9/99. Experimental study of size-structured predator-prey relationships. Current: Ph.D. University of Louisiana, Lafayette; Post-doc Univ. Texas.

Adrian Jelenzsky, M.S. awarded 9/99. Life history variation of mosquitofish along nutrient gradients. Current: middle-school teacher.

Kenneth Howard, M. S. awarded 9/95. Seasonal dynamics of fishes in artificial culvert pools in the C111basin, Dade County, Florida. Current: Environmental Analyst, Palm Beach County, FL, Department of Environmental Management

Dana Neff, M. S. awarded 9/94. Fat storage fluctuations as a function of seasonality and reproduction in the sailfin molly, *Poecilia latipinna*, in South Florida. Current: H.S. teacher

Andrea Dinep, M. S. awarded 12/91. Patterns of multiple paternity in the sailfin molly, *Poecilia latipinna*. Current: Homemaker