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WATER TEMPERATURE & CONDUCTIVITY

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General Information:

Water temperature and conductivity are important measures of water quality in aquatic environments. Water temperature affects physiological processes of fish and other aquatic organisms and also influences the habitat use of fish. Conductivity is a measure of the dissolved ions in solution.

Although water quality characteristics are generally similar among main channel habitats of rivers, some habitats (e.g., side channels, backwaters) may have different temperature and conductivity than main channel areas. Therefore, measurements of water temperature and conductivity are needed in all riverine habitat types.

Materials:

- A. YSI 30 meter (measures temperature, conductivity, salinity) with 25 ft depth cable.
- B. Batteries (AA batteries are needed)

Calibration:

Refer to the YSI 30 operations manual for calibration protocols.

Procedure:

Temperature and conductivity will be measured in all habitats (except sandbars) prior to fish collection at the collection midpoint. Measurements in sandbar habitats should be done following fish sampling to avoid spooking fish. Because all gears used in the study sample fish located on or near the river bottom, water temperature will be measured at the river bottom except in high water velocities, > 0.5 m/sec. Lower the probe to the river bottom. After a period of 1 minute, temperature and conductivity are read from the YSI 30 display.

References:

YSI 30 operations manual

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