MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 16, 1992

SUBJECT: North Pacific Fisheries Research Plan

ACTION REQUIRED

A. Review analysis of proposed Research Plan and consider releasing analysis for public review.

B. Establish Observer Oversight Committee.

C. Review proposed changes to existing Observer Program for 1993 and initiate regulatory amendment.

BACKGROUND

A. Review analysis and release for public review.

At the September 1991 meeting the Council voted to remand the draft North Pacific Fisheries Research Plan back to committee for further development. Specifically, the additions requested by the Council include: (1) spelling out levels of and justifications for observer coverage, (2) methods of data input and transfer, (3) a plan for coordination and compatibility between the groundfish and shellfish portions of the Plan, (4) detailed budgets for the state and federal portions of the Plan, (5) estimates of the funds available under the 1% fee cap, (6) identification of shortfalls and potential methods to cover these shortfalls, and (7) potential methods to cover the up-front funding needed to kick off the program.

The Council did not consider the Research Plan in December, but scheduled it for discussion in January. At the January meeting, the Council reviewed a Framework document for the Research Plan which identified the major provisions of the Plan. In previous meetings the Council had addressed specific provisions of the Plan. In January, the Council requested staff to more fully analyze these provisions and other options identified at that meeting.

Council, NMFS, and ADF&G staff have prepared an Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) for Council review at this time. The document, which was sent to you on April 15, contains the specific provisions of the Research Plan (and options within those provisions) including: objectives of the Research Plan; identification of the fisheries from which fees would be collected; determination of the fee percentage; timing of fee collection; discards and Donut Hole fisheries options; appropriate levels of observer coverage for the

Research Plan objectives; start-up funding alternatives; and, methods to cover potential funding shortfalls.

The Council needs to review this document and determine if it contains the information necessary to move forward with the Research Plan. With Council approval, the document would be sent out for a public review period between now and the June 1992 meeting, with final action scheduled for that meeting. Staff would like to summarize the following items from the analysis:

1. Inclusion of ADF&G shellfish observer program

The options remaining for this provision are: (1) assessing fees against all crab processors but not including the crab fisheries under the Plan; (2) assessing fees against those in the crab fisheries who do not now pay directly for observer coverage but not including the crab fisheries under the Plan; (3) collecting fees from all processors and incorporating the State of Alaska shellfish observer program within the Research Plan. Including the shellfish program within the Research Plan would generate an estimated $2.96 million in additional fees at an additional cost of $2.4 million.

2. Fee Assessment

Fees would be assessed at up to 1% of exvessel value to be determined prior to the start of the upcoming fishing year. Two options are outlined for this process: (1) Council would initially determine the fee percentage in June, send it out for public review, and take final action in September with recommendation from the Observer Oversight Committee; (2) same sequence as above except on a September/December cycle. Based on PacFIN data on catch and prices from 1991, it is estimated that the 1% fee, assessed on groundfish, crab, and halibut, would result in $8.82 million in funds available for the Observer Fund. Assessing the fee against discards may result in an additional $.71 million in collectable fees, though this is probably a high estimate.

3. Fee Collection

Fees, though assessed against both fishermen and processors, would be collected only from the processors. Payments would be due quarterly within 30 days of the end of the quarter. A federal permit may be required to process catches for FMP fisheries, and processors would apply on an annual basis for permit renewal. As part of the application process, processors may be required to show proof of fee payments from the previous year as well as proof that they have obtained a bond or letter of credit to cover anticipated fees for the upcoming year.

There are options for calculating the exvessel value of the processed fish against which the fee percentage will be applied. The actual exvessel value paid by each individual processor could be used, or the average exvessel value across all processors. For Category B processors, who process their own catch at sea, the latter option is required and would be based on the average exvessel price paid to Category A processors. Additionally, the options exist to calculate this exvessel value on an annual or quarterly basis. Advantages and disadvantages of each of these options are discussed in the analysis.

4. Levels of Observer Coverage

Appendix II contains an analysis of coverage levels required relative to the goals of the Research Plan. Current levels of observer coverage are adequate for TAC monitoring, but inadequate for reliable bycatch monitoring or for implementing the vessel incentive program. The vessel incentive

program will likely require up to 100% coverage of all vessels and 70-80% coverage will be required for reliable bycatch monitoring. For catch monitoring only, as little as 30% coverage may be adequate. Costs and tradeoffs associated with these various coverage levels are discussed in Section 2.3.4 of the analysis.

5. Transition Period

The Observer Fund established by the Research plan must have at least the equivalent of 6 months worth of fees on deposit before the Plan can be implemented. Options for accumulating this funding are: (1) Congressional appropriation of the necessary amount; (2) assess fees on those segments of the industry covered by the Research Plan who are not currently required to pay for and carry observers, while continuing the current Observer Program (it would take about two years to accumulate the necessary funds; or, (3) assess fees on all segments of the industry covered by the Plan while simultaneously continuing the existing Observer Program. Under this option, the necessary funds could be accumulated in about six months, but, it would require, in effect, 'double payment' by some segments of the industry. Under any option, the accounting difficulties associated with the cash flow and availability of funds must be kept in mind. With quarterly payments collected after the fact, there is a constant lag time between the funds collected and the coverage which these funds will support. Receipts will not match expenditures, adding to the necessity to have an adequate balance in the Observer Fund at all times. Fluctuating prices could add to these accounting difficulties.

6. Potential Shortfalls in Funding

Even under a Plan where the up-front funding requirements are provided, there still exists the potential for a cash shortfall at some point in time. Estimates from the analysis show that, under existing observer coverage levels, the anticipated revenues from the 1% fee would be just adequate to cover the costs of the Plan. This is summarized below (the detailed budgets for NMFS and ADF&G are contained in Appendix I of the document):

Estimated cost of the groundfish program	$7.337 million
Estimated cost of the shellfish program	$2.406
Total cost	$9.743
Less available federal funding	$1.350
Recoverable cost	$8.393
Estimated revenue from 1% fee	$8.820
Surplus (annual)	$ .427

Revised estimates project the cost per observer month in the groundfish fisheries to be $5,790 per month for 100% coverage vessels and $7,080 per month for 30% coverage vessels. That the monthly costs for 30% coverage are higher than for 100% coverage may seem counter-intuitive. The reason for this is that the per diem costs for 30% coverage observers are higher because these observers are required to spend more time in port as opposed to being deployed on vessels. This is exclusive of administrative and operational costs. Cost per observer month in the shellfish program is estimated to average $5,642.

If it becomes necessary to increase the levels of observer coverage beyond the existing levels, it is likely that the available funds under the 1% fee will be inadequate to cover the costs of the program. For example, if overall coverage levels in the groundfish program are increased to 80% (coverage which would be adequate for reliable bycatch monitoring and would approach that necessary for the vessel incentive program), the costs for the groundfish portion of the program would increase to

$9.442 million. It is assumed that the coverage levels in the shellfish program would remain at their current levels. Under this scenario, an annual shortfall of $1.714 million would result.

Methods to address the potential shortfall problem are detailed in the document and include: (1) have Congress increase the fee to greater than 1%; (2) increase the value of fisheries against which a 1% fee is applied (for example, up to first wholesale value; this option was rejected by the Council at the January 1992 meeting); (3) reduce levels of coverage to conform to available funds, and; (4) establish a supplemental program in conjunction with the Research Plan. Under a supplemental program, some or all segments of the industry would have to pay for observer coverage directly, as is currently done, in addition to paying the 1% fee under the Research Plan.

B. Establish Oversight Committee

The Research Plan provides for the establishment of an Observer Oversight Committee to provide advice to the Council and the Regional Director concerning general provisions of the Plan and to review the reports and budgets prepared by NMFS and ADF&G. The Chairman of the Council will appoint twelve members to the Committee to include: a Council member from each of the three states represented on the Council and nine industry representatives from the following groups: factory trawler, catcher trawler, shoreside processor, crabber, freezer-longliner, non-freezer-longliner, crab catcher processor, observers, and observer contractors. As the Research Plan goes out for a public review period, the Council could benefit from review by this Committee prior to taking final action at the June 1992 meeting.

C. Proposed Changes to Existing Observer Program for 1993

The National Marine Fisheries Service will identify proposed changes necessary to improve the existing Observer Program. It will be necessary to initiate a regulatory amendment at this meeting to implement these proposed changes for 1993. It appears unlikely that the Research Plan can be fully implemented by the start of 1993; these changes are considered necessary to correct deficiencies in the current program. NMFS staff will present the rationale for the proposals. Item C-4(a) is a letter from United Fishermen's Marketing Association regarding levels of observer coverage in the Pacific cod pot fisheries, and requesting a reduction from the current 30% levels down to 10%.

AGENDA C-4(a)
supplemental

United Fishermen's Marketing Association, Inc.

P.O. Box 1035 Kodiak, Alaska 99615

Telephone 486-3453

April 7, 1992

Mr Steve Pennoyer
Director, Alaska Region
National Marine Fisheries Service/NOAA
P O Box 21668
Juneau, Alaska 99802

SENT VIA FAX # 907-586-7131

Dear Steve,

We understand that at the upcoming April meeting of the North Pacific Fishery Management Council, the National Marine Fisheries Service will submit a package of proposed Regulatory Amendments to those Regulations that govern the Observer Plan in the Gulf of Alaska (50 CFR 672 27) and in the Bering Sea/Aleutian Islands (50 CFR 675 25)

We request that you include a Regulatory Amendment in this package of proposed Regulatory Amendments that would require a 10 percent level of observer coverage for catcher vessels that harvest pacific cod with pots. If you were to include our suggested change in the NMFS package of Regulatory Amendments, and if the Council were to adopt such a change, it is likely that the suggested reduction could become effective for the start of the 1993 fishery

During the approximately two years that the Observer Program has been in effect, a significant amount of data has been collected from catcher vessels that harvest p. cod with pots. This observer information has demonstrated that the pot fishery for p. cod is exceptionally clean from a bycatch standpoint. We believe that it is no longer necessary to impose the current regulatory requirement that these vessels must carry a NMFS certified observer during 30 percent of their days during fishing trips in each calendar quarter of the year in which they fish more than 10 days in the groundfish fishery. We do not believe that the current 30 percent level of coverage is necessary for statistical reliability in this fishery. We believe that the benefits of the observer information that are provided by the current 30 percent level for this vessel class do not justify the costs of the program that are incurred by the vessel, or the costs that are incurred by NMFS.

We believe that a 10 percent level of coverage in the pot fishery for p. cod is an appropriate level of coverage, and sufficient for statistical reliability. Our suggested reduction would relieve some of the pressure on the humen and financial resources that are so necessary for the collection and analysis of that data that is being collected in other fisheries. Additionally, we believe that a reduction of this sort is an incentive to all participants in the groundfish fishery to seek harvesting means and methods that reduce bycatch.

Thankyou for your consideration of our request

Sincerely,

Jeffrey R Stephan

copy Mr. Richard Lauber, Chairman, NPFMC
Mr Clarence Pautzke, Executive Director, NPFMC
UFMA Directors
UFMA Groundfish Committee

C-4 (a) Supplemental

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Alaska Fisheries Science Center
Resource Ecology and Fisheries
Management Division
7600 Sand Point Way Northeast
Bin C15700, Building 4
Seattle, Washington 98115-0070

April 20, 1992 F/AKC2:MWD

MEMORANDUM FOR: Richard Marasco, Russ Nelson

FROM: Martin Dorn

SUBJECT: Analysis of observer coverage levels for additional groundfish fisheries

Ren Narita and I have put together an analysis of three additional target fisheries using the procedures described in the draft document "An evaluation of observer coverage levels in Alaska groundfish fisheries." The attached figures and tables describe the effect of changes in the percent observer coverage on confidence intervals for the species composition of the catch. The following three fisheries were analyzed.

A. Bering sea longline cod fishery.

A vessel met this target criteria if it fished with longline gear and the weekly proportion of cod was greater than 45 percent. The data set used in the analysis was 121 observer vessel-weeks (primary sampling units) during weeks 22-30 of 1991. The total catch during this period was 14,539.92 mt. The level of sampling on longline vessels is higher than on trawl vessels. Seventy-nine percent of all sets made during this period were sampled (1,083 out of 1,369). Estimates of the total catch, and species composition for Pacific cod, sablefish, red rockfish, and halibut were investigated (Table 1, Figures 1-6).

B. Bering sea flatfish trawl fishery.

A vessel met this target criteria if it fished with trawl gear and its weekly catch of rock sole, yellowfin sole and other flatfish was greater than 40 percent. In addition, the catch of yellowfin sole and other flatfish had to be greater than the catch of rock sole. The data set used in the analysis was 144 observer vessel-weeks during weeks 19-24 of 1991. The total catch during this period was 41,793.16 mt. Fifty-four percent of the hauls were sampled (1,499 out of 2,797). Estimates of the total catch, and species composition for yellowfin sole, halibut, tanner crab, and king crab were investigated (Table 2, Figures 7-12).

C. Bering sea rock sole trawl fishery.

A vessel met this target criteria if it fished with trawl gear and its weekly catch of rock sole, yellowfin sole and other flatfish was greater than 40 percent. In addition, the catch of rock sole had to be greater than the catch of yellowfin sole and other flatfish. The data set used in the analysis was 120 observer vessel-weeks during weeks 0-22 of 1991. The total catch during this period was 59,281.07 mt. Thirty-seven percent of the hauls were sampled (1,313 out of 3,658). Estimates of total catch, and species composition for yellowfin sole, halibut, tanner crab, and king crab were investigated (Table 3, Figures 13-18).

Table 1. Species composition and bootstrap estimates of 90 percent confidence intervals for the Bering sea longline cod fishery for different levels of observer coverage. The coefficient of variation is the standard deviation divided by estimate. The percent error of the 90% confidence interval is calculated by 1/2(90% *upper b.* - 90% *lower b.*)/(*est.prop.*) x 100.

A. Pacific cod (proportion by weight)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.8018	0.8002	0.0377	0.7475	0.8497	6.4
20	0.7789	0.7787	0.0237	0.7476	0.8084	3.9
30	0.8065	0.8056	0.0185	0.7806	0.8290	3.0
40	0.7914	0.7921	0.0161	0.7706	0.8122	2.6
50	0.8192	0.8191	0.0094	0.8059	0.8312	1.5
60	0.7907	0.7908	0.0076	0.7808	0.8002	1.2
70	0.8076	0.8076	0.0071	0.7977	0.8164	1.2
80	0.8022	0.8021	0.0061	0.7942	0.8100	1.0
90	0.7992	0.7990	0.0044	0.7930	0.8048	0.7
100	0.8007	0.8007	0.0020	0.7981	0.8033	0.3

B. Sablefish (kg per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.0000	0.0000	---	0.0000	0.0000	---
20	2.0019	1.9951	0.9050	0.1533	5.4129	131.4
30	1.5362	1.5508	0.8602	0.2086	4.2193	130.5
40	1.4888	1.5238	0.5758	0.4260	3.0769	89.0
50	0.9724	0.9859	0.7102	0.2639	2.3250	106.0
60	0.4086	0.4064	0.4085	0.1573	0.7206	68.9
70	0.0127	0.0128	0.3134	0.0071	0.0200	50.9
80	0.8781	0.8762	0.3309	0.5181	1.4187	51.3
90	0.7663	0.7600	0.2329	0.5329	1.1020	37.1
100	0.6912	0.6950	0.0902	0.5930	0.8032	15.2

C. Red rockfish (kg per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	3.0855	3.2501	1.1195	0.0219	9.6632	156.2
20	1.4531	1.4479	0.7292	0.2093	3.4202	110.5
30	1.9102	1.9333	0.5723	0.3399	3.8185	91.1
40	1.4972	1.5301	0.4843	0.5098	2.8515	78.2
50	1.3147	1.3130	0.4573	0.4771	2.3820	72.4
60	0.7906	0.7961	0.4136	0.3965	1.4255	65.1
70	0.5049	0.5076	0.4492	0.2558	0.9442	68.2
80	0.9767	0.9679	0.2449	0.6400	1.4195	39.9
90	0.8689	0.8702	0.1994	0.6419	1.2006	32.1
100	0.7938	0.7938	0.1160	0.6610	0.9609	18.9

D. Halibut (kg per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	48.4850	49.5487	0.2004	36.2738	67.6943	32.4
20	41.4095	41.3057	0.1875	29.5304	54.8397	30.6
30	41.4891	41.6499	0.1572	32.1456	53.5165	25.8
40	48.0301	48.0387	0.1286	38.6900	58.8018	20.9
50	38.5324	38.5049	0.1031	32.4530	45.5455	17.0
60	44.0265	43.9597	0.0678	39.2380	48.9076	11.0
70	42.0535	41.9889	0.0631	37.7603	46.6791	10.6
80	47.3331	47.3582	0.0498	43.6762	51.5373	8.3
90	45.6617	45.7506	0.0374	43.1356	48.8038	6.2
100	44.4177	44.3645	0.0161	43.2474	45.5872	2.6

Table 2. Species composition and bootstrap estimates of 90 percent confidence intervals for the Bering sea flatfish trawl fishery for different levels of observer coverage. The coefficient of variation is the standard deviation divided by estimate. The percent error of the 90% confidence interval is calculated by 1/2(90% *upper b.* - 90% *lower b.*)/(*est.prop.*) x 100.

A. Yellowfin sole (proportion by weight)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.7173	0.7175	0.0968	0.5912	0.8262	16.4
20	0.7616	0.7594	0.0532	0.6871	0.8219	8.8
30	0.7626	0.7657	0.0372	0.7195	0.8157	6.3
40	0.7507	0.7529	0.0325	0.7110	0.7923	5.4
50	0.7801	0.7795	0.0197	0.7537	0.8042	3.2
60	0.7739	0.7737	0.0202	0.7469	0.7976	3.3
70	0.7824	0.7819	0.0152	0.7615	0.8011	2.5
80	0.7754	0.7754	0.0122	0.7599	0.7899	1.9
90	0.7705	0.7702	0.0096	0.7581	0.7821	1.6
100	0.7675	0.7676	0.0057	0.7606	0.7746	0.9

B. Halibut (kg per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	2.6320	2.6545	0.3852	1.2138	4.4913	62.3
20	2.2386	2.2984	0.3999	1.1426	3.9791	63.4
30	2.4355	2.4413	0.2872	1.4638	3.7367	46.7
40	2.2005	2.1941	0.2261	1.5150	3.1530	37.2
50	2.1411	2.1543	0.1585	1.6541	2.7680	26.0
60	1.9952	2.0105	0.1504	1.5619	2.5399	24.5
70	2.2460	2.2547	0.1207	1.8554	2.7404	19.7
80	2.5478	2.5462	0.0918	2.1877	2.9673	15.3
90	2.2292	2.2365	0.0780	1.9745	2.5443	12.8
100	2.2740	2.2745	0.0483	2.0922	2.4628	8.1

C. Tanner crab (all species) (no. per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	22.3771	22.7090	0.5065	7.3360	42.7373	79.1
20	12.5140	12.9417	0.4535	4.6442	23.2584	74.4
30	5.0899	5.1784	0.4162	2.0764	8.9814	67.8
40	10.1282	10.2448	0.2987	5.9852	15.6546	47.7
50	10.6631	10.7141	0.2785	6.4674	15.9256	44.4
60	13.2402	13.2621	0.1825	9.5774	17.5114	30.0
70	8.4882	8.5295	0.1862	6.2839	11.4231	30.3
80	14.9013	15.0792	0.1287	12.2030	18.3984	20.8
90	10.4016	10.4607	0.1259	8.5824	12.7557	20.1
100	11.6108	11.6031	0.0840	9.9855	13.2522	14.1

D. King crab (no. per metric ton of groundfish catch)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.4123	0.3860	0.5472	0.0238	0.7602	89.3
20	0.2912	0.3018	0.5321	0.0702	0.5860	88.6
30	0.3490	0.3375	0.3577	0.1462	0.5536	58.4
40	0.2562	0.2503	0.3342	0.1245	0.4005	53.9
50	0.2300	0.2294	0.2125	0.1574	0.3127	33.8
60	0.1489	0.1482	0.2305	0.0971	0.2082	37.3
70	0.3046	0.3066	0.1858	0.2242	0.4153	31.4
80	0.2157	0.2169	0.1806	0.1628	0.2919	29.9
90	0.2699	0.2704	0.1316	0.2229	0.3323	20.3
100	0.2691	0.2703	0.1031	0.2280	0.3218	17.4

Table 3. Species composition and bootstrap estimates of 90 percent confidence intervals for the Bering sea rock sole trawl fishery for different levels of observer coverage. The coefficient of variation is the standard deviation divided by estimate. The percent error of the 90% confidence interval is calculated by 1/2(90% *upper b.* - 90% *lower b.*)/(*est.prop.*) x 100.

A. Rock sole (proportion by weight)

Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.4702	0.4700	0.0536	0.4276	0.5106	8.8
20	0.5147	0.5129	0.0493	0.4704	0.5523	7.9
30	0.4728	0.4718	0.0570	0.4273	0.5148	9.3
40	0.4817	0.4810	0.0350	0.4541	0.5080	5.6
50	0.4574	0.4575	0.0330	0.4329	0.4836	5.5
60	0.4672	0.4675	0.0280	0.4471	0.4890	4.5
70	0.4699	0.4700	0.0229	0.4524	0.4882	3.8
80	0.4683	0.4690	0.0182	0.4552	0.4839	3.1
90	0.4808	0.4809	0.0172	0.4678	0.4956	2.9
100	0.4781	0.4781	0.0127	0.4683	0.4880	2.1

B. Halibut (kg per metric ton of groundfish catch)

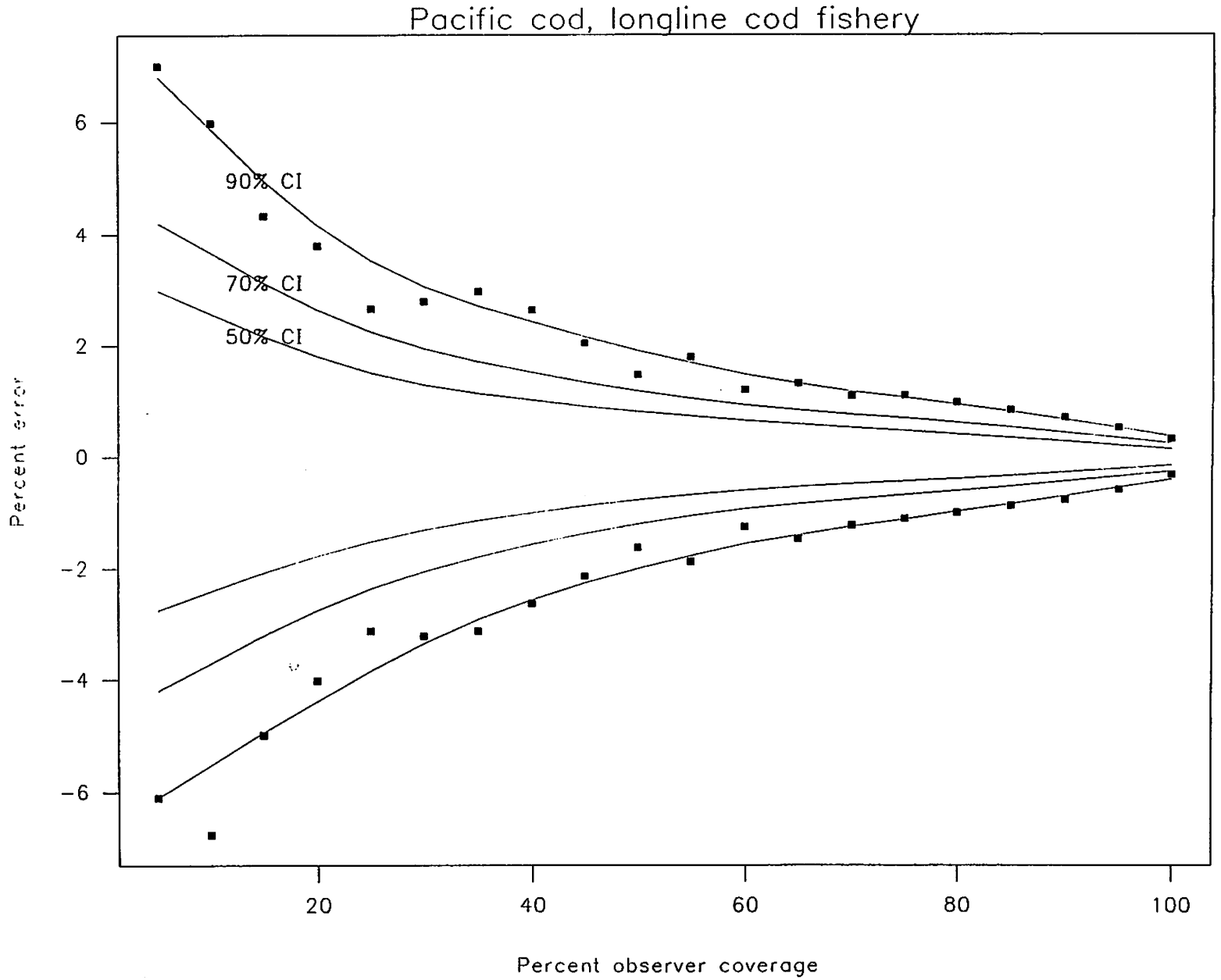
Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	17.9406	18.0978	0.2330	11.7811	25.3803	37.9
20	13.8560	13.8843	0.1080	11.4828	16.4538	17.9
30	15.2028	15.2169	0.1372	11.9318	18.7918	22.6
40	15.1036	15.1317	0.0862	13.1773	17.3891	13.9
50	15.2428	15.2777	0.0700	13.5702	17.1153	11.6
60	15.2340	15.2271	0.0657	13.6317	16.9329	10.8
70	13.9405	13.9449	0.0458	12.8812	14.9645	7.5
80	15.1111	15.1233	0.0464	13.9859	16.3266	7.7
90	15.5184	15.5080	0.0383	14.5759	16.4879	6.2
100	15.1311	15.1008	0.0265	14.4453	15.7630	4.4

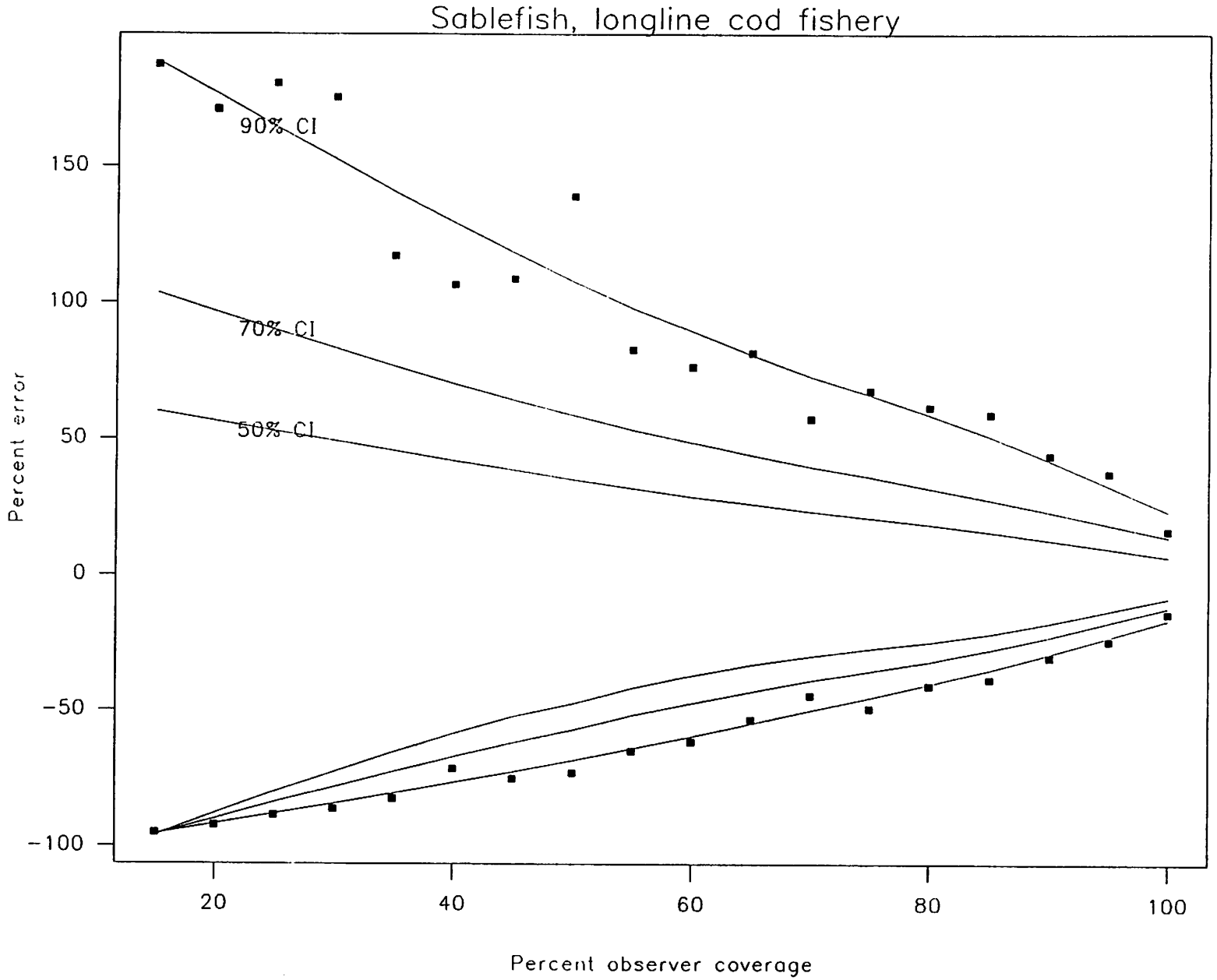
C. Tanner crab (all species) (no. per metric ton of groundfish catch)

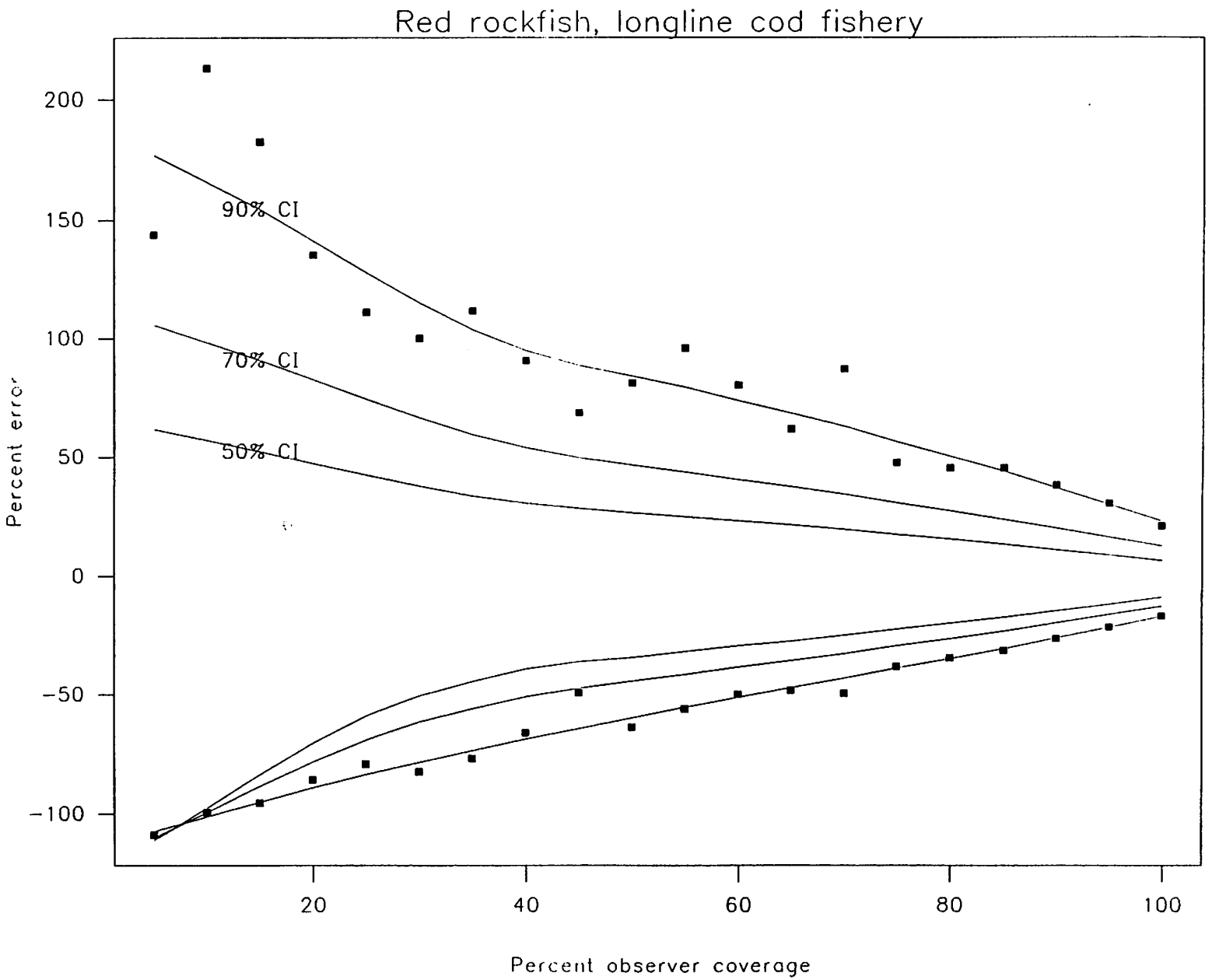
Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	19.9542	19.7415	0.4309	7.4338	35.7459	70.9
20	19.9779	19.9642	0.2970	11.9405	31.1815	48.2
30	20.0736	20.2905	0.2614	13.0175	29.7712	41.7
40	16.4879	16.5338	0.1506	12.7933	21.0431	25.0
50	47.6585	48.1539	0.6908	29.9600	73.2161	45.4
60	40.9413	40.4771	0.2299	28.3696	57.9793	36.2
70	34.4350	34.4846	0.2207	24.6192	48.9065	35.3
80	30.5234	30.4856	0.1906	23.2757	42.1695	30.9
90	33.1611	32.9396	0.1317	27.7042	41.7565	21.2
100	32.0577	32.0213	0.0899	27.6989	37.0916	14.6

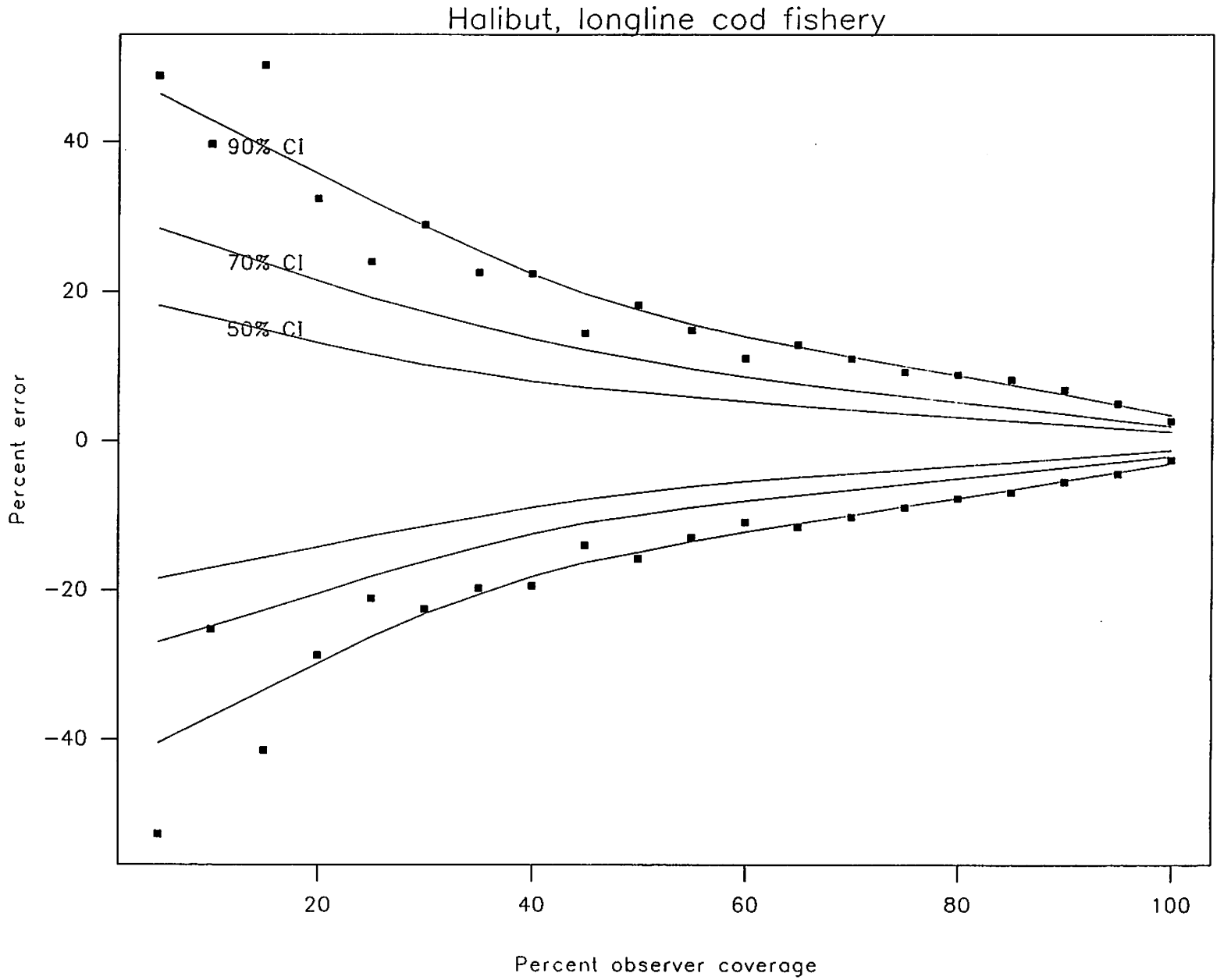
D. King crab (no. per metric ton of groundfish catch)

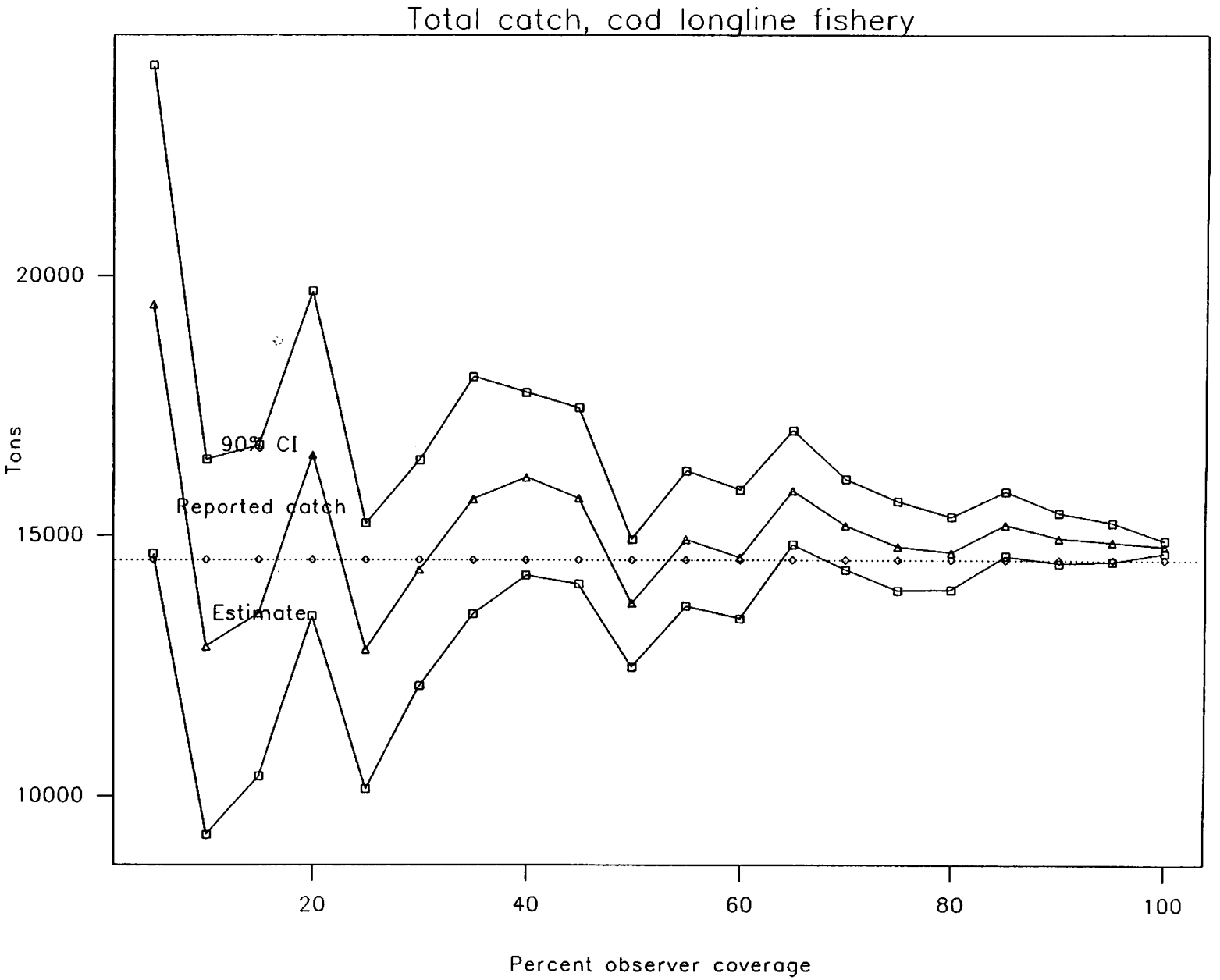
Percent of vessels	Estimate	Bootstrap mean	CV	90% CI Lower	90% CI Upper	Pcnt. err.
10	0.6232	0.6429	0.5244	0.2035	1.2271	82.1
20	1.3651	1.3773	0.3360	0.7388	2.2249	54.4
30	0.7390	0.7339	0.2841	0.4269	1.1051	45.9
40	1.5151	1.5170	0.2439	0.9810	2.1722	39.3
50	1.2210	1.2093	0.1744	0.8820	1.5838	28.7
60	1.3597	1.3784	0.1946	0.9982	1.8610	31.7
70	1.0461	1.0386	0.1245	0.8383	1.2705	20.7
80	1.2161	1.2138	0.1443	0.9681	1.5544	24.1
90	1.1720	1.1738	0.1283	0.9588	1.4513	21.0
100	1.1731	1.1772	0.1096	0.9886	1.3975	17.4

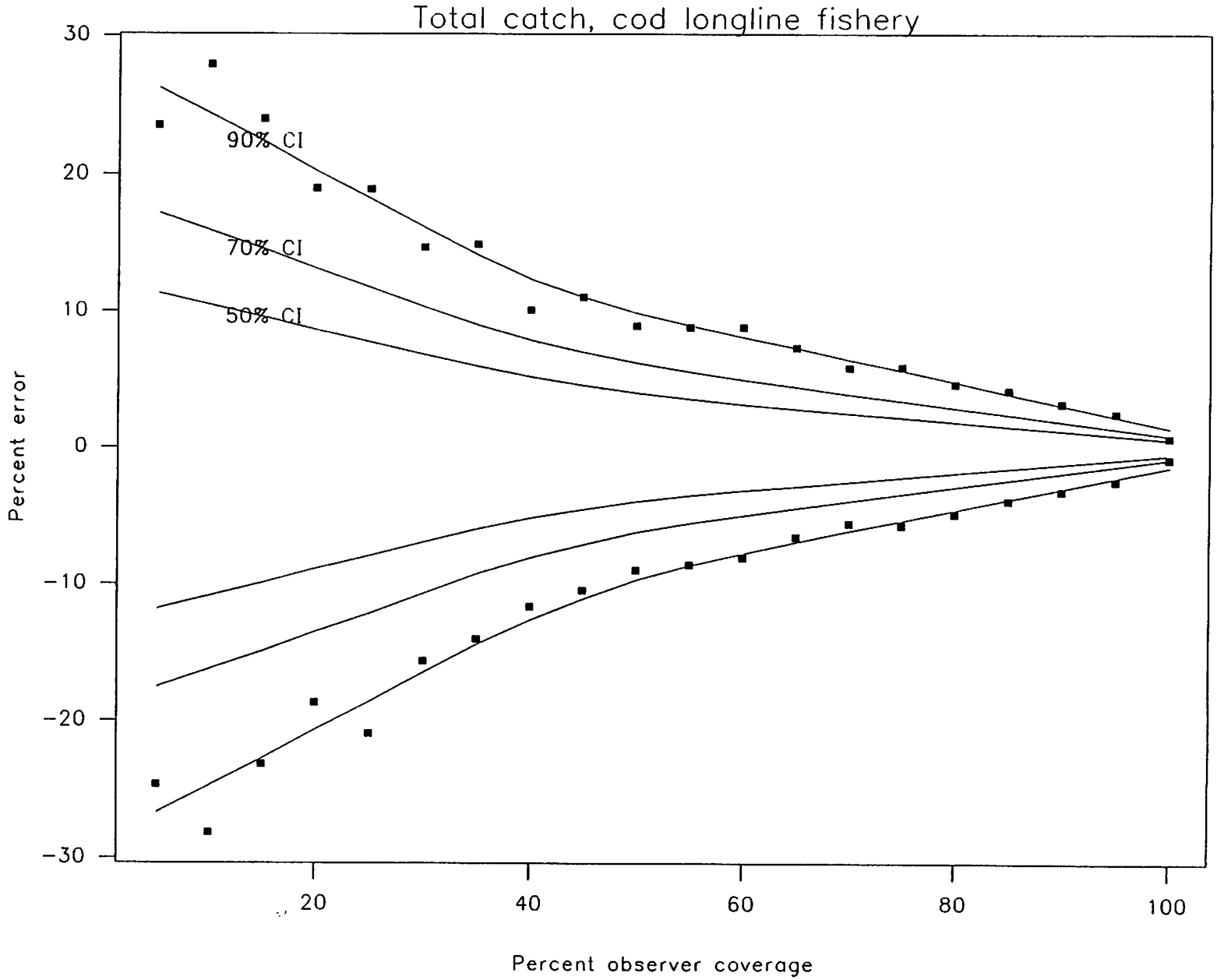

Pacific cod, longline cod fishery
90% CI
70% CI
50% CI
Percent error
6
4
2
0
−2
−4
−6
20
40
60
80
100
Percent observer coverage

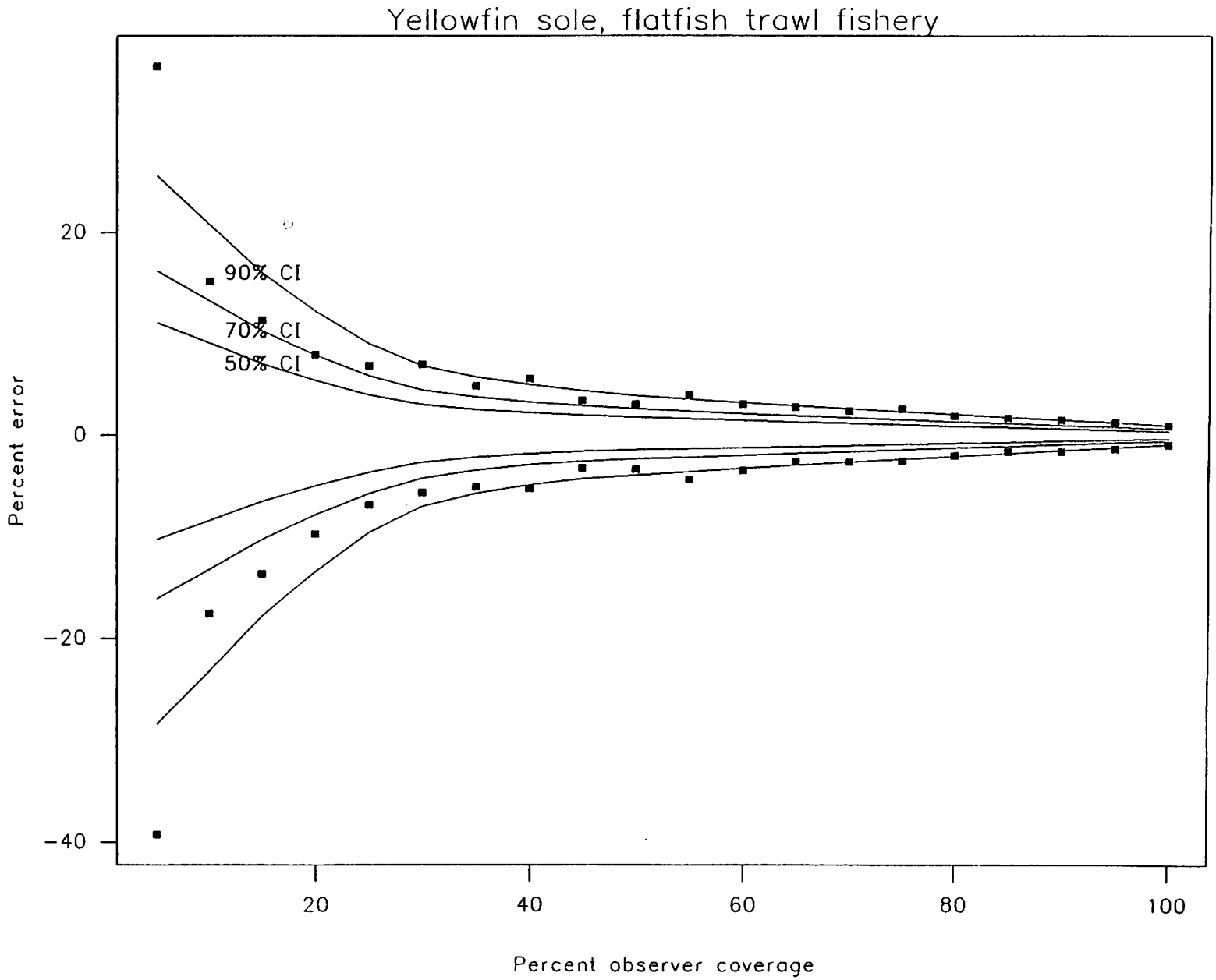

Sablefish, longline cod fishery
90% CI
70% CI
50% CI
150
100
50
0
−50
−100
Percent error
20
40
60
80
100
Percent observer coverage

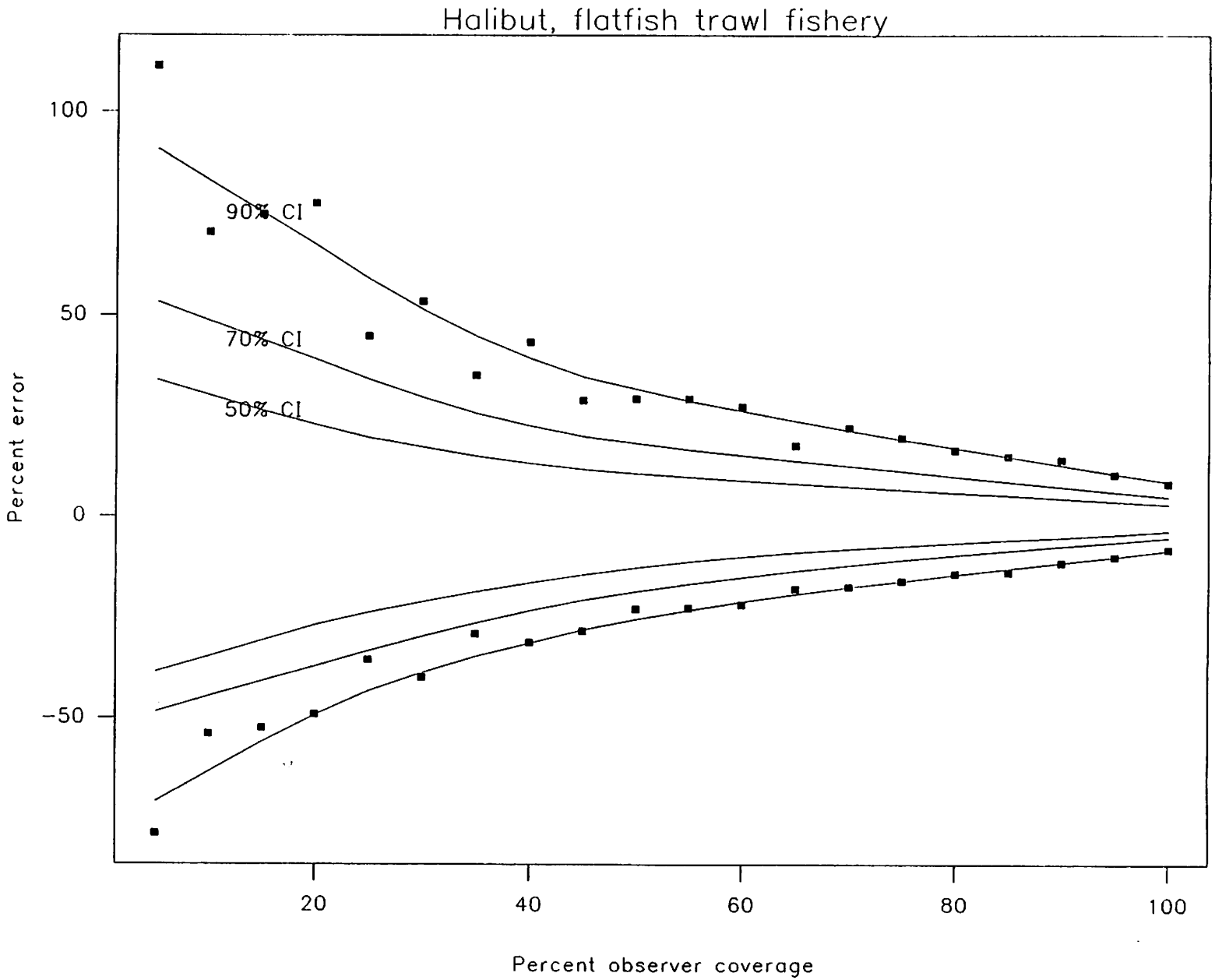

Red rockfish, longline cod fishery
Percent error
200
150
100
50
0
−50
−100
90% CI
70% CI
50% CI
20
40
60
80
100
Percent observer coverage

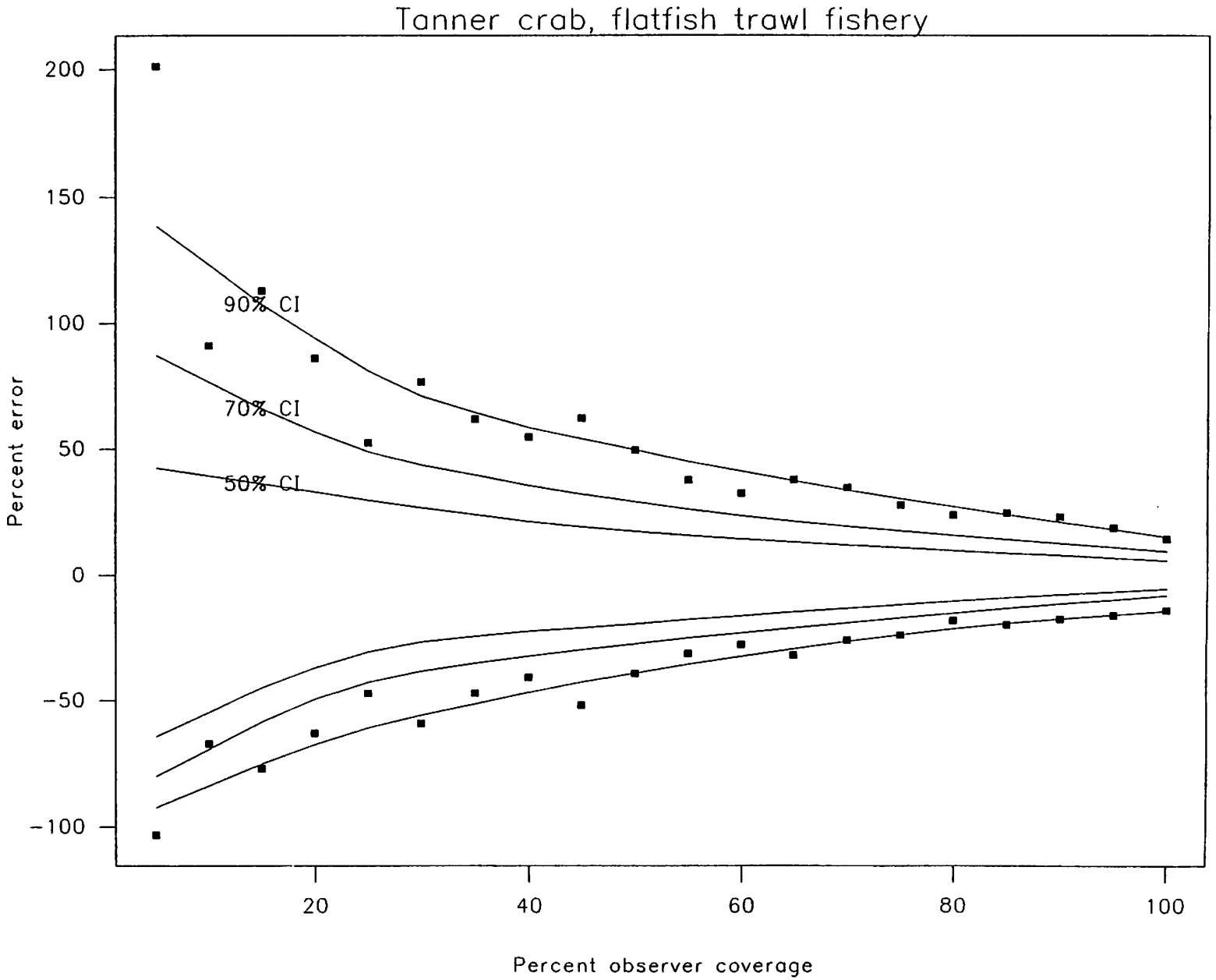

Halibut, longline cod fishery
90% CI
70% CI
50% CI
Percent error
40
20
0
-20
-40
20
40
60
80
100
Percent observer coverage

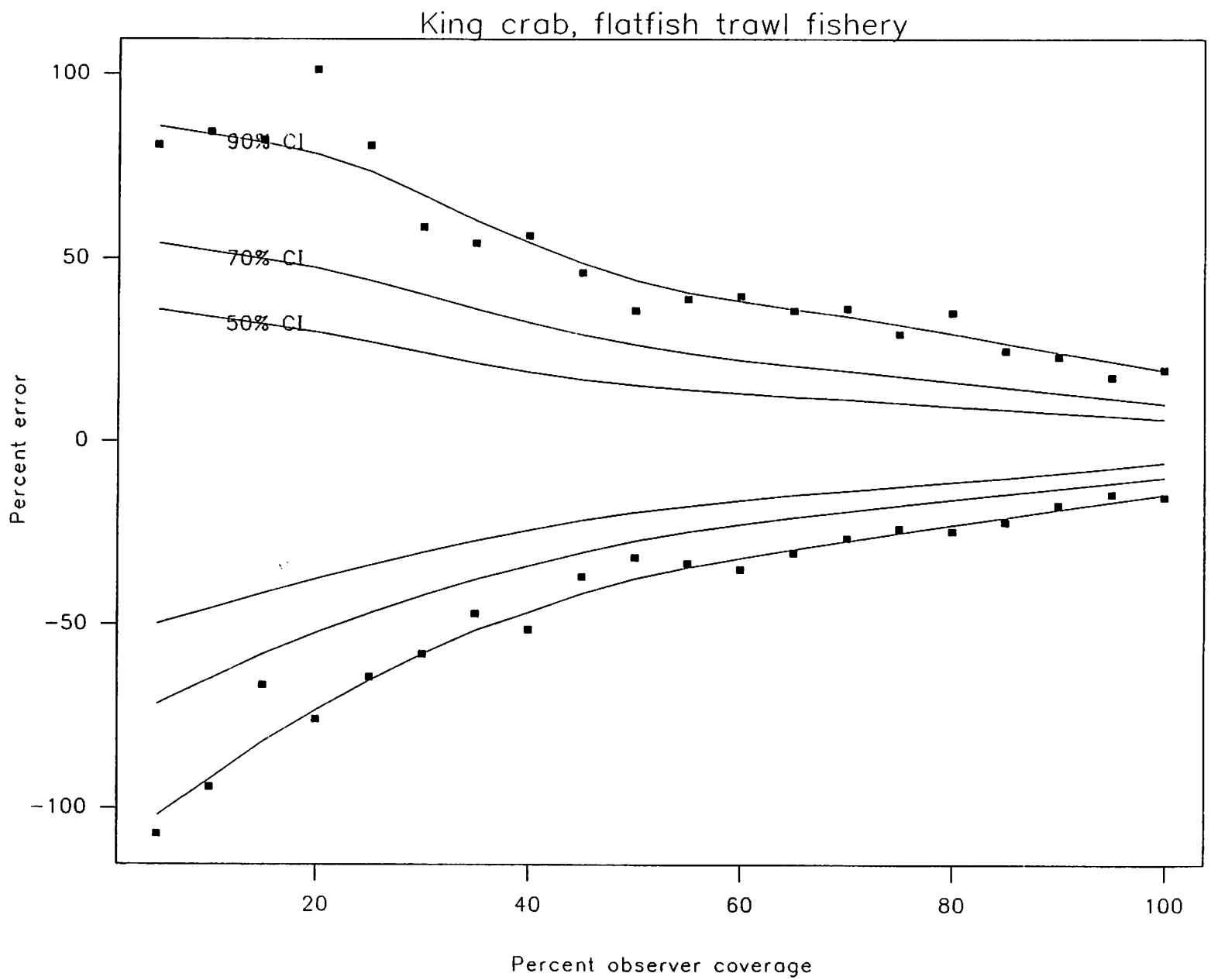

Total catch, cod longline fishery
20000
15000
10000
Tons
90% CI
Reported catch
Estimated
20
40
60
80
100
Percent observer coverage

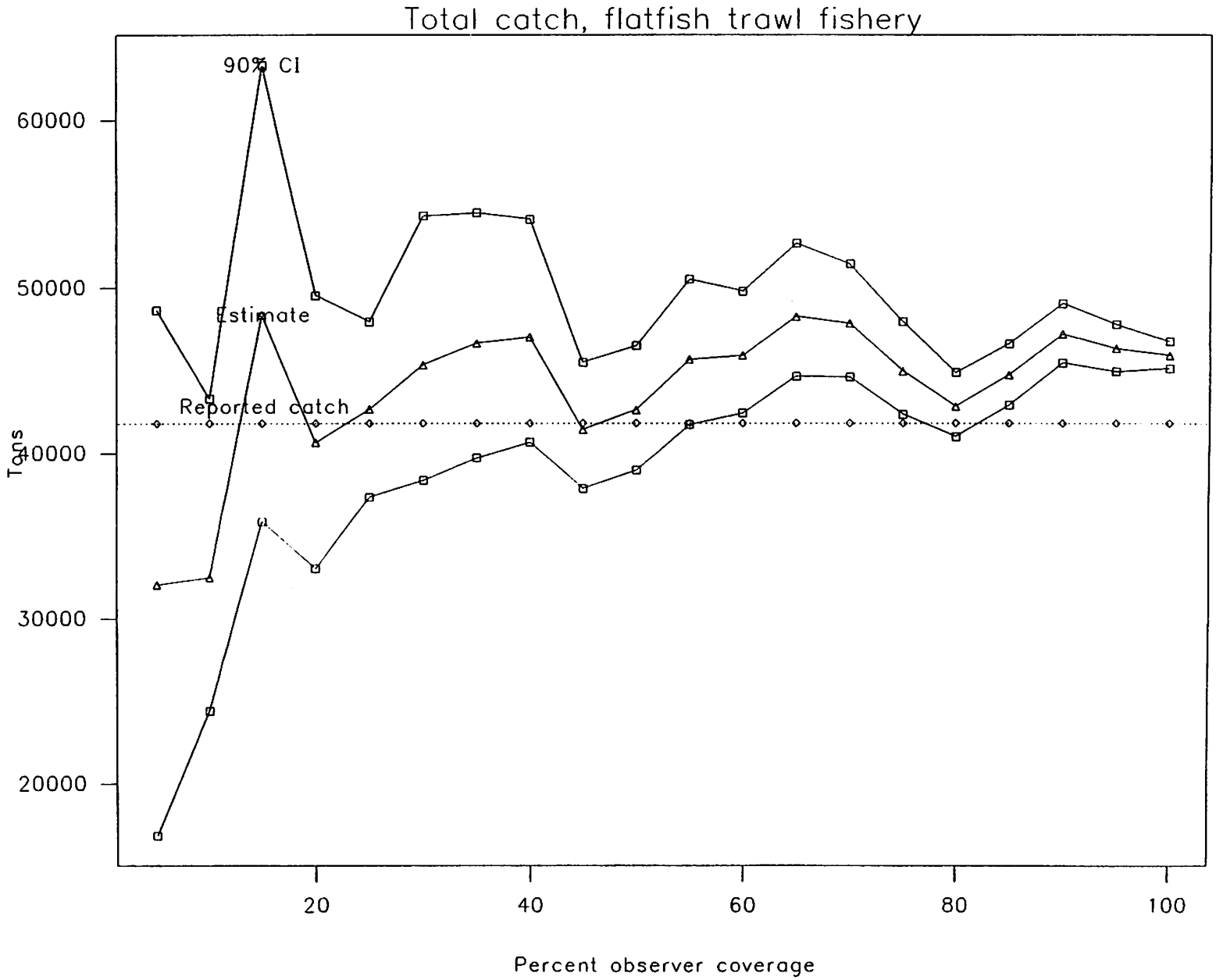

Total catch, cod longline fishery
90% CI
70% CI
50% CI
Percent error
30
20
10
0
−10
−20
−30
20
40
60
80
100
Percent observer coverage

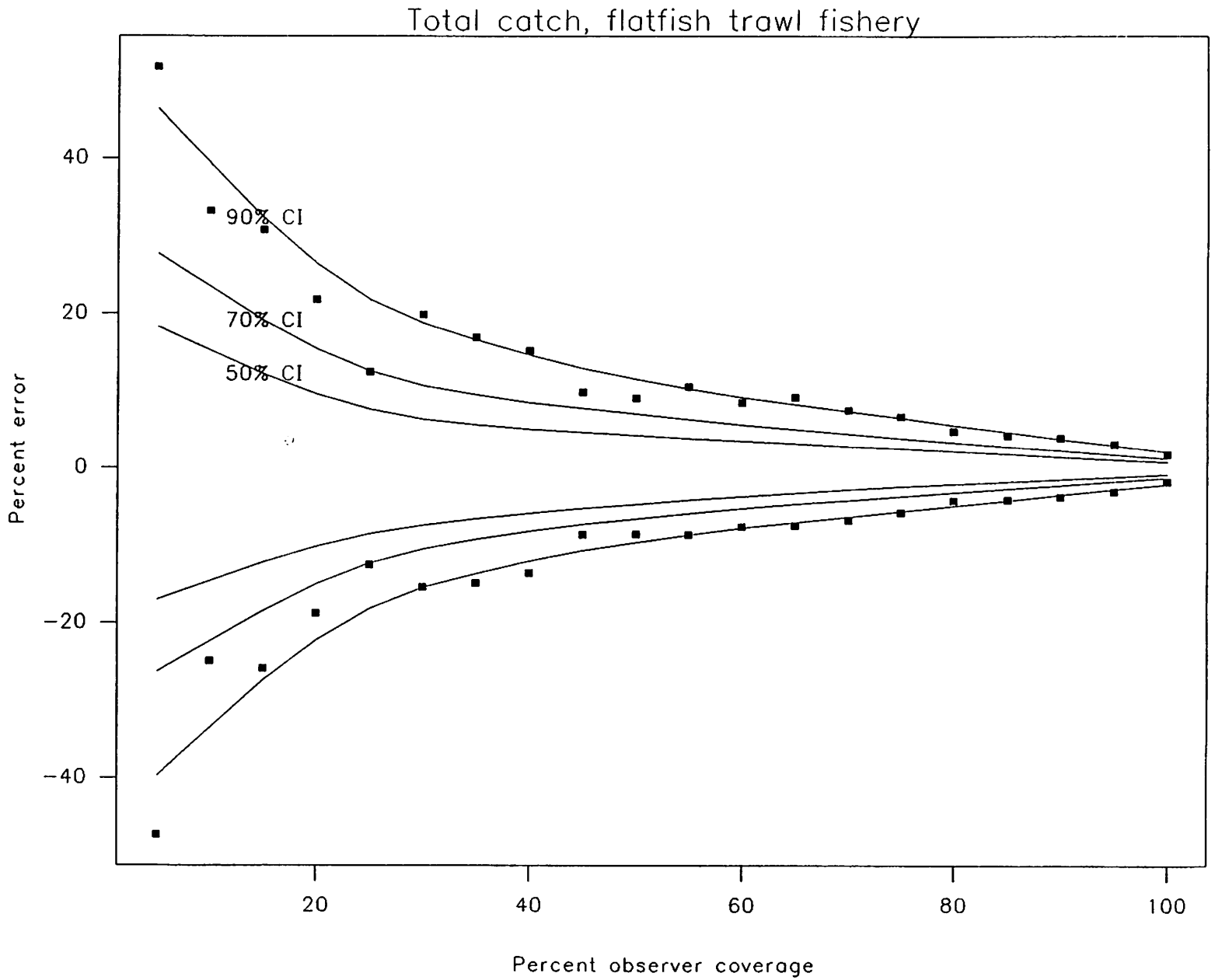

Yellowfin sole, flatfish trawl fishery
90% CI
70% CI
50% CI
20
0
−20
−40
Percent error
20
40
60
80
100
Percent observer coverage

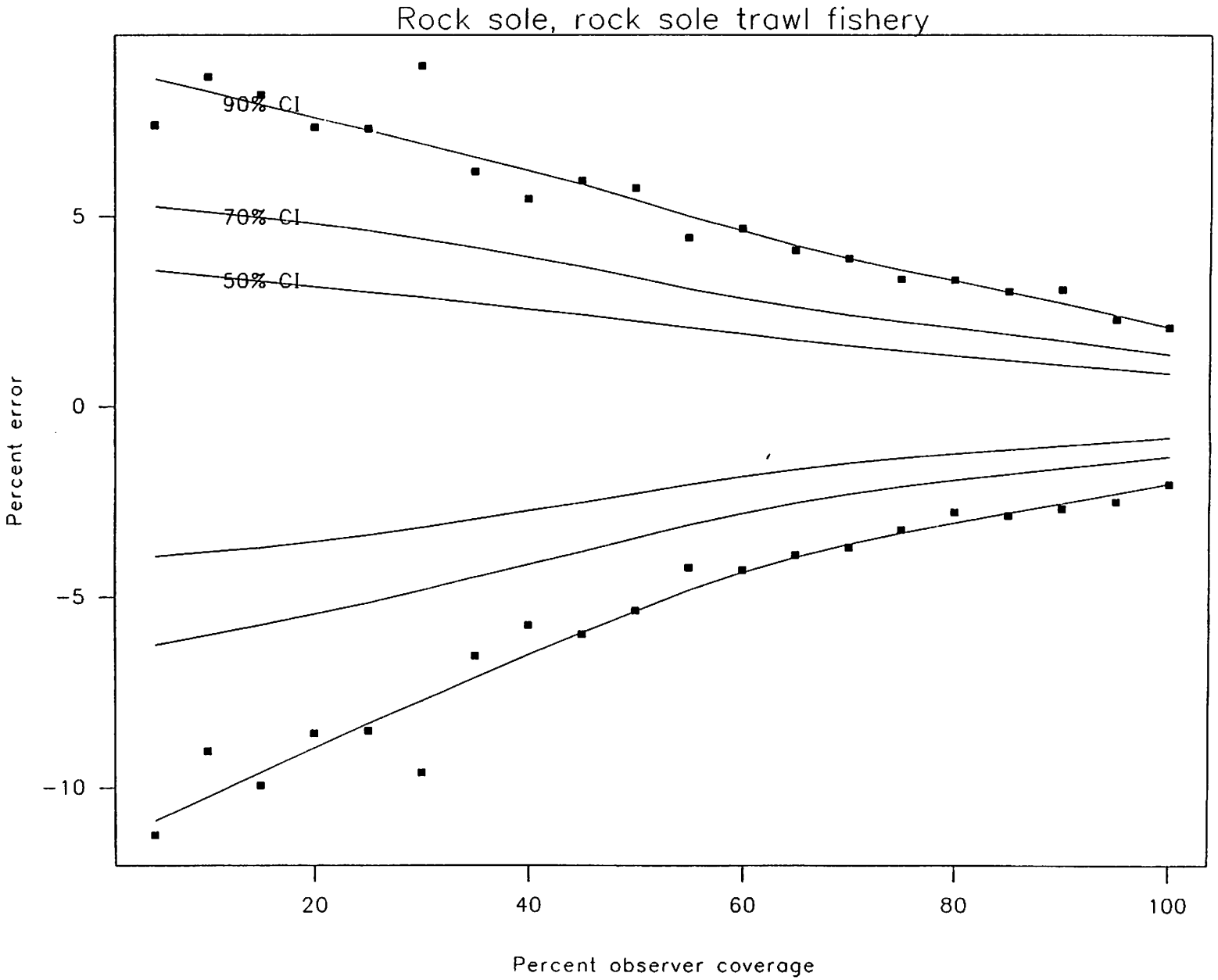

Halibut, flatfish trawl fishery
100
50
0
−50
90% CI
70% CI
50% CI
Percent error
20
40
60
80
100
Percent observer coverage

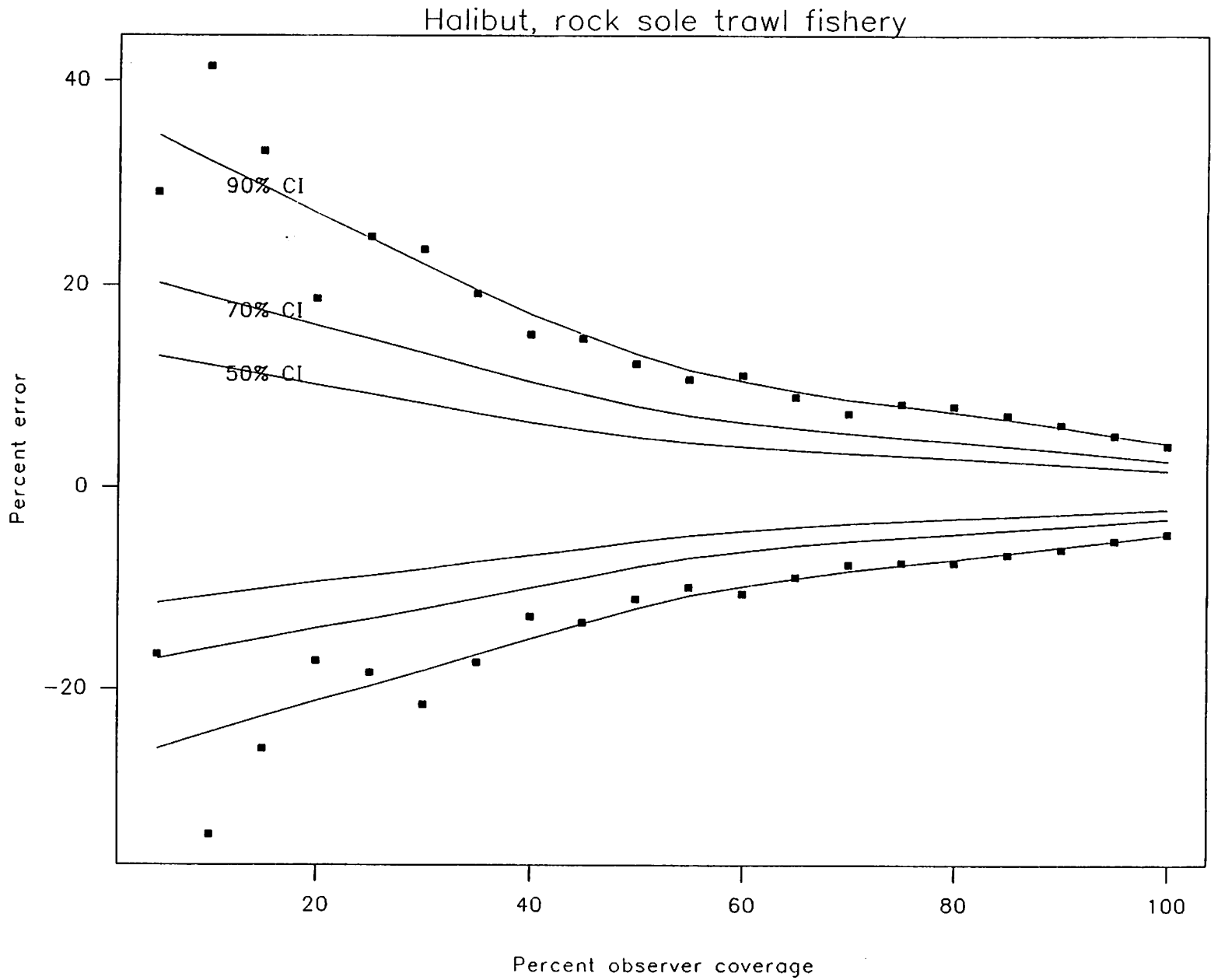

Tanner crab, flatfish trawl fishery
200
150
100
50
0
−50
−100
Percent error
90% CI
70% CI
50% CI
20
40
60
80
100
Percent observer coverage

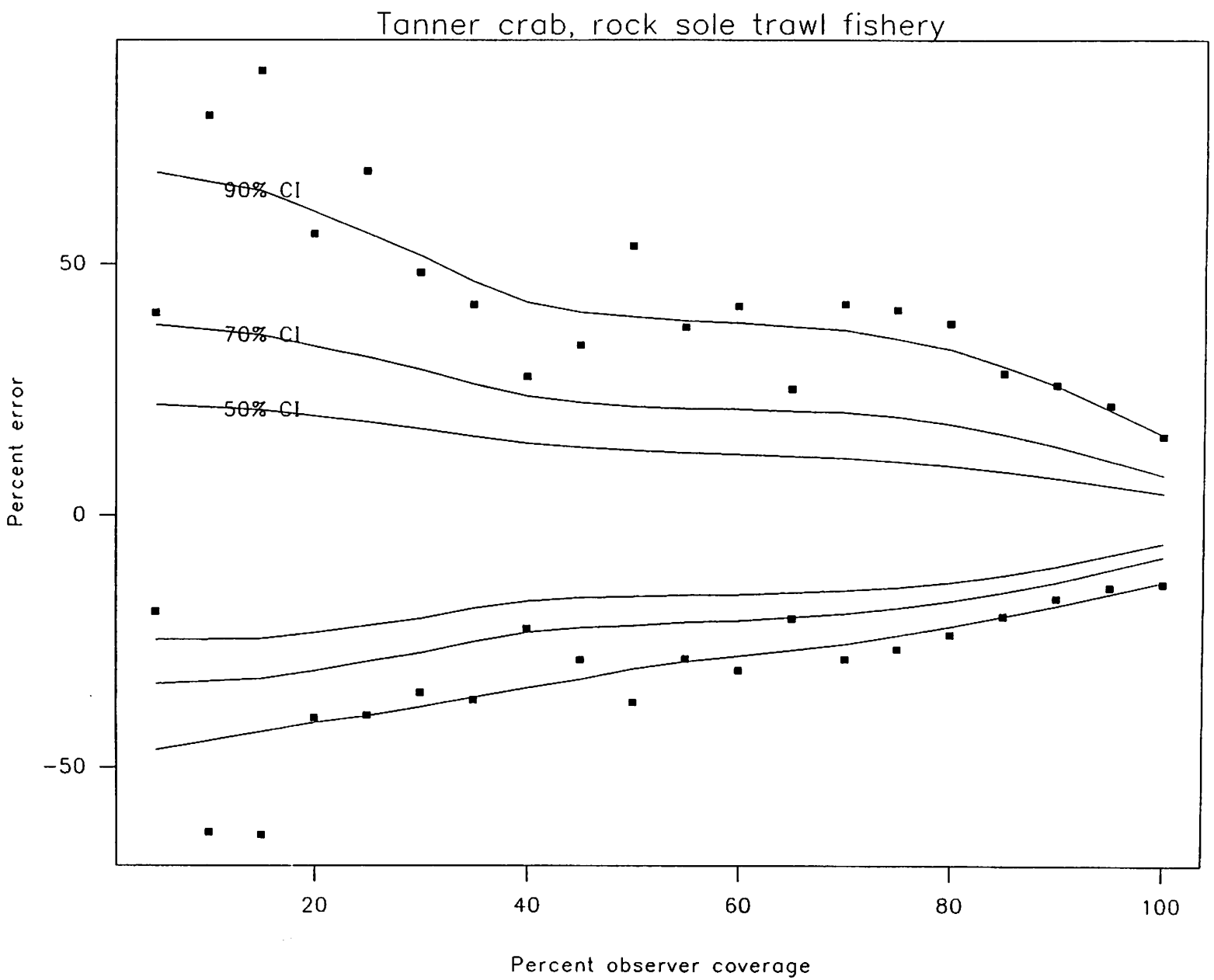

King crab, flatfish trawl fishery
100
50
0
-50
-100
90% CI
70% CI
50% CI
Percent error
20
40
60
80
100
Percent observer coverage

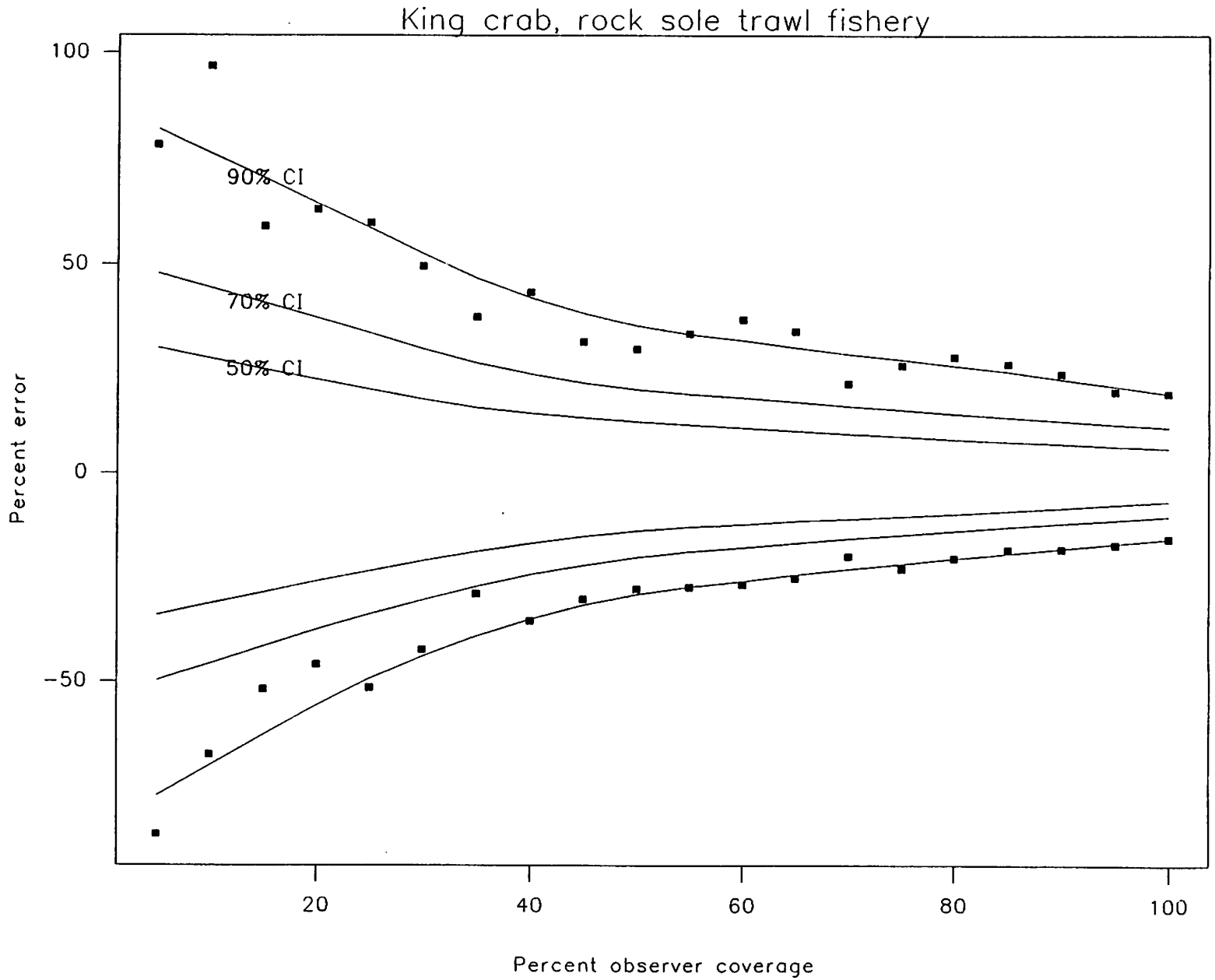

Total catch, flatfish trawl fishery
90% CI
Estimate
Reported catch
60000
50000
40000
30000
20000
Tons
20
40
60
80
100
Percent observer coverage

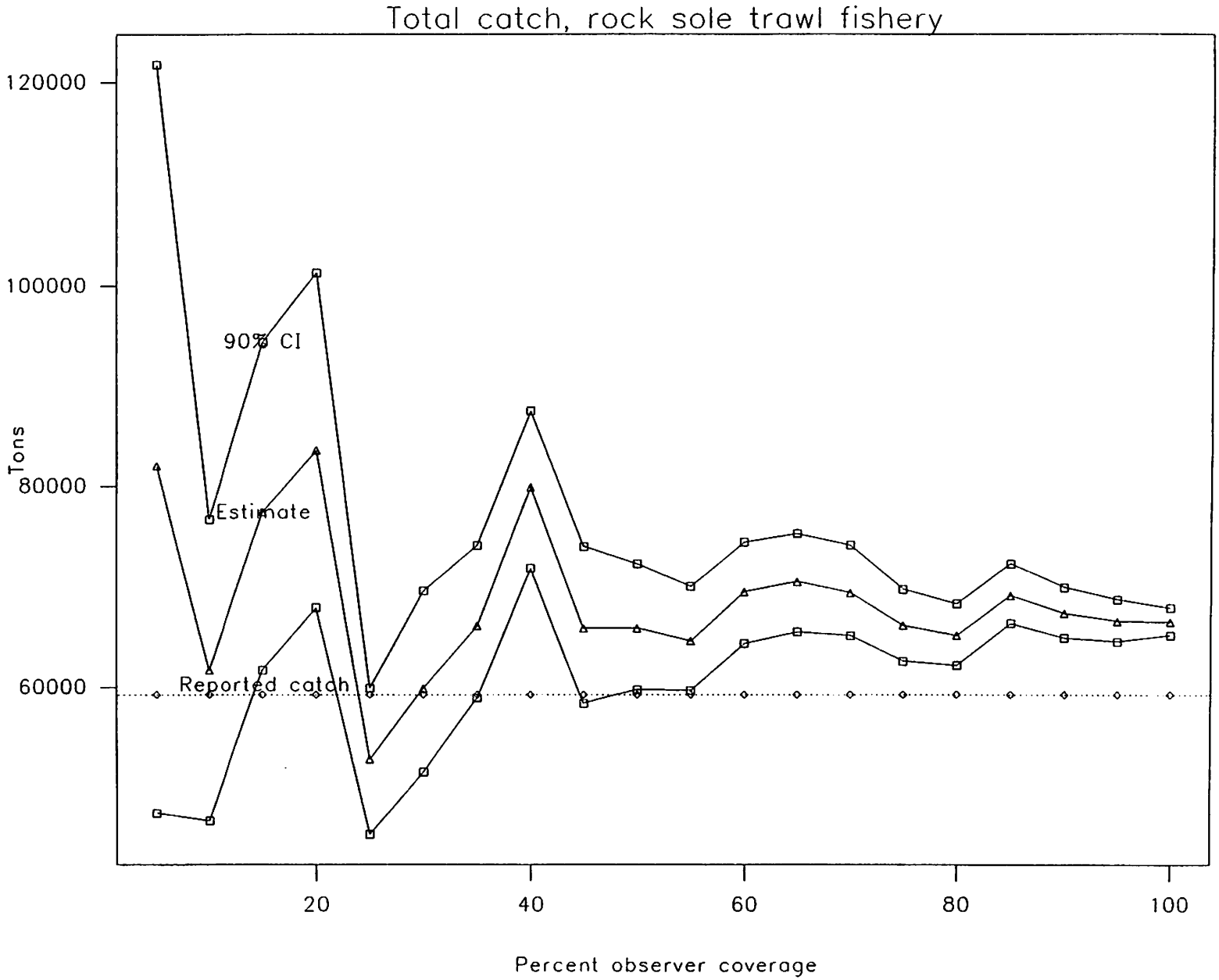

Total catch, flatfish trawl fishery
90% CI
70% CI
50% CI
Percent error
40
20
0
−20
−40
20
40
60
80
100
Percent observer coverage

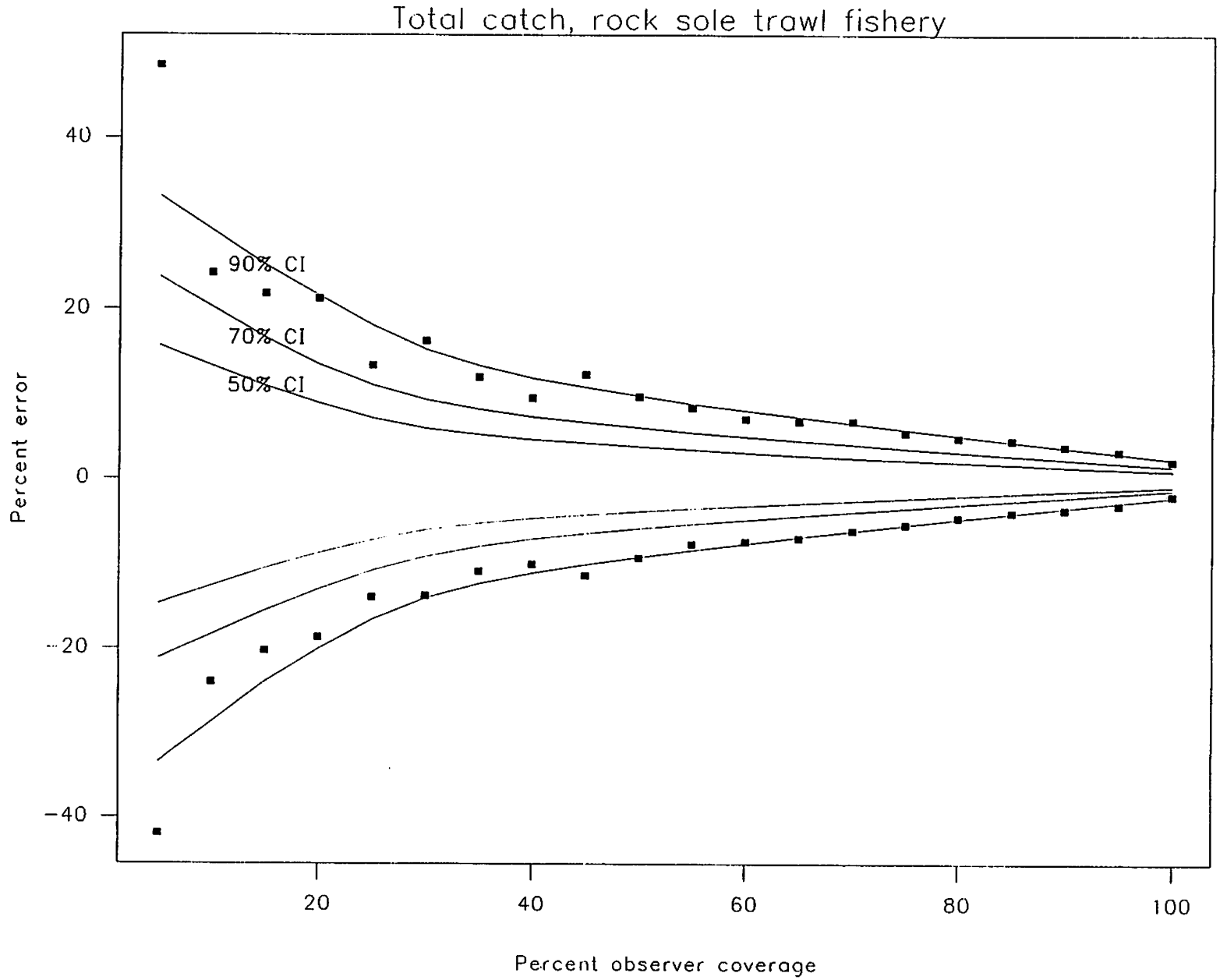

Rock sole, rock sole trawl fishery
90% CI
70% CI
50% CI
5
0
-5
-10
Percent error
20
40
60
80
100
Percent observer coverage


Halibut, rock sole trawl fishery
90% CI
70% CI
50% CI
Percent error
40
20
0
-20
20
40
60
80
100
Percent observer coverage


Tanner crab, rock sole trawl fishery
90% CI
70% CI
50% CI
50
0
−50
Percent error
20
40
60
80
100
Percent observer coverage


King crab, rock sole trawl fishery
100
50
0
−50
Percent error
90% CI
70% CI
50% CI
20
40
60
80
100
Percent observer coverage


Total catch, rock sole trawl fishery
120000
100000
80000
60000
Tons
90% CI
Estimate
Reported catch
20
40
60
80
100
Percent observer coverage


Total catch, rock sole trawl fishery
90% CI
70% CI
50% CI
Percent error
40
20
0
-20
-40
20
40
60
80
100
Percent observer coverage

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

April 17, 1992

Clarence G. Pautzke
Executive Director
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510

Dear Clarence,

The Council is scheduled to review proposed changes to the observer program for 1993 at the April meeting. We expect that the current industry funded program will be in place for all or part of 1993, because start up funds apparently will not be available for the North Pacific Fisheries Research Plan. As a result, it would be wise to do what we can to correct the flaws in the current program through a regulatory amendment.

I recommend that the Council consider the following proposals for a regulatory amendment and direct staff to prepare a draft regulatory amendment for Council consideration at its June 1992 meeting. The Council should take final action on the regulatory amendment at its August meeting to allow time for implementation in early January 1993.

1. Observer Coverage

The observer coverage requirements for vessels have remained essentially the same for 1990 through 1992. While adequate for some purposes, such as estimating the catch of target species, it is inadequate for other tasks, such as in-season prohibited species cap monitoring and the vessel incentive program for vessels in the 30 percent coverage category. Now is the time to reevaluate the coverage requirements by vessel length. Analysis should be done in terms of catch/bycatch taken by the different size classes of vessels and in terms of additional cost to the industry for the increased coverage. The Alaska Fisheries Science Center is currently continuing a statistical analysis of required observer coverage for objectives other than the incentive program (the incentive program requires 100 percent) and will have some results that can be applied to this topic shortly.

a. Proposal to reduce the lower vessel length limit for the 100 percent observer requirement from 125 feet to

115 feet.

Vessels from 115 to 124 feet length overall took approximately 8 percent of the 1991 total catch taken by catcher/processors and about 22 percent of the catch taken by the shoreside component. By requiring these vessels to have 100 percent observer coverage, we would be improving the observer coverage on a group of vessels that takes a sizeable percentage of the catch.

b. Proposal to reduce the lower vessel length limit for the 30 percent observer requirement from 60 feet to 58 or 55 feet.

Vessels in the 58 foot to 59 foot range and the 55 foot to 59 foot range should be evaluated as to whether these vessels should be included in the observer program since they can most likely carry observers and they account for increasing portions of the catch. Vessels in these ranges include "limit seiners," other trawlers and longline vessels.

c. Proposal to change the 30 percent observer coverage requirement from a quarterly requirement with no connection to target fishery to a monthly requirement, possibly also by target fishery.

At present, vessels in the 30 percent observer coverage category can choose which fishing trips, and hence, target fisheries to have monitored by an observer. There is the potential for the manipulation of observer coverage to avoid having an observer while operating in fisheries/fishing areas with high bycatch of prohibited species. By changing the observer coverage to 30 percent by month or by target fishery, the potential for some of this manipulation may be reduced.

Tied in with this would also be the elimination or modification of the minimum number of days fished in a quarter that triggers a requirement for observer coverage. If the coverage requirement was changed to a monthly basis, modifying the quarterly trigger of 10 or more days fished to a monthly trigger of 3 to 4 days, may be advisable.

d. Require catcher/processor vessels, mothership processors or shoreside processors of a certain size to carry multiple observers.

Certain vessels, motherships, and plants exist where one observer is not sufficient to carry out the required sampling and data collection duties. One observer is unable to sample the required number of deliveries due to the large number of deliveries received each day and the additional work they have to do to contact each delivering vessel by radio to gather the individual haul location and effort data. Some of the large surimi plants may also need additional observers due to the high number of vessels delivering each day or due to the sampling situation caused by multiple receiving stations. For example, a requirement to have multiple observers could be set by number of deliveries or tonnage caught or received each day.

e. Consider reducing the level of observer coverage for groundfish vessels fishing with pots/traps.

The NMFS has received a request from the United Fishermen's Marketing Association, Inc., to consider reducing the level of observer coverage of the groundfish pot fleet to 10 percent. They indicate that the Pacific cod pot fishery has demonstrated that their fishery is "exceptionally clean from a bycatch standpoint," and thus 10 percent observer coverage is adequate for this fleet.

2. Change the requirement for observer coverage from fishing trip days to fishing days.

Currently, a fishing trip is defined to start on the day when fishing gear is first deployed and end on the day the vessel offloads groundfish, returns to an Alaskan port, or leaves the U.S. EEZ off Alaska and adjacent waters of the State of Alaska. Observer coverage is calculated by dividing the observed fishing trip days by the total fishing trip days for each vessel. At present, vessels may only fish one day during a multiple day fishing trip but get credit for coverage for all days in the trip. Reasons at the time justified why the program was set up for doing it this way, but it is short-changing NMFS on what is really needed, which is coverage of actual fishing days. A change of definition is not necessarily trivial since it ultimately affects how many days a vessel or plant pays for the cost of an observer. In addition to taking into consideration any economic impacts, whatever measure is used as a basis for observer coverage needs to be able to be determined for each vessel and plant, whether or not an observer is onboard, and should be able to be verified from at least one other source.

3. Define fishing day as deployment of gear.

Under the current fishing trip definition, a vessel can set gear at 11:55 PM and get observer coverage credit for a whole day and then return a few minutes after midnight and get credit for another whole day. Vessels have also gone out and set gear which was never meant to catch fish but because gear was set, the days counted towards coverage. The new definition should indicate that longline and pot gear must be baited and trawl gear must be fished at fishing depth with the codend closed. Other stipulations to consider might include a minimum number of hooks/pots; distance from the dock; or time of day by which the gear must be deployed in order to count as a whole day. The determination of whether or not the day is counted must be capable of being made whether or not an observer was aboard at the time. Regulations should clarify that days in which an observer spends aboard a vessel that delivers unsorted codends to a mothership does not count as observer coverage, unless such coverage is required in a particular specified opening.

4. The amendment of the fishing industry/owner responsibilities to clarify certain requirements for observer sampling.

On particular vessels, due to the shipboard procedures, the observer needs to be able to complete his/her sampling shoreside before going back out to sea, or transferring to another vessel or plant. This is primarily a problem with shoreside vessels which do not completely sort their catch at sea. At present, vessel operators frequently consider the observer's job as being done once the vessel is tied up to the dock.

5. Revision of conflict of interest standards.

GCAK has drafted a set of revised conflict of interest standards that need to be incorporated because the present ones are incomplete and contradictory. The changes will center on defining "observed fishery," broadening the definition of "financial interest," and eliminating confusing and conflicting language. In addition, the new standards would place restrictions on a certified observer from accepting employment from a vessel or plant on which they were assigned to observe.

6. Oversight of certified contractor/industry interactions.

A number of issues are involved here. The aim is to make the certified contractors more responsible to NMFS and also to provide them some protection from industry clients who do not pay their bills or place pressure on the contractor to

take a certain action or risk loss of business. The contractors have been placed in a very difficult situation and in order to correct the current program something needs to be done about providing some protection for the contractors.

a. Clarify the regulation prohibiting placement of specific observers at an owner's request to include prohibition of removal of an observer from a vessel at an owner's request without NMFS approval. Prohibit vessel requests for an observer of specific gender.

b. Require that as part of a contractor's certification that a copy of all industry contracts and contracts with observers are provided to NMFS or must be made available to NMFS upon request.

c. Failure by a fishing company to pay observer costs results in the invalidation of coverage provided by the contractor to the vessel so that the vessel becomes in violation of the observer coverage regulations and subject to federal enforcement action.

d. Consider limiting contractor certification to a specific number of years, possibly two years, instead of the current indefinite extension. A current contractor would need to reapply for recertification. (The Research Plan was expected to be in place by now, so contractor recertification was originally thought unnecessary.)

7. <u>Revisions to observer qualifications</u>.

The same changes to observer qualifications in the statement of work to be used for the Federal observer contract should also be applied to the Observer Plan. Included in the changes is a better description of what biological and mathematical background NMFS is looking for in observer applicants. In addition, a requirement for physical exams is more stringent.

Sincerely,

Steven Pennoyer
Director, Alaska Region

Municipality of Anchorage

OFFICE OF THE MAYOR

P.O. BOX 196650
ANCHORAGE, ALASKA 99519-6650
(907) 343-4431

TOM FINK,
MAYOR

April 22, 1992

Mr. Richard B. Lauber
Chairman
North Pacific Fishery Management Council
605 West Fourth Avenue
Anchorage, AK 99501

Dear Mr. Lauber:

As the 101st Plenary Session on the North Pacific Fishery Management Council addresses the very important issue of the observer program, the Municipality of Anchorage would like to applaud the efforts and success of the existing training program here in Anchorage.

Since the program's inception, the Municipality has provided support to the University of Alaska, and specifically its Observer Training Center. We have witnessed the emergence of a thorough and cost-effective program which provides valuable training to a substantial number of individuals annually. The Center is in place and it works well.

As the program is reviewed, I would encourage the Council to request that the NMFS substantially increase the total number of individuals that are trained in Anchorage. The Observer Training Center has proven itself by graduating professionally trained observers in a most cost-effective manner, working in concert with the University of Alaska Fairbanks School of Fisheries Sea Grant College Program, and certainly working well with the Municipality.

It is my firm belief that an expanded role for the Observer Training Center is good for the fishing industry, for the Municipality of Anchorage and our economy, and for the state of Alaska.

Sincerely yours,

Tom Fink

Tom Fink