

ZO 603: Aquatic Ecology Seminar

Readings List, Fall 2002

(North Carolina State University)

Compiled by Dave Hewitt (co-instructor)
Readings chosen by participating students and faculty

1. LIFE HISTORY STRATEGIES (FISH)

- (a) Baylis, J. R., D. D. Wiegmann, and M. H. Hoff. 1993. Alternating life histories of smallmouth bass. *Trans. Amer. Fish. Soc.* 122: 500-510.
- (b) Winemiller, K. O. and K. A. Rose. 1992. Patterns of life-history diversification in North American fishes: implications for population regulation. *Can. J. Fish. Aquat. Sci.* 49: 2196-2218.

2. MARINE RESERVES

- (a) Guenette, S., T. Lauck, and C. Clark. 1998. Marine reserves: from Beverton and Holt to the present. *Reviews in Fish Biology and Fisheries* 8: 251-272.
- (b) Bohnsack, J. A. 2000. A comparison of the short-term impacts of no-take marine reserves and minimum size limits. *Bull. Mar. Sci.* 66: 635-650.
- (c) Russ, G. R. and A. C. Alcala. 1996. Do marine reserves export adult fish biomass? Evidence from Apo Island, central Philippines. *Mar. Ecol. Prog. Series* 132: 1-9.
- (d) Roberts, C. M. 1995. Rapid build-up of fish biomass in a Caribbean marine reserve. *Cons. Bio.* 9: 815-826.

3. ENDANGERED SPECIES CONSERVATION AND MANAGEMENT

- (a) Wilcove, D. S., M. McMillan, and K. C. Winston. 1993. What exactly is an endangered species? An analysis of the US Endangered Species List: 1985-1991. *Cons. Bio.* 7: 87-93.
- (b) Tear, T. H., J. M. Scott, P. H. Hayward, and B. Griffith. 1995. Recovery plans and the Endangered Species Act: Are criticisms supported by data? *Cons. Bio.* 9: 182-195.
- (c) Hoekstra, J. M., J. A. Clark, W. F. Fagan, and P. D. Boersma. 2002. A comprehensive review of Endangered Species Act recovery plans. *Ecol. Apps.* 12: 630-640.
- (d) Duncan, J. R. and J. L. Lockwood. 2001. Extinction in a field of bullets: a search for causes in the decline of the world's freshwater fishes. *Biol. Cons.* 102: 97-105.
- (e) Angermeier, P. L. 1995. Ecological attributes of extinction-prone species: loss of freshwater fishes in Virginia. *Cons. Bio.* 9: 143-158.
- (f) Clark, J. A. and E. Harvey. 2002. Assessing multi-species recovery plans under the endangered species act. *Ecol. Apps.* 12: 655-662.

- (g) Jager, H. I., J. A. Chandler, K. B. Lepla, and W. Van Winkle. 2001. A theoretical study of river fragmentation by dams and its effects on white sturgeon populations. *Env. Bio. Fish.* 60: 347-361.
- (h) Valdez, R. A., T. L. Hoffnagle, C. C. McIvor, T. McKinney, and W. C. Leibfried. 2001. Effects of a test flood on fishes of the Colorado River in Grand Canyon, Arizona. *Ecol. Apps.* 11: 686-700.

4. INVASIVE AQUATIC SPECIES

- (a) Moyle, P. B. and T. Light. 1996. Biological invasions of fresh water: empirical rules and assembly theory. *Biol. Cons.* 78: 149-161.
- (b) Fausch, K. D., Y. Taniguchi, S. Nakano, G. D. Grossman, and C. R. Townsend. 2001. Flood disturbance regimes influence rainbow trout invasion success among five holarctic regions. *Ecol. Apps.* 11: 1438-1455.
- (c) Bohn, T. and P-A. Amundsen. 2001. The competitive edge of an invading specialist. *Ecology* 82: 2150-2163.
- (d) Lohrer, A. M. and R. B. Whitlatch. 2002. Interactions among aliens: apparent replacement of one exotic species by another. *Ecology* 83: 719-732.

5. BIOTIC INTEGRITY OF AQUATIC ECOSYSTEMS

- (a) Fausch, K. D., J. Lyons, J. R. Karr, and P. L. Angermeier. 1990. Fish communities as indicators of environmental degradation. *Am. Fish. Soc. Symp.* 8: 123-144.
- (b) Weisberg, S. B., J. A. Ranasinghe, D. M. Dauer, L. C. Schaffner, R. J. Diaz, and J. B. Frithsen. 1997. An estuarine benthic index of biotic integrity (B-IBI) for Chesapeake Bay. *Estuaries* 20: 149-158.

6. AQUATIC FOOD WEB STRUCTURE AND FUNCTION

- (a) Vander Zanden, M. J. and Y. Vadeboncoeur. 2002. Fishes as integrators of benthic and pelagic food webs in lakes. *Ecology* 83: 2152-2161.
- (b) Kitchell, J. F. and 13 authors. 2000. Sustainability of the Lake Superior fish community: interactions in a food web context. *Ecosystems* 3: 545-560.

7. EFFECTS OF OVERFISHING ON ECOSYSTEMS

- (a) Jackson, J. B. C. and 18 authors. 2001. Historical overfishing and the recent collapse of coastal ecosystems. *Science* 293: 629-638.
- (b) Pauly, D., V. Christensen, J. Dalsgaard, R. Froese, and F. Torres, Jr. 1998. Fishing down marine food webs. *Science* 279: 860-863.
- (c) Caddy, J. F., J. Csirke, S. N. Garcia, and R. J. R. Grainger. 1998. How pervasive is "fishing down marine food webs"? *Science* 282: 1383a. (and response by Pauly et al.)
- (d) Pauly, D. and V. Christensen. 1995. Primary production required to sustain global fisheries. *Nature* 374: 255-257.
- (e) Pauly, D., V. Christensen, S. Guenette, T. J. Pitcher, U. R. Sumaila, C. J. Walters, R. Watson, and D. Zeller. 2002. Towards sustainability in world fisheries. *Nature* 418: 689-695.
- (f) Conover, D. O. and S. B. Munch. 2002. Sustaining fisheries yields over evolutionary time scales. *Science* 297: 94-96.

8. AQUATIC HABITAT RESTORATION

- (a) Ehrenfeld, J. G. 2000. Defining the limits of restoration: the need for realistic goals. *Restoration Ecology* 8: 2-9.
- (b) Edwards, A. J. and S. Clark. 1998. Coral transplantation: a useful management tool or misguided meddling? *Marine Pollution Bull.* 37: 474-487.
- (c) Brooks, S. S., M. A. Palmer, B. J. Cardinale, C. M. Swan, and S. Ribblett. 2002. Assessing stream ecosystem rehabilitation: limitations of community structure data. *Restoration Ecology* 10: 156-168.
- (d) McKee, K. L. and P. L. Faulkner. 2000. Restoration of biogeochemical function in mangrove forests. *Restoration Ecology* 8: 247-259.

9. MIGRATIONS/DISPERSAL OF AQUATIC ORGANISMS

- (a) Zabel, R. W. 2002. Using "travel time" data to characterize the behavior of migrating animals. *Am. Nat.* 159: 372-387.
- (b) Secor, D. H. 1999. Specifying divergent migrations in the concept of stock: the contingent hypothesis. *Fisheries Research* 43: 13-34.