


MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke 
Executive Director

DATE: September 19, 1989

SUBJECT: Crab Fishery Management Plan

ACTION REQUIRED

- (a) Receive report of Pacific Northwest Crab Industry Advisory Committee and approve draft operational framework.
- (b) Approve crab management cycle.
- (c) Determine action necessary to implement federal observer program in crab fisheries.
- (d) Receive report on 1989 BS/AI Crab Survey.

BACKGROUND

On June 2, 1989 the Secretary of Commerce approved the Bering Sea/Aleutian Islands King and Tanner Crab Fishery Management Plan (FMP). The action culminated a 12-year effort to develop a cooperative FMP with the State of Alaska that defers management authority to the State while maintaining federal oversight. One integral part of the FMP is the creation of a Pacific Northwest Crab Industry Advisory Committee (Committee) to interact with the Alaska Board of Fisheries (Board) in the same manner as existing State advisory committees.

On September 6, 1989, an interim committee appointed by the Council chairman met in Seattle to develop a draft operating framework for Council and Pacific Northwest crab industry review. A copy of the draft framework is provided as Item D-2(a). As with State advisory committees, its membership is elected by the industry the committee represents, but in this case confirmation is by the Council instead of the Board. Following the September Council meeting, a call for nominations will be distributed through the Council and industry newsletters. Later this fall a meeting will be scheduled in Seattle for purposes of electing members and officers, and reviewing 1990 shellfish proposals. Council confirmation of the committee membership will be requested in January 1990.

The Crab FMP places management measures into one of three categories (Category 1, fixed in the plan; Category 2, frameworked and deferred to the State; and Category 3, those measures left to the State's discretion). Only Category 1 measures require Council action and federal rulemaking

for implementation. These measures are permit requirements, legal gear, limited access, and a federal observer program. Unless problems arise as a result of either pre-season or inseason management actions taken by the State that cannot be resolved utilizing the State's appeals process, the Council should be free from day-to-day management of these fisheries. A suggested management cycle for Category 1 crab management proposals is provided as Item D-2(b) for your review and approval.

In June the Council questioned the feasibility of extending the federal observer program proposed for groundfish to the crab fisheries. A federal observer program is authorized under the BS/AI Crab FMP, but would require federal regulations for implementation. To apply these regulations to the crab fisheries may also require federal permitting of fishing operations. NOAA General Counsel is prepared to elaborate on this issue and recommend a course of action.

The 1989 Bering Sea/Aleutian Islands Crab Stock Assessment Survey has just been completed by NOAA Fisheries. A preliminary report on the findings is included in your supplementary folder. An oral summary is also available.

DRAFT

Pacific Northwest Crab Industry
Advisory Committee Framework

September 6, 1989

ADVISORY COMMITTEES

WHAT ARE ADVISORY COMMITTEES?

Advisory Committees were created in 1959 to provide local public input into the regulatory process of the Boards of Fisheries and Game. As of March 1983, there were 72 fish and game advisory committees statewide.

WHAT ARE THE ADVISORY COMMITTEES' RESPONSIBILITIES?

A special means of access to the Bering Sea/Aleutian Islands king and Tanner crab regulatory process for nonresidents of Alaska will be provided through an advisory committee. This Pacific Northwest Crab Industry Advisory Committee (PNCIAC) shall be sanctioned by and operate under the auspices of the Council. This is necessary because State law does not provide for the formation of a Board advisory committee located outside the State. This PNCIAC shall be recognized by the State as occupying the same consultative role on preseason and inseason management measures as all other existing State of Alaska Fish and Game Advisory Committees, no more and no less. The Council shall establish general guidelines and membership qualifications for the advisory group which shall be substantially similar to those guidelines established by the State pertaining to existing advisory committees. Within this framework the advisory committee shall establish its own by-laws and rules of procedure.

The PNCIAC shall be industry funded, but may request staff support from the Council, NMFS, and ADF&G as needed.

The PNCIAC shall meet at appropriate times and places throughout the year to review and advise the State and the Council on crab management issues, stock status information, and biological and economic analyses relating to the Bering Sea/Aleutian Islands king and Tanner crab fisheries.

In addition, the PNCIAC shall report to the Council on any relevant crab management issue by filing reports as appropriate. The Council will also review reports as appropriate from other crab advisory committees that normally report to the Board. The PNCIAC shall review and advise the State on proposed preseason management measures. During the fishing season, the PNCIAC, on the same basis as any other board advisory committee, shall monitor ADF&G reports and data, may

recommend to ADF&G the need for inseason adjustments, and may advise on decisions relating to inseason adjustments and "emergency-type" actions.

The PNCIAC may request review of any relevant matter to the Crab Interim Action Committee and may bring petitions and appeals in its own name pursuant to Chapters 9 and 10 to the Bering Sea/Aleutian Islands King and Tanner Crab Fishery Management Plan, as may any other Board advisory committee.

A quorum must be established before a committee can conduct business. A quorum is a majority of the committee members. For example, if your committee has ten members, then six must be present to conduct business.

Committees should hold meetings at least twice a year to comply with Joint Board regulations. The best time to hold meetings is when the boards call for regulatory proposals, and after members have received copies of the proposed changes.

HOW DO COMMITTEES SUBMIT PROPOSALS TO THE BOARD?

A proposal will be accepted if it is received by the published proposal deadline and is a subject that is open for consideration. A proposal cannot be considered if it is not listed in the legal notice of subjects open for discussion. When committees meet to formulate regulatory proposals to the Board they should:

1. Be clear and concise when wording the proposal. For instance, instead of saying "change the season for king crab" say "change the season for king crab to April 1 - May 1." Or, to October 2" rather than "extend the trapping season in Unit 20D." It is important to specify what change you want.
2. Provide a valid justification for the proposal.
3. Use proposal forms provided by the Division of Boards (forms are available from the Alaska Department of Fish and Game).

4. Indicate whether the proposal is being submitted by an individual or on behalf of a committee or other organization.
5. Keep in mind the deadline for receiving proposals and allow time for mailing.

WHAT PROPOSALS SHOULD COMMITTEES COMMENT ON?

Committees may comment on any published proposal, but should limit their comments to those proposals that affect their own areas. When commenting on proposals, committees should state their reasons for opposing or supporting a particular proposal. Board members need to know why your committee supports or opposes a proposal, not simply that you do or do not.

CAN WRITTEN COMMENTS BE SUBMITTED AFTER THE COMMENT DEADLINE?

Yes. Because of the tight time frames involved in holding meetings, some committees are forced to meet after or very close to the comment deadline. That date, however, does not prelude anyone from making comments. The committee representative attending the Board meeting can bring the comments to the meeting and they will be copied and given to the Board members. If no one from your committee will be attending the meeting, the comments can be mailed to the hotel where the meeting is being held, or to the Division of Boards office in Juneau.

CAN COMMITTEES MEET FOR OTHER REASONS?

Committees may find it useful, if time permits, to hold a meeting after the Board meetings. This would give the committee representative who attended the Board meeting an opportunity to report back to committee members on any action taken by the Board that affects their area. Again, this would be an optional meeting, and should only take place if committee members are interested.

DO COMMITTEE MEETINGS HAVE TO BE ADVERTISED?

YES. To ensure maximum public participation in the process, meetings should be well advertised at least thirty days before the meeting and open to the public. In some circumstances, an emergency meeting of the advisory committee may preclude 30-day advance notice. A 24-hour

announcement of a meeting is not enough notice. Committees can use a meeting notice published in the Federal Register, flyers posted around the community, association newsletters, radio public service announcements, and newspaper ads. It is important to be sure everyone has a chance to participate in advisory committee meetings. Meetings may be held by teleconference when appropriate.

HOW MANY MEMBERS CAN BE ON A COMMITTEE?

Changes [The Pacific Northwest Crab Industry Advisory Committee will have 9 members, with at least one member from Washington and Oregon. New members can be nominated and elected at any time when seats are available, but elections must be advertised, in advance. This is to ensure that all members of the public have an opportunity to gain a seat on the advisory committee. Every voting-age, area resident in attendance at the meeting may vote. Whoever receives the most votes is elected.]

Newly-elected members must be confirmed by the Council. Until their confirmation, new members have full committee member privileges. The initial term for the PNCIAC will be for one or two years, with the term length being randomly selected following election of members. Thereafter, all elected members will serve for two years. Members absent for two consecutive committee meetings may be removed from the committee.

If possible, at least three user groups (i.e., one representative of crab harvesters, catcher/processor, processor/marketing sections) should be represented on the committee.

WHAT ARE THE COMMITTEE OFFICERS' DUTIES?

Committee officers include a chair, vice-chair, and secretary.

The chair is the presiding officer of the committee and the main contact for information from the Division of Boards. The chair receives Board meeting agendas, notification of Board action on committee proposals, etc. The committee chair is responsible for forwarding information to committee members. For instance, if the chair will not be attending the Board meetings, meeting agendas should be given to the committee representative that will be attending.

The vice-chair assists the chair and assumes his or her duties when the chair is absent.

The secretary is the committee's record keeper. This includes keeping the minutes of meetings, recording attendance, and informing the Division of Boards and Council of any changes in membership. Officers are elected from the membership of the committee, with the exception of the secretary. The secretary does not have to be a member of the advisory committee. However, if the secretary is not an advisory committee member that person has no vote in committee business and cannot be counted to establish a quorum.

WHAT KIND OF RECORD SHOULD BE MADE OF COMMITTEE MEETINGS?

All committee business should be recorded in meeting minutes. The minutes are the only record of committee activity. It is extremely important that committee minutes be sent to the Division of Boards office when they are completed. Without this record of committee activity, the Board has no way of knowing that the committee is meeting and can only assume that it is not.

Minutes should show members present at and absent from meetings, any change in committee membership (new members or members to be deleted), any change in officers, and discussion taken up at meetings. Minutes may be handwritten, but should be legible. Division of Boards staff will send copies of committee minutes to the appropriate State's regional Council members, Board members, and to the Council office.

WHO ATTENDS BOARD MEETINGS AND WHAT DO THEY DO?

The committee chair is invited to attend Board meetings. The chair may appoint another person to attend in his or her place; however, the appointee must be a member of the committee. It is important for a committee representative to attend the meetings to express the committee's views to the Board.

The representative tells the Board the committee's opinions on proposals when the Board is voting on proposals. It is very important to be clear and to the point when you are talking to the Board. The Board wants to know the reasons why the committee voted a certain way on a particular

proposal, not simply what the vote was. If a committee submitted written comments, the Board members will have copies of those comments, so there is no need to read them. Board members want to hear what happened at the committee meeting during discussion of a particular issue, and what the public opinions expressed were. This is the kind of information that is most useful to Board members in helping them to make their decisions. Sometimes it may be helpful to give a brief history of a problem in your area to familiarize the Board members with the problem.

WHAT KIND OF FINANCIAL ASSISTANCE DO COMMITTEE MEMBERS RECEIVE?

None. Members of the PNCIAC will pay their own costs of attending meetings. Board, ADF&G, NOAA Fisheries, and Council staff will be available when necessary to assist the committee during its meetings.

Crab Management Cycle for Category 1 Actions by the Board and Council

Year 1 (calendar year before Board meeting)

Summer	Call for Proposals
October 1	Proposal deadline
October 23	Proposals sent to public review
November 10	State/Federal staff identify Category 1 proposals. Send proposals to Crab Plan Team for review.
November 20	Plan Team teleconference; discuss proposals, identify alternatives, assign EA/RIR writing assignments.

Year 2

January 20	<u>Council meeting</u> : Brief Council on amendment alternatives. Council provides comments to Board.
February 10	Send draft amendment package to Board and to public review.
March 20	<u>Board meeting</u> : Board reviews proposals, amendment package, and public comments. Takes action on proposals (i.e., approve, reject, defer, no action)
April 20	<u>Council meeting</u> : Council reviews amendment and Board actions. Sends amendment package to public review (if necessary).
June 20	<u>Council meeting</u> : Council takes final action on amendment.
July	Amendment sent to Secretary of Commerce.
November	Amendment is implemented.

Note: Dates are examples only.

**STATUS OF STOCKS OF COMMERCIALY IMPORTANT
CRAB SPECIES
IN THE EASTERN BERING SEA IN 1989**

by

B. G. Stevens and R. A. MacIntosh

**Kodiak Island Laboratory
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
P. O. Box 1638
Kodiak, Alaska 99615**

September 1989

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:

B. G. Stevens and R. A. MacIntosh. 1989. Status of Stocks of Commercially Important Crab species in the Eastern Bering Sea in 1989. Unpubl. rep., 30 p. Northwest and Alaska Fisheries Center, Natl. Mar. Fish. Serv., NOAA, 7600 Sand Point Way NE, Seattle, WA 98115.

EXECUTIVE SUMMARY

The following is a summary of conclusions presented in this report. All figures given are estimated total numbers of crabs, plus or minus 95% confidence intervals. Estimates for 1988 and 1989 were compared by t-test; values of t greater than 2.0 were considered significant. Some changes which appear large may not be statistically significant due to large variance in the data. See text for descriptions of size ranges.

Red king crab (*Paralithodes camtschatica*) Bristol Bay and Pribilof Districts.

Legal males: 11.9 million \pm 31%; Significant increase of 86%.
Pre-recruits: Non-significant increase of 41%.
Large Females: No significant change.
Outlook: Landings increasing in 1989. Recruitment has been poor for several years and shows little improvement.

Pribilof Islands blue king crab (*P. platypus*) Pribilof District.

Legal males: 225,000 \pm 120%; No significant change from 1988.
Pre-recruits: Too few to establish trend.
Large Females: Significant increase of 196%.
Outlook: Recruitment of juvenile crabs may be improving, but data extremely variable. Fishery closed for 1989.

St. Matthew blue king crab (*P. platypus*) Northern District.

Legal males: 1.48 million \pm 41%; Non-significant increase of 78%.
Pre-recruits: Non-significant increase of 50%.
Large Females: Non-significant increase of 112%.
Outlook: Landings increasing. Population rebuilding steadily. Recruitment of juveniles improving.

Tanner crab (*Chionoecetes bairdi*) Eastern District.

Legal males: 33.6 million \pm 22%; Significant increase of 133%.
Pre-recruits: Significant increase of 64%.
Large Females: No significant change.
Outlook: Fishery improving. Increasing recruitment of juveniles into pre-recruit and legal categories.

Tanner crab (*C. opilio*) All districts combined.

Large males: 187.1 million \pm 14%; No significant change.
Pre-recruits: Significant increase of 75%.
Large Females: Non-significant increase of 63%.
Outlook: Population stable. Fishery increasing slightly. Recruitment of juveniles to large sizes increasing.

Hair crab (*Erimacrus isenbeckii*)

Large males: 0.4 million \pm 53%; Non-significant decline of 27%.
Pre-recruits: Non-significant increase of 200%.
Large Females: No significant change.
Outlook: Fishery declining, but juvenile production showing continued improvement.

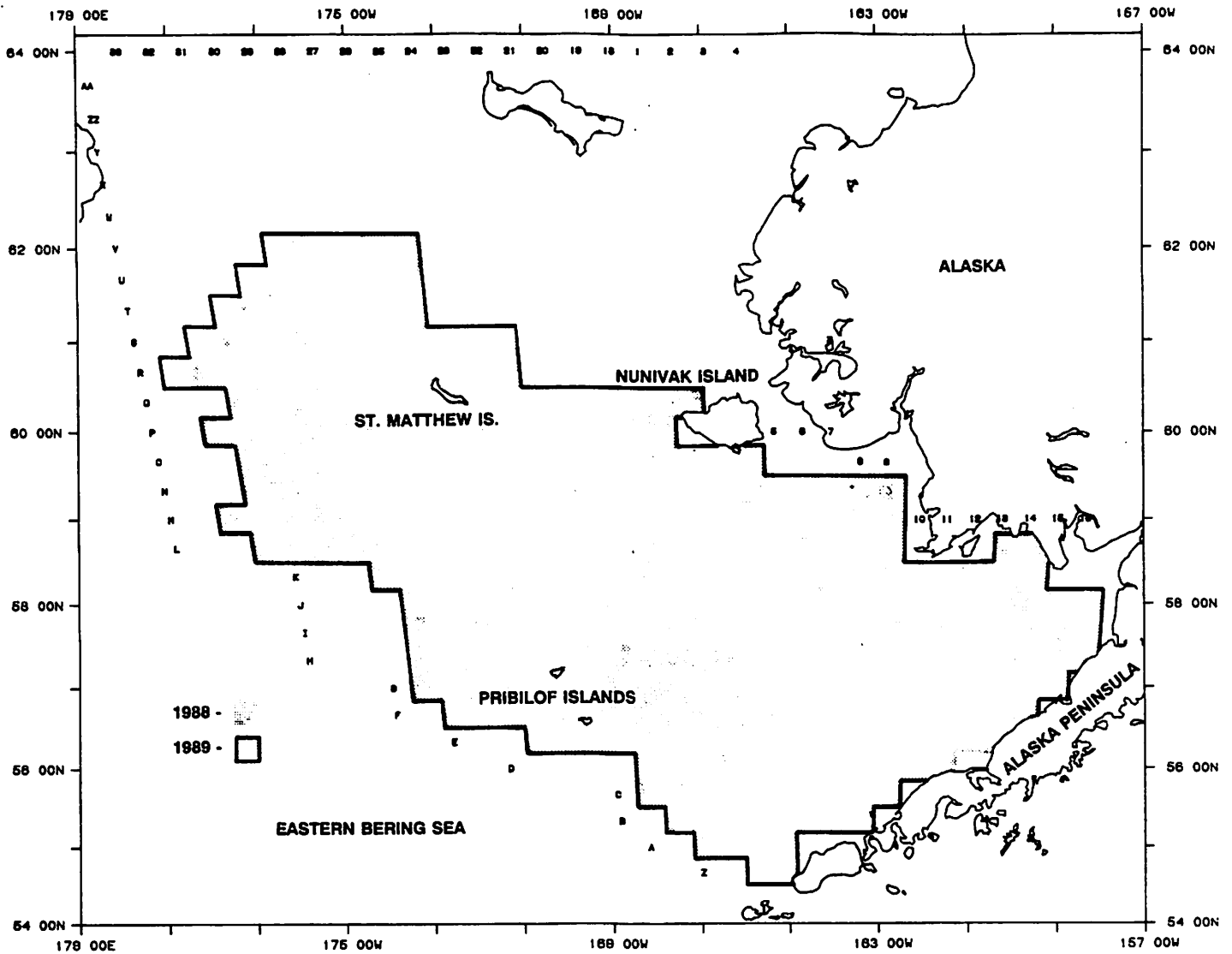


Fig. 1. Area of the Bering sea surveyed by NMFS in 1988 and 1989.

THE SURVEY

The 1989 Eastern Bering Sea (EBS) crab survey consisted of 439 successful bottom trawl tows and covered an area of approximately 145,000 square nautical miles. The 1989 survey area was similar to that of 1988 (Fig. 1). The 1989 survey covered virtually all commercial crab fishing grounds except that golden king crab were not surveyed.

The survey was conducted aboard two chartered vessels, the F/V Ocean Hope 3 and the University of Washington's R/V Alaska between June 4 and August 14. The same

two vessels were used in 1988. Methodology was identical to that of previous surveys and most tows were made at the centers of squares defined by a 20 x 20 nautical mile grid. Near St. Matthew Island and the Pribilofs, additional tows were made at the corners of squares. Trawl gear used was similar to that used last year, except that 5'x 7' doors were used on the Alaska in 1988, whereas 6'x 9' doors were used at all other times and on all other vessels since 1982. Procedures for estimating abundance were identical to those of previous years. Note that crab sizes are

reported as carapace length (cl) for king and hair crabs, and carapace width (cw) for Tanner crabs. Biomass and numeric estimates are given \pm 2 standard errors (approximately 95% confidence intervals). Districts referred to in the text conform to those described in current Alaska Dept. of Fish and Game (ADF&G) commercial shellfish regulations.

In addition to the regular survey, additional stations were towed at 10-mile intervals at 4 different locations in water 25-30 fm deep. Twelve extra tows were made inshore along the coast of the Alaska Peninsula between 160° and 162° W. long., to assess the abundance of king crab in shallow inshore waters. Additional tows were also made in shallow water near Togiak (4) and Kuskokwim Bay (4) where high catches of yellowfin sole have recently occurred. A group of 38 additional tows were made at stations C07 and C08 after completion of the regular survey to compare catch rates between 2 different trawls. Crab data from all extra stations are incorporated into population estimates, but special comparisons of catch between depth zones or gear types have not yet been analyzed and are not reported here.

STATUS OF STOCKS

Red King Crab (*Paralithodes camtschatica*)

The majority of the legal (\geq 135 mm cl) male crabs occurred in Bristol Bay (Area T, Fig. 2), and their overall distribution was similar to that of 1988, except that high densities of legal crabs were found closer to the Alaska Peninsula this year. A few red king crabs were also found near the Pribilof Islands and in the Northern District, but their contribution to overall abundance in the EBS was negligible.

The high density region of legal male crabs occurred in a wide band paralleling the Alaska Peninsula. The highest catch of legal crabs occurred at station F07, north of Uni-

mak Island. The estimated abundance of legal male red king crabs in Bristol Bay and the Pribilof District was 11.9 million crabs which represents a significant¹ increase of 86% from 1988 to 1989 (Table 1). A large portion of this increase consisted of post-recruit crab (\geq 150 mm cl), which showed a significant increase of 170% from 1988, perhaps indicating a substantial holdover of legal crab. Pre-recruit crab (110-134 mm cl) increased slightly but non-significantly by 47%, and juveniles showed no significant change. There has apparently been little recruitment of juveniles to this population in several years (Fig. 3). This year's estimate of legal abundance continues an upward trend which began in 1986, but was interrupted by a low estimated abundance in 1988. Examination of trawl performance data indicates that an improperly rigged trawl may have contributed to the low estimate obtained in 1988.

In 1989 we found few male crabs in molting or soft-shell condition (1.3% vs 0.4% in 1988), but a relatively high proportion with old (skimpolt) shells (27% vs 8.5% in 1988). Among legal-sized crab, 51.5% were oldshells, reflecting the increased abundance of post-recruit crab. Molting of male crabs appears to have been completed prior to the survey.

The estimated abundance of large² (\geq 90 mm cl) females in Bristol Bay showed no significant change from 1988 to 1989 and now stands at 15.0 million crabs. The estimated abundance of small females showed a non-significant increase of 63%. In June, 41.7% of all females were still molting or soft-shell (vs 12.4% in 1988), including 64.6% of large females. However, 100% of 92 female crabs (and 93.7% of males) caught in 38 comparative tows made in August were new hardshells. Among large females, the proportion which had molted and extruded new, uneyed eggs was only 51.1% in June, but had increased to 95.6% by August. It appears that in 1989 female molting, mating, and extrusion occurred later than usual, since the proportion of mature females seen with new eggs in

Table 1. Annual abundance estimates (millions of crabs) for red king crab (*P. camtschatica*) in Bristol Bay and the Pribilof District from NMFS surveys.

Size ¹ (mm) Width(in)	Males			Total	Females			Grand Total
	<110 <5.2	110-134 5.2-6.5	≥135 ≥6.5		<90 <3.5	≥90 ≥3.5	Total	
1969	41.0	20.3	9.8	71.1	18.3	28.5	46.8	117.9
1970	9.5	8.4	5.3	23.2	4.9	13.0	17.9	41.1
1972 ²	14.1	8.0	5.4	27.5	7.0	12.1	19.1	46.6
1973 ³	50.0	25.9	10.8	86.7	24.8	76.8	101.6	188.3
1974 ³	59.0	31.2	20.9	111.1	37.7	72.0	109.7	220.8
1975	84.9	31.7	21.0	137.6	70.8	58.9	129.7	267.3
1976	70.2	49.3	32.7	152.2	35.9	71.8	107.7	259.9
1977	80.2	63.9	37.6	181.7	33.5	150.1	183.6	365.3
1978	62.9	47.9	46.6	157.4	38.2	128.4	166.6	324.0
1979	48.1	37.2	43.9	129.2	45.1	110.9	156.0	285.2
1980	56.8	23.9	36.1	116.8	44.8	67.6	112.5	229.3
1981	56.6	18.4	11.3	86.3	36.3	67.3	103.6	189.9
1982	107.2	17.4	4.7	129.3	77.2	54.8	132.0	261.3
1983	43.3	10.4	1.5	55.2	24.3	9.7	34.0	89.2
1984	81.8	12.6	3.1	97.6	57.6	17.6	75.1	172.7
1985	13.7	10.1	2.5	26.3	6.9	6.8	13.7	39.9
1986	11.8	12.3	5.9	30.1	4.5	5.4	9.8	39.9
1987	20.1	12.6	7.9	40.6	16.8	18.3	35.1	75.7
1988	8.5	6.4	6.4	21.3	2.7	15.7	18.4	39.7
1989	8.6	9.4	11.9	29.9	4.4	16.9	21.2	51.1
Limits ⁴								
Lower	3.2	6.2	8.3	21.3	0.1	8.0	10.0	31.3
Upper	14.0	12.6	15.6	38.5	8.6	25.7	32.4	70.9
±%	63	34	31	29	97	52	53	39

1 Carapace length (mm).

2 Limited survey in 1971, not used for population estimate.

3 1973 and 1974 estimates considered unreliable.

4 Mean ± 2 standard errors for most recent year.

Red King Crab Length Frequency

Millions of Crabs

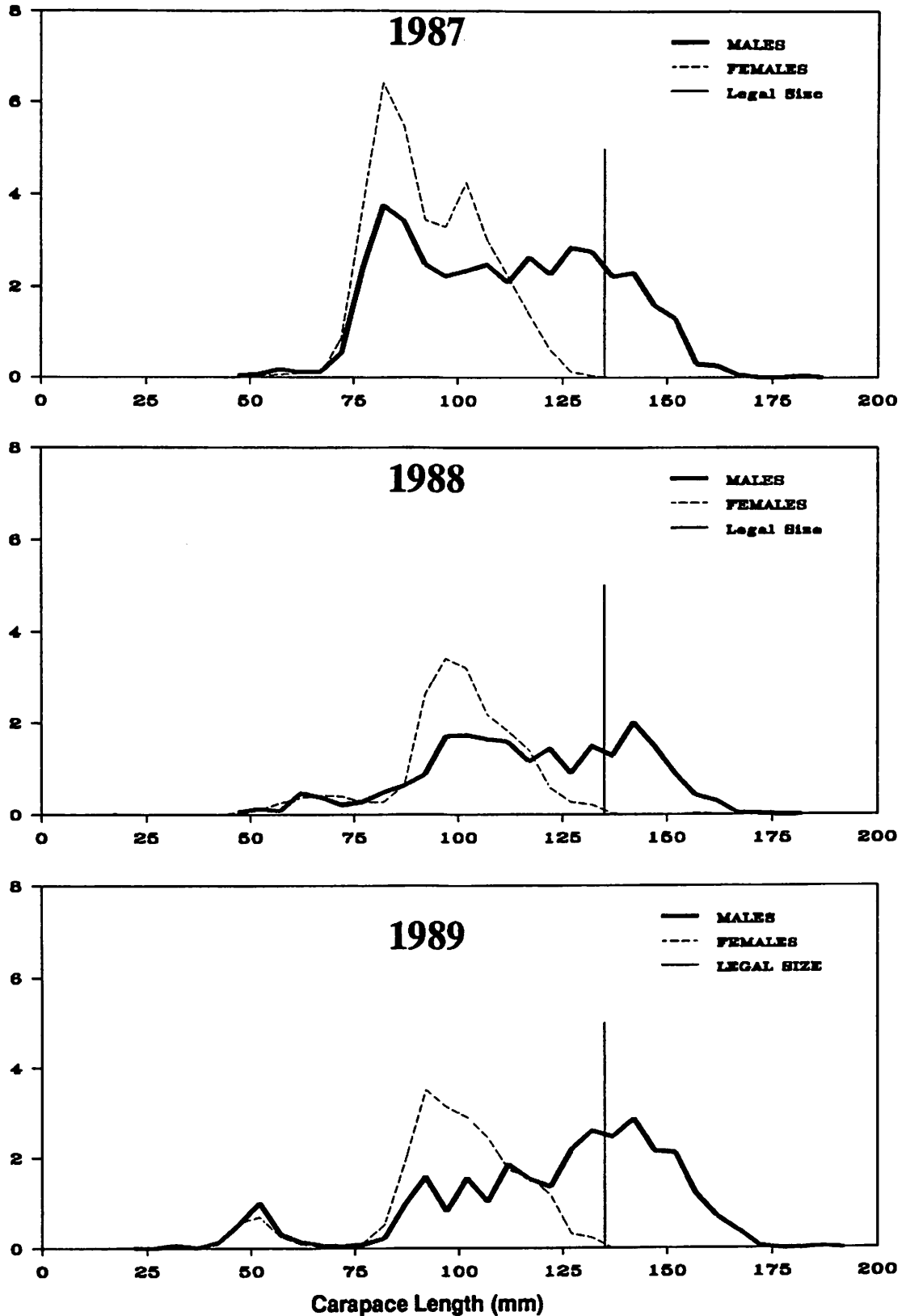


Figure 3. Estimates of abundance for red king crab (*P. camtschatica*) by 5 mm length classes, 1987-1989. Vertical line indicates lower limit of legal size.

Red king crab, Bristol Bay District

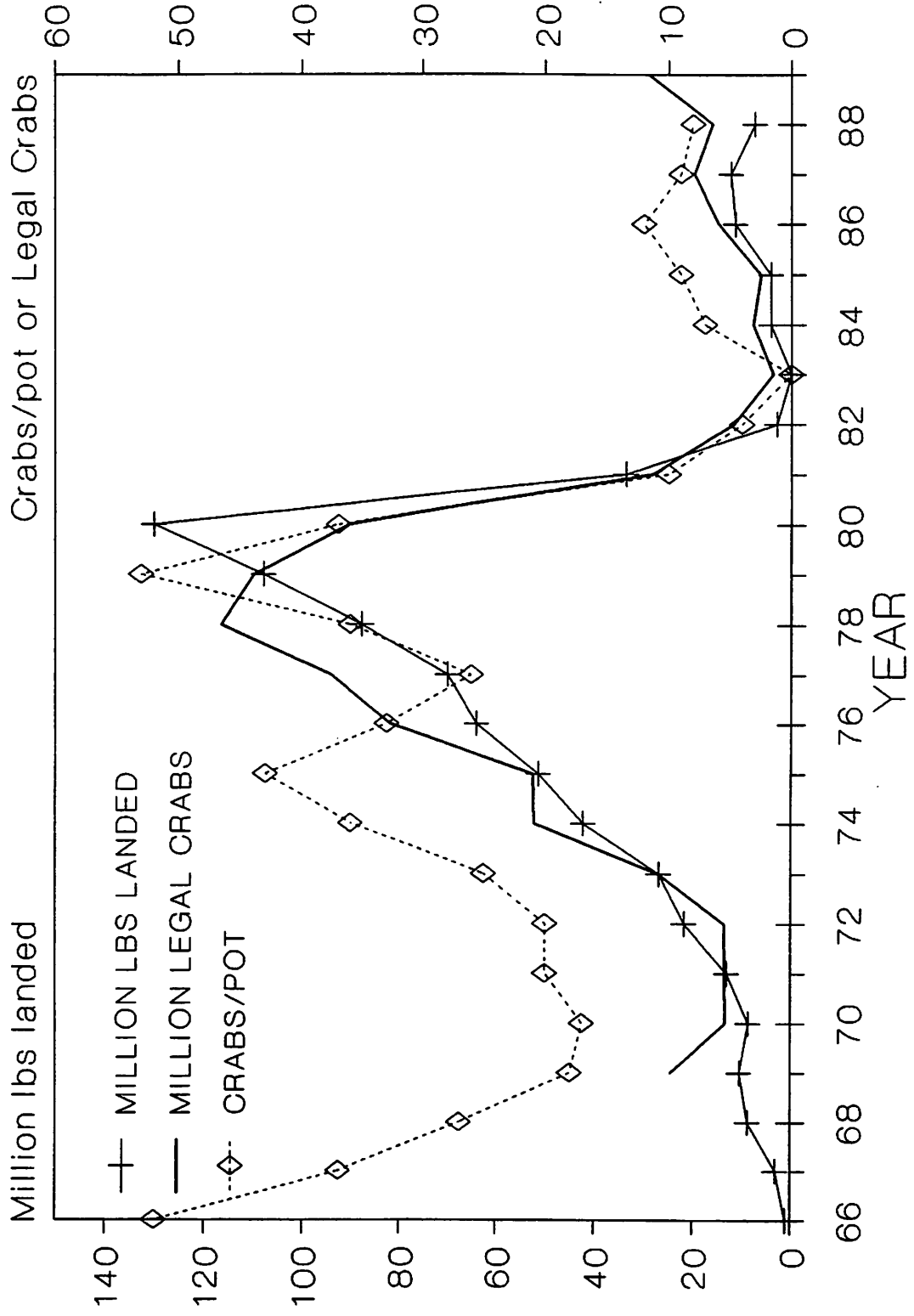


FIGURE 4. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of legal red king crabs (*P. camtschatica*) in millions in Bristol Bay, estimated from the NMFS trawl surveys.

June of 1988 and 1987 was 94% and 98% respectively. Fluctuations in the timing of molting, mating, and embryo extrusion may be related to annual variations in water temperature, particularly following the unusually cold winter of 1989.

The fishery will be opened on September 25, 1989 with a guideline harvest of 16.5 million pounds relative to an estimated stock of 67.4 ± 21.0 million pounds in Bristol Bay. Catch-per-unit-of-effort (CPUE) in recent years has ranged from 8-12 crabs per pot-lift (Fig. 4). The target exploitation rate has been set at 25% of the legal male biomass, as determined according to Board of Fisheries policy, as outlined in recent ADF&G news releases.

Pribilof Islands Blue King Crab (*P. platypus*)

Legal (≥ 135 mm cl) males were found primarily to the north of St. Paul island (Fig. 5). The estimated abundance of legal males was 225,000 crabs (Table 2), representing no significant change from 1988 to 1989. A very small number of pre-recruits were caught. The abundance of juveniles (≤ 109 mm cl), however, has tripled, although this is not a statistically significant change. Size-frequency data (Fig. 6) show a large spike of crabs at 60 mm, which occurred in several tows, and continue a trend started in 1988. A smaller peak is apparent at 100 mm but its origin is unknown. The adult portion of this stock appears to have essentially disappeared, and the range of legal males contracted, as they were captured at only 3 stations in this district in each of the last two years. Juvenile recruitment appears to have improved over the past two years, but is still questionable. This population is still extremely depressed (Fig. 7), and the fishery will not be opened in 1989. Over 99% of sublegal males were in new, hardshell condition; only 36.4% of legal males were, the remainder (63.6%) being oldshells.

The estimated abundance of large (≥ 90 mm cl) and small females showed a three-

fold but non-significant increase from last years level. Historically, estimates of female abundance have been imprecise due to the preference of females for rocky habitat which is not sampled well by trawls. Among large females, 84.6% were new hardshells, and 15.4% oldshells; 42.7% were carrying new, uneyed embryos. Blue king crab are predominantly biennial spawners. Only a portion of the female population spawns in a given year, while the remainder are in the non-egg-bearing phase. Less than 1% of females, and no males, were in molting or soft-shell condition indicating that molting was completed for 1989.

St. Matthew Island (Northern District) Blue King Crab (*P. platypus*)

Legal (≥ 120 mm cl) males occurred primarily southwest of the island (Fig. 5) and were captured at 12 stations in 1989, as opposed to 10 last year. The estimated abundance of legal crabs was 1.48 million crabs (Table 3), a non-significant increase of 78% from the previous value, and is now close to the average value over the history of the survey (1978-1989). The abundance of pre-recruits showed no significant change, whereas the abundance of juvenile males showed a non-significant increase of 233%, and is now higher than the long term average. The abundance of large females (≥ 80 mm cl) showed an increase of 112% and is also above the long-term average, but this increase was not significant due to variability in female catches, probably because females occur almost exclusively in rocky nearshore habitat which is difficult to sample with trawl gear. Size-frequency data (Fig. 8) indicate improving recruitment, continuing a trend from 1988. No softshell or molting crab were found, but 74% of both legal males and large females were new hardshells, and the remainder were oldshells. Only 5% of 85 large females were carrying new uneyed embryo clutches, which is lower than usual for this stock.

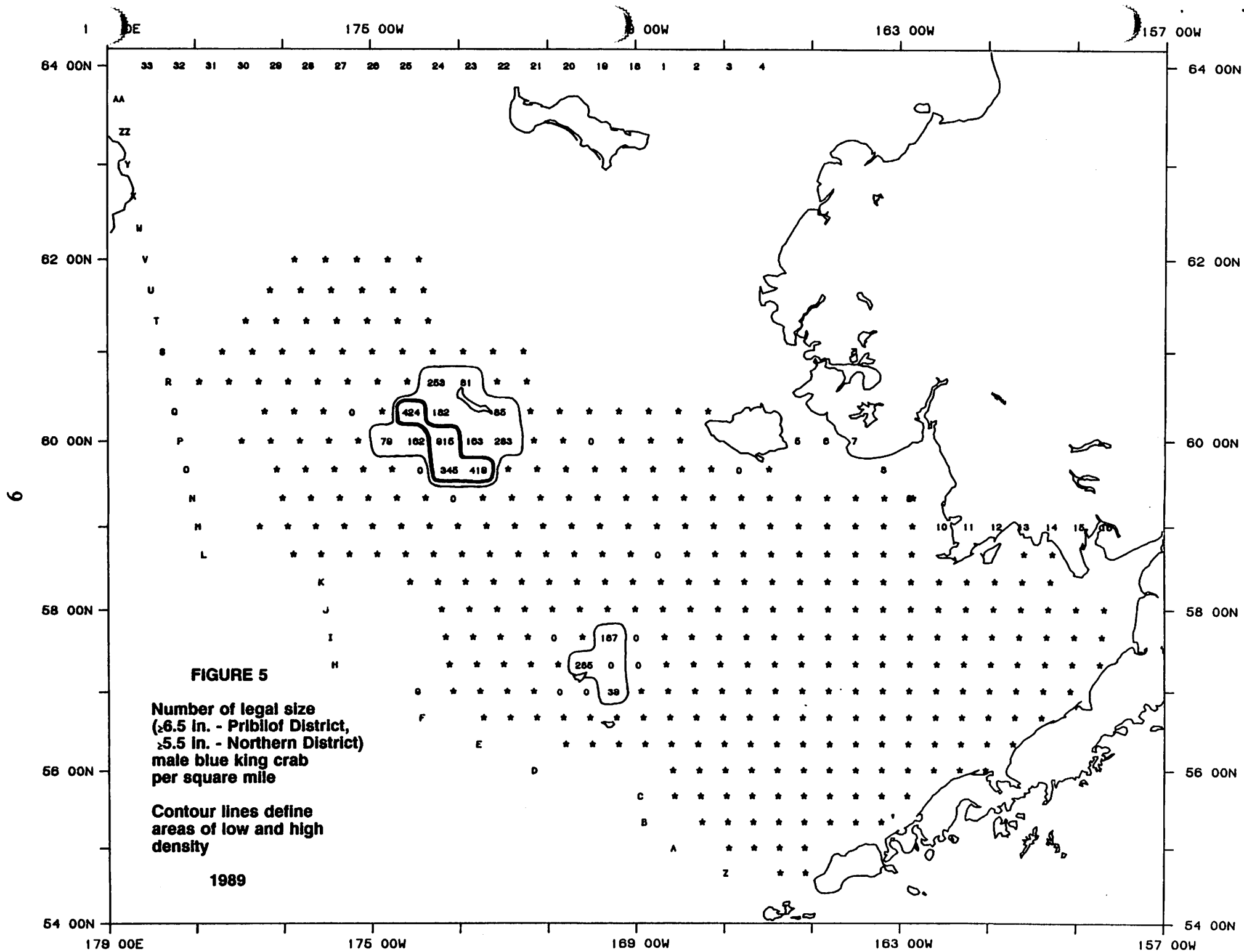
Table 2. Annual abundance estimates (millions of crabs) for blue king crab (P. platypus) in the Pribilof District from NMFS surveys.

Pribilof District								
Size ¹ (mm) Width(in)	Males			Total	Females		Total	Grand Total
	<110 <5.2	110-134 5.2-6.5	≥135 ≥6.5		<90 <3.5	≥90 ≥3.5		
1974	4.4	3.1	1.9	9.4	0.6	10.9	11.5	20.9
1975	4.1	8.0	7.5	19.6	0.0	8.8	8.8	28.4
1976	10.3	2.1	3.9	16.3	0.4	17.7	18.1	34.4
1977	3.2	2.2	9.4	14.8	2.2	17.5	19.7	34.5
1978	1.2	5.8	4.3	11.3	0.3	35.5	35.8	47.1
1979	6.4	1.5	4.6	12.5	5.2	2.9	8.1	20.6
1980	1.9	1.4	4.2	7.5	0.8	101.9	102.7 ³	110.2
1981	4.8	1.4	4.2	10.4	3.4	11.6	15.0	25.4
1982	1.2	0.7	2.2	4.1	0.7	8.6	9.3	13.4
1983	0.6	0.8	1.3	2.8	0.2	9.2	9.4	12.2
1984	0.5	0.3	0.6	1.3	0.3	3.1	3.4	4.8
1985	0.06	0.16	0.32	0.54	0.18	0.52	0.70	1.24
1986	0.02	0.02	0.43	0.47	0.04	1.86	1.90	2.37
1987	0.57	0.08	0.73	1.38	0.39	0.58	0.97	2.35
1988	1.10	0.0	0.20	1.29	0.77	0.43	1.20	2.49
1989	3.21	0.10	0.22	3.54	2.29	1.28	3.57	7.11
<u>Limits²</u>								
Lower	0.0	0.0	0.03	0.00	0.0	0.05	0.00	0.00
Upper	6.88	0.26	0.50	7.48	5.81	2.98	7.48	15.0
±%	114	167	120	112	154	133	109	111

1 Carapace length (mm).

2 Mean ± 2 standard errors for most recent year.

3 Female estimates considered unreliable in 1980.



Blue King Crab Length Frequency

Pribilof District

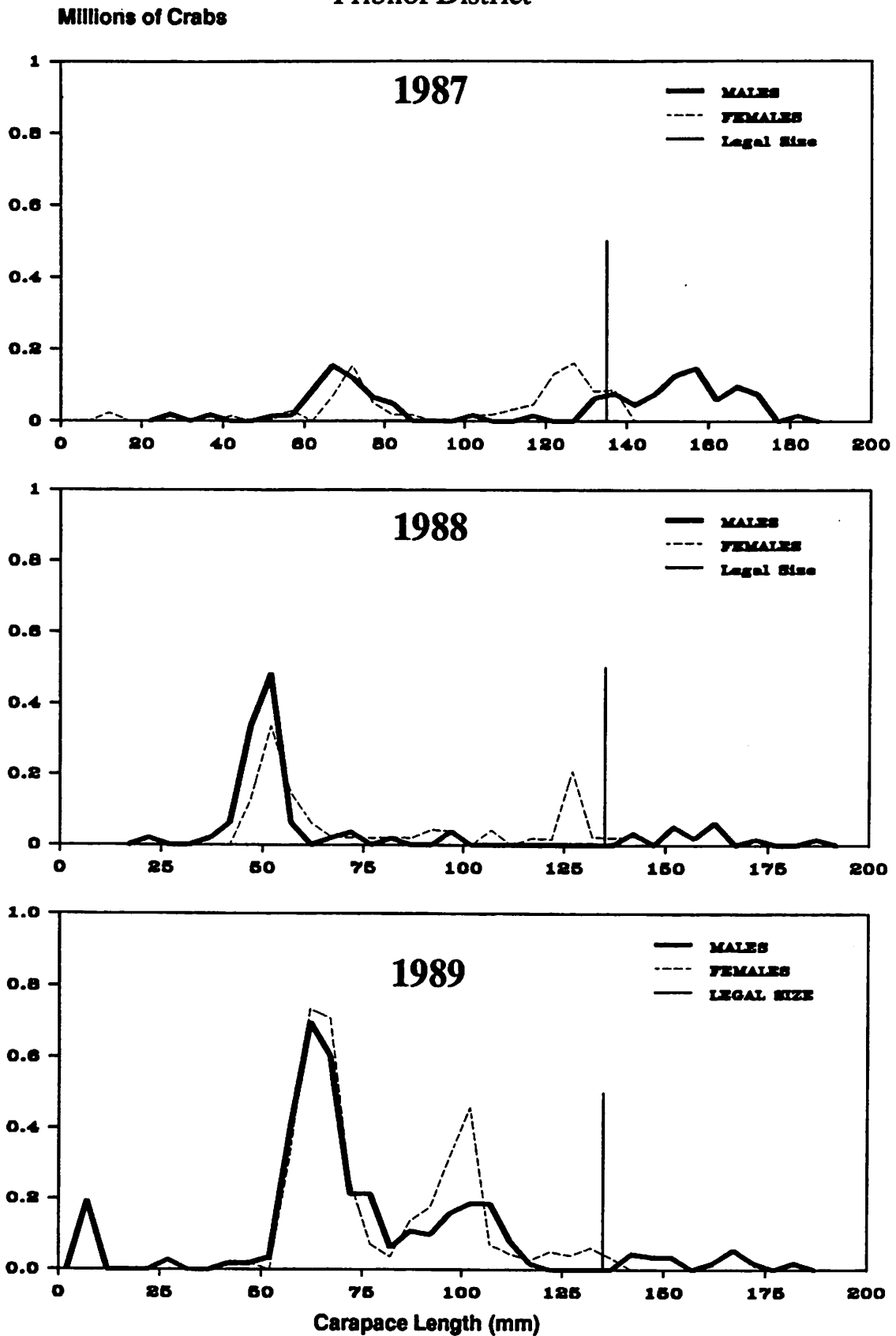


Figure 6. Estimates of abundance for Pribilof District blue king crab (*P. platypus*) by 5 mm length classes, 1987-1989. Vertical line indicates lower limit of legal size.

Blue king crab, Pribilof District

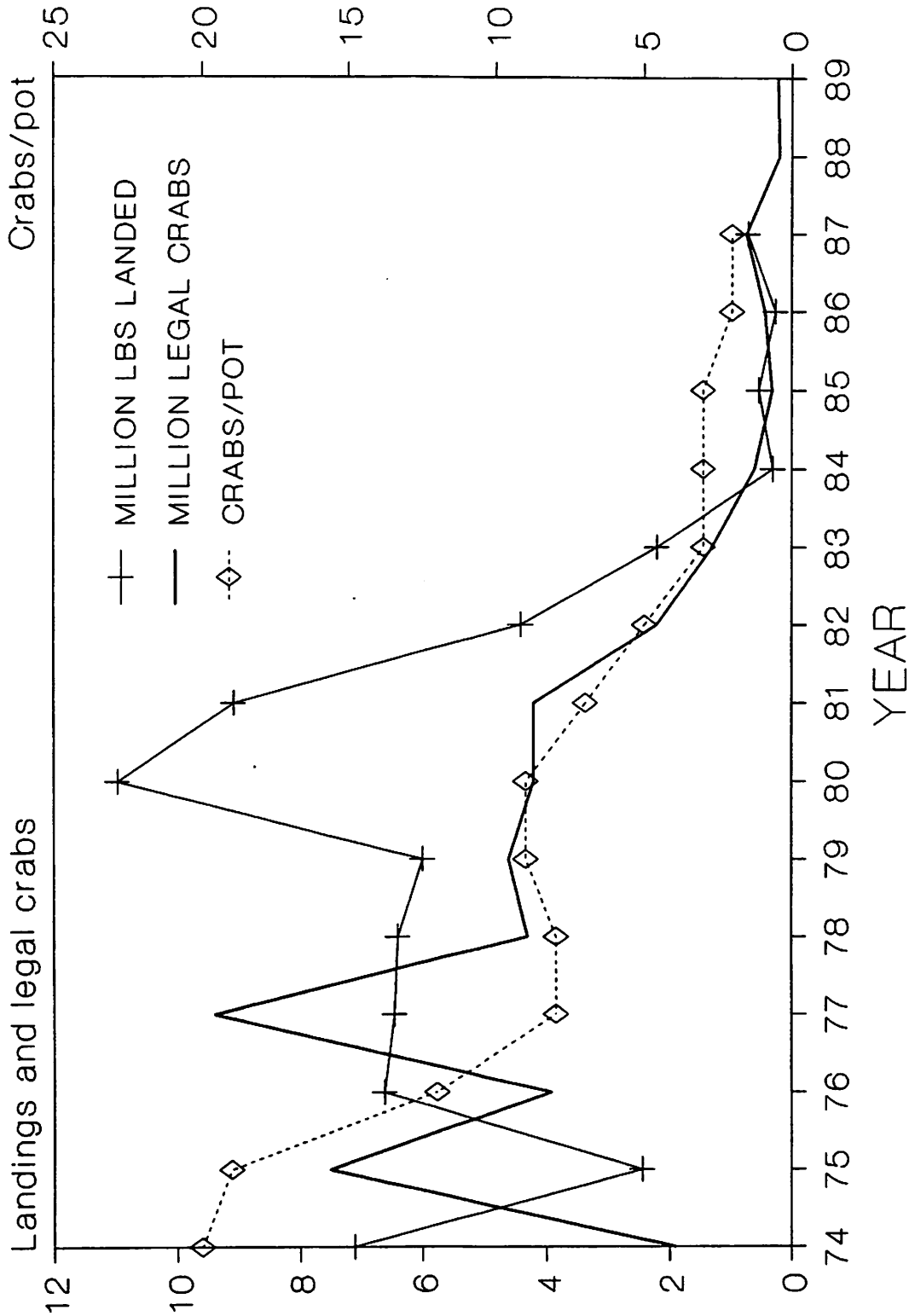


FIGURE 7. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of legal blue king crabs (*P. platypus*) in millions in the Pribilof District, estimated from the NMFS trawl surveys.

Table 3. Annual abundance estimates (millions of crabs) for blue king crab (*P. platypus*) in the Northern District from NMFS surveys.

Northern District								
Size ¹ (mm) Width(in)	Males			Total	Females		Total	Grand Total
	<105 <4.3	105-119 4.3-5.5	≥120 ≥5.5		<80 <3.2	≥80 ≥3.2		
1978	5.6	2.4	1.8	9.8	0.8	0.4	1.2	11.0
1979	4.9	2.3	2.2	9.4	1.7	0.9	2.6	12.0
1980	3.4	2.2	2.5	8.1	0.8	2.2	3.0	11.1
1981	1.2	1.8	3.1	6.3	0.0	0.5	0.5	6.8
1982	3.2	2.6	6.8	12.5	0.4	0.7	1.1	13.7
1983	1.8	1.6	3.5	6.9	0.2	2.4	2.7	9.6
1984	1.4	0.6	1.6	3.6	0.2	0.5	0.7	4.3
1985	0.46	0.35	1.08	1.89	0.08	0.13	0.21	2.10
1986	0.56	0.40	0.38	1.34	0.25	0.06	0.31	1.65
1987	1.07	0.73	0.74	2.53	0.46	0.22	0.68	3.21
1988	1.44	0.65	0.83	2.92	0.90	0.79	1.70	4.62
1989	4.80	0.97	1.48	7.25	1.58	1.68	3.27	10.52
Limits²								
Lower	0.67	0.47	0.87	2.49	0.05	0.32	0.56	3.05
Upper	8.93	1.46	2.09	12.01	3.12	3.04	5.97	17.98
±SE	86	51	41	66	97	81	83	71

1 Carapace length (mm), categories reflect smaller average size in the Northern District; 80 mm is the median size at maturity for females.

2 Mean ± 2 standard errors for most recent year.

Blue King Crab Length Frequency

Northern District

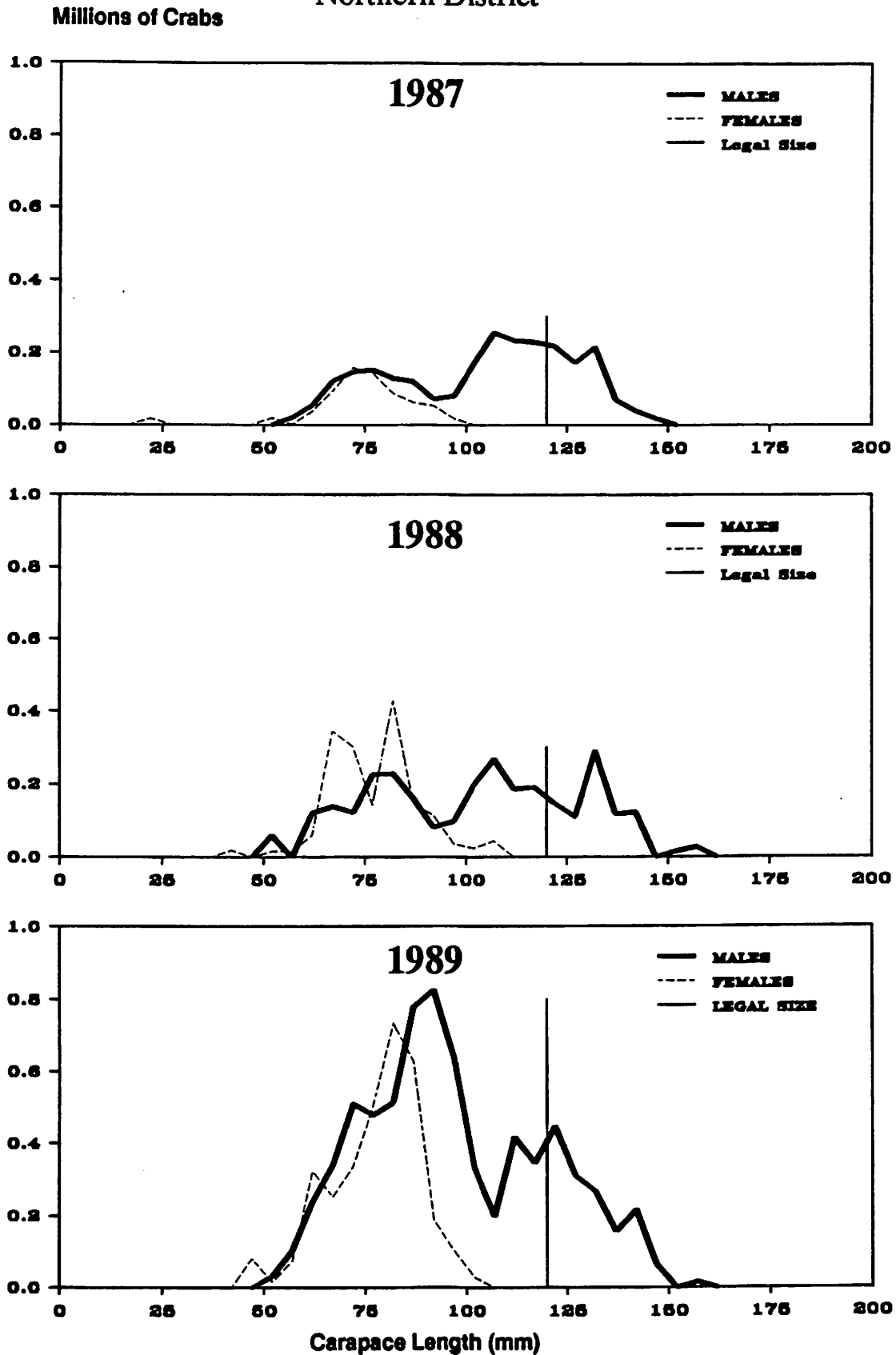


Figure 8. Estimates of abundance for St. Matthew Island (northern District) blue king crab (*P. platypus*) by 5 mm length classes, 1987-1989. Vertical line indicates lower limit of legal size.

Blue king crab, Northern District

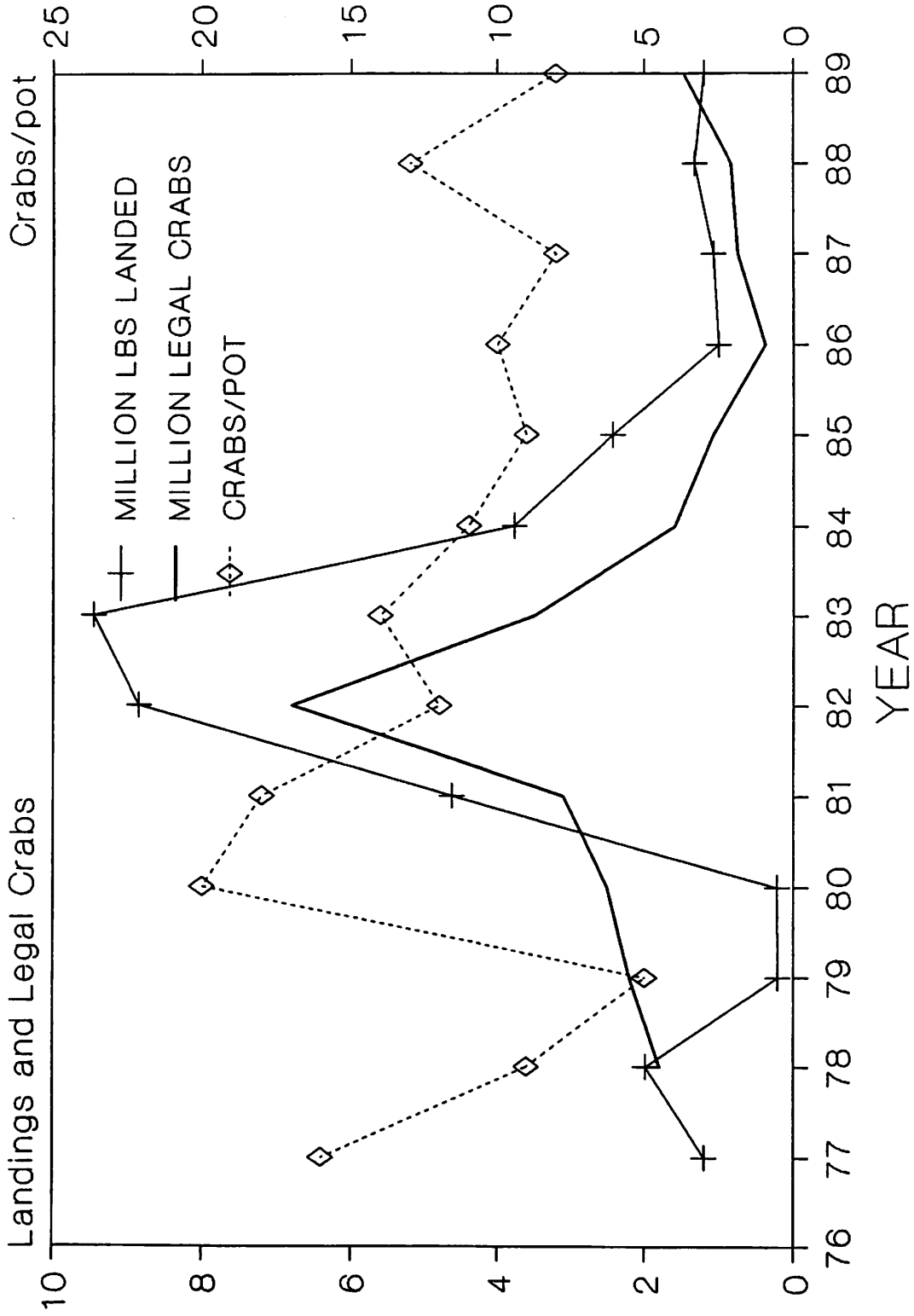


FIGURE 9. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of legal blue king crabs (*P. platypus*) in millions in the Northern District, estimated from the NMFS trawl surveys.

The 1989 fishery opened on September 1 with a guideline harvest of 1.7 million pounds out of an estimated stock of 5.8 million lbs. Preliminary ADF&G statistics indicate that about 1.2 million pounds were landed by 68 vessels during a four day opening with an average CPUE of 8 crabs per pot-lift³. The target exploitation rate was 30% (by weight). In comparison, during 1988, 46 vessels landed 1.3 million pounds or 302,000 crabs for an estimated exploitation rate of 39% and an average CPUE of 13 crabs per pot-lift⁴ (Fig. 9).

Tanner crab (*Chionoecetes bairdi*)

Although the legal minimum size of 5.5 in cw is equivalent to 140 mm cw, legal crabs are defined in this report as ≥ 138 mm cw because of the difference between scientific measure (between spines) and commercial measure (spine tip to spine tip). The data included in Table 4, however, show large crabs as males ≥ 135 mm, because this is closer to the lower limit of sizes landed, and has been used for a long-term index since 1976.

Legal males were widely distributed in Bristol Bay and continental slope areas with regions of relatively high abundance in mid-Bristol Bay and the Pribilof Islands (Fig. 10). The area of distribution of legal males was much greater than that of 1988. The estimated abundance of legal (≥ 138 mm cw) male *C. bairdi* in the Eastern District is 33.6 million crabs (with 42.3 million ≥ 135 mm cw; Table 4). Because District boundaries were redefined in 1987, the 1989 estimate is calculated for the Eastern District (east of 173° long W.) and includes 99.9% of large males, whereas all previous estimates were for the combined Bristol Bay and Pribilof Districts, which included 98.4% of large males in 1988. However, for *C. bairdi* the two different definitions enclose essentially the same region of crab distribution. The estimated total abundance of legal crabs increased by a factor of 2.3 from 1988 levels.

The estimated abundance of pre-recruits (110-134 mm cw) increased significantly by 71%, and the estimate of small males (≤ 109 mm cw) showed no significant change from 1988. This population has essentially doubled each year since 1986, and all portions of the stock are well above long-term average values, except for large females, which are average in abundance. Size frequency data (Fig. 11) show what appears to be significant recruitment of small males over the past 3 years, and growth of those into pre-recruit and legal sizes. A large proportion (27%) of large males were molting or softshell in June, but new hardshells (61%), and oldshells (12%) dominated the survey catches.

The abundance of large (≥ 85 mm cw) females (all districts) showed a slight but non-significant decrease, but the abundance of small (< 85 mm) females showed a significant increase of 77% from last year (+83% in the Eastern District alone). Over 88% of females were new hardshells, 9% oldshells, and $< 3\%$ molting or softshell. Over 95% of large females were ovigerous, and 95% of those were carrying new, uneyed embryos, suggesting that the period of larval hatching and embryo extrusion was essentially completed by the time of the survey.

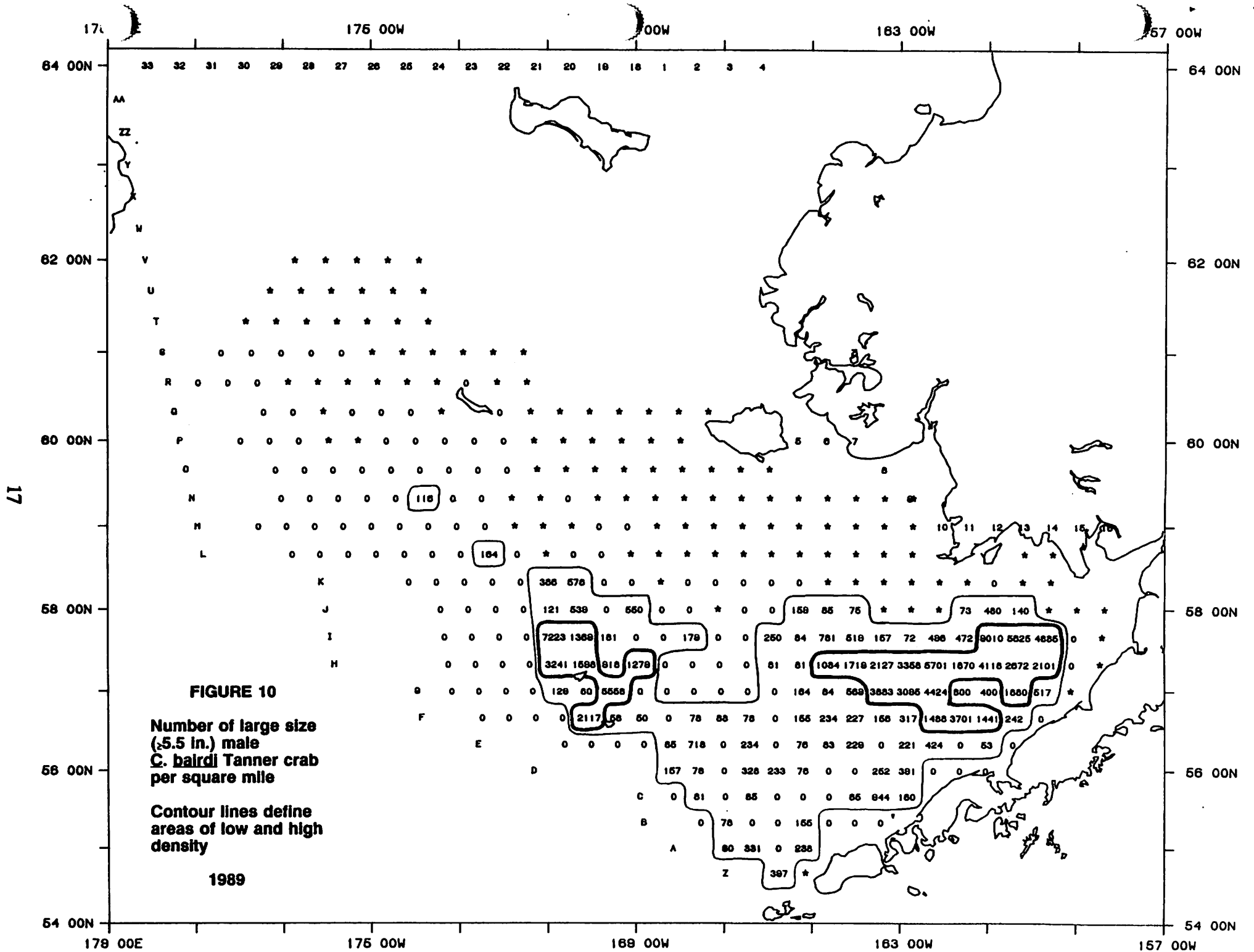
Due to low estimated abundance of *C. bairdi* the Bristol Bay fishery was not opened in 1986 or 1987, but was re-opened in 1988. In 1989 about 6.9 million pounds were harvested³ by 108 vessels, with average CPUE of 16 crabs/pot-lift (Fig. 12). Current estimates show that the population of legal males is increasing and is currently estimated at 73.8 ± 16.0 million lbs, 99.9% of which is located in the Eastern District. Catch rates in recent years have been about 8-16 crabs per pot-lift (Fig. 12).

Table 4. Annual abundance estimates (millions of crabs) for Tanner crabs (*C. bairdi*) from NMFS surveys. 1989 data for Eastern District; all prior data for Bristol Bay and the Pribilof Districts.

Size ¹ (mm) Width(in)	Males				Females			Grand Total
	<110 <4.3	110-134 4.3-5.3	≥135 ≥5.3	Total	<85 <3.4	≥85 ≥3.4	Total	
1976	180.2	136.6	109.5	426.3	174.7	220.4	395.1	821.4
1977	255.0	116.3	92.1	463.4	328.4	215.8	544.2	1,007.6
1978	124.2	81.2	45.6	251.0	116.1	73.3	189.4	440.4
1979	133.1	47.7	31.5	212.3	122.6	42.1	164.7	377.0
1980	453.3	65.0	31.0	549.3	326.9	106.8	433.7	983.0
1981	303.8	24.0	14.0	341.8	324.2	79.1	403.3	745.1
1982	88.8	46.9	10.1	145.8	126.4	83.6	210.0	355.8
1983	146.3	32.0	6.7	185.0	180.1	45.4	225.5	410.5
1984	85.1	21.2	5.8	112.1	107.0	33.4	140.4	252.5
1985	31.1	9.4	4.4	44.9	24.2	15.6	39.8	84.7
1986	110.4	12.9	3.1	126.4	68.2	13.7	81.9	208.3
1987	230.1	19.7	8.3	258.0	193.3	35.5	228.8	486.8
1988	287.3	59.7	17.4	364.4	184.8	81.0	265.8	630.2
1989	403.0	102.1	42.3	547.5	338.6	63.8	402.4	949.9
Limits²								
Lower	262.7	80.0	33.7	401.0	196.8	45.4	256.0	657.0
Upper	543.3	124.3	51.0	694.1	480.3	82.3	548.8	1242.9
± %	35	22	20	27	42	29	36	31

1 Carapace width (mm).

2 Mean ± 2 standard errors for most recent year.



C. bairdi Width Frequency

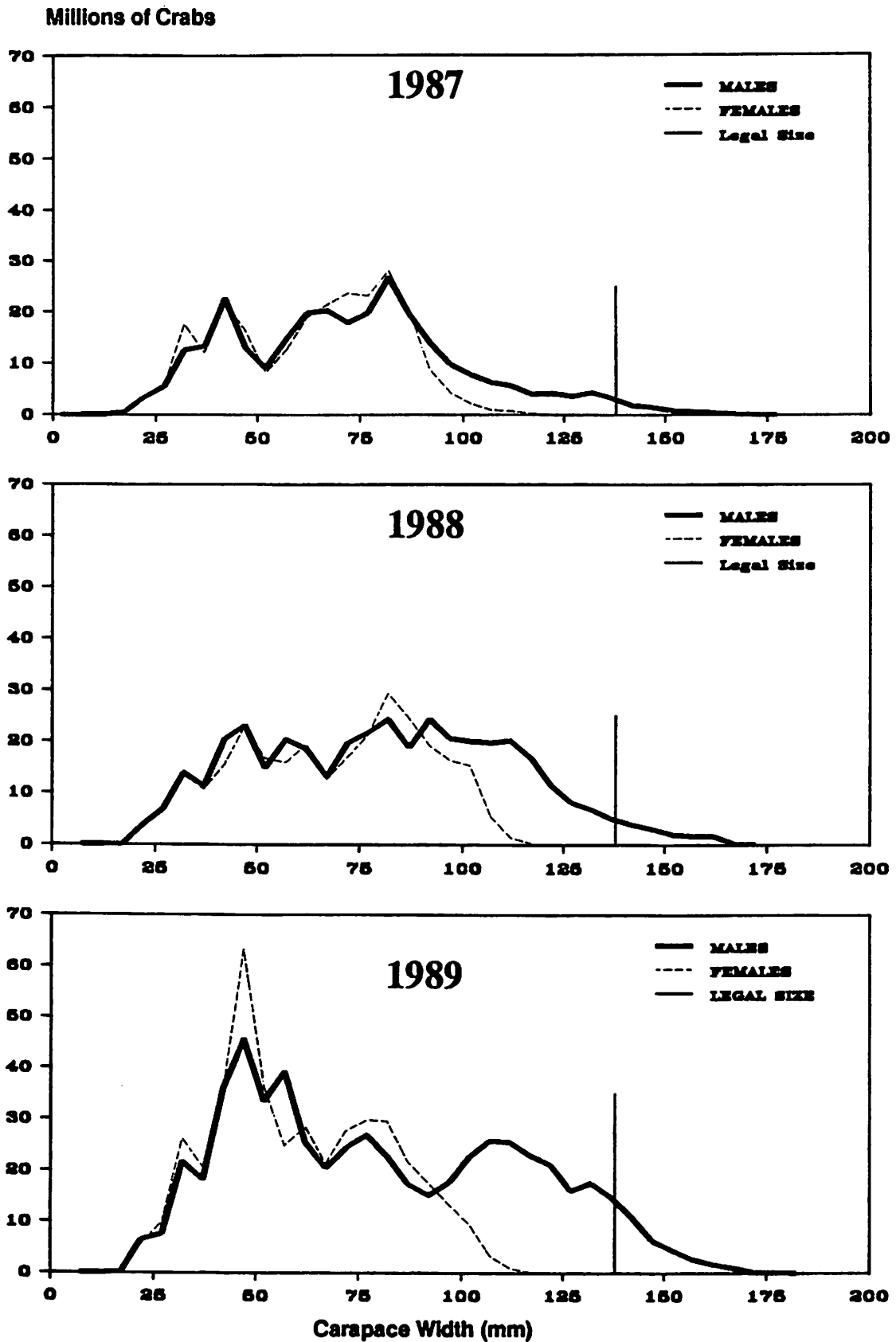


Figure 11. Estimates of abundance for *C. bairdi* in Bristol Bay and the Pribilof District by 5 mm width classes, 1987-1989. Vertical line indicates lower limit of legal size.

C. bairdi, Bristol Bay and Pribilofs (Eastern District after 1988)

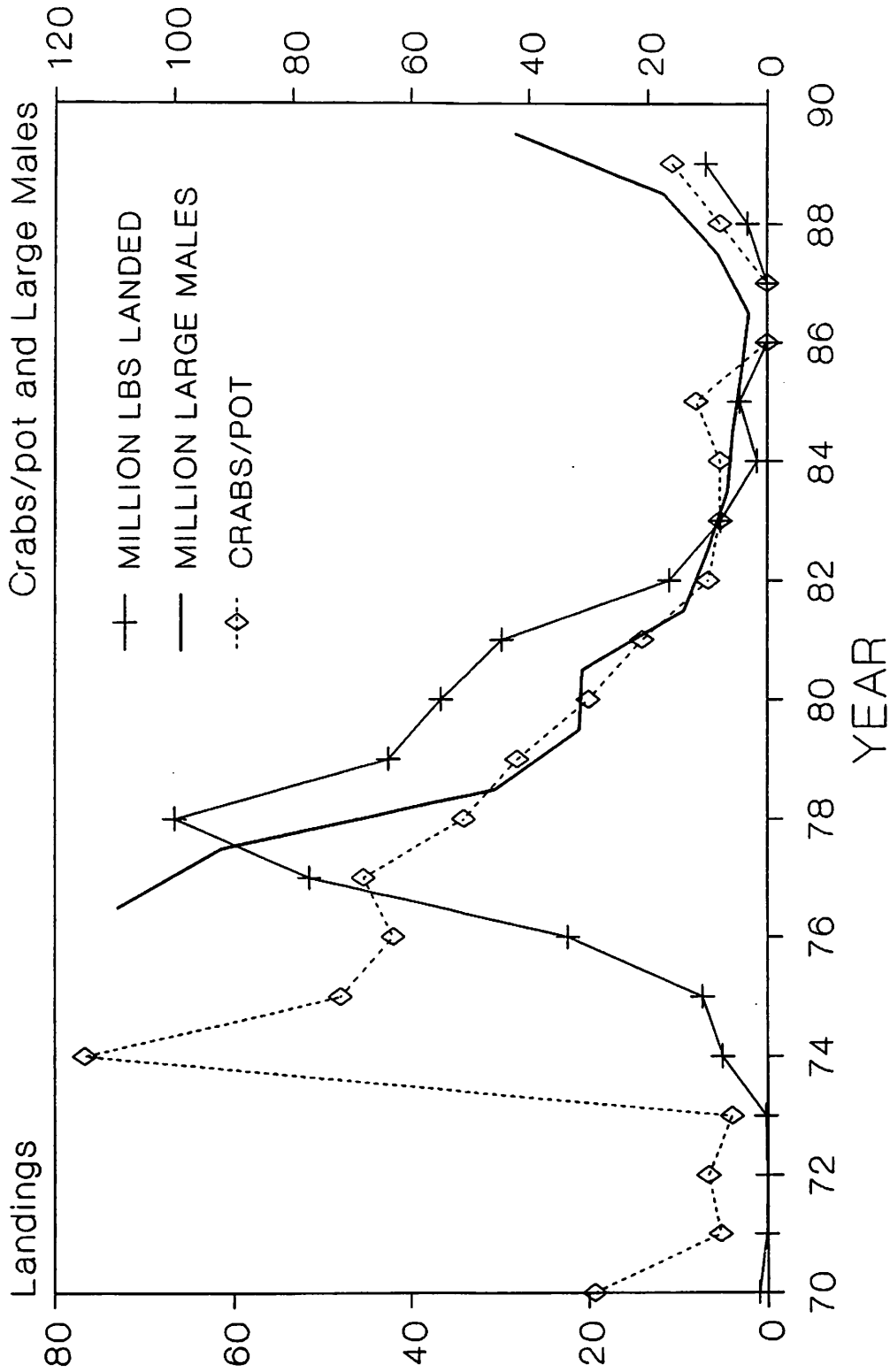


FIGURE 12. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of large male C. bairdi in millions in the Bristol Bay and Pribilof Districts (prior to 1989), or the Eastern District (after 1988), estimated from the NMFS trawl surveys.

Tanner Crab (*C. opilio*)

Although the legal minimum size limit for this species is 78 mm cw, crabs smaller than 110 mm cw were not usually landed prior to 1983. However, processors currently prefer a minimum size of 102 mm cw (4.0 in). Therefore, the size ranges for male *C. opilio* used in this report are defined as follows: sublegal (< 78 mm cw); small (78-101 mm cw); large (\geq 102 mm cw); and very large (\geq 110 mm).

The distribution of large males showed an area of high concentration north and east of the Pribilof Islands (Fig. 13). There were also areas of high abundance in the extreme northwestern portion of the survey area south and west of St. Matthew Island. Although this species has been surveyed since 1978, the area surveyed prior to 1982 was sufficiently smaller than the currently surveyed area that previous estimates probably underestimated the exploitable crab population. However, prior to 1985, there was little fishing north of 58° N, and estimates of abundance (Table 5) probably included that portion of the stock which was subject to fishing. During the early 1980's the high density regions of *C. opilio* distribution have moved in a northwestern direction and split into two centers of abundance. For this reason, new district boundaries were devised in 1987 creating an Eastern and Western District for *C. opilio*, with the dividing line at 173° W long. Because of this change in District definitions and because this species appears to be a single stock, values in Table 5 reflect the entire surveyed population of *C. opilio*. Furthermore, the 4-inch (102 mm) size preference was not in use prior to 1984. For these reasons estimates of abundance of large males are not shown for years prior to 1984 (Table 5; Fig. 15).

The estimated number of large (\geq 102 mm cw) males (Eastern and Western Districts combined) is 187.1 million crabs, a slight but non-significant increase from last year. Small males (78-101 mm cl) increased significantly by 75%, and very large males (\geq 110 mm cl)

decreased by 10% (non-significant). Sublegal males showed no significant change. Overall, total males showed no significant change from the previous level. The estimated abundance of large female (\geq 50 mm cl) crabs showed a non-significant increase of 63%, and small females showed a non-significant increase of 56%. Size frequency data (Fig. 14) indicate that major recruitment of postlarval crab occurred in the mid-1980's, and recruitment to the fishery may continue to improve in the near-term as juveniles mature. However, in the past, large populations of juveniles have been estimated which subsequently failed to recruit (e.g. 1984-1985), so predictions must be viewed cautiously. Recruitment patterns in this stock are not entirely clear since recruitment evidently occurs both through localized production and by immigration from unsurveyed areas, perhaps including Soviet waters.

Only 2.4% of all male crabs \geq 100 mm cw, i.e. the exploited stock, were found to be in molting or softshell condition compared to 7% in 1988 and 16% in 1987. No females were molting or softshell, indicating that the female molting period was completed. The majority (74%) of females were oldshells. Considering only large female crabs, about 84% carried new uneyed embryos (vs 99% last year) indicating that hatching and extrusion were close to completion by the time of the survey.

Preliminary 1989 ADF&G statistics³ indicate that about 147.5 million lbs were landed (Fig. 15), with average catches of 167 crabs/pot, and average weight of 1.32 lbs. Currently there are an estimated 241 (\pm 32.8) million pounds of large males (\geq 102 mm cw) within the survey area of which about 62% by number (63% by weight) exist east of 173° W long.

Recent fishery landings have appeared large compared to the estimated biomass. This was partially due to increased fishing pressure in the Northern District, some of which lay outside the region covered by the

Table 5. Annual abundance estimates (all districts combined) for eastern Bering Sea Tanner crabs (*C. opilio*) from NMFS surveys (millions of crab).

Size ¹ (mm) Width(in)	Males			Total	Females		Total	Grand Total
	<102 <3.7	≥102 ≥4.0	≥110 ≥4.3		<50 <2.0	≥50 ≥2.0		
1982	*	*	21.7	2073.2	402.6	2255.8	2658.4	4731.7
1983	*	*	22.1	1858.1	673.1	1228.4	1912.6	3759.7
1984	1237.4	153.2	73.9	1390.7	610.5	581.7	1192.2	2582.9
1985	547.8	74.9	40.7	622.6	258.2	123.5	381.7	1004.3
1986	1179.0	83.1	45.9	1262.0	790.6	422.0	1212.5	2474.5
1987	4438.9	150.8	70.0	4589.8	2919.3	2929.3	5848.6	10438.4
1988	3467.2	171.0	90.1	3638.2	1235.3	2322.7	3556.0	7194.2
1989	3646.1	187.1	81.2	3833.1	1922.8	3790.7	5713.4	9546.5
East(%) ²	62.3	62.4	62.3	62.3	25.7	50.6	42.2	50.3
Limits ³								
Lower	2922.1	161.6	67.8	3104.7	246.9	1711.5	2032.8	5137.5
Upper	4370.0	212.6	94.6	4561.6	3598.6	5869.8	9394.1	13955.7
±	20	14	16	19	87	55	64	46

1 Carapace width in mm.

2 Proportion of size group in Eastern District.

3 Mean ± 2 standard errors for most recent year.

* Estimates not available at present time.

C. opilio Width Frequency

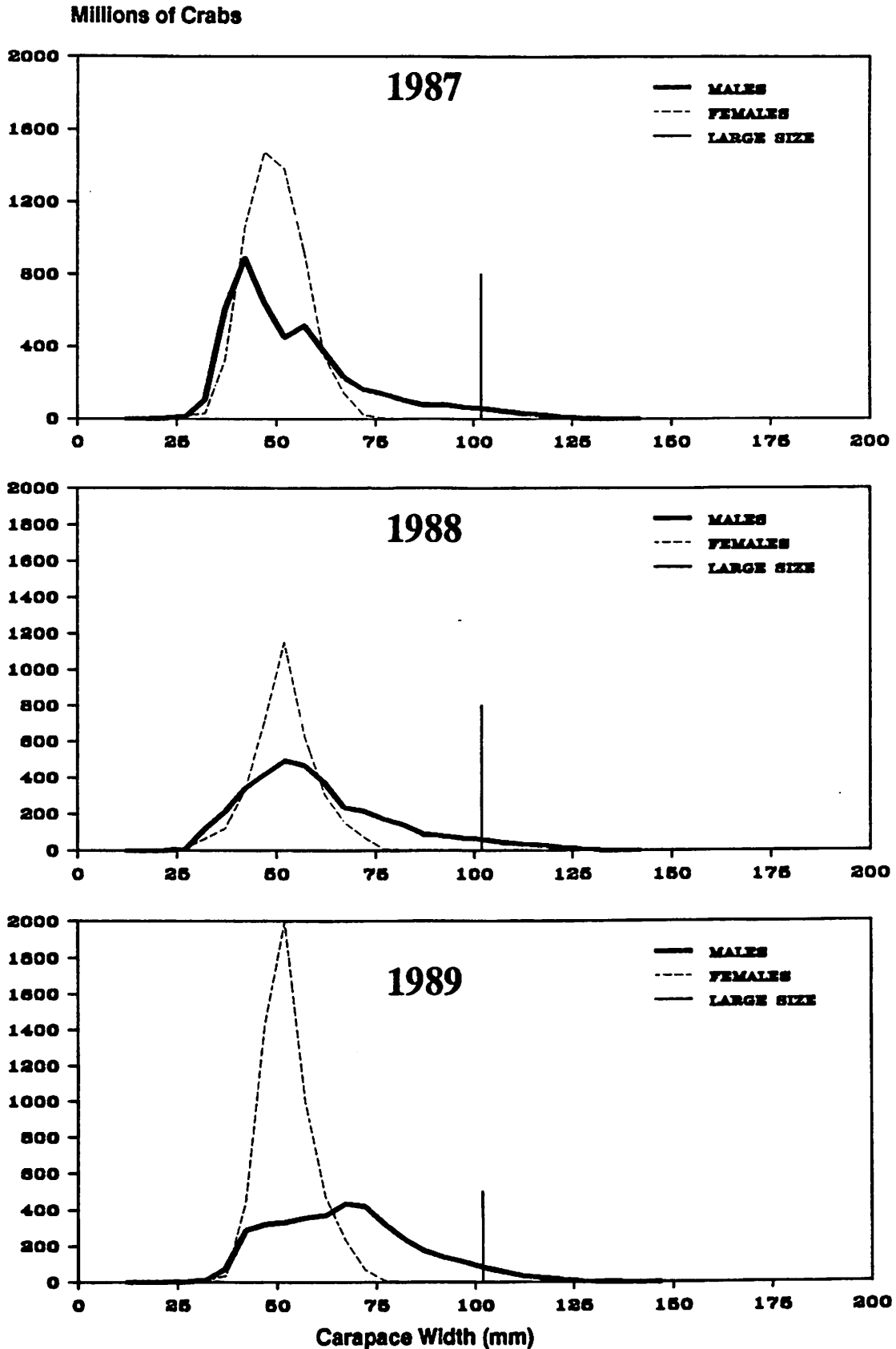


Figure 14. Estimates of abundance for *C. opilio*, all districts combined by 5 mm width classes, 1987-1989. Vertical line indicates minimum size preferred by industry.

C. opilio, all districts

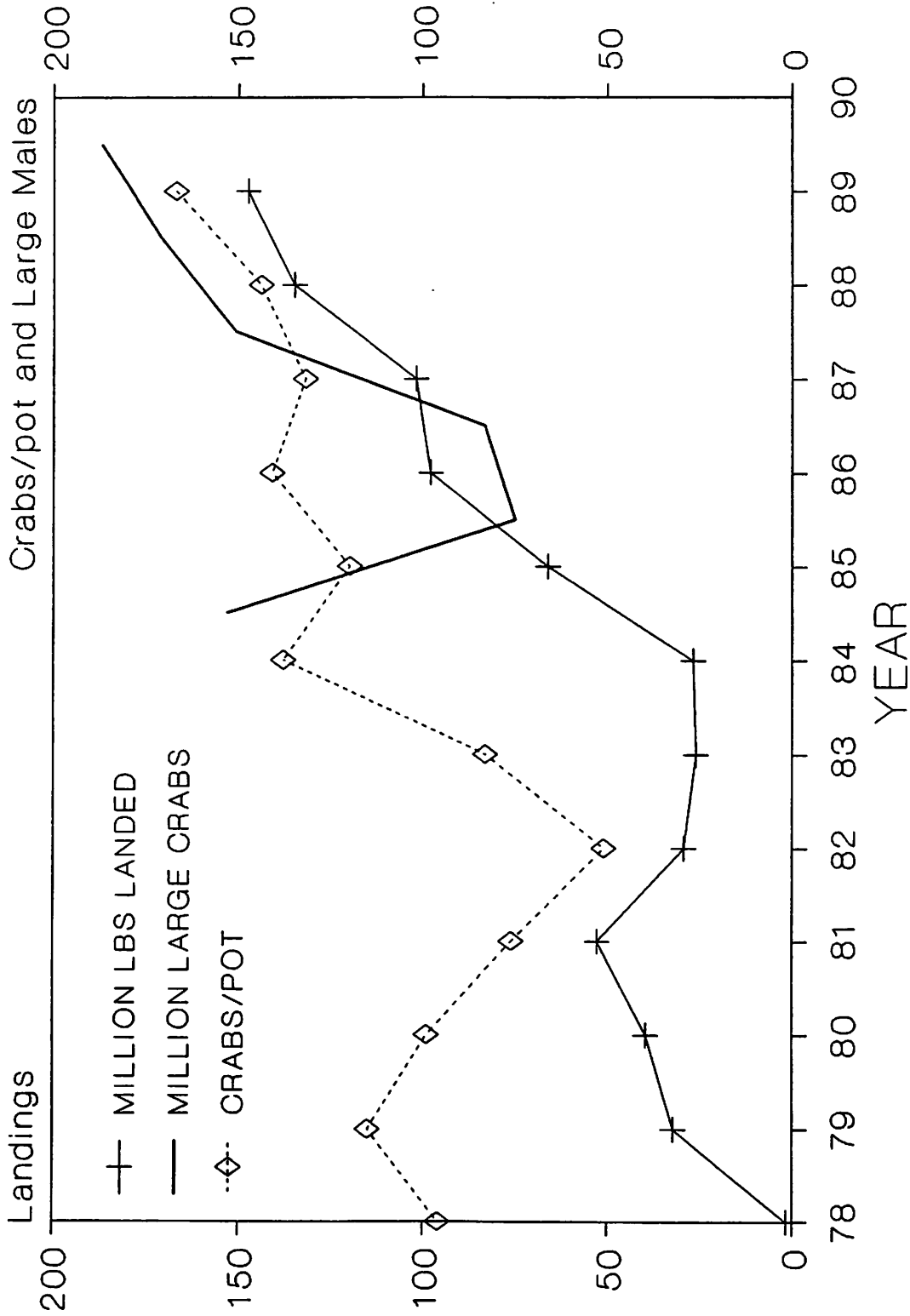


FIGURE 15. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of large male (≥ 102 mm cw) *C. opilio* in millions (all Districts combined), estimated from the NMFS trawl surveys.

NMFS trawl surveys prior to 1986. Thus, our estimates did not include the entire stock that was being exploited in 1985-1986. In addition, there is reason to believe that the catchability of *C. opilio* (and perhaps *C. bairdi* as well) in the survey is less than 1.0, i.e. that population densities are routinely underestimated by trawl catches. At present, the fishery appears to have expanded about as far as possible in U.S. waters; recent increases in landings have followed population growth, although high densities of large males exist near the U.S.-Soviet convention line, and there may be some immigration from Soviet waters. Despite the high landings and expanding grounds, these factors do not appear to have caused adverse impacts to the Bering Sea stock of *C. opilio*.

Hair Crab (*Erimacrus isenbeckii*)

Hair crab are widely scattered across the EBS (Fig. 16). Areas of concentration exist immediately north of the Alaska Peninsula and near the Pribilof Islands. Because of their patchy distribution and low densities, estimates of abundance of hair crab are imprecise. No changes in population levels (Table 6) from 1988 to 1989 were statistically significant. The estimated abundance of large male (>89 mm cl) hair crabs has been declining since 1981 and is now at a new all-time low; the 1989 estimate of 400,000 represents a decrease of 27% over the past year. In contrast, the estimated abundance of small (<90 mm cl) males shows an increase of 210% from 1988, continuing a trend begun in 1987. The estimated abundance of total females shows a non-significant decrease of 65% from last year. Size-frequency data (Fig. 17) show improved recruitment of small male crabs in the past 3 years, and may indicate future improvement in the fishable stocks.

Landings have been largely incidental to Tanner crabbing although there is occasionally some directed effort. Preliminary ADF&G statistics for 1989 were not available as of this writing, but less than 2000 lbs were

landed in 1987. Currently there are an estimated 780,000 pounds ($\pm 53\%$) of large male crabs. The fishery and markets have both been intermittent and probably will remain so during 1989. There are no guideline harvest levels, closed seasons or size limits for hair crab. CPUE has not been predictable due to low effort in recent years (Fig. 18).

EPILOGUE

It appears that, sometime in the early of mid-1980's, a major recruitment event occurred for both species of Tanner crab, resulting in improved survival of larvae to juveniles, and these juveniles have been slowly recruiting to both the survey gear and the exploitable population. Whatever combination of conditions allowed this recruitment event, it may also have affected recruitment of blue king crabs in the Pribilof and St. Matthew Island regions, as well as Hair crab, as all three stocks have shown improved signs of recruitment of small crab; however, lack of knowledge concerning growth rates of those two species leads to uncertainty about the timing of the event. All five stocks may be responding to the same conditions, or to a series of events which occurred over a period of several years. Red king crab still shows no signs of improved recruitment, but the survey has generally been unsuccessful in detecting such crab until they are typically 50-75 mm cl, or 5-8 years of age.

Table 6. Annual abundance estimates (millions of crabs) for hair crabs (Erimacrus isenbeckii) from NMFS surveys. The size at entry to the U. S. fishery is approximately 90 mm (3.5 in) carapace length.

Size ¹ (mm) Length(in)	Males		Total	Females	Grand Total
	<90 <3.5	≥90 ≥3.5		Total	
1979	6.4	16.1	22.5	1.6	24.1
1980	6.0	13.7	19.7	3.1	22.8
1981	6.1	15.9	22.0	0.8	22.8
1982	1.4	7.7	9.1	0.4	9.5
1983	0.9	4.8	5.7	0.9	6.6
1984	1.1	2.9	4.0	0.4	4.4
1985	0.53	2.22	2.75	0.22	2.97
1986	0.71	1.46	2.17	0.37	2.54
1987	1.95	1.19	3.14	0.91	4.05
1988	3.98	0.55	4.52	0.85	5.37
1989	12.30	0.40	12.72	0.30	13.02
<u>Limits²</u>					
Lower	0.00	0.19	0.00	0.13	0.00
Upper	33.9	0.61	34.35	0.47	34.82
±%	175	53	170	57	167

1 Carapace length (mm).

2 Mean ± 2 standard errors for most recent year.

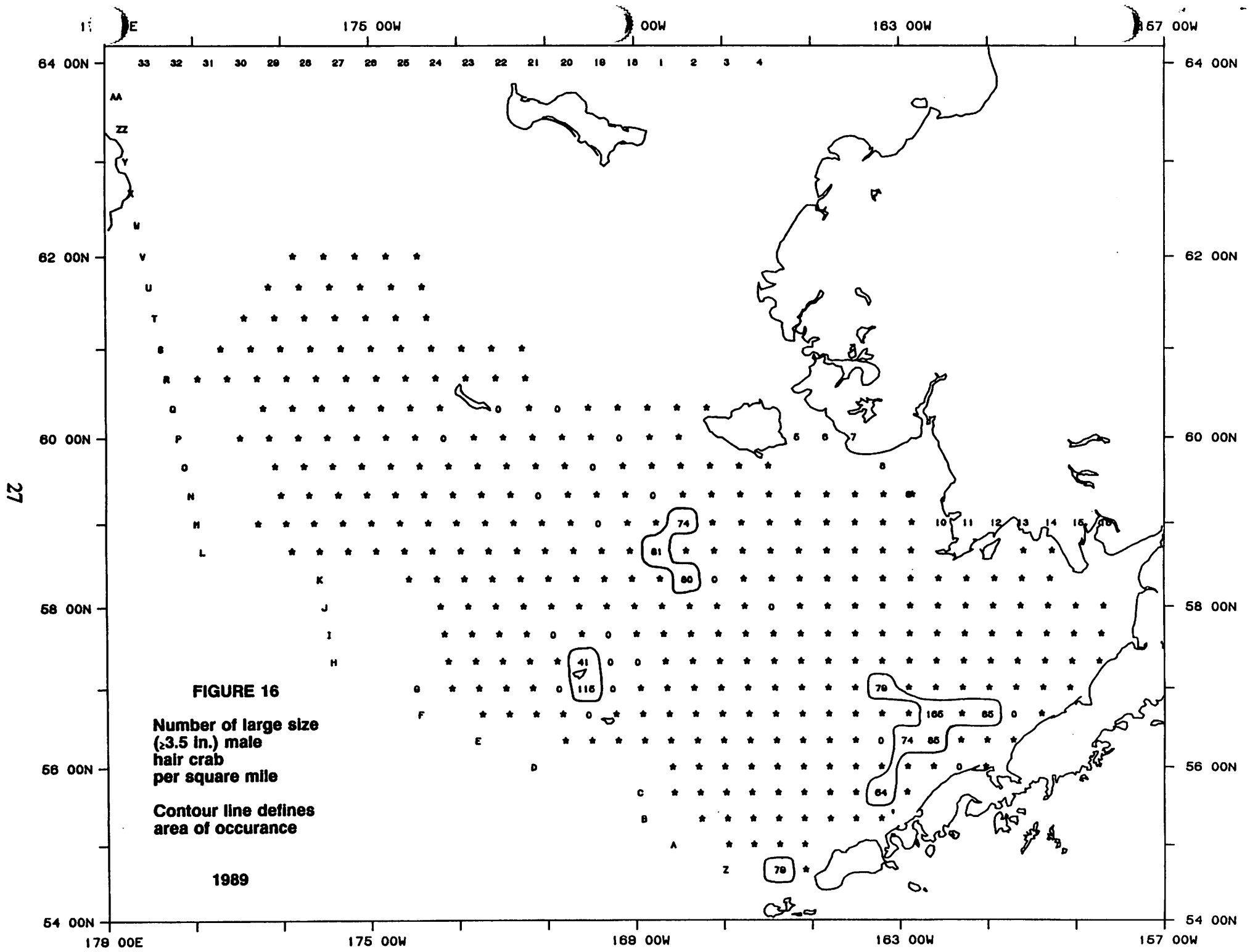


FIGURE 16

**Number of large size
(>3.5 in.) male
hair crab
per square mile**

**Contour line defines
area of occurrence**

1989

27

Hair Crab Length Frequency

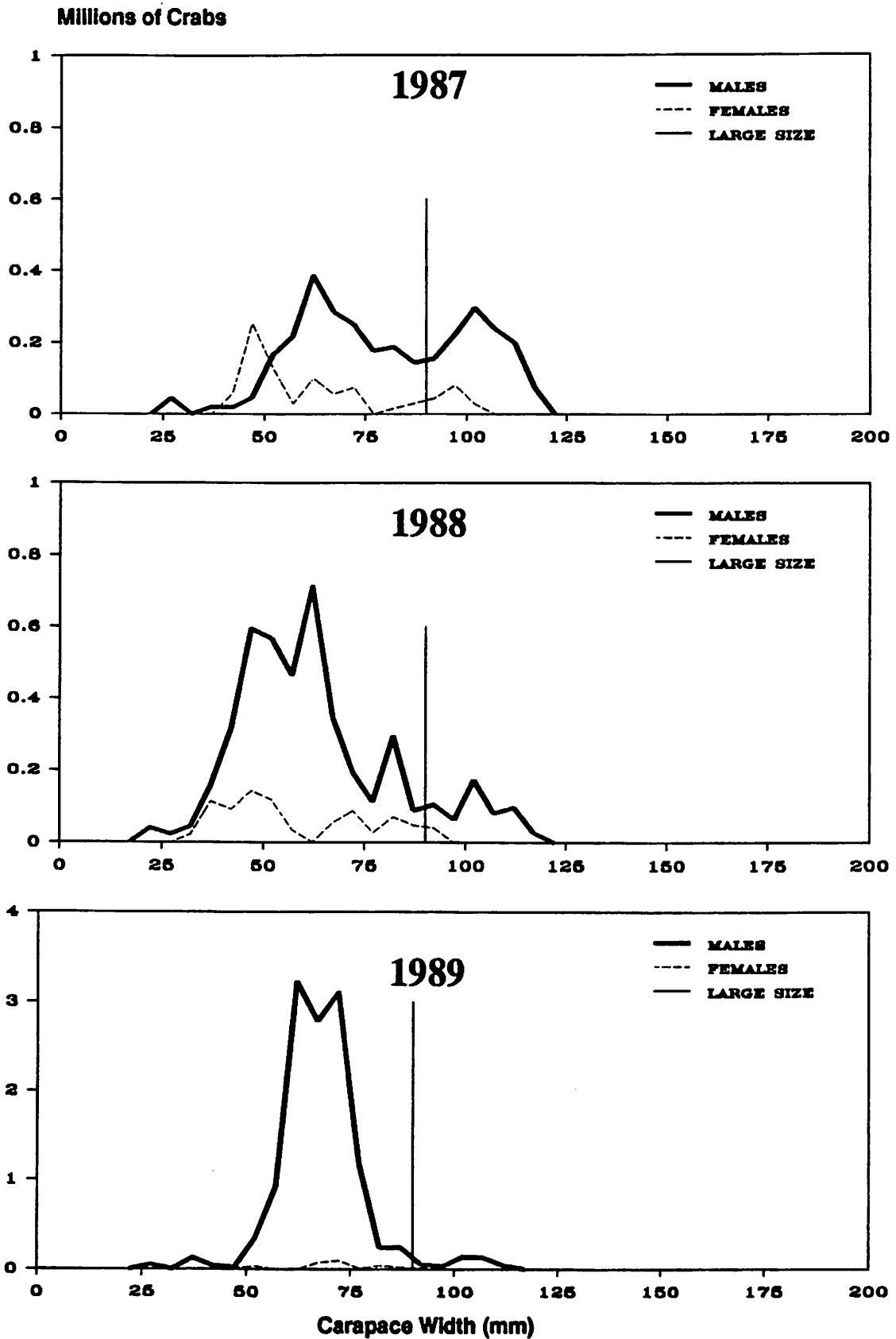


Figure 17. Estimates of abundance for hair crab (*E. isenbeckii*) by 5 mm width classes, 1987-1989. Vertical line indicates lower limit of large size group.

Hair crab, Erimacrus isenbeckii

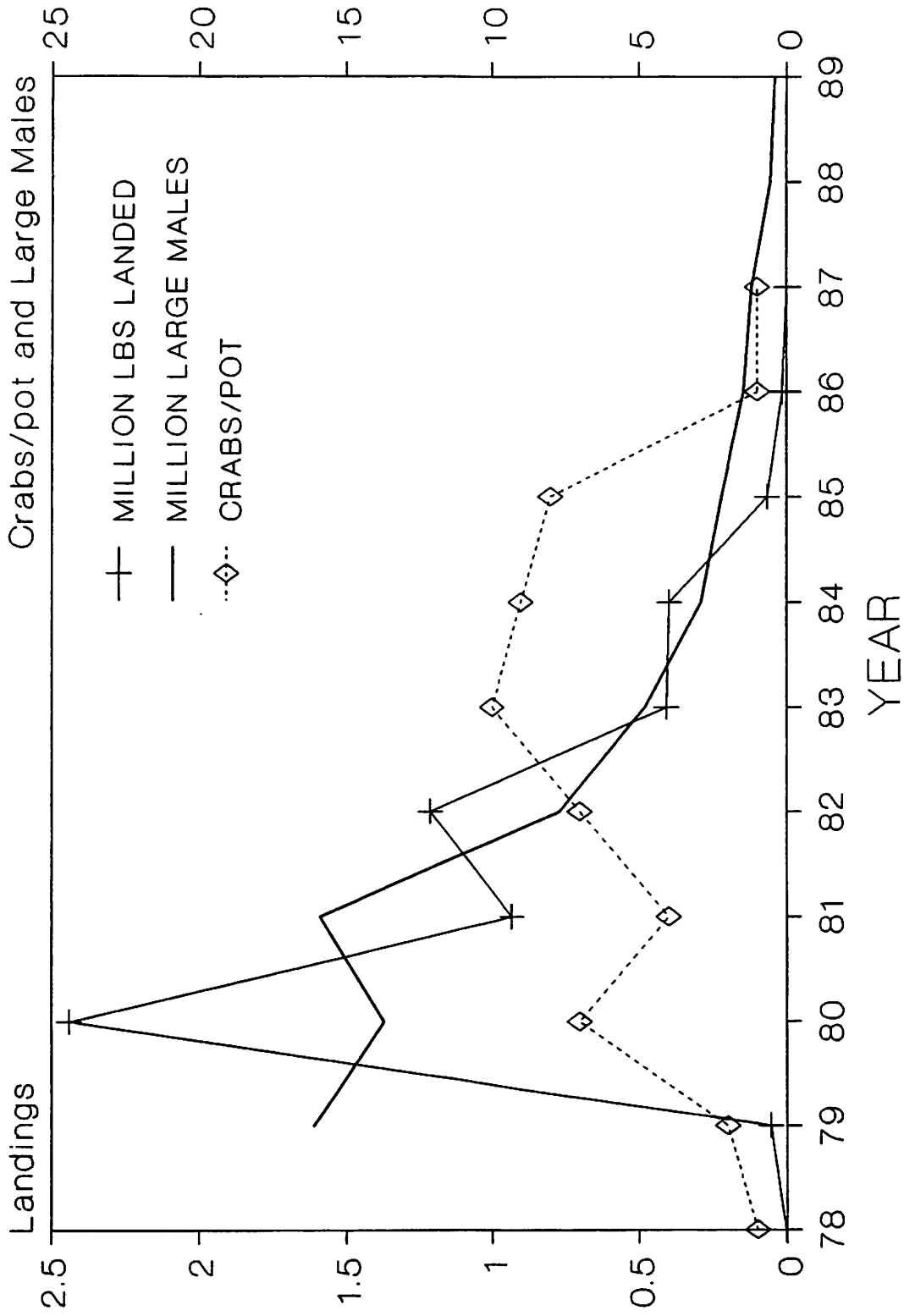


FIGURE 18. U.S. landings in millions of lbs, catch-per-unit-effort (CPUE) as crabs/pot, and the abundance of large male (≥ 90 mm cw) hair crab (E. isenbeckii) in millions (all Districts combined), estimated from the NMFS trawl surveys.

1. Significance was determined by the use of unpaired t-tests. Values of t greater than 2.0 were considered significant with probability less than 0.05.

2. Throughout this report, the term "large females" refers to those females larger than the median size at maturity, i.e., the size at which 50% are mature. A small number of females above this size may actually be immature, but the majority are mature crabs which should contribute to reproduction of the population.

3. Ken Griffin, ADF&G, P. O. Box 508, Dutch Harbor, AK 99692, pers. comm., September 1989.

4. Alaska Dept. Fish and Game, 1989. Westward Region shellfish report to the Alaska Board of Fisheries. ADF&G, Div. of Commercial Fisheries, Westward Regional Office, 211 Mission Rd., Kodiak, AK 99615, 325 p.

United Fishermen's Marketing Association, Inc.

P.O. Box 1035 Kodiak, Alaska 99615

Telephone 486-3453

TESTIMONY OF
JEFFREY R. STEPHAN
MANAGER, UNITED FISHERMEN'S MARKETING ASSOCIATION, INC.
BEFORE THE
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
ON
AGENDA ITEM C-8, INSHORE/OFFSHORE ISSUES
SEPTEMBER 27, 1989

MR. CHAIRMAN, MEMBERS OF THE COUNCIL, THANKYOU FOR THE OPPORTUNITY TO TESTIFY TO YOU TODAY.

MY NAME IS JEFFREY STEPHAN, AND I AM REPRESENTING THE UNITED FISHERMEN'S MARKETING ASSOCIATION OF KODIAK.

WE SUPPORT ALTERNATE PROPOSAL # 3A THAT RELATES TO AGENDA ITEM C-8, INSHORE/OFFSHORE ISSUES.

A. WE SUPPORT THIS PROPOSAL BECAUSE OF THE SEVERE SOCIAL AND ECONOMIC IMPACTS THAT WILL CONTINUE AS A RESULT OF THE U.S. FACTORY TRAWLER FLEET IF THEY ARE ALLOWED TO CONTINUE TO OPERATE IN THE GULF OF ALASKA AS THEY ARE NOW,

AND BECAUSE OF THE RESOURCE WASTE, AND THE ENVIRONMENTAL AND CONSERVATION CONSEQUENCES THAT WILL CONTINUE AS A RESULT OF THE U.S. FACTORY TRAWLER FLEET IF THEY ARE ALLOWED TO CONTINUE TO OPERATE IN THE GULF OF ALASKA AS THEY ARE NOW.

B. WE NOTE THAT MANY MAJOR FISHING NATIONS OF THE WORLD HAVE EITHER ELIMINATED OR SEVERELY RESTRICTED FACTORY TRAWLER OPERATIONS IN THEIR WATERS.

WE HOPE THAT THE TIME HAS COME FOR THE UNITED STATES TO BUILD ON THAT EXPERIENCE, AND TO ADDRESS A PROBLEM THAT CAN NO LONGER BE IGNORED.

C. WE NOTE THAT THOSE NATIONS WHO HAVE ELIMINATED OR RESTRICTED FACTORY TRAWLER OPERATIONS HAVE DONE SO FOR SOCIAL, ECONOMIC AND CONSERVATION-RELATED REASONS,

AND THEY DID SO BECAUSE OF RESOURCE DEPLETION AND CONSERVATION PROBLEMS THAT RESULTED FROM FACTORY TRAWLER OPERATIONS IN THEIR WATERS.

WE BELIEVE THAT MANY OF THOSE SAME SOCIAL, ECONOMIC AND RESOURCE AND CONSERVATION CONCERNS THAT LED TO THE RESTRICTION AND CURTAILMENT OF FACTORY TRAWLER OPERATIONS IN OTHER NATIONS ALSO APPLY TO THE U.S. FACTORY TRAWLER OPERATIONS IN THE GULF OF ALASKA AND THE BERING SEA.

D. WE NOTE THAT SEVERAL NEGATIVE SOCIAL, ECONOMIC AND CONSERVATION IMPACTS THAT WERE EVIDENT FROM FOREIGN FACTORY TRAWLER OPERATIONS IN U.S. WATERS PRIOR TO 1976 WERE CENTRAL TO THE MOTIVATION TO INSTITUTE A 200 MILE LIMIT IN U.S. WATERS.

...CONTINUED...

NPFMC Testimony, Inshore/Offshore (C-8), 9/27/89, Page 2

WE NOTE THAT AFTER THE INSTITUTION OF A 200 MILE LIMIT IN U.S. WATERS, WE WERE COMPELLED TO IMPOSE AN ELABORATE MANAGEMENT REGIME ON THOSE FOREIGN FACTORY TRAWLERS THAT OPERATED IN THE U.S. EEZ.

WE NOTE THAT THIS MANAGENT REGIME SOUGHT TO ADDRESS THE NEGATIVE SOCIAL, ECONOMIC AND RESOURCE CONSERVATION IMPACTS THAT WERE EVIDENT AS A RESULT OF FOREIGN FACTORY TRAWLER OPERATIONS IN THE U.S. EEZ.

THESE CONSERVATION ISSUES WERE THE BASIS UPON WHICH THE FOREIGN FISHERY REGULATIONS WERE DEVELOPED.

WE NOTE THAT MANY OF THOSE WHO NOW DEFEND THE PRESENT MODUS OPERANDI OF THE U.S. FACTORY TRAWLER FLEET WERE ALSO THE VERY PEOPLE WHO HELPED DEVELOP THE ARGUMENTS AND RATIONALE THAT IMPOSED RESTRICTIONS AND REGULATIONS ON THE FOREIGN FACTORY TRAWLER FLEET THAT OPERATED IN U.S. WATERS.

E. WE MAINTAIN THAT U.S. FACTORY TRAWLER OPERATIONS SHOULD BE TREATED AS A SEPARATE GEAR-TYPE FROM TRADITIONAL U.S. SHORE-BASED NON-FACTORY TRAWLERS.

FACTORY TRAWLERS ARE AS DIFFERENT FROM TRADITIONAL NON-FACTORY TRAWLERS AS LONGLINERS ARE DIFFERENT FROM TRADITIONAL NON-FACTORY TRAWLERS,

AND AS DIFFERENT AS BLACK COD LONGLINERS ARE DIFFERENT FROM BLACK COD POT-FISHING VESSELS IN THE GULF OF ALASKA.

F. U.S. FACTORY TRAWLER OPERATIONS ARE HAVING A SEVERE NEGATIVE IMPACT ON THE TRADITIONAL NON-FACTORY TRAWLERS, AND ON THE REST OF THE DOMESTIC FISHING INDUSTRY.

G. WE FEEL THAT U.S. FACTORY TRAWLER OPERATIONS ARE IMPROPERLY AFFECTING A FAIR AND EQUITABLE ALLOCATION OF THE GROUND FISH RESOURCE THAT WE HAVE A RIGHT TO,

AND THEY ARE AFFECTING THE INTELLIGENT CONSERVATION OF THE GROUND FISH AND OTHER RESOURCES THAT WE EXPECT, AND HAVE A RIGHT TO.

H. IN THE INTEREST OF TIME, I WILL LET SOME OF THE OTHERS DWELL ON THE ECONOMIC AND SOCIAL IMPACTS THAT U.S. FACTORY TRAWLER OPERATIONS IMPOSE ON THE REST OF THE U.S. FISHING INDUSTRY.

WE ARE, HOWEVER, VERY CONCERNED ABOUT THESE NEGATIVE SOCIAL AND ECONOMIC IMPACTS.

I. IN CONCLUSION, WE ASK THAT YOU CONSIDER HOW YOU WOULD REACT TO THE MANY NEGATIVE SOCIAL, ECONOMIC AND RESOURCE-DEPLETION IMPACTS THAT ARE IMPOSED ON THE REST OF THE U.S. FISHING INDUSTRY AND OTHERS BY THE U.S. FACTORY TRAWLER FLEET IF THESE U.S. FACTORY TRAWLERS WERE FLYING A JAPANESE, POLISH, KOREAN, TAIWANESE, SOVIET OR OTHER FOREIGN FLAG. THANKYOU.