

Nutrient cycling is strongly regulated by vegetation. When plants are not present, nutrients are lost from the system.

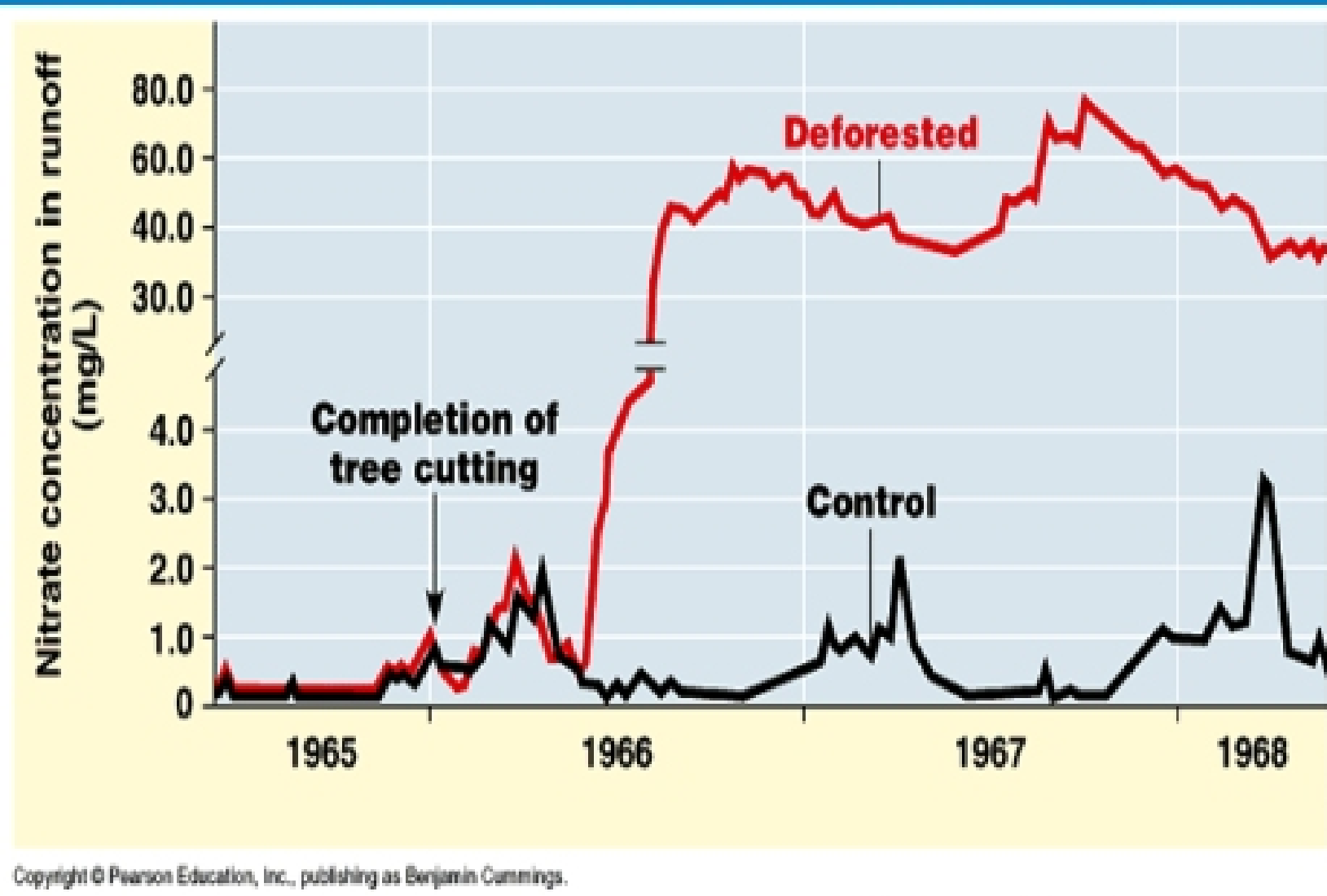
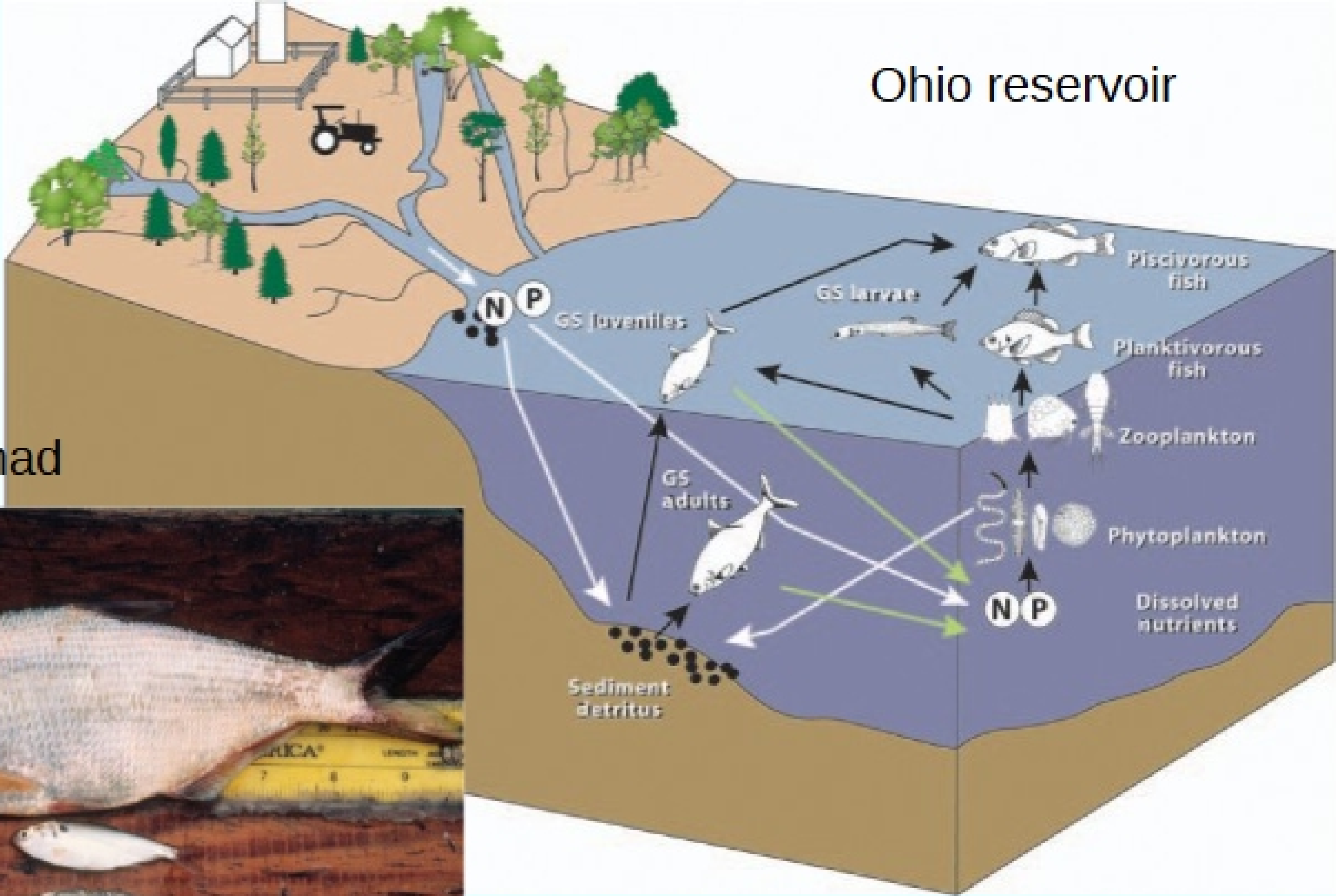


Fig. 54.21



Ohio reservoir

Gizzard shad



Ecologists are recognizing the need of understanding how landscapes (comprise different ecosystems) and food webs interact.

Ecosystem. All the organisms living in a community AND the abiotic factors with which they interact.

Ecosystem Dynamics

1- Energy flow

Primary production

gross and net

aquatic (light and nutrients).

terrestrial (climate and nutrients).

Secondary production

gross and net

production and trophic efficiencies

biomass and number pyramids

green world hypothesis.

2- Matter (chemical) cycling

Biogeochemical model.

Water, carbon, nitrogen.

Role of decomposers.

Vegetation regulation.