Assessing Fish Communities in Lakes – MNR's Programs

Lake Links Conference
October 24, 2009
Cam McCauley, Frontenac Stewardship
Coordinator



Overview

- Who assesses in MNR?
- Why assess a lake?
- How do we assess fish communities and fisheries?
- How to decide which lakes get assessed?

Who in the MNR assesses fish communities (South Region)?

- Fisheries Assessment Units
 - Kawartha Lakes, Muskoka Lakes, Algonquin, Lake Simcoe, Haliburton-Hastings
 - Long term trends since 1978
- Lake Ontario Management Unit
- District Level
 - Kemptville, Peterborough, Bancroft, Pembroke

Why assess a lake?

- Need a clear objective such as:
 - Assess a new angling regulation(s)
 - Assess habitat restoration
 - Assess status of fish community or specific species or management area (Fisheries Management Zone, watershed)
 - Research initiative
- Best as part of research, zone-wide or watershedwide monitoring with associated funding support

How does MNR assess fish communities and fisheries?

- Gill nets, trap nets, fyke/hoop nets, seines, minnow traps, electrofishing
 - Work with local manager to choose appropriate survey
- Creel surveys
 - Stay tuned for workshop summer 2010 hosted by Frontenac Stewardship Council





Standard MNR Net Programs

Key fish species	lake trout	brook trout	walleye	Bass & panfish
Net	BSM	BSM	BSM	NSCIN
program	SPIN	BTIN	FWIN	BSM
	SLIN		ESTN	

- BSM Broad Scale Monitoring (24-hour gill nets)
- SPIN Summer Profundal Index Netting (2 hour gill nets)
- SLIN Spring Littoral Index Netting (1.5 hour gill nets)
- BTIN –Brook Trout Index Netting (0.5 hour gill nets)
- FWIN Fall Walleye Index Netting (24-hour gill nets)
- ESTN End of Spring Trap Netting (24-hour trap nets)
- NSCIN Nearshore Community Index Netting (24-hr trap nets)

What's involved?

Labour & resources

- Field portion (minimum 5 to 14 days), strong backs, training, time commitment of volunteers, appropriate boats-motors
- Data entry (1 to 2 days)
- Analyze/report/presentation (a lot of time, need expertise to analyze)
 - Realistically 1-2 per year depending upon other workload
 - Need to consult with local manager 1-2 years ahead
 - DON'T EXPECT REPORT RIGHT AWAY

Aging of fish

- \$1 to \$4 per fish depending upon structure aged
- Typically collect up to 100 per fish species per project

Equipment purchase, maintenance

- Nets
 - \$200 to \$3000 per net for new nets
 - Up to \$100 per net to repair