

INTERNATIONAL NORTH PACIFIC FISHERIES COMMISSION

Shimizu, Shizuoka, Japan, 1981 March 19

REPORT OF THE WORKING GROUP ON JOINT SURVEYS OF
THE SUB-COMMITTEE ON NON-ANADROMOUS SPECIES

The Working Group on Joint Surveys met March 11-19, 1981 in Shimizu, Japan. Dr. Kaoru Tatara, Director of the Far Seas Fisheries Research Laboratory, welcomed the participants and wished them success in their deliberations. I. Ikeda of Japan and C.R. Forrester served as chairmen and H. Yamaguchi of Japan served as rapporteur.

1. PARTICIPANTS

The following persons took part in the working group sessions:

JAPAN	I. Ikeda	Far Seas Fish. Res. Lab. Fisheries Agency, Shimizu
	K. Okada	"
	H. Yamaguchi	"
	T. Sasaki	"
	K. Wakabayashi	"
	H. Fujita	"
	T. Suzuki	Fisheries Agency, Tokyo
UNITED STATES	R.G. Bakkala	Northwest & Alaska Fisheries Center, NMFS, NOAA, Seattle
	L.L. Low	"
SECRETARIAT	C.R. Forrester	
INTERPRETER	C. Okazaki	Inter-Group

2. AGENDA

The following agenda was adopted:

- (1) Opening remarks
- (2) Welcome address
- (3) Introduction of participants
- (4) Selection of chairman
- (5) Appointment of rapporteur
- (6) Adoption of agenda

- (7) Finalization of the joint report on the results of the 1979 cooperative U.S.-Japan survey of the Bering Sea
 - (a) Review of introduction of the joint survey
 - (b) Review of methods of the U.S.-Japan demersal trawl surveys
 - (c) Review of methods of U.S. hydroacoustic survey
 - (d) Review of methods of Japanese hydroacoustic survey
 - (e) Review of results of the demersal trawl surveys
 - (i) Species taken and relative importance of species in catches
 - (ii) Distribution, abundance, and biological characteristics of principal species (pollock, Pacific cod, sablefish, etc.)
 - (iii) Tables and figures for the results on species groups and individual species
 - (f) Review of the U.S. hydroacoustic survey of pollock on the continental shelf and slope
 - (g) Review of the Japanese hydroacoustic survey of pollock in the Bering Sea deep water basin
 - (h) Review of overall estimates of pollock distribution and abundance based on bottom trawl and hydroacoustic survey
 - (i) Review of results of environmental conditions
 - (j) Review of discussion and interpretations of findings
 - (k) Review of summary of findings
 - (l) Review of references
 - (m) Review of appendices
 - (n) Consideration of authorship
- (8) Review progress and establish a final format for the joint data report for the 1979 cooperative Bering Sea survey
 - (a) Review of format of catch records
 - (b) Review of format of hydroacoustic survey
- (9) Review of progress on analysis of the cooperative U.S.-Japan groundfish survey of 1980 in the Aleutian Region
- (10) Review of cooperative research plans in the Bering Sea and the Gulf of Alaska in 1981
 - (a) Cruise plan for cooperative research on the trawl survey in the Bering Sea
 - (b) Cruise plan for cooperative research on the pelagic pollock in the Aleutian Basin in 1982
 - (c) Cruise plan for cooperative research on the multi-vessel trawl survey in the eastern Bering Sea
 - (d) Cruise plan for cooperative research on sablefish and Pacific cod in the Aleutian Region and Gulf of Alaska
 - (e) Survey plan for cooperative research on the tanner and king crabs in the Bering Sea
- (11) Review of results of the 1980 U.S.-Japan cooperative longline survey
- (12) Report of working group meeting
- (13) Other business
- (14) Future meetings
- (15) Closing remarks

3. TERMS OF REFERENCE

The terms of reference of the working group were:

- (1) To finalize the formats for figures and tables of the joint report on results of the 1979 cooperative U.S.-Japan survey of groundfish in the eastern Bering Sea, prepare drafts of results sections of the report, and review completed sections of the report
- (2) To correct data files, reach agreement on methods of analysis and an outline for describing results of the 1980 cooperative U.S.-Japan survey of the Aleutian Islands Region
- (3) To agree on a format for a data report for the 1979 cooperative U.S.-Japan survey of groundfish of the eastern Bering Sea
- (4) To review plans for the 1981 Japanese Danish seine survey for pollock and the 1981 cooperative U.S.-Japan Bering Sea and Gulf of Alaska surveys

4. FINALIZATION OF THE JOINT REPORT ON THE RESULTS OF THE 1979 COOPERATIVE U.S.-JAPAN SURVEY OF THE BERING SEA

The working group conducted a comprehensive review of the draft sections of the report listed in items 7 and 8 of the meeting agenda. The group also prepared and discussed new sections and revisions to certain sections and agreed on responsibilities for completion, modification, etc., for other sections. In the table of contents of the report, which is attached as an appendix to this report, the progress on sections of the report is noted. The working group expressed pleasure at the progress being made in compiling this comprehensive survey report.

5. THE JOINT DATA REPORT OF THE 1979 COOPERATIVE BERING SEA SURVEY

Agreement was reached on the form of material to be incorporated into the data report and further correspondence on this subject will take place.

6. ANALYSIS OF THE COOPERATIVE U.S.-JAPAN GROUND FISH SURVEY OF 1980 IN THE ALEUTIAN REGION

Japanese scientists expressed opinions on the question of analyzing results of the U.S.-Japan groundfish survey in the Aleutian Region in 1980. Because the U.S. scientist involved in this work was not present it was agreed that correspondence would take place on the subject.

7. COOPERATIVE RESEARCH PLANS IN THE BERING SEA AND THE GULF OF ALASKA IN 1981

Provisional plans for research in 1981 were discussed. Plans were still preliminary because the Fisheries Agency of Japan budget had not yet been approved and it was agreed that a further exchange of information on the research plans for 1981 would take place.

8. RESULTS OF 1980 U.S.-JAPAN COOPERATIVE LONGLINE SURVEY

Preliminary results of a survey of sablefish resources in the Gulf of Alaska conducted in 1980 were reported by Japan. Relative population numbers of all size sablefish in the Gulf of Alaska in 1980 increased 7% from 1979 longline survey results.

U.S. scientists are looking forward to analyzing sablefish resource survey data collected in 1981 by both Japan and the United States and Japanese scientists agreed to cooperate as fully as possible in this work. U.S. scientists expressed the hope that basic research data from the summer 1981 Japanese longline survey will be made available by the following December or January.

9. FUTURE MEETINGS

The working group RECOMMENDS that it continue its deliberations during a three to four day period about the time of the U.S.-Japan bilateral meetings in May in Seattle. It was also RECOMMENDED that the working group meet for a period of about one week in Seattle after the meetings of the B&R committee at the time of the 1981 Annual Meeting of INPFC. It was hoped that by the time of the annual meeting the working group could review a complete or near complete draft of the report on the 1979 cooperative survey. At that time the group would also review progress on the data report which would act as a supporting document for the report.

The working group would also continue to develop the methods of analysis and format for the report of the 1980 cooperative Aleutian Island Region survey and review completed sections of the report.

It was RECOMMENDED that the Secretariat provide interpreter service for both working group meetings.

APPENDIX 1 FOLLOWS

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RESULTS OF COOPERATIVE U.S.-JAPAN GROUND FISH INVESTIGATIONS IN THE
BERING SEA DURING MAY-AUGUST 1979

Table of Contents

1. Introduction (complete)
2. Methods of the U.S.-Japan demersal trawl surveys
 - (1) Methods used by each nation
 - (a) Survey design (complete)
 - (b) Vessels and gear (complete)
 - (c) Station sampling procedures (complete)
 - (d) Vessel fishing powers (complete)
 - (e) Data management (complete)
 - (2) Methods used for the combined analysis of U.S.-Japan data
 - (a) Restratification of survey area (complete)
 - (b) Relative fishing powers between Japanese and U.S. vessels (complete)
 - (c) Analytical procedures (complete)
 - (d) (New section) (under preparation jointly)
3. Methods of the U.S. hydroacoustic (echo integrator-midwater trawl) survey
 - (1) Survey design (complete)
 - (2) Vessel, trawl gear, and hydroacoustic equipment (complete)
 - (3) Midwater trawl station sampling procedures (complete)
 - (4) Data reduction and analytical procedures (complete)
 - (5) Target strength data collection (complete)
4. Methods of the Japanese hydroacoustic survey
 - (1) Survey design (under revision--Japan)
 - (2) Vessel and gear (under revision--Japan)
 - (3) Midwater trawl station sampling procedures (under revision--Japan)
 - (4) Analytical procedures (under revision--Japan)

5. Results of the demersal trawl surveys

- (1) Species taken (complete)
- (2) Relative importance of species groups in catches (under revision--U.S.)
- (3) Distribution and abundance of species groups (under revision--U.S.)
- (4) Distribution, abundance, and biological characteristics of principal species
 - (a) Pollock (being revised--U.S.)
 - (b) Pacific cod (to be prepared--U.S.)
 - (c) Sablefish (to be prepared--U.S.)
 - (d) Pacific ocean perch (to be prepared--U.S.)
 - (e) Thornyheads (to be prepared--U.S.)
 - (f) Other rockfish (to be prepared--U.S.)
 - (g) Herring (to be prepared--U.S.)
 - (h) Rattails (to be prepared--U.S.)
 - (i) Yellowfin sole (to be prepared--U.S.)
 - (j) Rock sole (to be prepared--U.S.)
 - (k) Flathead sole (to be prepared--U.S.)
 - (l) Alaska plaice (to be prepared--U.S.)
 - (m) Greenland turbot (to be prepared--U.S.)
 - (n) Arrowtooth flounder (to be prepared--U.S.)
 - (o) Pacific halibut (to be prepared--U.S.)
 - (p) Squid (to be prepared--U.S.)
 - (q) Octopus (to be prepared--U.S.)
 - (r) Shrimp (to be prepared--U.S.)

6. Results of the U.S. hydroacoustic survey of pollock on the continental shelf and slope (complete)

- (1) Distribution
- (2) Size, age, and sex composition
- (3) Population size estimates

7. Results of the Japanese hydroacoustic survey of pollock in the Bering Sea deepwater basin (being revised--Japan)

- (1) Distribution
- (2) Size, age, and sex composition
- (3) Population estimates

8. Overall estimates of pollock distribution and abundance based on results of bottom trawl and hydroacoustic surveys (to be prepared--U.S.)

- (1) Distribution
- (2) Population estimates
- (3) Age, size, and sex composition

9. Oceanographic findings

- (1) Surface temperature distribution (complete)
- (2) Bottom temperature distribution (complete)
- (3) Temperature conditions in 1979 relative to earlier years (being revised--U.S.)

10. Discussion and interpretations of findings (would include assumptions and limitations) (being prepared--Japan)

11. Summary of findings (to be prepared--U.S.)

12. References (being prepared--Japan)

13. Appendices (being prepared--U.S.)
