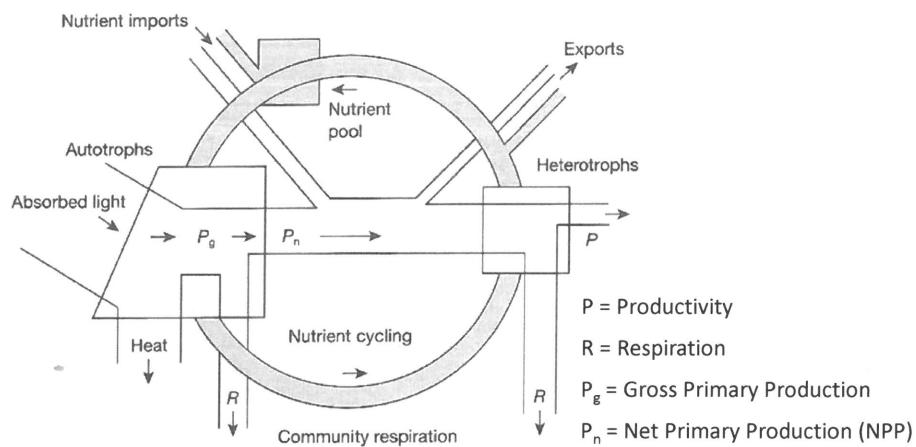
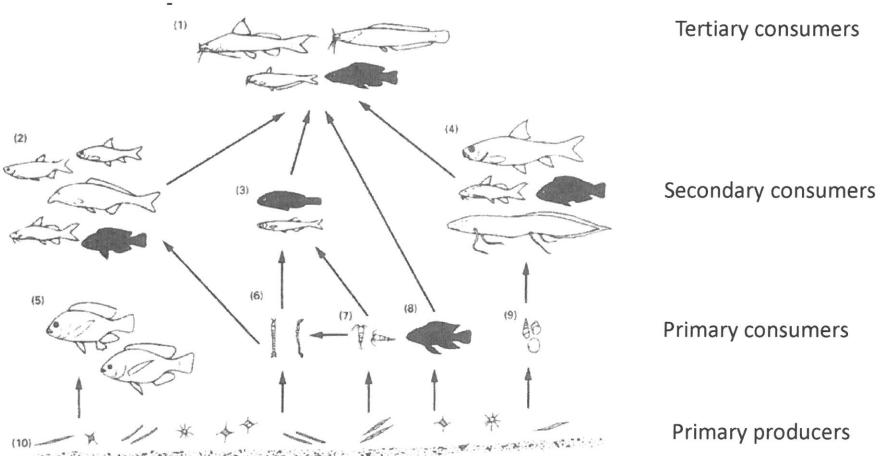


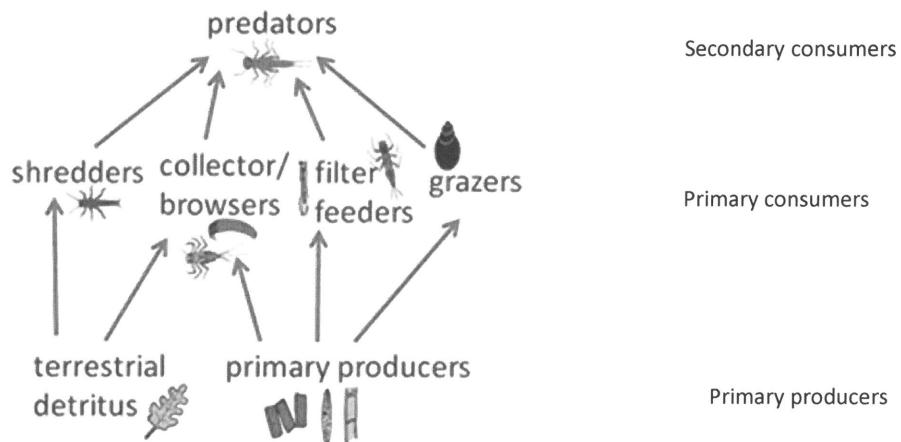
Energy budgets and Food webs



Foodwebs - Lakes

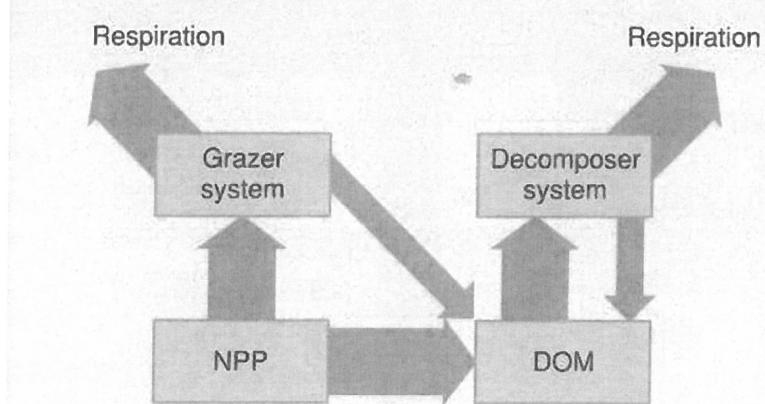


Foodwebs – Headwater (rhithronic) streams



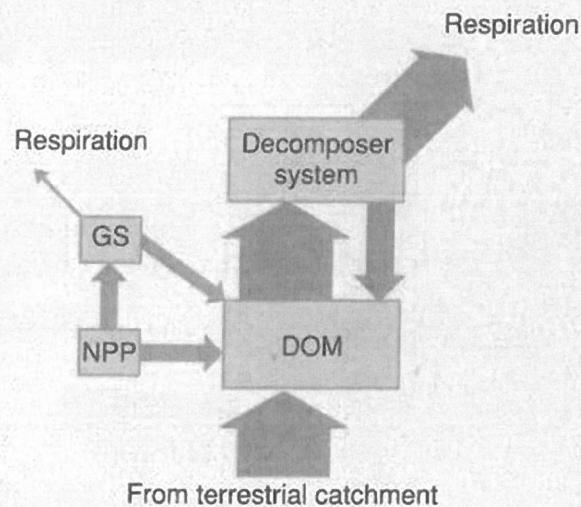
Variability in energy flow across aquatic ecosystems

(c) Plankton community

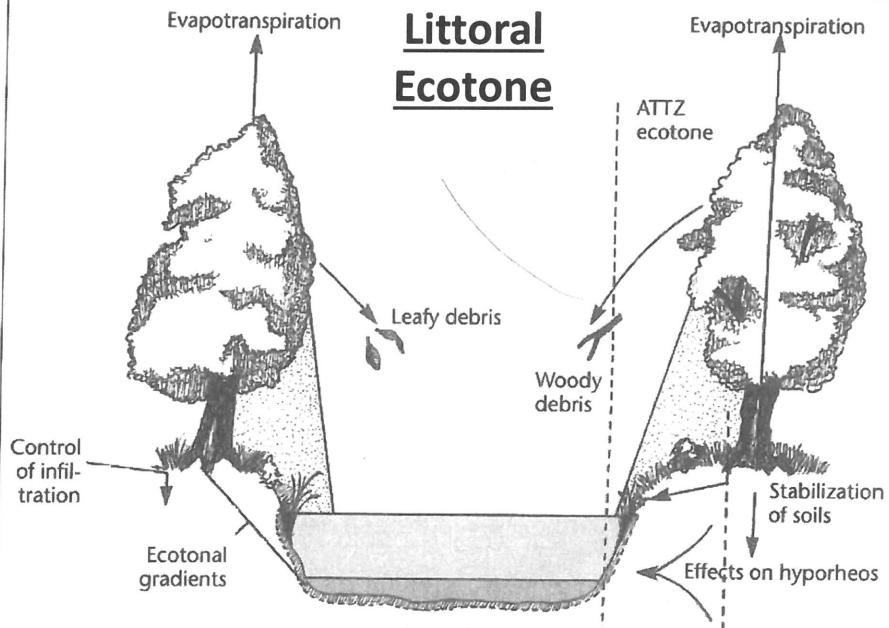


Variability in energy flow across aquatic ecosystems

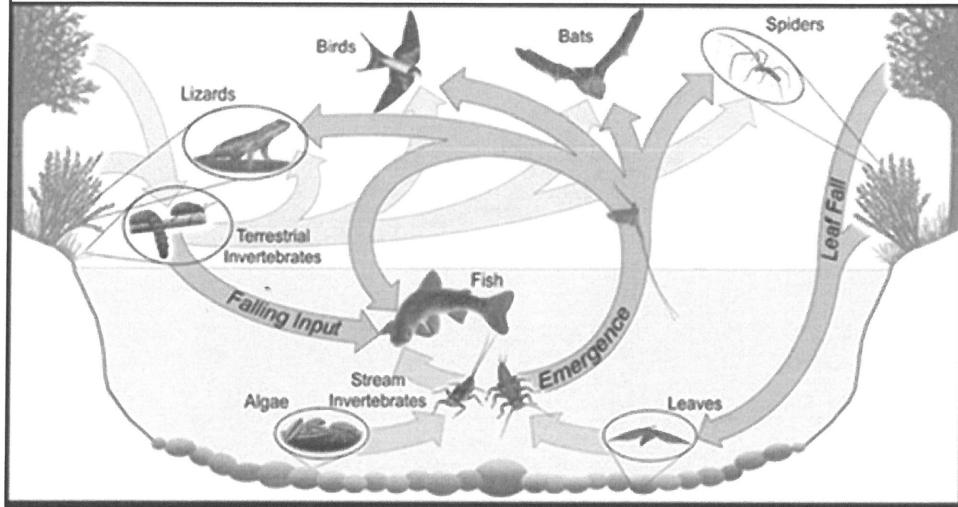
(d) Stream community



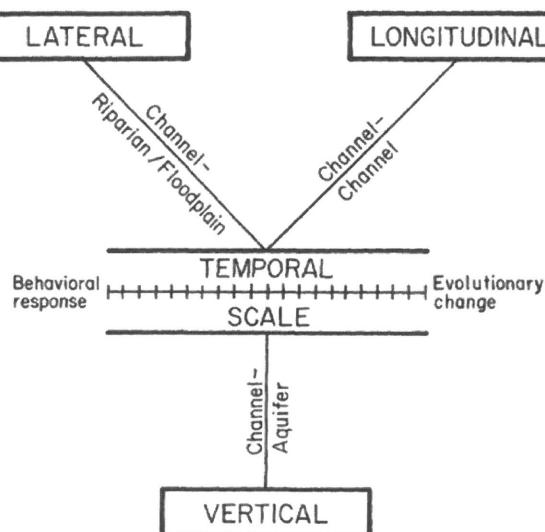
Littoral Ecotone



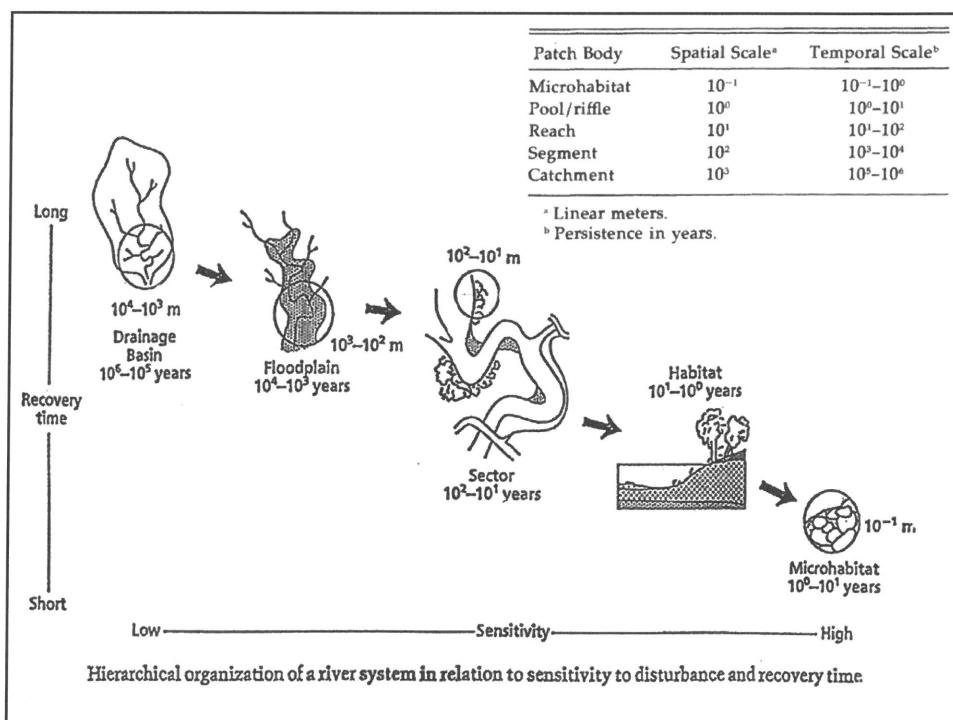
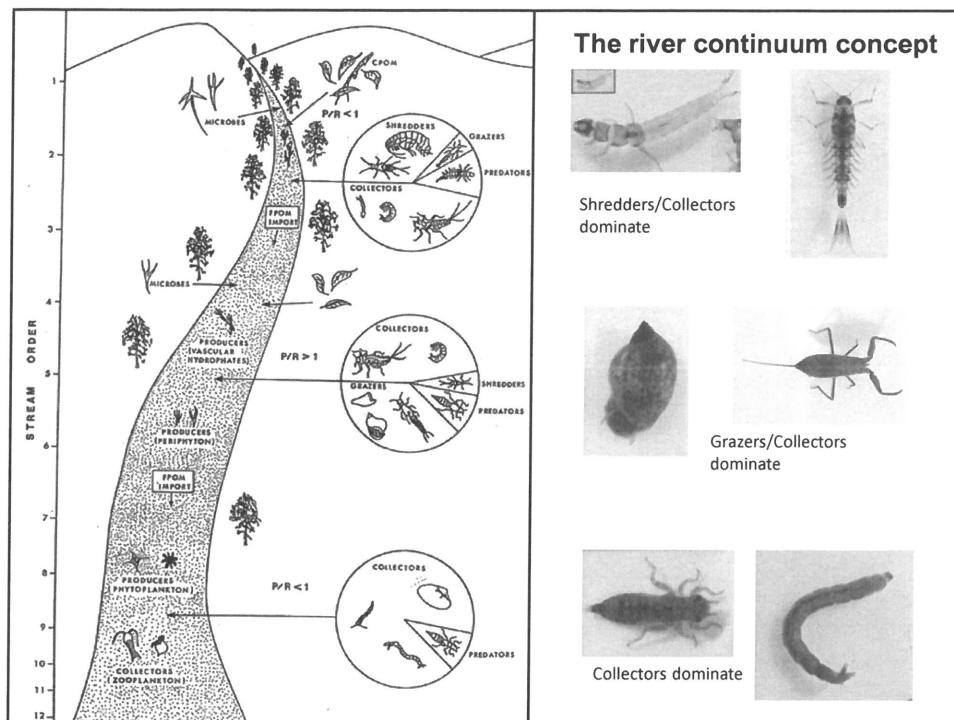
Foodwebs – cross-ecosystem subsidies

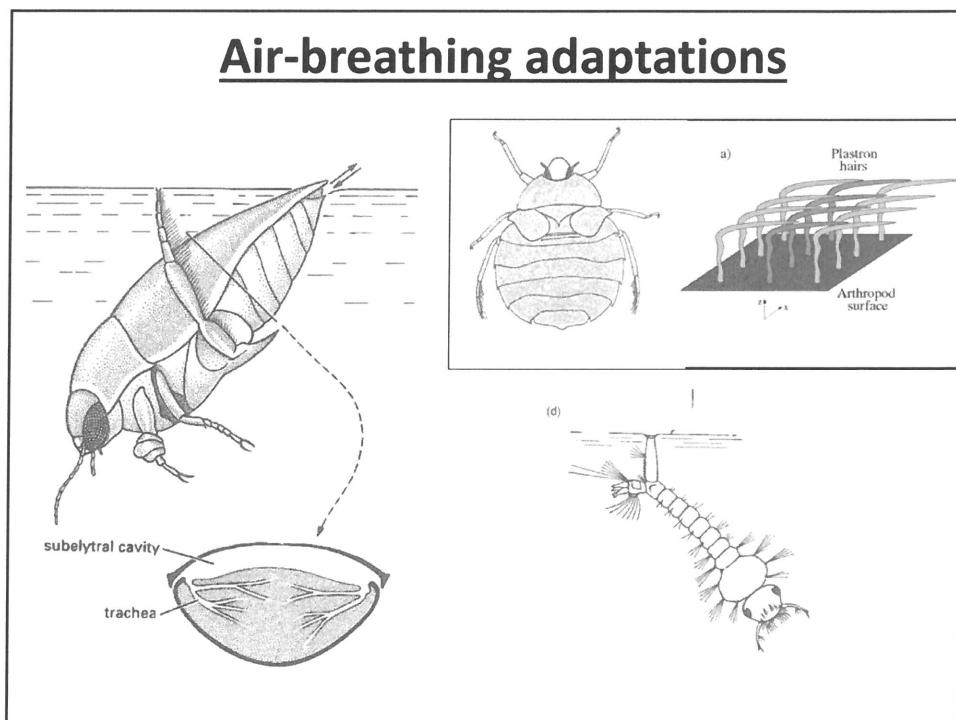
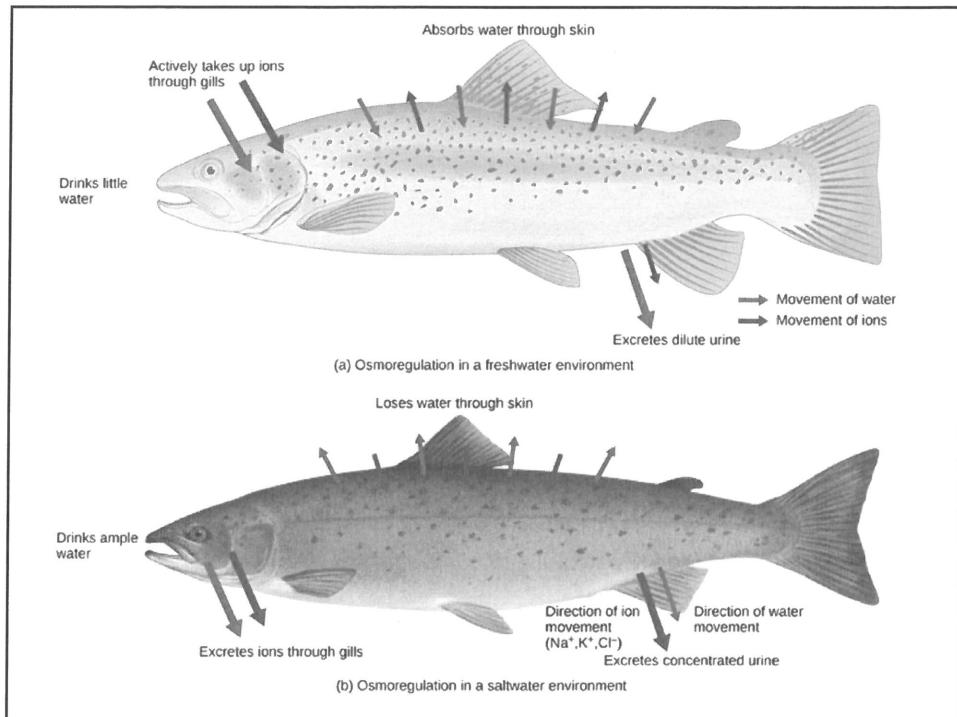


Rivers are four dimensional ecosystems

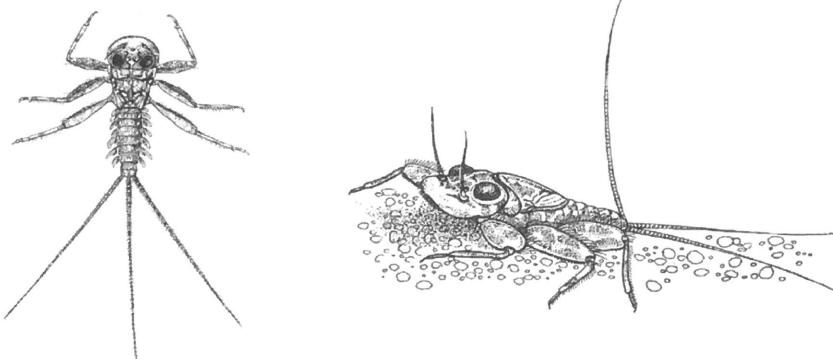


Ward, JV. 1989. The four-dimensional nature of lotic ecosystems. J. N. Am. Benthol. Soc., 8(1): 2-8

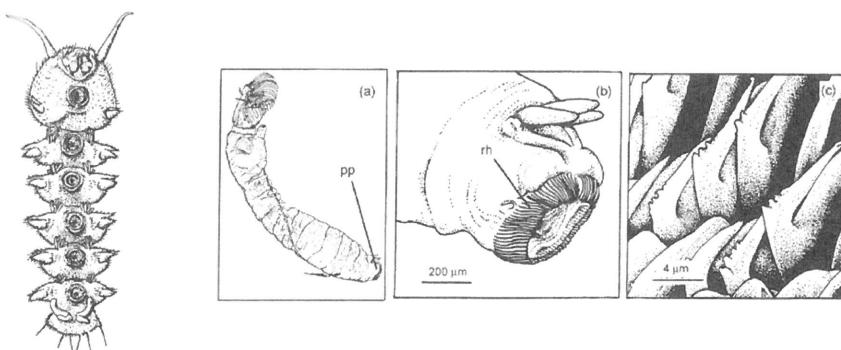


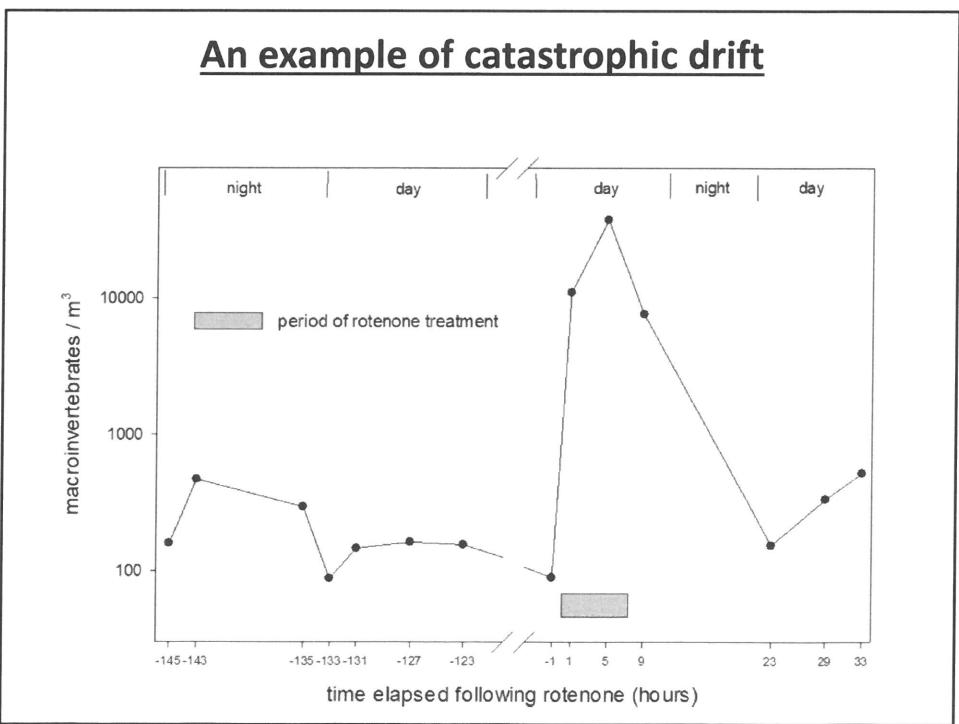
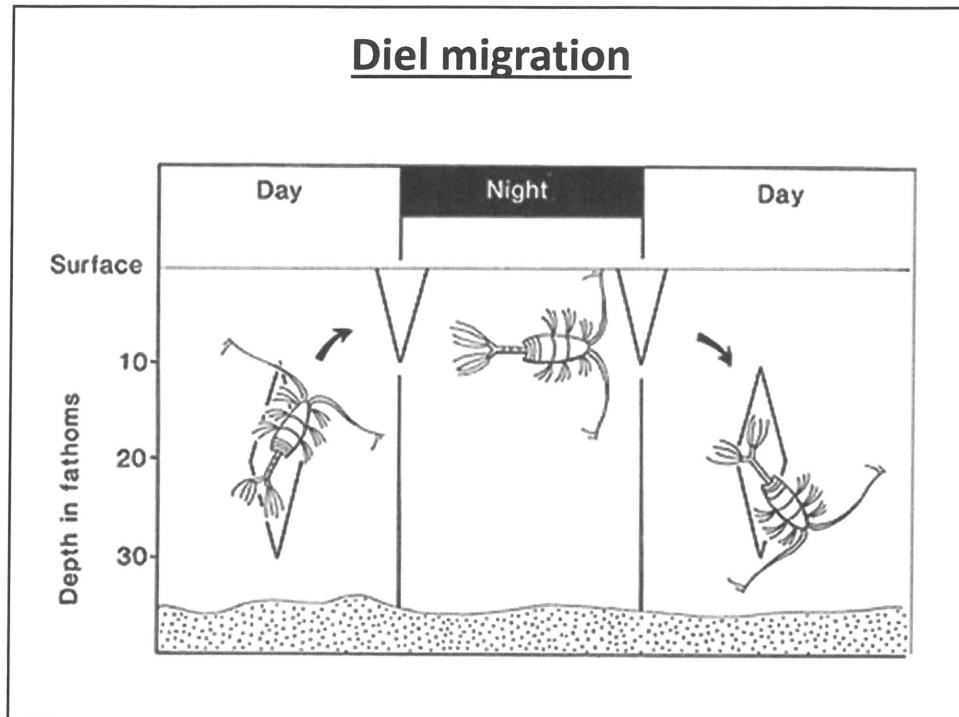


Attachment Devices: Body Shape

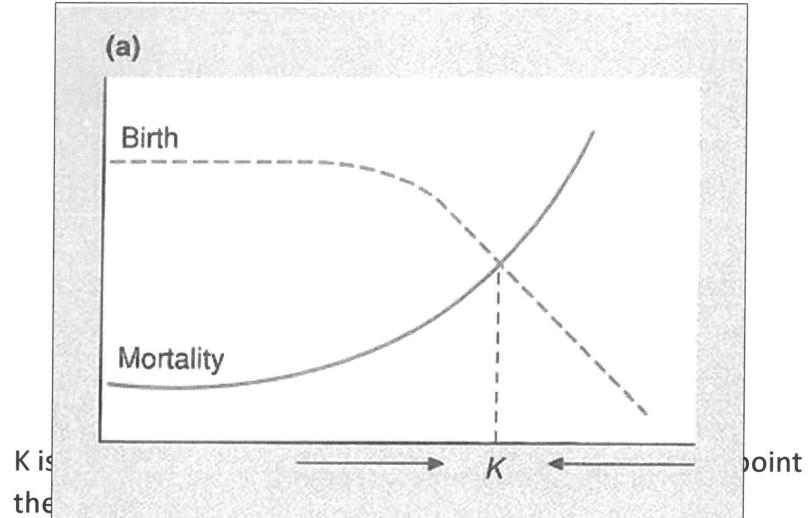


Attachment devices: Morphology

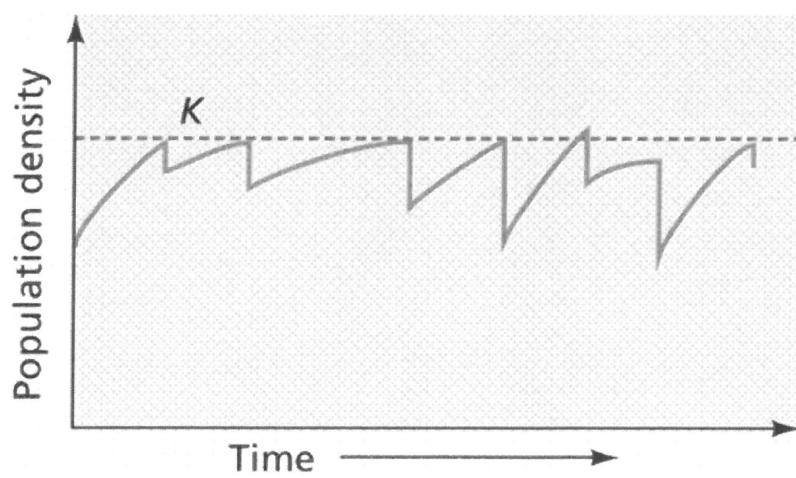




Population dynamics and K

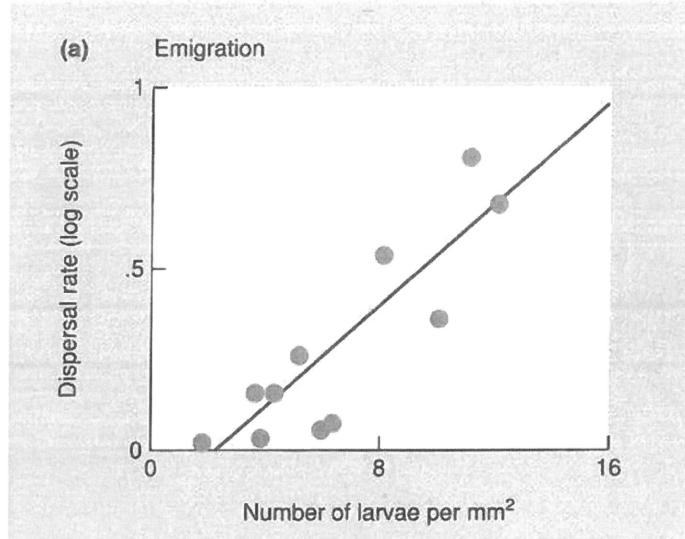


Population dynamics and K



- Intraspecific competition for stable limited resources means population will be kept below a stable threshold maximum

Population dynamics and dispersal



Landscape habitat variation matters for fish

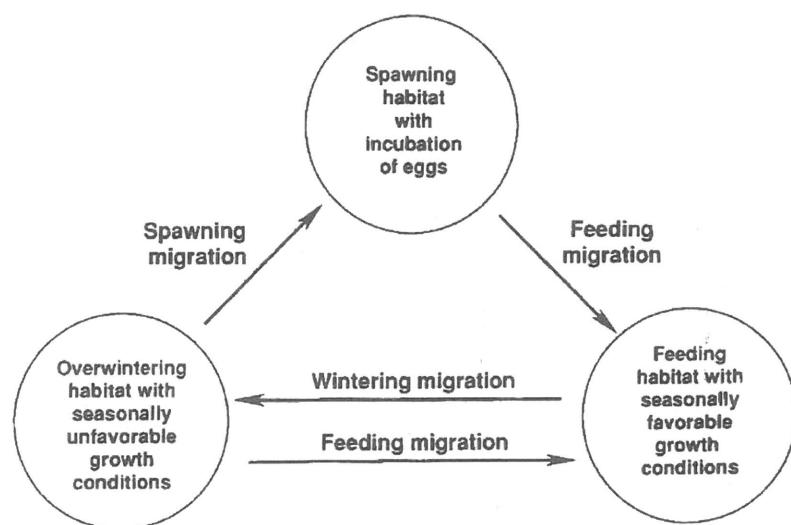


Figure 1. The basic life cycle of stream fish with emphasis on patterns of habitat use and migration.