

How we improve your fishing

Stock FISH

When done well, stocking can work wonders. Hundreds of Minnesota walleye lakes would today offer little or no walleye fishing were it not for regular stocking. Stocking is responsible for the tiger muskies hooked each year in Twin Cities Metro Region lakes. Stocking has helped restore the native lake trout population on Lake Superior. Stocking has created new trout fishing opportunities on Arrowhead Region lakes. And stocking has been used to repopulate dozens of lakes in which all the previous fish were deemed undesirable and removed (see “Lake rehabilitation,” page 8).

Walleye stocking

We stock walleyes in roughly 900 lakes throughout the state, adjusting stocking levels up and down as necessary. The goal of these manipulations is to find appropriate stocking levels that increase or maintain healthy walleye populations.

Our prudent, scientific approach appears to be working (see chart on the following page). Overall walleye populations have continued to increase on stocked lakes since 1977, even though we stock fewer walleyes now than in the 1980s.

Not every lake is stocked with walleyes. Many large, windswept northern lakes are natural walleye factories that don’t need a visit from the hatchery truck. To stock these lakes would be like planting corn in a field already sown with seed.

And some lakes aren’t stocked with walleyes because they are better suited for natural bass and panfish populations. On some bass and panfish lakes where angler harvest pressure justifies the cost, such as Lake Minnetonka, we stock walleyes to compensate for limited natural walleye reproduction.

On each lake, fisheries managers must consider the cost versus the benefits of walleye stocking, the likely effects on other fish populations, and how well previous stockings worked. Only then do they recommend whether a lake should be stocked or not.

As one manager puts it: “Not all waters can be fishing waters, and not all fishing waters can be walleye fishing waters.”

Minnesota leads the nation in the pounds of walleyes reared and stocked.



After stripping walleyes of eggs and milt and carefully mixing the two substances, we incubate the fertilized eggs at a state hatchery.

In-Fisherman, Inc.



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Rearing and stocking fish

Though walleyes get most of the attention, we also stock several other important fish species. We rear walleyes, catfish, muskellunge, and smallmouth bass in 12 warmwater hatcheries, and we rear stream trout, lake trout, and salmon in five cold-water hatcheries spread throughout the state.

The main warm-water hatchery work begins in April, when DNR workers net spawning walleyes, strip the eggs and milt (sperm), and mix the two together. The fertilized eggs are then taken to the hatcheries, incubated, and hatched. About two-thirds of the tiny fry are stocked a few days after hatching. The rest are reared over the summer to fingerling size (4–6 inches) in more than 200 rearing ponds (winterkill wetlands and lakes). In fall they are netted and taken to lakes for stocking.

Coldwater hatchery work goes on year-round. Spawn taking occurs in the fall, when eggs and milt are taken from brown trout, brook trout, and lake trout. The fertilized eggs are incubated through the winter and then the young fish are stocked in the spring or the following fall.

Common walleye stocking questions

Q: What's the difference between stocking walleye fry and stocking walleye fingerlings?

A: It's more cost effective to stock fry (mosquito-sized walleyes) than fingerlings (4- to 6-inch walleyes), so we stock fry most often. Sometimes a fisheries manager will stock fry in the spring and then check back in the fall to see what proportion survived to reach fingerling size. If not enough did, then supplemental fingerlings may be stocked that fall.

Another difference is that fry stocking is more variable—some years are booms; some are busts. Fingerling stocking results tend to be more consistent.

Q: How long does it take a stocked fish to reach catchable size?

A: It takes several years for the tiny walleyes stocked each spring or fall to reach 1 pound, or about 14 inches. Warmer, southern lakes have longer growing seasons, so walleyes grow more quickly there than in the north.

LAKE REGION	TIME TO REACH 1 LB.
South	.3-4 years
North	.4-5 years
Northern border	.5-6 years

Q: How many fish get stocked in a lake?

A: Most lakes that are stocked receive an average of 1,000 fry or 1 pound of fingerlings per *littoral acre* (a surface area less than 15 feet deep). To come up with specific stocking levels and rates, local fisheries managers consider a wide range of factors. These include walleye growth rate, survival, and mortality; lake type, forage base, and amount of natural reproduction; and public requests for stocking.

Q: Why are some lakes stocked with more walleyes than other lakes?

A: Bigger stocked lakes generally get more fish than smaller lakes. Stocking levels can vary however, depending on factors such as the amount of prey available and lake productivity. For example, lakes that have lots of yellow perch generally can support more walleye stocking than lakes that don't.

Q: Why does the DNR stock lakes every other year rather than yearly?

A: A generation of walleyes stocked or hatched one year (called a *year class*) will eat much of the food needed by the next year class. This phenomenon is called *year class suppression*. To prevent this from happening to stocked walleyes, fisheries managers usually stock every other year.

Success Story

Walleye Stocking

During the 1980s, we evaluated our stocking policy to see where it might be improved. In the 1990s, as a result of

that analysis, we decreased the amount of walleyes we stocked in Minnesota lakes while increasing the overall effectiveness of stocking. The result has been a continual increase in walleye abundance in stocked lakes while we have saved time and money by not stocking lakes that hadn't been benefiting from the practice.

A new Accelerated Walleye Program aims to further increase walleye abundance on stocked lakes by boosting stocking rates on lakes where it appears to do the most good.

The chart at left shows that walleye abundance has steadily grown over the past two decades, even after 1990, when we began stocking fewer walleyes but stocking "smarter" (targeting lakes where stocking worked best and discontinuing stocking where it was not benefiting anglers).

Increasing Walleye Abundance 1977–1999

All 878 Currently Stocked Walleye Lakes

