

# Cat Harbor Fishery

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## 1 Part I: Static Analysis - Collective action

Cat Harbour (CH) was an isolated fishing settlement. And like many other communities, it was a product of border social forces and priorities over which local people exercise no control. CH peninsula was a small headland reaching northeastward into the Atlantic Ocean. It was one mile long, under  $\frac{1}{4}$  mile across and gradually widened to  $\frac{3}{4}$  mile where it joined the mainland. The natural setting was made of water (sea), sea creatures, and grounds (fishing grounds) constitutes a crucial common pool resource relevant to the commons dilemma. The sea determined a large portion of human cognition and folk taxonomy. The produce of the sea (cod and to a lesser degree, lobster, salmon, and sea) was what provided people with a living and their relationship between land and sea determines attitudes toward land. The action situation at the fishing grounds involves fishing crews. The crew numbers varies from summer to fall fishing seasons. Due to technology used by fishermen, they did not fish any further offshore than 15 fathoms.

### 1.1 The Commons Dilemma

The study did not explicitly state the potential for over-appropriation or poor coordination of appropriation. However, it noted a lack of formal rules and local governance in CH. Informal rules present acted as a means of suppressing the accumulation of power by individuals and enforced a view of any outsider as untrustworthy and dangerous.

### 1.2 Biophysical Context (IAD)

- Natural infrastructure
  - The sea was the primary physical determinant in the life of CH residents. Sea produce offers them living, and dominates much of their cognition as well as the attitude towards land.
  - The heavily forested outer island is the main source of wood used to make lobster pots (also known as lobster traps). And the scrubby coniferous forest which is inland off the peninsula is the source of building material and fuel.
  - The sea floor, shoals, and nooks made up the area known as "the grounds". This is the area where traps were set. Fishermen with knowledge of the ground were more likely to have successful harvest.
- Hard human-made infrastructure

- Identified hard human-made infrastructure include piers, wharves, fishing gears, boats, house and sheds, as well as fences. Land fenced was considered owned and acted as a social barrier, especially in dwelling areas.

### 1.3 Attributes of the Community (IAD)

- Social Infrastructure

- The inhabitants of CH were divided into sixty-four familial units, each with a separate hearth, and lived in forty-six distinct compounds, each enclosed by a fence. Individuals are grouped into fifteen general "crowds" that occasionally combine to form thirty-three effective crowds that engaged in common economic endeavor. "Crowds" are a group of people in an activity at a time.
- Activities were done by seasons. Spring for seal fishing and getting ready for major fishing. Summer for trap and fishing. Summer activities also overlapped with the Fall. Winter season is for wood work.
- During the summer voyage season, men were actively working in the fishery. For the sole purpose of trap fishing, a few men traveled from outside the area, and after the trap voyage, some post-adolescent boys went back to school. If the summer voyage was successful, no man was forced to fish all fall out of economic necessity. All sharemen and post-adolescents boys returned home. Older fishermen nearing retirement also leave their boats. Otherwise about half the men compared to the summer are left to exploit the "offer" grounds. "Sharemen" are men who are not residents of CH and are hired primarily for work.
- Also, every man was responsible for building their boats, and lobster pots and mending their nets and traps. There was, however opportunity for people to receive help from others, negotiate in exchange for something or assign an activity to more competent individuals.

- Human Infrastructure

- The total population in 1964 was 285; 149 males and 136 females. Men in CH are primarily fishermen not seamen or sailors.
- The role of women are not explicitly indicated however, women were captured to "put away the fish" after harvest by men.

### 1.4 Rules in Use (IAD)

- Position Rules: There are community members and the strangers, people from the outside of the community. The community members own land with an access to water (with a few exceptions).
  - Fathers are always skippers when fishing with son. However, whoever holds the position of skipper possesses no real authority. It was purely an honorific title.
  - The elderly in CH were accorded no special status because of their age and seniority, and their opinions were neither sought nor particularly valued.

- Sharemen are not a part of the crowd, they are the men who take no responsibility for the gear, boat, or expenses of a voyage, but who gets a fixed percentage of the total catch in exchange for their labor.
- Boundary Rules: The boundary of the resource and community had natural, constructed and institutional arrangements which limited entry.
  - The only way to become a member of CH community is to marry someone from there and move to CH to live with them. It is not uncommon for the CH men to bring wives from the outside. Though they are most likely to be considered strangers even after years of marriage; there is a “Once a stranger, always a stranger” philosophy persistent in CH.
  - Land not fenced was regarded as common, to be used by anyone; fenced land was regarded as owned (no land, however, was deeded from the Crown or formally granted).
  - Fencing was always perpendicular to the waterfront, so that there was access to water. For CH residents, land without waterfront is hardly land.
  - If a man splits off from his brothers to form his own crew, he must build his own fishing premises accompanied by a segmentation in the garden.
  - There was never more than 1 crew per garden regardless of the number of houses.
  - To acquire his own piece of land, a man was expected to marry and have children, so that he can have his own fishing crew. Every fence in CH represents a natural segmentation of gardens as a result of a man leaving off from the crew, previously composed of his father and brothers, to fish with his sons.
- Choice Rules:
  - Every man in CH is expected to marry and form his own fishing crew. If he does not have one, he can bring in a sharemen which reduces the profits.
  - As opposed to the summer fishery, fall fishery can be done with only one person which is usually the case whenever the crew is not formed yet.
  - Marriage within the community is limited by a type of lineal exogamy.
- Aggregation Rules:
  - To lessen competition and protect the waters from exploitation by outside fishermen, CH residents established a drawing system for the allocation of cod-trap berths (which forced fishermen to set traps very early to secure a berth).
  - Spots of the ground are found by a system of triangulation with shore marks. These are the places traps were set.
  - Fishing crew usually consists of a man and his sons.
- Scope rules:
  - Knowledge of precise grounds considered fit for setting cod traps.
- Information rules:

- Although authorized channels of information were not explicit noted, information flows in two ways "news" and "gossip". Other subtle actions such as drawing windows shades or fencing land passed information across to the community.
- Payoff Rules:
  - Knowledge of the fishing grounds and shore marks generally leads to successful catches.

## 1.5 Summary

This case study showcases the sophisticated organization of CH in the absence of formalized regulation and local governance while they utilize a common pool of resource and experience pressure from exogenous agents, who impact their traditional forms of resource exploitation and social structure. This case can be deemed successful during the period the community existed. Although interaction dynamics were unconventional, we could identify all categories of rules in use were in existence or being practiced. It can also be inferred that the community partly ceased to exist now because of forces of nature forcing the natural setting to be less habitable despite social and economic exogenous factors. It can also be inferred that emigration of families due to limited land resources also played a role, for families in CH preferred to stick together.

## 2 Part II. Dynamic Analysis - Robustness

It can be inferred from the case study that no appropriators who were consistently disadvantaged in during the period the community existed. The rules in use also governed their activities quite well. The payoff rules did not assign substantially unequal punishments to some subgroups than others. This was because the default condition was that as an appropriator, you can retain whatever they can physically keep hold of and no external rewards, taxes, or sanctions were imposed. In effect your knowledge of the grounds gave you success. Likewise Boundary, scope and aggregation did not assign substantially unequal privileges. It can also be inferred that natural environment and resources was neither substantially affected by the attributes of the community.

## 3 Contributors

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