

*Assigned readings, 8th Edition pp. 1159-1165
7th Edition pp. 1092-1097, 1097-1104

Aquatic Ecosystems

Outline of Lecture 10

- A. Habitats - How do lakes and rivers differ?**
- B. Respiration**
- C. Food**
- D. Evolutionary relationships**
- E. Physical features**
- F. Reproductive behavior**
- G. Onchocerciasis and biodiversity**
- H. Malaria**

A. Habitats

- Lotic habitats: streams and rivers, with flowing water, oxygen saturation, and temperatures similar to air (in shallow systems).
- Lentic habitats: ponds and lakes, with standing water, often oxygen poor, and temperatures are stratified. (See Fig. 52.17 on p. 1161 8th Edit. or Fig. 50.13 on p. 1091 7th Edit. about lake stratification and seasonal turnover)

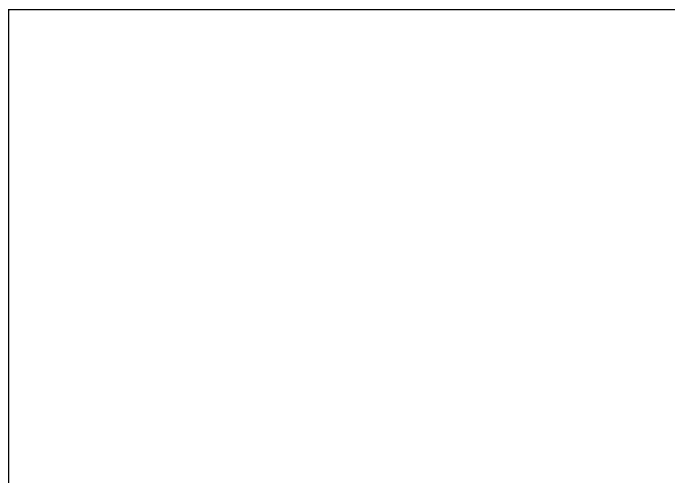
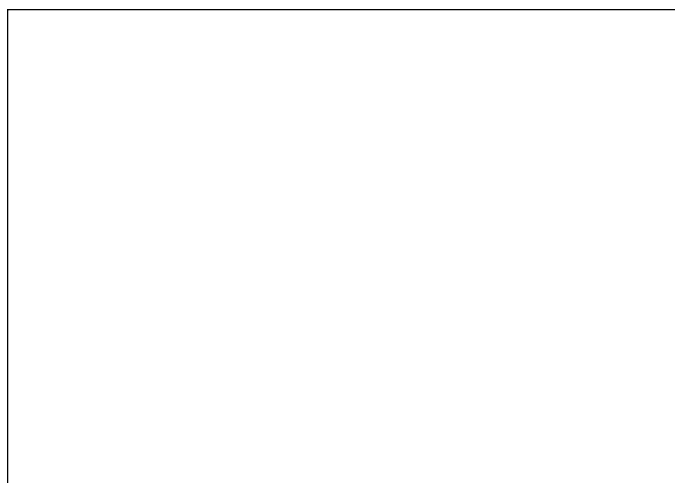
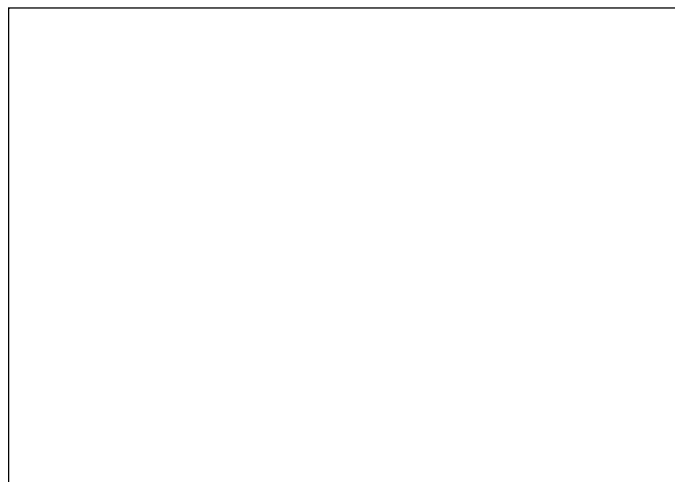
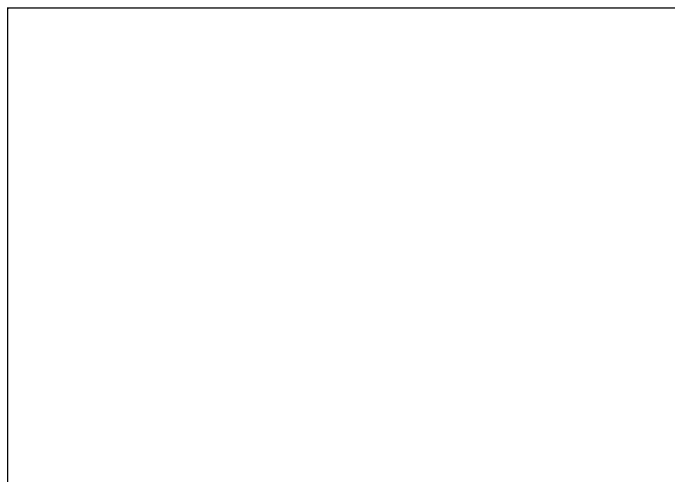
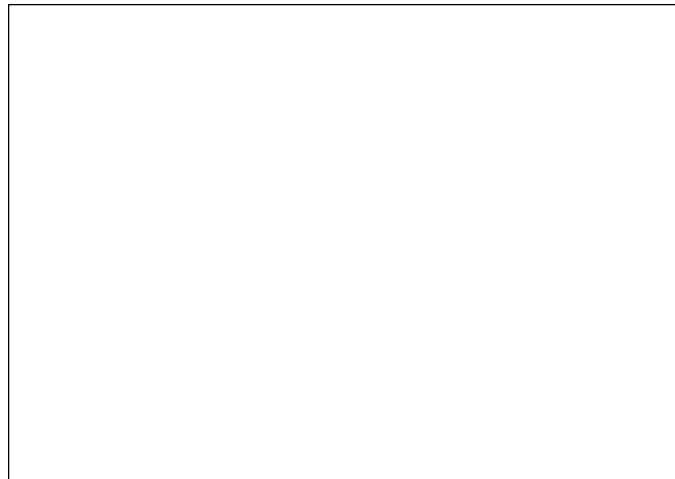
- B. Respiration** (permeability of oxygen 324,000 times slower in water than air).
- C. Food** (autochthonous – within system; allochthonous outside).
- D. Evolutionary relationships:** lakes fill and disappear but streams and rivers persist in geologic time.
- E. Physical features:** interaction of temperature and oxygen concentrations.
- F. Reproductive behavior**
- G. Onchocerciasis-** river blindness

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H. Malaria is vectored by *Anopheles* mosquitos and caused by *Plasmodium* protozoans.

- Sickle cell anemia and malaria
- medical anthropology of malaria
- malaria control



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