

POLLOCK AND OTHER BOREAL GROUND FISH SPECIES-- JUSTIFICATION

Pollock and other boreal groundfish species (cusk, wolffish, halibut, etc.) occupy a position in the groundfish community which is not well understood at the present time. These species are mostly taken incidental to haddock fishing and are important in serving as a buffer when haddock abundance declines. Pollock landings currently average about 22 million pounds per year and are worth about one million dollars. The recorded landings of pollock probably represent a small fraction of the available resource.

The availability, abundance and life histories of the New England stocks of these species require investigation in order to properly assess their role as food fishes. The plan of the investigation for each species would be to first estimate the magnitude of the resource and its distribution and availability throughout the year. Since pollock will probably become more important in the future as a source of protein food, data accumulated and analyzed now on the relative abundance and distribution of the species will be of value to the industry in planning increased exploitation in the future.

The second phase of the investigation would be to gain an understanding of the life histories of the species, using recognized fishery biology methods. The accumulation of a fund of knowledge is required to consider the efficacy of management procedures.

Similar studies of cusk, wolffish and other species will be started as time allows. Certain basic information may be collected in all of these species simultaneously.

August 6, 1959

POLLOCK AND OTHER BOREAL GROUND FISH SPECIES--
JUSTIFICATION

List of Projects

1. Abundance and distribution of pollock
2. Age and growth of pollock, tech. and validation
3. Age and growth of pollock
4. Definition of pollock stocks--tagging
5. Abundance and distribution of cusk and wolffish
6. Age and growth of cusk and wolffish technique
7. Age and growth studies of cusk and wolffish
8. Food habits of pollock, cusk and wolffish
9. Fecundity of pollock, cusk and wolffish
10. Routine collection of samples and data

SUMMARY CC COL SCHEDULE

Investigation: Pollock
 Biological Laboratory: Woods Hole, Mass.

Project Title	Est.* Cost	Fiscal Years												
		57	58	59	60	61	62	63	64	65	66			
1. Abundance and Distribution of Pollock	13.0	--	--	--	7.0	6.0	--	--	--	--	--	--	--	--
2. Age and growth of Pollock, tech. and validation	13.0	--	--	--	7.0	6.0	--	--	--	--	--	--	--	--
3. Age and growth of Pollock	35.0	--	--	--	7.0	6.0	8.0	7.0	7.0	7.0	--	--	--	--
4. Definition of Pollock stocks - Tagging	30.7	--	--	--	--	--	6.0	8.0	7.0	7.0	8.0	--	--	--
5. Abundance and distribution of Cusk and Wolffish	11.0	--	--	--	--	--	6.0	8.0	7.0	7.0	8.0	--	--	--
6. Age and growth of Cusk and Wolffish technique	15.2	--	--	--	--	--	8.0	7.2	--	--	--	--	--	--
7. Age and growth Studies of Cusk and Wolffish	23.5	--	--	--	--	--	--	7.2	7.2	7.3	9.0	--	--	--
8. Food Habits of Pollock, Cusk and Wolffish	23.2	--	--	--	--	--	--	7.2	7.0	9.0	--	--	--	--
9. Fecundity of Pollock, Cusk and Wolffish	15.0	--	--	--	--	--	--	--	--	7.0	8.0	--	--	--
10. Routine Collection of Samples and data	35.1	--	--	--	2.8	2.6	8.6	5.6	7.0	8.5	--	--	--	--
Investigation Total	217.7	--	--	--	23.8	26.6	40.6	41.9	42.3	42.5	--	--	--	--
Annual Review														
Laboratory														
Regional or Area Office														
Washington Office														
Prepared by: R. L. Edwards														Date 8/6/59
Recommended by:														Date
Lab. Director														Herbert W. Graham 8/6/59
Reg. or Area Dir.														<i>John H. Pinner</i>
Branch Chief														<i>J. Norton - MPE 12-24-57</i>
Approved by:														Division Chief for Director

*Total needed by Laboratory for project in thousands of dollars.

#714 7/9/59

Investigation should be delayed pending Personnel & funds.

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U. S. Fish and Wildlife Service
Bureau of Commercial Fisheries

Sheet No. 1

Location: Woods Hole, Mass.
Date: August 6, 1959
File No.

Research Project Outline

Title of Project: Abundance and Distribution

Investigation Title: Pollock and other boreal groundfish.

Investigation Chief: Vacant

Project Leader: Vacant

Name	Title	Grade
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Assistants: (Title and Grade)

Collaborators:

Need for Information: To provide a basis for possible management of pollock by assessing how much is utilized, how much is available and where it is found throughout the year. Pollock has served as a buffer when haddock abundance declines, and it is probably not properly exploited.

Objective: To determine the amount landed, the amount caught and the areas where it is available. Historic data.

Method of Procedure:

Phase 1: Examination of landing records, interviews, sea sampler records, survey cruise data.

Phase 2: Analysis of records and preparation of reports for Science and Industry Journals.

Scheduling:

Phase I: Completion June 1961

Phase II: Completion June 1962 (Phase out to Biostatistics)

Method of Procedure: (Cont'd)

Phase 3:

Estimated Costs:	Total Needed by Laboratory for Complete Project		
	FY 1959	FY 1960	FY 1961
Personal Services			13.0
Other Expenses:			
Within Project			0.5
Lab. Adm. & Ser.			0.2
Lab. Total			6.3
Regional Office			7.0
Washington Office			.07
Total			

Recommended Source of Funds S-K and Regular
 (S-K, Regular, Contributed, etc.)

Estimated Date of Completion: Phase 1 FY 61; Phase 2 FY; Phase 3 IY; Project FY 1962

Recommended by:

Originator	<u>R. L. Edwards</u>	Date	<u>8/6/59</u>
Investigation Chief			
Laboratory Director	<u>Herbert W. Graham</u>		<u>8/6/59</u>
Regional Director	<u>Joseph K. Pomeroy</u>		<u>8/19/59</u>
Branch Chief			

Approved by:
 Division Chief for Director _____

Remarks

(Continue on reverse side)

Investigation should be delayed pending personnel and funds. HHE 12-24-59

U. S. Fish and Wildlife Service
Bureau of Commercial Fisheries

Sheet No. 1

Location: Woods Hole, Mass.
Date: August 6, 1959
File No.

Research Project Outline

Title of Project: Pollock, validation of age and growth techniques

Investigation Title: Pollock and other boreal groundfish.

Investigation Chief: Vacant

Project Leader: Vacant

Name	Title	Grade
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Assistants: (Title and Grade)

Collaborators:

Need for Information: To be able to determine growth rates, a method must be developed that will result in an accurate assessment of age of the fish.

Objective: To develop and validate a method for aging pollock.

Method of Procedure: Collection of scales, otoliths and fin rays for study.

Phase 1: Determination of best technique.
Validation of procedure.

Phase 2:

Method of Procedure: (Cont'd)

Phase 3:

Estimated Costs:	Total Needed by Laboratory for Complete Project		
	FY <u>1959</u>	FY <u>1960</u>	FY <u>1961</u>
Personal Services	_____	_____	<u>2.0</u>
Other Expenses:	_____	_____	_____
Within Project	_____	_____	<u>0.5</u>
Lab. Adm. & Ser.	_____	_____	<u>4.5</u>
Lab. Total	_____	_____	<u>7.0</u>
Regional Office	_____	_____	<u>.07</u>
Washington Office	_____	_____	_____
Total	_____	_____	_____

Recommended Source of Funds S-K and Regular
 (S-K, Regular, Contributed, etc.)

Estimated Date of Completion: Phase 1 FY 61; Phase 2 FY; Phase 3 FY; Project FY 1962

Recommended by:

Originator	<u>R. L. Edwards</u>	Date	<u>8/6/59</u>
Investigation Chief	_____		
Laboratory Director	<u>Herbert W. Graham</u>		<u>8/6/59</u>
Regional Director	<u>Joseph F. Duncanson</u>		<u>8/19/59</u>
Branch Chief	_____		

Approved by:
 Division Chief for Director _____

Remarks

(Continue on reverse side)

*Investigation should be delayed
 pending personnel and funds. HHE 12-24-59*

U. S. Fish and Wildlife Service
Bureau of Commercial Fisheries

Sheet No. 1

Location: Woods Hole, Mass.
Date: August 6, 1959
File No.

Research Project Outline

Title of Project: Pollock, age and growth.

Investigation Title: Pollock and other boreal groundfish.

Investigation Chief: Vacant

Project Leader: Vacant

Name	Title	Grade
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Assistants: (Title and Grade)

Vacant	Stat. Clerk	GS-3
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Collaborators:

Need for Information: Age and growth data is basic to all further studies of a species and is especially important for establishing parameters for studies of population dynamics. Any future management plans must first consider age and growth data.

Objective: To provide necessary data to set up population models.

Method of Procedure:

Phase 1: Collection of material (Survey Cruise and commercial catch).

Phase 2: Analysis of scale otolith reading and validation of technique.

Phase 3: Preparation of report for Science Journal

(over)

Scheduling:

Phase I: Completion June 1962

Phase II: Completion June 1964

Phase III: Completion June 1965

Budget:

Personal Services	\$1,500.00
Expenses	200.00
Total	<u>\$1,700.00</u>

Method of publicizing results: Scientific Journals

Sheet No. 2

File No.:

Method of Procedure: (Cont'd)

Phase 3:

Estimated Costs:	Total Needed by Laboratory for Complete Project		
	FY 1959	FY 1960	FY 1961
Personal Services			2.0
Other Expenses:			
Within Project			0.5
Lab. Adm. & Ser.			4.5
Lab. Total			7.0
Regional Office			.07
Washington Office			
Total			

Recommended Source of Funds S-K and Regular
 (S-K, Regular, Contributed, etc.)

Estimated Date of Completion: Phase 1 FY61; Phase 2 FY; Phase 3 FY; Project FY 65

Recommended by:

Originator	<u>R. L. Edwards</u>	<u>8/6/59</u>	<u>Date</u>
Investigation Chief			
Laboratory Director	<u>Herbert W. Graham</u>	<u>8/6/59</u>	
Regional Director	<u>Joseph E. Pennocker</u>	<u>8/19/59</u>	
Branch Chief			

Approved by:
 Division Chief for Director _____

Remarks

(Continue on reverse side)

Investigation should be delayed pending personnel and funds. HNE 12-24-59

U. S. Fish and Wildlife Service
Bureau of Commercial Fisheries

Sheet No. 1

Location: Woods Hole, Mass.
Date: August 6, 1959
File No.

Research Project Outline

Title of Project: Pollock - routine collection of biological data

Investigation Title: Pollock and other boreal groundfish

Investigation Chief: Vacant

Project Leader: Vacant

Name	Title	Grade
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Assistants: (Title and Grade)

Collaborators:

Need for Information: Material must be provided by sources other than port pool and research vessel cruises to enable this investigation to get under way quickly. Some charter and assistance from commercial fishermen necessary.

Objective: To collect necessary biological material and data to allow a successful prosecution of research goals.

Method of Procedure:

Phase 1: Arrangements with commercial fishermen for the special effort of saving particular material.

Phase 2:

Method of Procedure: (Cont'd)

Phase 3:

Estimated Costs:	Total Needed by Laboratory for Complete Project		
	FY <u>1959</u>	FY <u>1960</u>	FY <u>1961</u>
Personal Services			<u>0.5</u>
Other Expenses:			
Within Project			<u>0.2</u>
Lab. Adm. & Ser.			<u>2.1</u>
Lab. Total			<u>2.8</u>
Regional Office			<u>.028</u>
Washington Office			
Total			

Recommended Source of Funds _____
(S-K, Regular, Contributed, etc.)

Estimated Date of Completion: Phase 1 FY 61; Phase 2 FY; Phase 3 FY; Project FY 66+

Recommended by:

Originator R. L. Edwards Date 8/6/59

Investigation Chief _____

Laboratory Director Herbert W. Graham 8/6/59

Regional Director Joseph G. Pennocker 8/19/50

Branch Chief _____

Approved by:

Division Chief for Director _____

Remarks

(Continue on reverse side)

Investigation should be delayed pending personnel and funds. HHE 12-24-59