



HUMBOLDT STATE UNIVERSITY

HSU Marine Laboratory

Tissot Benthic Ecology Lab

Graduate Student Suggested Reading List

(* - essential papers to read)

UPDATED: 1/23/2016

A. Papers

I. ECOLOGY AND EVOLUTION

Behavioral Ecology

*MacArthur, R. H. and E. R. Pianka. 1966. On Optimal Use of a Patchy Environment. *American Naturalist* 100 : 603-9

Schoener, T. W. 1971. Theory of Feeding Strategies. *Annual Review of Ecology and Systematics* 2 : 369-404

Biomechanics

Branch, G. M., and Marsh, A. C. 1978. Tenacity and shell shape in six *Patella* species: adaptive features. *J. Exp. Mar. Biol. Ecol.* 34: 111 - 130.

Denny, M. W., T. L. Daniels and M. A. R. Koehl. 1985. Mechanical limits to size in wave-swept organisms. *Ecological Monographs* 55(1): 69-102.

Harley, C.D.G., M.W. Denny, K.J. Mach and L.P. Miller (2009). Thermal stress and morphological adaptations in limpets. *Functional Ecology* 23: 292-301

Palumbi, S. R. 1986. How body plans limit acclimation responses of a demosponge to wave force. *Ecology* 67(1): 208-214.

*Palumbi, S. R. 1984. Measuring intertidal wave forces. *J. Exp. Mar. Biol. Ecol.* 81: 171-179.

Riedl, R. (1971). Water movement: 3. Animals, *in*: Kinne, O. (Ed.) (1971). *Marine ecology: a comprehensive, integrated treatise on life in oceans and coastal waters: 1. Environmental factors: 2.* pp. 1123-1149

Tissot, B. N. 1992. The effects of water movement on the ecology and evolution of the Haliotidae. Chapter 4 *in*: S. Shepherd and M. Tegner, eds. *Proceedings of the First International Abalone Symposium: Biology, Fisheries, and Culture*. La Paz, Mexico. Blackwells Sci. Publ. Ltd., Sydney

*Vogel, S. 1988. How Organisms use Induced Flows. *American Scientist* 28-34.

Competition

Branch, G. M. 1984. Competition between marine organisms: ecological and evolutionary implications. *Oceanography and Marine Biology Annual Review* 22: 429-593.

*Buss, LW and JBC Jackson. 1979. Competitive networks: non-transitive competitive relationships in cryptic coral reef environments. *American Naturalist* 113:223-234.

Caswell, H 1976. Community structure: a neutral model analysis. *Ecological Monographs* 46:327-354.

*Connell, J. H. 1961. The influence of interspecific competition and other factors on the distribution of the barnacle *Chthamalus stellatus*. *Ecology* 42(4): 710-723.

*Connell, JH 1978. Diversity in tropical rain forests and coral reefs. *Science* 199: 1302-1310.

*Connell, JH 1980. Diversity and the coevolution of competitors, or the ghost of competition past. *Oikos* 35:131-138.

Schoener, TW 1982. The controversy over interspecific competition. *Amer. Sci.* 70:586-595.

*Woodin, S. A. 1976. Adult-larval interactions in dense infaunal assemblages: patterns of abundance. *Journal of Marine Research* 34: 25-41.

Disturbance

Dayton, 1971. Competition, disturbance, and community structure: the provision and subsequent utilization of space in a rocky intertidal community. *Ecological Monographs* 41: 351-389.

*Dayton, P. K. and M. J. Tegner. 1984. Catastrophic storms, El Niño, and patch stability in a southern California kelp community. *Science* 224: 283-285.

Dayton, P. K. and R. H. Hessler. 1972. The role of biological disturbance in maintaining diversity in the deep sea. *Deep Sea Research* 19: 199-208.

Sousa, W. P. 1979. Disturbance in marine intertidal boulder fields: the non-equilibrium maintenance of species diversity. *Ecology* 60: 1225-1239.

*Sousa, W. P. 1979. Experimental investigations of disturbance and ecological succession in a rocky intertidal algal community. *Ecological Monographs* 49: 227-254.

Diversity

*Clements, .F. E. 1936. Nature and Structure of the Climax. *Journal of Ecology* 24 : 252-84

*Hutchinson, G. E. 1959. Homage to Santa Rosalia; or, Why Are There So Many Kinds of Animals? *American Naturalist* 93 : 145-59

*Lubchenco, J 1978. Plant species diversity in a marine intertidal community: importance of herbivore food preference and algal competitive abilities. *American Naturalist* 112:23-39,

Menge B,A and JP Sutherland. 1976. Species diversity gradients: synthesis of the roles of predation, competition, and temporal heterogeneity. *American Naturalist* 110:351-369

*Paine, R. T. 1966. Food web complexity and species diversity. *American Naturalist* 100: 65-75.

Paine, RT 1980. Food webs: linkage, interaction strength, community infrastructure. *J. Animal Ecology* 49:667-685.

*Peter F. Sale, Rand Dybdahl. 1975. Determinants of Community Structure for Coral Reef Fishes in an Experimental Habitat. *Ecology*: Vol. 56, No. 6, pp. 1343-1355.

*Simberloff, D. S. and E. O. Wilson. 1969. Experimental Zoogeography of Islands: The Colonization of Empty Islands. *Ecology* 50 : 278-96

Evolutionary Ecology

*Ehrlich, P. R. and P. H. Raven. 1964. Butterflies and Plants: A Study in Coevolution. *Evolution* 18 : 586-608

Population ecology

Graham, M.H., P.K Dayton, and M.A. Hixon. 2002. Paradigms in ecology: past, present, and future. *Ecology* 83:1479-1480

*Hixon, M.A. 1998. Population dynamics of coral-reef fishes: controversial concepts and hypotheses. *Australian Journal of Ecology* 23:192-201

- *Hixon, M.A., S. W. Pacala, and S.A. Sandin. 2002. Population regulation: historical context and contemporary challenges of open vs. closed systems. *Ecology* 83:1490-1508
- *May, R. M. 1974. Biological Populations with Non-Overlapping Generations: Stable Points, Stable Cycles, and Chaos. *Science* 186 : 645-47

Predation

- Estes, J. A. and J. F. Palmisano. 1974. Sea otters: their role in structuring nearshore communities. *Science* 185: 1058-1060.
- * Hixon, M.A., and G.P. Jones. 2005. Competition, predation, and density-dependent mortality in demersal marine fishes. *Ecology* 86:2847-2859
- *Paine, R. T. 1974. Intertidal community structure: experimental studies on the relationship between a dominant competitor and its principal prey. *Oecologia* 15: 93-120.
- Steinberg, P. D. 1985. Feeding preferences of *Tegula funebris* and chemical defenses of marine brown algae. *Ecological Monographs* 55(3): 333-349.

II. RESEARCH METHODS

- *Bender, EA, TJ Case, and ME Gilpin. 1984. Perturbation experiments in community ecology: theory and practice. *Ecology* 65: 1-13.
- Dayton, P. K. 1979. Ecology: a science and a religion. pp. 3-18 In: R. J. Livingston (ed.), *Ecological Processes in Coastal and Marine Systems*. Plenum Press, New York.
- *Dayton, P. K and E. Sala. 2001. Natural history: the sense of wonder, creativity and progress in ecology. *A Marine Science Odyssey into the 21st Century*. J.M. Gili, J.L. Pretus and T.T. Packard (eds.). *Sci. Mar.* 2: 199-206
- *Hurlbert, S. 1984. Pseudoreplication and the design of ecological field experiments. *Ecological Monographs* 54(2): 187-211
- *Platt, J. R. 1964. Strong inference. *Science* 146: 347-353.
- *Underwood, A. J. 1991. The logic of ecological experiments: a case history from studies of the distribution of macro-algae on rocky Intertidal shores. *J. Mar. Biol. Ass. U. K.* 71: 841-866.

III. CONSERVATION AND POLICY

1. Cortner, H. J. 2000. Making science relevant to environmental policy. *Env. Sci. Policy* 3: 21-30.
2. &Gallagher, M. B. and S. S. Heppell. 2010. Essential Habitat Identification for Age-0 Rockfish along the Central Oregon Coast. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science*, 2010:60-72. 2010.
3. &Gleason, M., S. McCreary., M. Miller-Henson, J. Ugoretz, E. Fox, M. Merrifield, W. McClintock, P. Serpa and K. Hoffman. 2010. Science-based and stakeholder-driven marine protected area network planning: A successful case study from north central California. *Ocean Coast. Manag.* 53: 52-68.
4. McClenachan, L. 2009. Documenting Loss of Large Trophy Fish from the Florida Keys with Historical Photographs. *Conserv. Biol.* 23(3): 636-643.
5. Nisbet, M. C., M. A. Hixon, K. D. Moore and M. Nelson. 2010. Four cultures: new synergies for engaging society on climate change. *Frontiers Ecol. Environ.* 8(6): 329-335.
6. &Weiland, P.S. 1999. Amending the NEPA: federal environmental protection for the 21st Century. *J. Land Use & Environmental Law.* 12(2): 275-305

IV. NATURAL RESOURCE ETHICS

- *Auster, P.J., R. Fujita, S.R. Kellert, J. Avise, C. Campagna, B. Cuker, P. Dayton, B. Heneman, R. Kenchington, G. Stone, G. Notarbartolo di Sciara and P. Glynn. 2008. Developing an ocean ethic: science, utility, aesthetics, self-interest and different ways of knowing. *Conservation Biology* 23:233-235.
- *Bearzi, G. 2009. When swordfish conservation biologists eat swordfish. *Conservation Biology* 23(1): 1-2
- *Chapman, M. 2004. A challenge to conservationists. *World Watch Magazine* Nov/Dec 2004.
- Cinner, J. E. and S. Aswani. 2007. Integrating customary management into marine conservation. *Biological Conservation* 140: 201-216.
- *Johannes, R. E. 1978. Traditional marine conservation methods in Oceania and their demise. *Ann. Rev Ecol and Syst.*, 9:349–364.

V. INTERDISCIPLINARY COGNIZANCE/APPRECIATION

*Michaelidou, M., D. Decker, and J. Lassoie. 2002. The interdependence of ecosystem and community viability: A theoretical framework to guide research and application. *Soc. Nat. Res.*, 15:599–616.

*Tissot, B. N. 2005. Integral marine ecology: community-based fishery management in Hawaii. *World Futures* 61: 79-95.

Weiland, P.S. 1999. Amending the NEPA: federal environmental protection for the 21st Century. *J. Land Use & Environmental Law*. 12(2): 275-305B. Books (useful for overall studying in certain areas)

VI. Books

Bertness, M., S. D. Gaines and M. E. Hay. 200. *Marine Community Ecology*. Sinauer Associates. 550 pp.

Brusca, R. C. and G. J. Brusca. 2003. *Invertebrates, Second Edition*. Sinauer Associates. 936 pp.

Gotelli, N. J. 2008. *A Primer of Ecology, Fourth Edition*. Sinauer Associates, Inc. 290 pp.

Gould, S. J. 1990. *Wonderful Life: The Burgess Shale and the Nature of History*. W.W. Norton & Co. 352 pp.

Mayr, E. 1985. *The Growth of Biological Thought: Diversity, Evolution, and Inheritance*. Belknap Press of Harvard University Press, Harvard. Mass. 992 pp.

Pechenik, J. 2009. *Biology of the Invertebrates (6th Edition)*. McGraw Hill Higher Education. 608 pp.

Pianka, E. R. 1999. *Evolutionary Ecology (6th Edition)*. Benjamin Cummings. 512 pp.

Pimentel, R.A. 1979. *Morphometrics: The Multivariate Analysis of Biological Data*, Kendall/Hunt Publishing Company, Dubuque, Iowa, USA.

Sale, P. (editor). 2002. *Coral Reef Fishes: Dynamics and Diversity in a Complex Ecosystem*. Academic Press. 500 pp.

Underwood, A. J. 1997. *Experiments in Ecology: their logical design and interpretation using analysis of variance*. Cambridge University Press.

Vogel, S. 2003. *Comparative Biomechanics: Life's Physical World*. Princeton University Press 582 pp.