



SOUTH NATION  
CONSERVATION  
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## Fisheries Monitoring

SNC fish ecology experts provide local knowledge of the 72 fish species that live in the South Nation River system. We assess fish populations and communities in wadeable streams by using a variety of sampling gears and methods. Fish are temporarily captured using hoop, box-trap and seine nets; backpack electro-fishing devices; and minnow traps.

The overall health of the South Nation watershed is carefully monitored and reported by SNC, using fish as one indicator. The Near Shore Community Index Netting (NSCIN) monitoring program, for example, supplies baseline data that provides insight into population dynamics and species variety, abundance, and health within the six reaches of the South Nation River. The reaches are defined at water control structures located on the main stem of the river. Typically, we sample one reach per year.

The NSCIN program is designed with consideration for the following Criteria:

- \* Sampling should occur during a time when fish distribution is least affected by environmental conditions or behavior.
- \* The sampling gear should be standardized, effective at catching common nearshore fish species, and preferably non-lethal to the fish captured.
- \* Sampling sites should be selected in a random fashion to avoid any biases in the site selection process.
- \* The field sampling season is from Aug 1st to whenever the surface water temp cools to 13°C.
- \* Each net is to soak for approx. 24 hours with a minimum of 16 sets.

*Electro-fishing to collect fish data*



*Pulling in a hoop net on the South Nation River*

## Ontario Stream Assessment Protocol

The Ontario Stream Assessment Protocol (OSAP) contains a series of standardized techniques for evaluating habitat, bugs and fish communities in wadeable streams. It has proven useful for making recommendations for restoration and enhancement projects.

Our staff utilize a method called electrofishing within municipal drains and natural water courses to monitor species composition and quantities. Electrofishing is a common scientific survey method used to sample fish populations. When performed correctly, electrofishing results in no permanent harm to fish, which return to their natural state in as little as two minutes after being stunned.

We rely on permission to gather data on private properties from local landowners, who in turn receive reports showing the OSAP results taken.

