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The Overfishing and Loss of Habitat in Northeastern Iowa Trout Streams

During the summer, I worked at a Rainbow and Brook Trout hatchery in Northeastern Iowa for the Iowa Department of Natural Resources. During my short time with the hatchery, one of my jobs was to stock Rainbow Trout in a section of Iowa trout streams. While doing this, I watched these habitats change throughout the summer; most of the time, the habitats changed for the worse.

The first problem that I will go over is the idea of overfishing, or fishing out of an area or species. Overfishing is really only a concern in small streams where over-utilization of the population can occur. While I researched this topic, I found the lengths that the Iowa DNR has gone to stop these streams from being totally empty. Around 95 streams in Iowa have natural reproduction of either Brown, Rainbow, or Brook Trout (Iowa DNR, 2025). A large chunk of these 95 streams have reproducing Brown Trout, which are more resilient to bad stream conditions like murky water, low food amounts, and small numbers of available habitat (All About Fishing, 2025).

Rainbow Trout do not normally reproduce in our streams, due to that, they are hatchery-raised and are stocked in streams from spring to fall.

Management of streams can have a substantial impact on populations, but the actual management of the stream is not necessarily indicative of the populations. When I worked with a management team, I went to a stream that was managed and was catch-and-release. The population declined and was stunted with growth. In that situation, the management team wanted to take off the catch and release restriction to try to revive the stream. A different thing that the Iowa DNR does to stop overfishing is that there are minimum size restrictions at some streams, as well as a limit of trout that can be harvested per day 5. These can be used to keep the population in the stream.

The larger part of this is the loss of habitat due to farming practices, land management practices, and climate. For some less recent information on the habitats and streams, I interviewed Iowa DNR hatchery technician Eric Bailey. One of the biggest problems causing loss of habitat is that Iowa has been in a drought for the last 4 years, which resulted in substantial loss of stream flow and ground recharge (Bailey, 2025). Rain is a big part of the health of these streams because rain and floods clean the streams of plant growth and sand build-up, which fills the habitat. The rain that was missed during the drought would have been used to recharge the stream and increase the streamflow, but without it the water levels were low. Low water levels directly affect the amount of habitat available for trout. During the summer, there were some flash floods that eroded the banks of certain streams like Little Turkey and Twin Bridges. (Fig.1)



(Fig. 1) Little Turkey Bank Erosion.

Drought also negatively affected the Brown Trout population because limited habitat caused a reduction in the reproduction of Brown Trout over the last couple of years (Bailey, 2025).

Land management practices and farming practices are other variables in the loss of trout habitat. The biggest challenge the streams face is the encroachment of tillable land onto the streamside. Some places we stock have tillable land or grazing land right up to the stream bank. This causes erosion because there is no plant growth or buffer between the stream and the land. The buffer attempts to strengthen the bank side and filter fertilizers and herbicides from infiltrating into the stream from fields. On the other

hand, towns and cities are growing, which causes towns to grow closer to these habitats.

Many people don't know this, but there is a trout run in Waterloo that is stocked by an Iowa DNR trout hatchery. This is in close proximity to UNI and could affect our students, not just people who live in Northeastern Iowa. If trout streams were unfishable, students wouldn't be able to travel 15 minutes to fish. In Northeastern Iowa, many people would lose joy in their lives and even a source of food.

Trout fishing in Iowa is something we should not take for granted. A healthy fishery and habitat for these animals is beneficial for people. That is why I believe we should take more measures to secure their health. As of right now, our fisheries management teams are taking on projects to recreate bank hides, curtail flood problems, and make the streams more accessible. This is one way our streams and stream sides are becoming healthier. I believe that there are other ways to help with this.

To tackle the idea of the loss of buffers between streams and fields, we could have some sort of state regulation requiring a certain number of feet between tillable land and streams. These buffers could be in the form of CRP, grass, or other non-farming plants. With this, we should keep working towards creating bank hides at streams in need with the management teams and managing fish populations with stream stockings.

References

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