



INPFC DOCUMENT
Ser. No. 2919
Rev. No. ....

CANADIAN FIELD RESEARCH STUDIES FOR 1985 IN THE NORTHEAST

PACIFIC

by

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Submitted to the

INTERNATIONAL NORTH PACIFIC FISHERIES COMMISSION

by the

CANADIAN NATIONAL SECTION

October 1985

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:

Cass, Alan. 1985. Canadian field research studies for 1985 in the northeast Pacific. 4 p. (Document submitted to the Annual Meeting of the International North Pacific Fisheries Commission, Tokyo, Japan, October 1985.) Department of Fisheries and Oceans, Fisheries Research Branch, Pacific Biological Station, Nanaimo, B.C., Canada V9R 5K6.

## 1. CANADA

Field research was directed primarily at projects involving rockfishes, sablefish, Pacific hake, lingcod, flatfish and dogfish. Field studies to develop a multispecies assemblage approach to fisheries management of Hecate Strait in the Charlotte Area were continued. Field studies were also initiated to investigate groundfish-herring interactions on La Perouse Bank in the Vancouver Area.

### (a) Rockfishes

Field studies were conducted to examine interannual variation in fecundity as part of a study of the reproductive biology of Pacific ocean perch stocks. A Pacific ocean perch biomass survey was also conducted in the Vancouver Area. A trawl survey in the Vancouver Area was conducted to collect baseline biological information for shelf rockfish off the west coast of Vancouver Island. Jig surveys were continued in the Vancouver Area (Strait of Georgia) as part of a project to develop multispecies management strategies for nearshore rockfishes. Scuba surveys were conducted to examine biotic and abiotic factors that influence juvenile recruitment of nearshore rockfishes.

### (b) Sablefish

Field studies to monitor the size and age structure of stocks in the Vancouver and Charlotte Areas were continued. In addition, a concentrated sampling effort was conducted in the Vancouver Area (La Perouse Bank) as part of a study to examine factors influencing year-class abundance. Tagging of

juveniles was continued in the Vancouver and Charlotte Areas. Larval surveys were conducted to map the distribution of larval sablefish in the Vancouver Area.

(c) Pacific hake

Trawl surveys in the Vancouver Area (Strait of Georgia) were continued in 1985 to monitor spawning concentrations. Monitoring and biological sampling of offshore stocks in the Vancouver Area was also continued. A study was initiated to determine biotic and abiotic factors influencing year-class success.

(d) Lingcod

Jig surveys in the Vancouver Area (Strait of Georgia) were continued as part of studies to develop multi-species management strategies for nearshore reef fishes. A trawl survey was conducted to determine the age and size at maturity and fecundity in the Vancouver and Charlotte Areas.

(e) Flatfishes

The sixth annual bottom-trawl survey to assess year-class abundance of juvenile flatfishes in the Charlotte Area (Hecate Strait) was completed.

(f) Dogfish

Tagging studies continued in 1985 in the Vancouver Area (Strait of Georgia and off the west coast of Vancouver Island) to delineate stocks, validate ageing, and to examine long-term movements of adults. The feeding

study of dogfish was continued in 1985 as part of a species assemblage study in the Charlotte Area (Hecate Strait).

(g) Hecate Strait Project

Studies were continued in 1985 to define species assemblage distributions for Hecate Strait based on systematic trawl surveys of the area. Stomach samples were also collected to establish feeding patterns of groundfish species.

(h) La Perouse Project

Studies were initiated to examine groundfish-herring interactions in the Vancouver Area off the west coast of Vancouver Island (La Perouse Bank).