



## CHAPTER 7

### WHAT LUCK? (sustainability)

"How did you do?" "Any luck?" "Catch anything?" These are usually the first greetings offered to an angler returning from a fishing trip.

One person might reply, "Great! I caught my first Arctic char ever! Boy, did it put up a fight. You should have seen its colors! Wow!"

The next might have answered, "What a day! I caught enough landlocked salmon to feed my whole family. I can't wait to show my folks!"

Different anglers judge successful trips differently. For some, it's catching their first fish or the thought of a delicious, nutritious meal. For others, it's the trophy of a lifetime or finally outwitting an elusive, hard-to-catch species. Sometimes a tough day of catching might still be a real good day of fishing. The answer to, "How did you do?" could have been, "Great, I saw a fox, an eagle, and a moose. I hope I have luck like this next time!"

It's no wonder the fishing gives so much joy to so many different people. As our country grew, the availability of water determined where our new towns and cities would be located. This was good for future generations of anglers because within hiking or biking distance or a short drive from our homes we could find a variety of different types of places to fish. However, with **aquatic resources** so close to the majority of the population, pressure on the resource (many people trying to catch a limited amount of fish) could have caused some species to be overfished to extinction.

Luckily, sportsmen and government officials had the foresight to envision the steps needed to stop this from happening. Fish-and-game departments, with the help of scientists, biologists and public input, have developed rules and regulations to ensure species survival.

These guidelines can make clear many decisions that we will encounter in our sport. Either it's legal or it's not. We must abide by the **seasons** and **limits** specified. Many times, making the right choice is much more difficult. Let's say you're fishing by yourself and catch a humdinger of a fish, and you know it's in season and legal to keep. You're so proud of your catch you just can't wait to show someone. But you also know that it's a fish that not too many people like to eat. Would it be a responsible use of the resource to let it go to waste just so you can show off?

What if you are fishing and find a school of landlocked salmon, a fish almost everybody finds tasty? Before you know it, you catch your limit. As you start lugging your heavy bounty home, you begin to think about how much work it's going to be to clean all those fish. Oh boy, now what do you do?

The smart angler plans ahead. He or she knows what they're fishing for, whether to keep or release what's been caught, and if taking some fish home, how much is enough. Some people practice catch-and-release, returning all fish back to the water, taking every precaution not to harm a single fish. For others, the only reason to fish is to catch something to eat.

Is one right and the other wrong? Is there a middle ground?

To answer these questions, we have to understand what happens in a pond, lake, river or stream subjected to angling pressure.

If all large predatory fish in a given body of water were harvested, the threat to the smaller prey fish would be eliminated. With no predators to keep their population under control, they would exceed

the **carrying capacity** of their habitat, stunting their growth. You would end up with many fish, but of small size since food and other resources are limited. A similar situation occurs if no predator fish are harvested. If the large predator fish are allowed to go unchecked they will reduce their forage (food). The effects of this would be a less healthy population of predators. They would be thinner and more prone to disease, which would increase the prospect of stunted growth for future generations, unless the prey fish population is re-established.

The key to maintaining a balanced predator prey relationship is to selectively harvest some fish while releasing less abundant species and sizes. To keep only the larger fish (often the reproducing fish) of any species will weaken future generations. If we wisely select which fish to harvest, we can minimize our effect on this renewable resource.

Possible extension activities:

- 1) (Critical Thinking Exercise) Draw diagrams of different fish populations: include a balanced population with both predator and prey species; (two unbalanced populations) one with prey and no predators; and one with predators and no prey.
- 2) (Planning Exercise) Plan a trip to a local fishing spot. Get free sport fishing regulations and look up regulations for a sport fishing location.