



rivers and streams

CHARACTERISTICS

Rivers and streams are deep water habitats contained within a channel. They may be classified as perennial, having water throughout the year, or intermittent, having water at certain times in the year. Upper perennial streams are characterized by permanent water which is swiftly flowing and by having little floodplain area. Their bottom is gravel, cobble, rubble, boulders or bedrock. Riffles and rapids in the stream are interspersed with pools. Upper perennial streams contain abundant oxygen, a variety of habitat types and generally good water quality. Lower perennial streams have permanent water flowing over a bottom of silt, sand, clay or fine gravel, and a well-developed floodplain. At certain times, the amount of dissolved oxygen in the water may be very low. Intermittent streams contain flowing water for only part of the year. When not flowing, the water may be in isolated pools or absent entirely. The stream bottom has organic deposits, sand, gravel, cobble, rubble or bedrock.

RECREATION

boating, canoeing, fishing, hunting, swimming, trapping, water skiing, wildlife observation and/or photography

WHAT LIVES HERE?

Whether an organism can live in a stream or river and, if so, where it will live in the water column are mostly determined by how well adapted the organism is to water currents. Benthic organisms, like crayfish, mussels and insect larvae, live on the substrate, or bottom, where there is little current. Pelagic organisms live in the water column. They float or swim in the water current and include fishes, frogs, turtles, insects and some plants. Some organisms, like water striders (an insect) and duckweeds (plants) live on the surface film of the water. An upper perennial stream has a great diversity of species. The variety of species in a lower perennial stream is dependent on the water quality, with the more heavily polluted streams supporting less diversity. The number of species present in an intermittent stream is dependent on the length of time that water is present, the volume of water flow and the substrate type. There may be no vegetation if the water flow is too great.

WHERE IS IT FOUND?

Illinois is bordered by 880 miles of rivers and has 87,110 miles of rivers and streams within its borders. Some headwater streams are upper perennial streams. The majority of Illinois' larger streams and rivers are lower perennial. Intermittent streams may be found throughout the state as well.

BIBLIOGRAPHY

Illinois Department of Natural Resources. 1999. *Biodiversity of Illinois, Volume I: Aquatic Habitats* CD-ROM.