Agrawal, A. A. & Van Zandt, P. A. 2002. "The community ecology of live long and prosper". *Trends in Ecology and Evolution* 17, 62, (2002). A study of sawflies feeding on birch trees in Finland, is presented as evidence against neutrality theories of species' patterns of distribution and abundance.

Allaby, Michael. 1999. *A dictionary of Plant Sciences* 2nd ed. Oxford University Press. A comprehensive introduction to botany.

Allison, Gary W. 1999. "The Implications of Experimental Design for Biodiversity Manipulations." *The American Naturalist*, 153(1) pp. 26-45.

Altieri, M.A. 1999. The ecological role of biodiversity in agroecosystems. *Agriculture, Ecosystems and Environment* 74: 19-31. Biodiversity is not just important in wilderness preserves.

Backer, D. M., et al. 2004. "Impacts of Fire-Suppression Activities on Natural Communities." *Conservation Biology* 18 (4): 937-946. The ecological effects of fire suppression can exceed those of fire itself.

Baker, A. C., et al. 2004. "Coral reefs: Corals' adaptive response to climate change." *Nature* 430, 741. Corals containing unusual algal symbionts can withstand high temperatures.

Baskin, Y. 1999. The Work of Nature: How the Diversity of Life Sustains Us. Island Press. The benefits of biodiversity.

Beatty, C. D., et al. 2004. "The evolution of Müllerian mimicry in multispecies communities" *Nature* 431: 63-66. Explores the origin of predator/prey avoidance.

Begon, Michael, C. R. Townsend, and J. L. Harper. 1998. *Ecology: Individuals, Populations and Communities*. Blackwell Science. Combines basic ecology with environmental science.

Bell, G., Lechowicz, M. J.& Waterway, M. J. 2000. "Environmental heterogeneity and species diversity of forest sedges". *Journal of Ecology*, 88, 67 - 87, (2000). Canadian transplantation studies don't show any powerful degree of local adaptation. Sometimes the rarest species is the most successful in a new location

Bolnick, Daniel I. 2001. "Intraspecific competition favors niche width expansion in *Drosophila melanogaster*, "*Nature* 410 (6827): 463 – 466. When interspecific competition is reduced, competition within a species becomes a potent evolutionary force leading to rapid diversification.

Brian A. Maurer 1999. *Untangling Ecological Complexity : The Macroscopic Perspective* Univ. of Chicago Press. Advocates a broad, pluralistic approach to global problems by expanding the spatial and temporal scale of community ecology

Bright, Christopher. 1999. "Invasive Species: Pathogens of Globalization." *Foreign Policy*. Fall 1999. With increased world trade, invasive species have become a policy issue as well as an ecological threat.

Bronmark, Christer and Lars-Anders Hansson. 19989. *The Biology of Lakes and Ponds*. Oxford University Press. A good introductory text in limnology.

Buchmann, Stephen L. and Gary Paul Nabhan. 1996. *The Forgotten Pollinators*. Island Press. A lively and fascinating account of the ecological and cultural context of plantpollinator relationships.

Byers, J. E. & Goldwasser, L. 2001. "Exposing the mechanism and timing of impact of nonindigenous species on native species." *Ecology* 82: 1330-1343. The impacts of invading species may go unnoticed until it's too late, this study suggests.

Chave, J., Muller-Landau, H. C. & Levin, S. A. 2002. "Comparing Classical Community Models: Theoretical Consequences for Patterns of Diversity". *American Naturalist*, 159: 1 - 23. A team from France's national research agency, showed that both niche and neutral ecological models can reproduce natural patterns of species abundance.

Callicott, J.Baird, Crowder, Larry B., and Mumford, Karen 1999. "Current Normative Concepts in Conservation." *Conservation Biology* 13: (1): 22-35. A philosophical discussion of the stability/diversity debate.

Cao, Tim (ed). 1998. *Behaviorial Ecology and Conservation Biology*. Oxford University Press. An interesting attempt to link behavioral ecology and conservation biology.

Chapin, F.S., et al. 1997. "Biotic Control Over the Functioning of Ecosystems," *Science* 277 (5325): 500-504. Biological communities shape their environments.

Clements, F. E. 1936. "Nature and structure of the climax." *Journal of Ecology* 24: 252-284. The leading voice for stability in ecosystems.

Clevenger, A. P. and N. Waltho. 2004. "Performance indices to identify attributes of highway crossing structures facilitating movement of large mammals" *Biological Conservation* 121 (3): 453-464. Bridges, culverts and other wildlife corridors can be effective in connecting isolated communities, but human dimensions must be considered as well.

Coleman, S. W., et al. 2004. "Variable female preferences drive complex male displays." *Nature* 428 (6984):742-745. Males of many species have sexual displays composed of multiple display traits, and females are thought to use these different traits in mate choice.

Coltman, D. W. Undesirable evolutionary consequences of trophy hunting. *Nature*, 426, 655 -657 (2002). Hunting selection decreases the size of ram's horns.

Coomes, D.A. et al. 2003. Factors preventing the recovery of New Zealand forests following control of invasive deer. *Conservation Biology* 17(2): 450-459.

Cottingham KL, et al. 2000. Increased ecosystem variability and reduced predictability following fertilisation: evidence from palaeolimnology. *Ecological Letters* 3: 340–48. Removing top predators increases the vulnerability of ecosystems to eutrophication and outbreaks of invasive species

Curtis, T. P., Sloan, W. T. & Scannell, J. W. 2002. "Estimating prokaryotic diversity and its limits". *Proceedings of the National Academy of Sciences USA*, doi:10.1073/pnas. 142680199. There could be more species of bacteria in your back yard soil all the species in the ocean, say UK researchers.

Daehler, C.C., et al. 2004. "A Risk-Assessment System for Screening Out Invasive Pest Plants from Hawaii and Other Pacific Islands." *Conservation Biology* 18 (2): 360-369. A screening system can determine which exotic species are most problematic.

Darwin, Charles 1859. *The Origin of Species by Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life*. Murray A book that changed the way we see the world.

Darwin, Charles . 1845. Journal of Researches into the Natural History and Geology of the 'Countries visited during the Voyage of H.M.S. Beagle round the World, 2nd ed: John Murray. Darwin's account of his journey on the Beagle.

Dauber, Jens, et al. 2003. "Landscape structure as an indicator of biodiversity: matrix effects on species richness." *Agriculture, Ecosystems & Environment* 98 (1/3): 321-9. Variable structure creates more habitat niches.

DeMorales, C. M. et al. 2001. "Caterpillar-induced nocturnal plant volatiles repel conspecific females. *Nature* 410 (6828): 577-580. Plants respond to insect herbivory by synthesizing and releasing complex blends of volatile compounds. Insects use these chemicals as clues for avoiding competition.

Doak, D.F., Bigger, D., Harding, E.K., Marvier, M.A., O'Malley, R.E., Thomson, D. 1998.

The Statistical Inevitability of Stability-Diversity Relationship in Community Ecology. *The American Naturalist*, 151(3): 264-277. According to this model, diversity <u>does</u> lead to stability.

Doolittle, W. F. 2000. "Uprooting the Tree of Life," *Scientific American* 282(2): 90-95. A new look at evolutionary relationships suggests many more interconnections than previously thought

Douds, D.D. and P.D. Millner. 1999. "Biodiversity of arbuscular mycorrhizal fungi in agroecosystems". *Agriculture, Ecosystems and Environment* 74:77-93. An introduction to the important symbiotic relationships between soil fungi and higher plants.

Downing, Amy L. and Mathew A. Liebold. 2002. "Ecosystem consequences of species richness and composition in pond food webs." *Nature 416:* 837-841. Indirect evidence suggests that species richness affect aquatic ecosystem attributes through indirect effects and trophic interactions among species.

Driscoll, Don A. 1998 "Genetic Structure, Metapopulation Processes and Evolution Influence the Conservation Strategies for Two Endangered Frog Species," *Biological Conservation* 83 (1): 43-54. An undertaking of the genetic structure of a population is vital to conservation efforts. This article gives a specific example of this importance.

Duggins, D. O. 1980. "Kelp beds and otters: an experimental approach." *Ecology* 61: 447-453. A classic study of a marine food web.

Ehrlich, Paul and Walker, Brian H. 1998. "Rivets and Redundancy." *Bioscience* 48(5): p. 387 May 1998

Ehrlich, P. and Ehrlich, A. 1981. *Extinction: The Causes and Consequences of the Disappearance of Species*. Random House. A good summary of reasons for extinction.

Ellsworth, J. W., And B. C. Mccomb. 2003. Potential Effects of Passenger Pigeon Flocks on the Structure and Composition of Presettlement Forests of Eastern North America. *Conservation Biology* 17: 1548-1558.

Elton, C.S. 1927. Animal Ecology. MacMillan. A classic in ecology.

Elton, C.S. 1958. *The Ecology of Invasibility by Animals and Plants*. Methuen, London, UK. An ecological pioneer discusses invasive species.

Falkowski, Paul G. 2002. "The Ocean's Invisible forest." *Scientific American* 287 (2): 54-61. Marine algae play a much larger role than previously thought in balancing the earth's climate, absorbing about as much carbon each year as all terrestrial plants.

Ferrer, Miguel and Jan Jose Negro. 2004. "The Near Extinction of Two Large European Predators: Super Specialists Pay a Price." *Conservation Biology*. 344–349. The Spanish Imperial Eagle and Iberian lynx are examples of how specialists are endangered.

Festa-Bianchet, Marco and Marco Apollonio (eds). 2003. *Animal Behavior and Wildlife Conservation*. Island Press. Shows how knowledge of animal behavior can help in conservation.

Fortey, Richard. 1998. A Natural History of the First Four Billion Years of Life on Earth. A. A. Knopf. How living organisms modified conditions on earth.

Frank, D.A. and McNaughton, S.J. 1991. "Stability Increases with Diversity in Plant Communities: Empirical Evidence from the 1988 Yellowstone Drought." *Oikos* 62: 360-362.

Futuyma, Douglas J. 1998. *Evolutionary Biology*. Sinauer Associates. A textbook of evolution.

Gaston, Kevin J. and Tim M. Blackburn. *Pattern and Process in MacroEcology*. Blackwell Pub. Discusses the importance of landscape scale patterns and processes.

Gibbs, J.P. 2000. *Monitoring populations*. p: 213-247 in: Boitani, L. and T.K. Fuller (Eds.) *Research techniques in animal ecology*. New York: Columbia University Press. Discusses technical issues in monitoring wildlife populations.

Giraud, T., et al. 2002. "Evolution of supercolonies: the Argentine ants of southern Europe." *Proceedings of the National Academy of Sciences, 99*, 708-712. A single supercolony of ants, with millions of nests and billions of individuals, stretches 6,000 kilometres around Europe's Mediterranean and Atlantic coasts.

Gould, Stephen Jay. 2002. *The Structure of Evolutionary Theory*. Harvard Univ. Press. An exhaustive survey of the history of evolutionary thought from Darwin to the present.

Grant, Bruce S. 1999. "Fine Tuning The Peppered Moth Paradigm" *Evolution* 53 (3): 980-984. A re-examination of the classic example of natural selection and evolution.

Hamm, C. E. et al. 2003. "Architecture and material properties of diatom shells provide effective mechanical protection." *Nature* 421, 841-843. Ornate armor enables plankton to withstand huge pressures.

Hanski, Ilkka. 1999. *Metapopulation Ecology*. Oxford University Press. An overview of theory and empirical studies in population ecology.

Hairston, N. G., Smith, F. E., and Slobodkin, L. B. 1960 "Community structure, population control, and competition." *American Naturalist* 94: 421-25. A classic in community ecology.

Hartley, S., and W. E. Kunin. 2003. "Scale Dependency of Rarity, Extinction Risk, and Conservation Priority" *Conservation Biology* 17: 1559-1570. Rarity, risk and priority are scale-dependent variables.

Holling, Crawford S. 1986. "The Resilience of Terrestrial Ecosystems: Local Surprise and Global Change." In: *Sustainable Development of the biosphere* 292-317. Clark W.C,. and Munn R. E. (eds). Seemingly similar ecosystems may have different levels of resilience.

Hooper, D.U., et . al. 1997. "The Effects of Plant Composition and Diversity on Ecosystem Processes," *Science* 277 (5330): 1302-1305. Contrary to modelers predictions, biodiversity does play a role in stability.

Howard, D. J. and S. H. Berlocher. 1998. *Endless forms: Species and Speciation*. MIT Press. A compendium of modern understanding of evolution.

Hubbell, S. P. 2001. *The Unified Neutral Theory of Biodiversity and Biogeography*. Princeton Univ. Press. Disregarding adaptation and competitive advantages, neutral models consider only random chance as the source of ecosystem diversity.

Hubbell, S.P. and R. B. Foster. 1987. "The spatial contest of generation in a neotropical forest." In A.J. Gray, et al (eds) *Colonization, Succession and Stability* p 395-412. British Ecology Society 26th Symposium. Blackwell Scientific.

Huber, Harald, et al. 2002. "A new phylum of Archaea represented by a nanosized hyperthermophilic symbiont." *Nature* 417, 63–67 (2 May 2002). A newly discovered organism from the inhospitable environs of a submarine hot vent has a tiny genome size, close to that calculated as the theoretical minimum for a living entity.

Hughes, J.B., G.C. Daily, and P.R. Ehrlich. 1997. "Population Diversity: Its Extent and Extinction," *Science* 278 (5338): 689-692. An attempt to estimate the losses of distinct populations within species.

Humphries, Christopher J. 1999. *Clasdistic Biogeography*. Oxford University Press. Cladistics uses distribution patterns of species to study their historic and evolutionary relationships.

Hunter, Malcolm L. 2001. *Fundamentals of Conservation Biology*. Blackwell Press. A basic textbook in conservation biology.

Huntzinger, M. 2003. "Effects of fire management practices on butterfly diversity in the forested western United States." *Biological Conservation* 113 (1): 1-12. Fire suppression has reduced habitat for some rare and endangered species.

Irigoien, Xabier, et al. 2004. "Global biodiversity patterns of marine phytoplankton and zooplankton." *Nature* 429 (6994): 863-867. Contrary to expectations, there doesn't seem to be a relation between phytoplankton diversity and zooplankton diversity.

Jackson, Jeremy et al. 2001. "Historical overfishing and the recent collapse of coastal ecosystems." *Science* 293: 629-638. Removing top predators has catastrophic effects on entire communities.

Jackson, R.B. et al. 2002 "Ecosystem carbon loss with woody plant invasion of grasslands," *Nature* 418:623-626. Grasses store a large amount of carbon in roots. As woody plants displace grasses, soil carbon decreases.

Kasting, James F. 2004. "When methane made climate." *Scientific American* 291 (1): 78-86. Methane-generating bacteria dominated the earth for billions of years. The greenhouse effects they caused may have staved off a deep freeze and allowed other life forms to evolve.

Kennedy, Theodore A. et al. 2002. "Biodiversity as a barrier to ecological invation." *Nature* 417: 636-638. Studies of small experimental grassland plots shows that species diversity enhances invasion resistance by increasing crowding and species richness in localized plant neighborhoods.

Klass, K.-D., et al. 2002. "*Mantophasmatodea*: a new insect order with extant members in the Afrotropics." *Science* Published online(2002). he first new order of insects to be discovered for more than 80 years was found in the mountains of Namibia.

Koko, Hanna. 2004. "Competition for breeding sites and site-dependent population regulation in a highly colonial seabird, the common guillemot *Uria aalge*" *Journal of Animal Ecology* 73 (2): 367-377. Breeding success in some colonial breeding birds is linked to availability of good nesting sites.

Lehman, Clarence L. and David Tilman. 2000. "Biodiversity, Stability, and Productivity in Competitive Communities." *The American Naturalist* 156: 534-552. An important theoretical explanation of diversity and stability.

Lichatowich, J. 1999. *Salmon Without Rivers*. Island Press. A history of the Pacific salmon crisis

MacArthur, R. 1955. "Fluctuations of Animal Populations, and a Measure of Community Stability." *Ecology* 36 (3): pp. 533-536. Suggested that diversity would convey stability.

MacArthur, R. H., and E. O. Wilson. 1963. "An equilibrium theory of insular zoogeography." *Evolution* 17:373-387. The classic study of island biogeography and one of the most influential papers in all of ecology.

MacArthur, Robert H. and E. O. Wilson. 2001. *The Theory of Island Biogeography*. Princeton Univ. Press. A reissue of their 1963 article.

McCullough, Dale R., ed. 1996. *Metapopulations and Wildlife Conservation*. Island Press. Metapopulation theory is an important development in both conservation biology and wildlife management.

McNab, B.K. 1983. "Ecological and behavioral consequences of adaptation to various food sources" in: Eisenberg, J.F. and D.G. Kleiman (Eds.) *Advances in the study of Mammalian behavior*. American Society of Mammalogists, special pub. no. 7, p. 664-697. A classic study of evolutionary adaptation and specialization.

McNaughton, S.J.1985. "Ecology of a Grazing Ecosystem: the Serengeti." *Ecological Monographs* 55: 259-294. Some systems need grazers.

Mares, M. A. 1992. "Neotropical Mammals and the Myth of Amazonian Biodiversity," *Science* 255: 967-970. Argues that while trees and insects are abundant in the Amazon, for some taxa deserts or grasslands have greater biodiversity.

Matteson, S. W., et al. 1999. "Changes in the status, distribution, and management of Double-crested Cormorants in Wisconsin". In *USDA Tech. Bull. No. 1879.* Symposium on Double-crested Cormorants: Population Status and Management Issues in the Midwest. p. 27-46. December 1999. Discusses the causes and effects of a population explosion of cormorants in the Great Lakes.

Mauchamp, A. 1997. "Threats from Alien Plant Species in the Galapagos Islands," *Conservation Biology* 11(1):260-263. An example of the effects introduced species have on endemic flora and fauna.

May, R. M. 1992. "How Many Species Inhabit the Earth?" *Scientific American* 267 (4): 42-50. A thoughtful discussion of biodiversity and the problem of species identification.

May, Robert M. 1972. "Will a Large Complex System be Stable?" *Nature* 238: 413-414. 18 August, 1972. Theoretical modeling suggests that a very simple ecosystem might be the most stable.

Meffe, G. K. and C. R. Carroll. 1997. *Principles of Conservation Biology* (2nd ed.). An excellent introduction to conservation biology and population ecology.

Merbach, M. A. et al. 2002. "Mass march of termites into the deadly trap." *Nature* 415: 36-37. *Nepenthes albomarginata*, a carnivorous pitcher plant from Brunei, lures a single species of termite (*Hospitalitermes bicolor*) with white hairs that encircle the top of its bulbous, digestive fluid-filled pitcher. This is the only know example of a carnivorous plant that specializes so uniquely in its prey preference.

Meyers, Ransom A. and Boris Worm. 2003. "Rapid worldwide depletion of predatory fish communities." *Nature* 423: 280-283. Up to 90% of top marine predator species have been removed by overfishing.

Morell, Virginia. 1997. "On the Origin of (Amazonian) Species," *Discover* 18 (4): 56-64. An interesting account of a taxonomic expedition to the Amazon.

Morin, Peter J. 1999. Community Ecology. Blackwell. A good general text.

Naeem, Shahid 1998. "Species Redundancy and Ecosystem Reliability." *Conservation Biology* 12(1): pp. 39-45 Feb 1998. Redundancy in diversity and ecosystem function can lead to resilience.

Nee, S. and R.M. May. 1997. "Extinction and the Loss of Evolutionary History," Science 278 (5338): 692-694. The conditions under which species have evolved can never be recreated exactly.

Nevin, O.T. and B.K. Gilbert. 2004. "Perceived risk, displacement and refuging in brown bears: positive impacts of ecotourism?" *Biological Conservation*. 121 (4): 611-622. Large male bears leave rivers when tourists arrive, thus allowing more time for feeding by females and cubs. This may increase cub survival and increase bear populations.

Nielsen, Claus. 2001. Animal Evolution: Interrelationships of the Living Phyla $(2^{nd} ed)$. MIT Press. Analyzes the evolutionary relationships of the animal kingdom.

Novotny, V., Y., et al. 2002. "Low host specificity of herbivorous insects in a tropical forest." *Nature* 416: 841-844. Studies of plant/insect interactions in New Guinea suggest that there may be far fewer species in tropical forests than previously estimated.

Olsen, E. M., et al. 2004. "Maturation trends indicative of rapid evolution preceded the collapse of northern cod." *Nature* 428(6986): 932-935. Over harvesting of North Atlantic cod has lead to "contemporary evolution" of small fish that mature early and produce less robust offspring.

Olszewski, Thomas D. and Erwin, Douglas. 2004. "Dynamic response of Permian brachiopod communities to long-term environmental change." *Nature* 428 (6984): 738-741. The fossil record sheds light on the effects of environmental change on ecological communities.

Orians, G.H. 1997. "Biodiversity and Terrestrial Ecosystem Processes," *Science and Progress*. 80(Part 1):45-63. Diversity is an important ecological factor.

Packer, C. and T.M. Caro. 1997. "Foraging Costs in Social Carnivores," *Animal Behavior* 54(5): 1317-1318. An examination of cooperation and selfishness among African lions.

Palumbi S.R. 2001. The evolution explosion: how humans cause rapid evolutionary change. New York: Norton. Pests and pathogens can rapidly evolve resistance to biocides

Paracer, S. and V. Ahmadjian. 2000. *Symbiosis: An Introduction to Biological Associations*. Oxford, UK: Oxford University Press. An introduction to all aspects of symbiosis.

Pauly, Daniel and Reg Watson. 2003. "Counting the Last Fish" *Scientific American* 289 (1): 42-47. Overfishing has decimated marine fish and reduced ecosystem complexity.

Peterson, Rolf O. 1995. *The Wolves of Isle Royale: A Broken Balance*. Willow Creek Press. A classic study of predator/prey interactions.

Pimm, Stuart L. 1984. "The Complexity and Stability of Ecosystems." *Nature* 307: 321-326. 26 January 1984. A argument in favor of complexity/stability.

Quammen, David. 2000. *The Boilerplate Rhino : Nature in the Eye of the Beholder*. Scribner. A great writer collects 26 of his columns from *Outside* magazine.

Quammen, David. 1998. "Planet of Weeds." *Harper's* October, 1998. With the loss of native species and invasions of exotics, we may soon live in a world of weeds.

Quammen, David. 1996. *The Song Of The Dodo: Island Biogeography In An Age Of Extinctions*. Scribners. An elegantly written memoir of tracing the journeys of Alfred Russell Wallace in Southeast Asia while reflecting on evolution.

Quan, R. C. et al. 2002. "Effects of human activities on migratory waterbirds at Lashihai Lake, China". *Biological Conservation*. 108 (3): 273-279. There's not much room for nature in the world's most populous country.

Ricklefs, R. E. 1997. The Economy of Nature (4th ed.). W.H. Freeman and Co. A highly recommended textbook in basic ecology.

Ricklefs, Robert and Dolph Schluter (eds). 1994. *Species Diversity in Ecological Communities: Historical and Geographic Perspectives*. University of Chicago Press. A comprehensive summary of community ecology.

Roberts, B.W. and M.E. Newman. 1996. "A Model for Evolution and Extinction," *Journal of Theoretical Biology* 180 (1): 39-54. New ideas about what drives evolution and extinction.

Roubik, D. W. 2002. "The value of bees to the coffee harvest." *Nature* 417: 708-714. Coffee plants can self-pollinate but those pollinated by bees yield 50% more beans than plants that are self-pollinated.

Safina, Carl. 2001. "Albatross Wanderings" *Audubon* 103 (1): 70-77, 85. A fascinating account of the travels of an albatross as it searches for food for its chick.

Schaller, G.B., et al. 1989. "The feeding ecology of giant pandas and Asiatic black bears in the Tangjiahe Reserve, China" in: Gittleman, J.L. (Ed.) *Carnivore behavior, ecology and evolution.* Cornell University Press, p 212-241. A classic study of the effects of specialized diet on panda populations in China.

Schiebinger, Londa. 1996. "The loves of the plants." *Scientific American* 274 (2): 110-115. Our anthropocentric views color how we think the world works.

Schieck, J. et al. 1995. "Effects of patch size on birds in old-growth montane forests." *Conservation Biology* 9 (5): 1072-1084. Nonspecialists are more common in disturbed forests than are old-growth species.

Schluter, Dolph. 2001. *The Ecology of Adaptive Radiation (Oxford Series in Ecology and Evolution)* Oxford Univ. Press. Discusses the causes and effects of divergent evolution.

Schneider, Harald, et al. 2004. "Ferns diversified in the shadow of angiosperms." *Nature* 428: 553-557. Competition with flowering plants for resources resulted in evolutionary change in ferns.

Scholtz, G. et al. 2003. "Parthenogenesis in an outsider crayfish". *Nature* 421: 806,. The first self-cloning crayfish could pose risk to European cousins.

Simberloff, D. 1997. "Flagships, umbrellas, and keystones: Is single-species management passé in the landscape era?." *Biological Conservation* 83: 247-257. A good discussion of the concept of keystone species.

Smith, R. L. 1990. *Ecology and Field Biology* (4th ed.) Harper and Row. A classic field ecology text.

Soule, M.E., Estes, J.A., Berger, J, and C. Martinez del Rio. 2003. Ecological effectiveness: conservation goals for interactive species. Conservation Biology 17 (5): 1238-1250.

Stiassny, M. L. J. and A. Meyer. 1999. ""Cichlids of the Rift Lakes," *Scientific American* 280(2):64-69. "These fish exhibit some of the fastest speciation of any biological group, but human changes in their native lakes threatens their amazing diversity.

Stone, L., DaiHai, H., Becker, K. & Fishelson, L. 2003. "Unusual synchronization of Red Sea fish energy expenditures." *Ecology Letters*, 6, 83 – 86. Synchronized swimming helps fish find food.

Soule, M.E., Estes, J.A., Berger, J, and C. Martinez del Rio. 2003. Ecological effectiveness: conservation goals for interactive species. Conservation Biology 17 (5): 1238-1250.

Tigas, L.A., et al. 2002. "Behavioral responses of bobcats and coyotes to habitat fragmentation and corridors in an urban environment" *Biological Conservation*. 108 (3): 299-306. Some species use corridors effectively, some don't.

Tilman, D. 1999. "Diversity and Production in European Grasslands," *Science* (US) 286: 1099-1100, November 5, 1999. Contrary to predictions from simple models, diversity can protect biological communities from disturbance.

Tilman, David, et al. 1997. "The Influence of Functional Diversity and Composition on Ecosystem Processes," *Science* 277 (5330): 1300-1302. Field evidence that biodiversity is important in ecological stability and resilience.

Tilman, David and Peter Kareiva (eds). 1997. *Spatial Ecology*. Princeton Univ. Press. Biogeography and community ecology.

Tilman, David 1996. "Biodiversity: Population vs. Ecosystem Stability." *Ecology* 77 (2): 350-363. Biodiversity does confer stability in a grassland ecosystem.

Tilman, David and Robert M. May (eds). 1982. *Resource Competition and Community Structure*. Princeton Univ. Press. A classic text on community ecology.

Topff, Howard. 1999. "Slave-making queens." *Scientific American* 281 (5): 84-90. Parasitic ants invade the colonies of other ants, kill their rulers, and enslave the workers.

Townsend, C. R. et al., 2004. "Scale and the detection of land-use effects on morphology, vegetation and macroinvertebrate communities of grassland streams." *Freshwater Biology* 49, 448 – 462. The variability between different sections of the same stream make ecological generalizations difficult.

Vitousek, P. M. and L. R. Walker. 1987. "Colonization, succession and resource availablility: ecosystem-level interactions. P 207-223. British Ecol. Soc. 26th Symp. Blackwell

Volpe, E. Peter and Peter A. Rosenbaum. 1999. *Understanding Evolution*, 6th ed. New York: McGraw-Hill Co. An introduction to principles of evolution.

Wallace, Alfred Russell. 1986. *The geographical distribution of Animals Vol 1*. (Reprint) Hafner 1962. First published together with Darwin's paper on the origin of species. A landmark in biology.

Wardle, D.A., et al. 1997 "The Influence of Island Area on Ecosystem Properties," *Science* 277 (5330): 1296-1299. Island biogeography.

Wedin, David A. and David Tilman. 1996. "Influence of Nitrogen Loading and Species Composition on the Carbon Balance of Grasslands," *Science* 274(5293):1720-1724. Excess nitrogen tends to favor weedy species in grassland communities.

Weiner, Jonathan. 1995. *The Beak of the Finch: A Story of Evolution in Our Time*. Vintage Books (reprint edition). A good review of evolution and how it was discovered.

West, P.M. & Packer, C. Sexual selection, temperature and the lion's mane. *Science*, 297, 1339-1343, (2002). A study of African lions shows that females prefer dark-maned males.

Whittaker, Robert J. 1999. *Island Biogeography: Ecology, Evolution and Conservation*. Oxford University Press. An excellent introduction to the science of island biogeography and its conservation implications.

Wilson, E. O. 1992. *The Diversity of Life*. Harvard University Press. A fascinating description of biodiversity by one of the world's leading field biologists.

Wilson, Mary F. and Karl C. Halupka. 1995. "Anadromous fish as keystone species in vertebrate communities." *Conservation Biology* 9 (3): 489-497. Anadromous fish are key food sources, habitat modifiers, and transporters of nutrients between ecosystems.

Wroe, Stephen. 1999. "Killer kangaroos and other murderous marsupials." *Scientific American* 280(5): 68-74. Australian mammals were not all as cute as koalas. Some were as ferocious as they were bizarre. An interesting account of how evolution fills equivalent ecological roles in different biological communities.