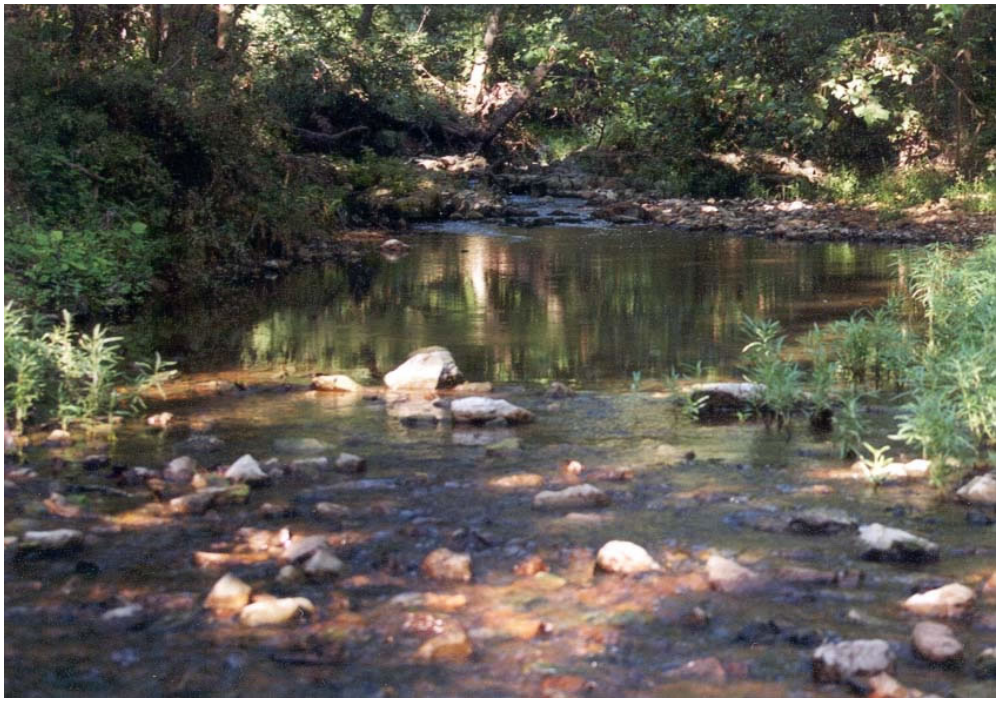
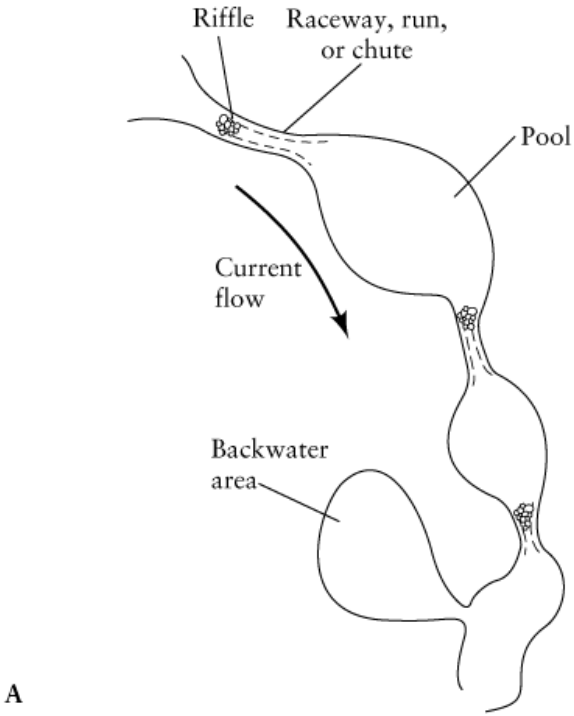
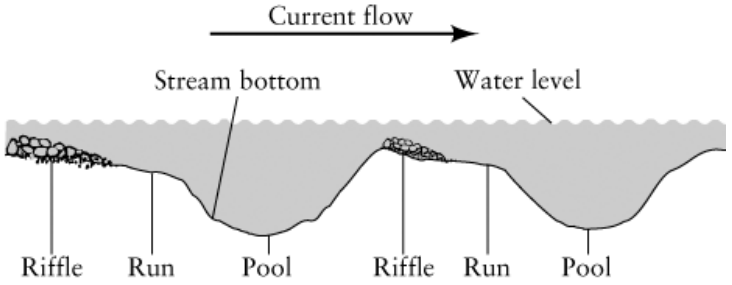
Rivers and streams

Riffles and pools





A



B

Rivers and Streams

Stream order – increases by one downstream with every confluence

1's beget 2's
2's beget 3's, . . .

Stream order only increases when 2 streams of equal rank meet

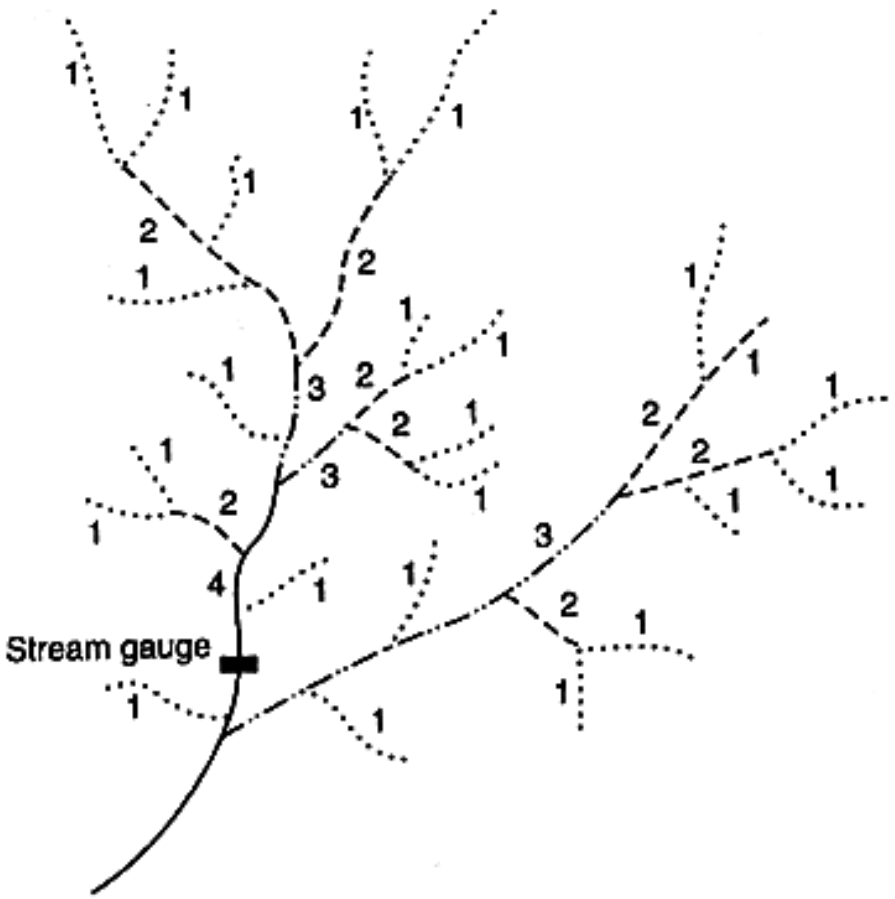


FIGURE 1.13 A drainage network illustrating stream order classification for a fourth-order watershed.

Amazon = 12, Nile, Mississippi = 10

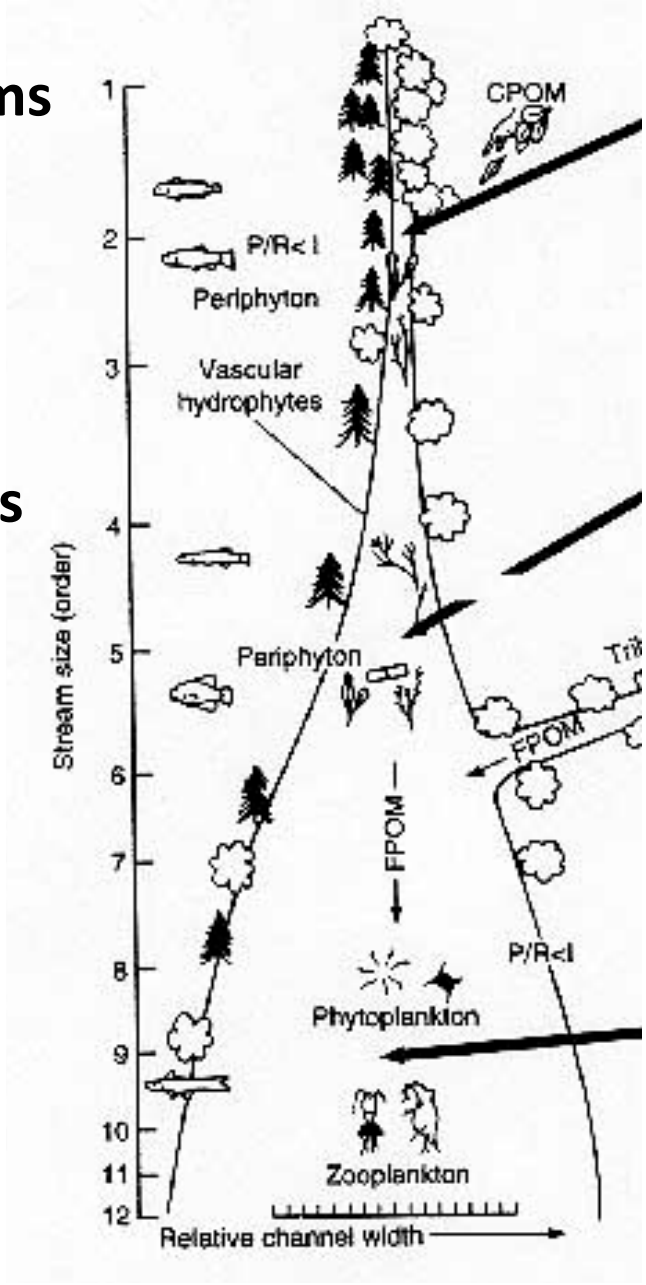
Slide courtesy of Mark Urban

Fish can assemble in relation to stream order

Headwater streams
Order 1 - 3

Mid-sized streams
Order 4 - 6

Large rivers
Order > 6



Higher habitat diversity, structural diversity, depth, and productivity = **more fish diversity**

Today's Objectives

- Sample stream/river (lotic) system for fish using **seines**
- Identify and collect new species
- Determine whether *species diversity* differs between **river habitat-types**
- Determine whether *species diversity and size distribution* differ from **headwater streams to higher order rivers**