

Catch®

Harold Glasser, *Game designer*Executive Director, Office for Sustainability
Professor, Environmental & Sustainability Studies

Alan Rea, *Software Development Team Lead* Professor, Computer Information Systems

https://catch.ofs.wmich.edu

Rules & Overview

Imagine you are the proud co-owner of a fishing company on the Cape of Good Hope – a rich and abundant fishery. Your goal:

Catch and retain as many fish as you can while leaving as many fish in the sea as possible.

Companies: 3-6

Players: 2-6 per company

Game Observers: 0-3

The Sea

The sea starts with a set maximum number of fish that it can support. Replenishment of the fishery is based on this number. After each round is completed—if there are still fish in the sea—the fishery will be replenished according to set rules, based on the total number of fish remaining in the sea. If all the fish are taken from the sea the game is over, regardless of what round the companies are in, or where they are in a given round.

Catch is played at scale; fish are caught as "fish units." A fish unit should be understood as a 'net-full' of fish.

The initial number of fish units in the sea can be calculated as follows:

X₀ = starting no. of fish units = R [(C*16)+4]

where.

C = no. of companies in game R = a random no. between .9 & 1.1

Game Manager

Game play is guided by a **Game Manager** (GM) who provides the rules, runs the simulation, and presents a debrief after the game is completed. The GM cannot answer questions about the game or the behavior of the system.

Game Observers

It is also helpful to have several players serve as **Game Observers**. They act as anthropologists by taking detailed notes as they observe gameplay. Game Observers will be called on to share their insights during the debrief.

Game Slips

At the start of the game, each company will be issued Call Slips, Boat Slips, a Census Slip, a Loan Slip, a Sanction Slip, and a Boat (container). Companies make various game decisions by filling out slips and returning them to the GM.

Guidelines

- Companies will be given 10 minutes at the start of the game to develop their strategy.
- A worksheet has been provided to assist companies in developing their strategy.
- 3. Each turn is one minute long.
- 4. There are be up to 10 rounds of play (each round represents 1 year).
- 5. Ideally, at the end of round 10, the fishery is in its original state.
- 6. Companies may not redistribute catch through trading or gifts.

Debrief

A debrief will follow the game. The debrief combines data and charts generated from the gameplay with insights from scientific and policy literature. Its purpose is to stimulate a meaningful, inquiry-based conversation about the management of open access, renewable resources—on which all life depends.

Game Decisions

Every round, the GM will randomly call on each of the companies to pick 1 of 4 game decisions. Companies have 1 minute to record their decision on a Call Slip and report it to the GM.

1. Catch Fish

Companies record the number of fish units they want to catch on a Call Slip and hand it and their container to the GM. Each boat can catch a maximum of 5 fish units per round. Depending on the population of the sea, companies may not get the catch they request. All companies must catch fish on the first round of play.

2. Draw a Game Card

Game Cards must be shown to the GM after drawing. Game Cards reveal facts about the status of the fishery, factors that influence the success of companies, or identify events and actions to which companies must respond.

3. Reinvest in the Fishery

Return some of the fish units previously caught back to the sea. Fill out the Invest section on the **Call Slip** and return it and any reinvested fish units to the GM.

4. Pass

Take none of the options above. Dock fees will still be collected.

Boatyard

At the start of each turn, companies can buy or sell boats from the GM using a **Boat Slip**. Companies can purchase up to 4 additional boats in a game. New boats cost 6 fish units. Companies can sell boats back to the Boatyard for 3 fish units. Other companies can buy these used boats for 4 fish units. Companies may not sell their original boat. **Any boats purchased at the start of a turn can be used to fish immediately.** Companies must pay the Boatyard a dock fee of 1 fish unit/boat each turn. If companies choose to catch fish, the game manager will automatically deduct dock fees from their catch.

Other Information Life Event (LE) Cards

In rounds 2, 4, 6, and 8 a single company will randomly recieve a LE Card. These LE Cards may have positive or negative effects. Companies must accept any cards received.

Fish Census

At the beginning of round 5, companies can choose to pay for an **optional** Fish Census (to learn the number of fish units in the sea). The census cost is twice the number of companies.

Companies can choose to contribute however they see fit. Each company must fill out a **Census Slip**. If the census cost is met, the GM will publicly report the total number of fish units in the sea. If the census cost is not met, no contributed fish will be returned.

Loans

Companies may receive one loan of 2-6 fish units. Fill out the Loan Slip and return it to the GM to take out an optional loan. If a company's bank balance is ≤ 0 the loan option is automatically triggered for 6 fish units. Companies must repay one fish unit each turn, until double the principle is repaid. If a company has an outstanding loan in round 10, they must pay off the remaining balance.

Sanctions

Each company has one chance to impose a sanction upon another. A company can utilize this option by filling out the Sanction Slip and calling for a vote at the beginning of a round.

If the vote to impose sanctions has received majority approval, the sanctioned company forfeits this round's turn. Dock fees and other financial obligations still apply. A company can be sanctioned multiple times. All voting is done by hands, publicly. Each company gets one vote. Sanctions are disabled if only two companies remain.