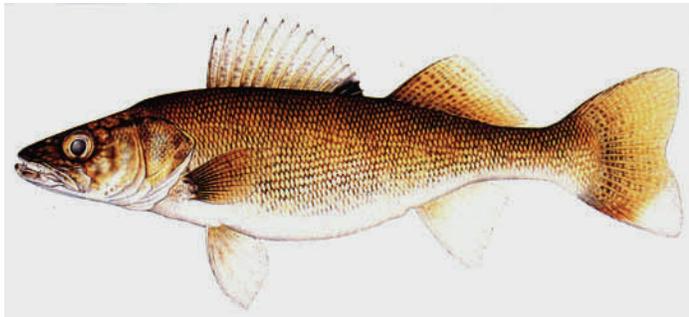


Natural. Valued. Protected.

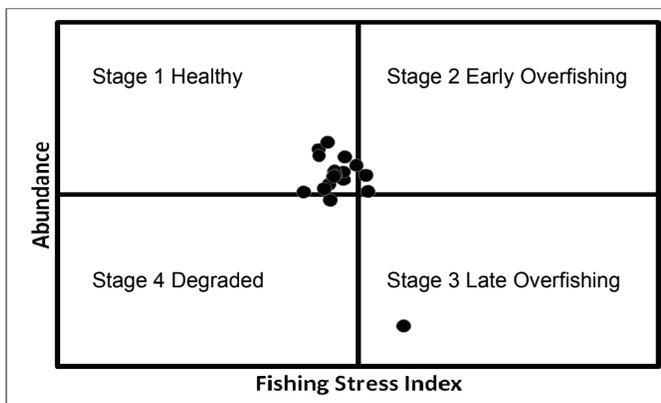
FACT SHEET: Walleye in Fisheries Management Zone 11

This fact sheet for walleyes in Fisheries Management Zone (FMZ) 11 is based on the *Northeast Region Walleye Data Roll-up (2000)* and on other recent assessments.



STATUS OF THE RESOURCE

In FMZ 11, walleye fisheries, overall, are in acceptable condition. The majority of the 176 walleye lakes in FMZ 11 slightly exceed the abundance benchmark and are at or slightly below the exploitation benchmark. It should be noted, however, that the lakes are very near “the line” and any appreciable increase in effort could begin to degrade these fisheries. Since the lakes are also near the abundance benchmark, any significant improvement in the effectiveness of angling could also drive lakes downward. Walleyes are in high demand in FMZ 11. According to the *Recreational Fishing Survey, Canada*, 36% of the demand for fish in FMZ 11 is for walleyes — higher than for

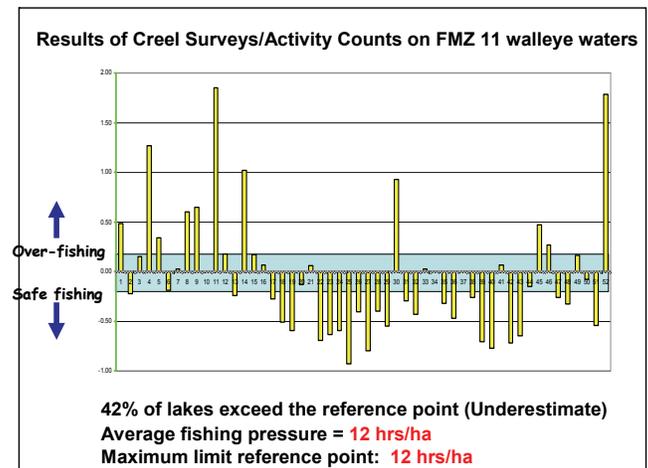


any other species.

Walleye fisheries in FMZ 11 are not substantially different than those in the rest of the Northeast

region. FMZ 11’s slightly higher exploitation rate is at least partly offset by differences in climate.

The walleye is a moderately resilient species typical of cool-water environments. They require cool, clean and well-oxygenated water. They are prolific spawners; a female will lay tens of thousands of eggs per year during the spring spawning season. (see Biology section).



STRESSORS ON WALLEYES

The main stressors on walleyes are:

- Effort/Harvest - walleye populations in FMZ 11 are experiencing near maximum sustainable levels of angling pressure and harvest.
- Water levels - walleye embryos incubate in fast-water areas near the mouth of inflowing streams or on near-shore reefs during the spring. Draw downs during these times may de-water eggs, killing them.
- Introduced species - it is illegal to move species, such as pike, crappies, gobies, bass or sunfish into walleye lakes. Such movements permanently damage populations.
- Diseases and Invasives— recent spread of VHS, a viral disease of fish, as well as invasive threats such as round goby, spiny waterflea and rusty crayfish all have potential to permanently damage fish communities including walleye waters.

Walleye lakes in FMZ 11 are, generally, easily accessed and subject to significant exploitation. Pre-2008 angling effort is at or very near the maximum limit reference point of 12 rod-hours per hectare per year. Pre-slot harvest levels were near the upper limit of traditional sustainable harvest (0.75-1.0 kg/hectare/yr.) Fully 42% of FMZ 11 walleye lakes had effort levels exceeding this sustainability measure. Recent science developments suggest this measure may itself be overly optimistic.

Lake Nipissing, at 87,325 hectares, is the largest walleye fishery in FMZ 11, and is a huge magnet for local, provincial and international walleye anglers. The lake absorbs 600,000 angler hours annually or nearly half the total angler hours expended for walleye in FMZ 11. The Lake Nipissing fishery buffers the other walleye waters in FMZ 11 from high effort and harvest.

In excess of 20 major waterbodies in FMZ 11 have regulated water levels, including Lake Nipissing and Lake Temagami. There is the potential for water level issues to affect walleye reproduction.

Angler transported game fish are becoming a true ecological problem across the region. Crappie and bass, in particular, have been illegally introduced to several FMZ 11 waters.

Viral haemorrhagic septicaemia (VHS) is a pathogen of fish that can result in periodic large fish die-offs. VHS has not been found in FMZ 11 and beginning in 2012 local baitfish dealers are prohibited from moving baitfish from Lake Simcoe, the most common source of baitfish. Visiting anglers are discouraged from transporting baitfish from VHS infected waters to FMZ 11. VHS monitoring occurs annually on L. Nipissing.

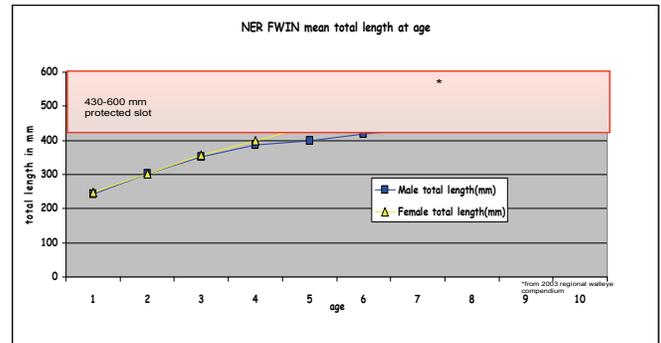
The spiny waterflea, an ecologically disruptive European invader, is well established in the Sturgeon River watershed from L. Temagami to L. Nipissing and the French River, affecting the ecology of L. Nipissing.

Other invasives related to bait use (round goby, zebra mussels and rusty crayfish) have the potential to threaten FMZ 11 fisheries.

WALLEYE BIOLOGICAL INFORMATION

The growth of walleyes in FMZ 11 is fairly

consistent with the provincial average. The following graph shows the average total length male and female walleyes achieve at a given age in Northeast region.



The following table shows how large and old female walleyes are, on average when they spawn for the first time.

Characteristic	Age/length when female walleye are:		
	10% mature	50% mature	90% mature
Female age at maturity	3.6 yrs	4.5 yrs	5.4 yrs
Female length at maturity	407 mm	445 mm	476 mm

‘Slot size’ fishing regulations have been in effect in FMZ 11 since 1999 (L. Nipissing 40-60cm slot) and in the remainder of the zone since 2002.

The graph above indicates the length and age of an average walleye in FMZ 11 and how the slot size protects mature fish to ensure adequate natural reproduction. The FMZ 11 slot implemented in 2008 (43-60cm) is designed to ensure sustainability in the zone up to 15 angler hours/hectare/yr while minimizing the effect on season length and limits.

An angler can expect a 40cm walleye to weigh, on average, 600 g (1.3 lbs) and a 43cm walleye 750 g (1.6 lbs).

The FMZ 11 Advisory Council is deliberating on the desired future condition of the walleye resource over the next 20 years.

If you have any questions, please contact: Chuck McCrudden, Lead FMZ 11 Biologist 705-475-5522 or chuck.mccrudden@ontario.ca