APPENDIX I
ADF&G COMMERCIAL FISHERIES EMERGENCY ORDER

COMMERCIAL FISHERIES

Emergency Order

ALASKA DEPARTMENT OF FISH & GAME

Under Authority of AS 16.05.060

EMERGENCY ORDER No. 4-GF-01-10

Issued at: Kodiak, Alaska
December 31, 2009

EFFECTIVE DATE: 12:01 a.m.
Friday, January 1, 2010

Expiration Date: December 31, 2010
unless superseded by subsequent
emergency order

EXPLANATION: This emergency order defines commercial parallel groundfish fishing seasons in the Kodiak, Chignik, South Alaska Peninsula, Bering Sea-Aleutian Islands and Chukchi-Beaufort Areas. For these areas, except for the fisheries listed in 1-5 below, this emergency order adopts the groundfish seasons, bycatch limits, and allowable gear types that apply in the adjacent exclusive economic zone (EEZ).

Sector allocations in the EEZ, based on processing activity, will not be recognized in state waters. Adjacent federal waters opened to a gear type, whether to both catcher processor vessels and catcher vessels, or only one of those, will be considered open in state waters to both catcher vessels and catcher processor vessels until closed to all vessels using the designated gear type.

Inseason adjustments to federal seasons, bycatch limits, and allowable gear types will also apply in the parallel fisheries. Fishing seasons or bycatch limits may be modified from those published in the federal register by subsequent emergency order to ensure resource conservation or resource management consistent with the interest of the economy and general well being of the state.

Fishermen should take note of Steller sea lion protection areas in the parallel fisheries, including areas around sea lion haulouts and rookeries. Sea lion protection areas are set forth in federal regulations and are adopted for state waters as set forth in this emergency order. As a result, waters of Alaska that are described in the federal regulations implementing the Steller sea lion protection measures as closed to fishing or closed to gear types are so closed to all vessels, regardless of whether the vessel has a federal fishery permit.

The federal regulations implementing Steller sea lion protection measures for 2010 are posted on the National Marine Fisheries Service (NMFS) web site at http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm or available from NMFS offices in Alaska.

Fishermen should take note of vessel monitoring system requirements set forth in 5 AAC 28.087 Management Measures In Parallel Groundfish Fisheries For Protection Of Steller Sea Lions (c).

Commercial fishing gear is prohibited in certain areas to protect essential fish habitat (EFH). State-waters surrounded by EFH areas are closed by 5 AAC 39.167 Commercial Fishing Gear Prohibited In Waters Of Alaska Surrounding Essential Fish Habitat Areas. EFH areas are described in federal regulation at 50 C.F.R. 679.22, revised as of August 25, 2008.

Fishermen should also take note of seabird avoidance requirements set forth in 5 AAC 28.055 Seabird Avoidance Measures In Groundfish Fisheries. The state has adopted the federal seabird avoidance regulations, 50 C.F.R. 679.24 revised as of January 17, 2008, into state waters for longline vessels greater than 26 feet in length. The federal regulations are posted on the NMFS web site at http://www.fakr.noaa.gov/protectedresources/seabirds/guide.htm

Except as expressly stated, this emergency order does not supersede other groundfish provisions in Chapter 28 of the Alaska Administrative Code.

The following groundfish fisheries are not managed under parallel regulations. For the fisheries listed in 1 – 5 below, no parallel season is adopted because seasons and bycatch limits are established in this emergency order or will be established in a later emergency order.

1. The lingcod fishery;
2. The black and blue rockfish fishery in the Kodiak, Chignik, South Alaska Peninsula areas, and state waters of the Bering Sea-Aleutian Islands Area;
3. The dark rockfish fishery;
4. The state-waters season Pacific cod fishery in the Kodiak, Chignik, and South Alaska Peninsula areas, and the Aleutian Islands District of the Bering Sea-Aleutian Islands Area;
5. The state-waters sablefish fishery.

REGULATORY TEXT: Regulations 5 AAC 28.410, 5 AAC 28.510, 5 AAC 28.560, 5 AAC 28.610, 5 AAC 28.650 and 5 AAC 28.710 are superseded as follows, and 5 AAC 28 is amended by adding new sections and subsections, 5 AAC 28.450(e), 5 AAC 28.550, 5 AAC 28.590, and 5 AAC 28.750 to read as follows:

5 AAC 28.410. Fishing Seasons For Kodiak Area. (a) In 2010, except as otherwise provided in this section, groundfish may be taken in waters of the Kodiak Area only during federal fishing seasons

applicable to waters of the Exclusive Economic Zone (EEZ) adjacent to the waters of the Kodiak Area. All federally allowed gear types, bycatch limits and inseason adjustments of allowable gear types, bycatch limits and seasons as announced by the Regional Administrator, National Marine Fisheries Service, and published in the Federal Register, that are applicable to fishing in the adjacent EEZ also apply to fishing in the waters of the Kodiak Area, except that sector allocations in the EEZ based on processing activity will not be recognized in state waters. Adjacent federal waters opened to a gear type, whether to both catcher processor vessels and catcher vessels, or only one of those, will be considered open in state waters to both catcher vessels and catcher processor vessels until closed to all vessels using the designated gear type. This section does not supersede the nonpelagic trawl gear restrictions in 5 AAC 39.164.

(b) Lingcod may be taken, in a directed fishery or as bycatch, only from July 1 through December 31.

(c) Lingcod may only be taken as bycatch, not to exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel.

(d) Black and blue rockfish may be taken, in a directed fishery or as bycatch from January 1 through December 31.

(e) Black and blue rockfish taken as bycatch may not exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel, unless the vessel operator is operating in accordance with 5 AAC 28.406 (e) and 5 AAC 28.472 (b) .

(f) Dark rockfish may only be taken as bycatch. Bycatch of dark rockfish may not exceed 20% by weight of the directed groundfish species and directed halibut on board the vessel.

(g) Sablefish may only be taken as bycatch, not to exceed 1% by weight of the directed groundfish species and directed halibut on board the vessel.

(h) Unless otherwise specified, the maximum bycatch limit for any species of groundfish is 20% by weight of the directed groundfish species and directed halibut on board the vessel. This subsection does not supercede the mandatory retention rules for walleye pollock and Pacific cod as provided in 5 AAC 28.070 (e).

(i) Pacific cod may be taken during a state-waters season as provided in 5 AAC 28.467.

(j) Groundfish may be taken with non-pelagic trawl gear in the waters of king crab registration area K, described in 5 AAC 34.400, that are not closed under 5 AAC 39.164 (b) only from

(1) January 20 through April 30; and
(2) October 1 through November 30.

5 AAC 28.450 Closed Waters In The Kodiak Area (e) Waters of the Kodiak Area that are described in the federal regulations implementing the Steller sea lion protection measures as closed to fishing or closed to gear types are so closed to all vessels, regardless of whether the vessel has a federal fishing permit. In this section, "the federal regulations" means 50 CFR 679.22 and Tables 4,5,6 and 12 in 50 CFR, Part 679, as amended through December 31, 2006. The federal regulations are posted on the National Marine Fisheries Service web site at http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm or available from NMFS offices in Alaska.

5 AAC 28.510. Fishing Seasons For Chignik Area (a) In 2010, except as otherwise provided in this section, groundfish may be taken in waters of the Chignik Area only during federal fishing seasons applicable to waters of the Exclusive Economic Zone (EEZ) adjacent to the waters of the Chignik Area. All federally allowed gear types, bycatch limits, and inseason adjustments of allowable gear types, bycatch limits, and seasons as announced by the Regional Administrator, National Marine Fisheries Service, and published in the Federal Register, that are applicable to fishing in the adjacent EEZ also apply to fishing in the waters of the Chignik Area, except that sector allocations in the EEZ based on processing activity will not be recognized in state waters. Adjacent federal waters opened to a gear type, whether to both catcher processor vessels and catcher vessels, or only one of those, will be considered open in state waters to both catcher vessels and catcher processor vessels until closed to all vessels using the designated gear type. This section does not supersede the nonpelagic trawl gear restrictions in 5 AAC 39.164.

(b) Lingcod may be taken in a directed fishery or as bycatch, only from July 1 through December 31.
(c) Black and blue rockfish may be taken, in a directed fishery or as bycatch, from January 1 through December 31.
(d) Black and blue rockfish taken as bycatch may not exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel.
(e) Dark rockfish may only be taken as bycatch. Bycatch of dark rockfish may not exceed 20% by weight of the directed groundfish species and directed halibut on board the vessel.
(f) Sablefish may only be taken as bycatch, not to exceed 1% by weight of the directed groundfish species and directed halibut on board the vessel.
(g) Unless otherwise specified, the maximum bycatch limit for any species of groundfish is 20% by weight of the directed groundfish species and directed halibut on board the vessel. This subsection does not supercede the mandatory retention rules for walleye pollock and Pacific cod as provided in 5 AAC 28.070 (e).
(h) Pacific cod may be taken during a state waters season as provided in 5 AAC 28.537.

Chapter 28 is amended by adding a new section: 5 AAC 28.550 Closed Waters In The Chignik Area (a) Waters of the Chignik Area that are described in the federal regulations implementing the Steller sea lion protection measures as closed to fishing or closed to gear types are so closed to all vessels, regardless of whether the vessel has a federal fishing permit. In this section, "the federal regulations" means 50 CFR 679.22 and Tables 4,5,6 and 12 in 50 CFR, Part 679, as amended through December 31, 2006. The federal regulations are posted on the National Marine Fisheries Service web site at http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm or available from NMFS offices in Alaska.

5 AAC 28.560. Fishing Seasons For South Alaska Peninsula Area. (a) In 2010, except as otherwise provided in this section, groundfish may be taken in waters of the South Alaska Peninsula Area only during federal fishing seasons applicable to waters of the Exclusive Economic Zone (EEZ) adjacent to the waters of the South Alaska Peninsula Area. All federally allowed gear types, bycatch limits, and inseason adjustments of allowable gear types, bycatch limits, and seasons as announced by the Regional Administrator, National Marine Fisheries Service, and published in the Federal Register, that are applicable to fishing in the adjacent EEZ also apply to fishing in the waters of the South

Alaska Peninsula Area, except that sector allocations in the EEZ based on processing activity will not be recognized in state waters. Adjacent federal waters opened to a gear type, whether to both catcher processor vessels and catcher vessels, or only one of those, will be considered open in state waters to both catcher vessels and catcher processor vessels until closed to all vessels using the designated gear type. This section does not supercede the nonpelagic trawl restrictions in 5 AAC 39.164.

(b) Lingcod may be taken in a directed fishery or as bycatch, only from January 1 through December 31.
(c) Black and blue rockfish may be taken, in a directed fishery or as bycatch, from January 1 through December 31.
(d) Black and blue rockfish taken as bycatch may not exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel.
(e) Dark rockfish may only be taken as bycatch. Bycatch of dark rockfish may not exceed 20% by weight of the directed groundfish species and directed halibut on board the vessel.
(f) Sablefish may be taken in state-waters of the Western District of the South Alaska Peninsula Area, from 12:00 noon May 15 through November 15, unless closed earlier by emergency order. Sablefish bycatch is not allowed prior to or after the directed fishery.
(g) Sablefish may only be taken as bycatch, in state-waters of the Eastern District of the South Alaska Peninsula Area, not to exceed 1% by weight of the directed groundfish species and directed halibut on board the vessel.
(h) Unless otherwise specified, the maximum bycatch limit for any species of groundfish is 20% by weight of the directed groundfish species and directed halibut on board the vessel. This subsection does not supercede the mandatory retention rules for walleye pollock and Pacific cod as provided in 5 AAC 28.070 (e).
(i) Pacific cod may be taken during a state-waters season as provided in 5 AAC 28.577.

Chapter 28 is amended by adding a new section: 5 AAC 28.590 Closed Waters In The South Alaska Peninsula Area (a) Waters of the South Alaska Peninsula Area that are described in the federal regulations implementing the Steller sea lion protection measures as closed to fishing or closed to gear types are so closed to all vessels, regardless of whether the vessel has a federal fishing permit. In this section, "the federal regulations" means 50 CFR 679.22 and Tables 4,5,6 and 12 in 50 CFR, Part 679, as amended through December 31, 2006. The federal regulations are posted on the National Marine Fisheries Service web site at http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm or available from NMFS offices in Alaska.

5 AAC 28.610. Fishing Seasons For Bering Sea-Aleutian Islands Area. (a) In 2010, except as otherwise provided in this section, groundfish may be taken in waters of the Bering Sea-Aleutian Islands Area only during federal fishing seasons applicable to waters of the Exclusive Economic Zone (EEZ) adjacent to the waters of the Bering Sea-Aleutian Islands Area. All federally allowed gear types, bycatch limits, and inseason adjustments of allowable gear types, bycatch limits and fishing seasons as announced by the Regional Administrator, National Marine Fisheries Service, and published in the Federal Register, that are applicable to fishing in the adjacent EEZ also apply

to fishing in the waters of the Bering Sea-Aleutian Islands Area, except that sector allocations in the EEZ based on processing activity will not be recognized in state waters. Adjacent federal waters opened to a gear type, whether to both catcher processor vessels and catcher vessels, or only one of those, will be considered open in state waters to both catcher vessels and catcher processor vessels until closed to all vessels using the designated gear type. This section does not supercede the non-pelagic trawl gear restrictions in 5 AAC 39.164.

(b) Lingcod may be taken only as bycatch, from January 1 through December 31.
(c) Black and blue rockfish may be taken in state-waters of the Aleutian Islands District of the Bering Sea–Aleutian Islands Area in a directed fishery or as bycatch, from January 1 through December 31.
(d) Black and blue rockfish taken as bycatch may not exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel.
(e) Dark rockfish may only be taken as bycatch. Bycatch of dark rockfish may not exceed 5% by weight of the directed groundfish species and directed halibut on board the vessel.
(f) Sablefish in state-waters of the Aleutian Islands District of the Bering Sea–Aleutian Islands Area may be taken from 12:00 noon May 15 through November 15, unless closed earlier by emergency order. Sablefish bycatch is not allowed prior to or after the directed fishery. In the Bering Sea District of the Bering Sea–Aleutian Islands Area there is no open season for directed sablefish fishing.
(g) Pacific cod may be taken during a state-waters season as provided in 5 AAC 28.647.
(h) Pacific cod and rockfish may be taken during the parallel fishery season in state-waters of Sitkin Sound of Adak Island as described in 5 AAC 28.690 (a) only as specified in 5 AAC 28.629 (d).
(i) Pacific cod and rockfish may be taken during the parallel fishery season from May 1 until September 15 in state-waters of Adak Island as described in 5 AAC 28.690 (b) only as specified in 5 AAC 28.629 (e).
(j) Pacific cod may not be taken during the parallel Pacific cod fishery by vessels longer than 58 feet in length.
(k) Unless otherwise specified, the maximum bycatch limit for any species of groundfish is 20% by weight of the directed groundfish species and directed halibut on board the vessel. This subsection does not supercede the mandatory retention rules for walleye pollock and Pacific cod as provided in 5 AAC 28.070 (e).

5 AAC 28.650 Closed Waters In The Bering Sea-Aleutian Islands Area (b) Waters of Bering Sea-Aleutian Islands Area that are described in the federal regulations implementing the Steller sea lion protection measures as closed to fishing or closed to gear types are so closed to all vessels, regardless of whether the vessel has a federal fishing permit. In this section, "the federal regulations" means 50 CFR 679.22 and Tables 4,5,6 and 12 in 50 CFR, Part 679, as amended through December 31, 2006. The federal regulations are posted on the National Marine Fisheries Service web site at http://www.fakr.noaa.gov/sustainablefisheries/2003hrvstspecssl.htm or available from NMFS offices in Alaska.

5 AAC 28.710. Fishing Seasons For Chukcki-Beaufort Area. (a) In 2010, there is no open groundfish season.

Chapter 28 is amended by adding a new section: 5 AAC 28.750 Closed Waters In The Chukchi-Beaufort Area

(a) Waters of the Chukchi-Beaufort Area are closed to all commercial groundfish fishing.

Denby Lloyd, Commissioner
Alaska Department of Fish and Game

by Delegation to: _____
Wayne Donaldson
Regional Groundfish Management Biologist

JUSTIFICATION: The Alaska Board of Fisheries has established fisheries for a limited number of groundfish species, and has authorized the commissioner of the Alaska Department of Fish and Game (ADF&G) to open seasons by emergency order, during which bycatch limits, area closures, and gear restrictions may be specified; see, *e.g.*, 5 AAC 28.070, .087, .467. The ADF&G does not have independent programs currently in place to ensure sustained-yield management for all groundfish species in Alaska's territorial waters of the Kodiak, Chignik, South Alaska Peninsula, Bering Sea-Aleutian Islands and Chukchi-Beaufort areas. Groundfish fisheries in these areas often target the same stocks harvested under federal regulations in adjacent waters of the Exclusive Economic Zone (EEZ).

To ensure conservation of the groundfish resources located in territorial waters, the ADF&G generally depends on the fishing season regulations established for the adjacent waters of the EEZ and administered by the National Marine Fisheries Service. The federal regulations allow for inseason adjustments of fishing seasons, closed waters, bycatch and gear to conserve the affected stocks.

To ensure compatible management of the stocks not independently managed by the state, ADF&G would need to issue emergency orders to correspond to all changes made by the federal managers. It is not practical for the department to issue corresponding emergency orders, in a timely manner, to ensure that compatible management is maintained. This would lead to confusion within the fishing industry.

To ensure sustained yield management of groundfish stocks, promote an orderly fishery, and facilitate enforcement of regulations, this emergency order modifies fishing seasons, allowable gear types, closed waters and bycatch limits in the territorial waters of the Kodiak, Chignik, South Alaska Peninsula, Bering Sea-Aleutian Islands and Chukchi-Beaufort Areas to correspond with federal fishery seasons, allowable gear types, closed waters and bycatch limits or inseason adjustments set for the adjacent waters of the EEZ, except for those fisheries independently managed by the state. However, based on the Alaska Supreme Court's decision in Grunert, Alaska Board of Fisheries and the ADF&G may not recognize federal sectors in state waters during parallel groundfish fisheries based on processing type.

The state has also adopted protection measures for Steller sea lions in the parallel Pacific cod, Atka mackerel and walleye pollock fisheries as provided for in 5 AAC 28.087.

Through subsequent emergency orders the department may still specify different seasons for groundfish species within these areas to ensure resource conservation or management consistent with the economy and general well being of the state.

Existing federal regulations do not include management measures for lingcod and dark rockfish or black and blue rockfish in the Gulf of Alaska and territorial waters of the Aleutian Islands and Bering Sea. State regulations will apply for these species in all waters of Alaska's territorial sea and the specified adjacent waters of the EEZ, as provided in 5 AAC 28.010 Application of groundfish regulations.

Lingcod bycatch is restricted to 5% in the Kodiak Area because of the potential for large lingcod bycatch associated with trawl landings. The rockfish and sablefish bycatch limits will coincide with the bycatch limit allowed by the Regional Administrator, National Marine Fisheries Service, except for the Aleutian Islands state-waters sablefish fishery.

The Chukchi-Beaufort Management Area is closed to all commercial fishing for groundfish because there is a lack of information on groundfish resources in this area. NMFS has closed all waters of the EEZ adjacent to the Chukchi-Beaufort Management Area to all commercial groundfish fishing under the Arctic Fishery Management Plan.

DISTRIBUTION: This emergency order was distributed to those individuals and organizations maintained on a list in the Westward Region shellfish office, 211 Mission Road, Kodiak, Alaska.

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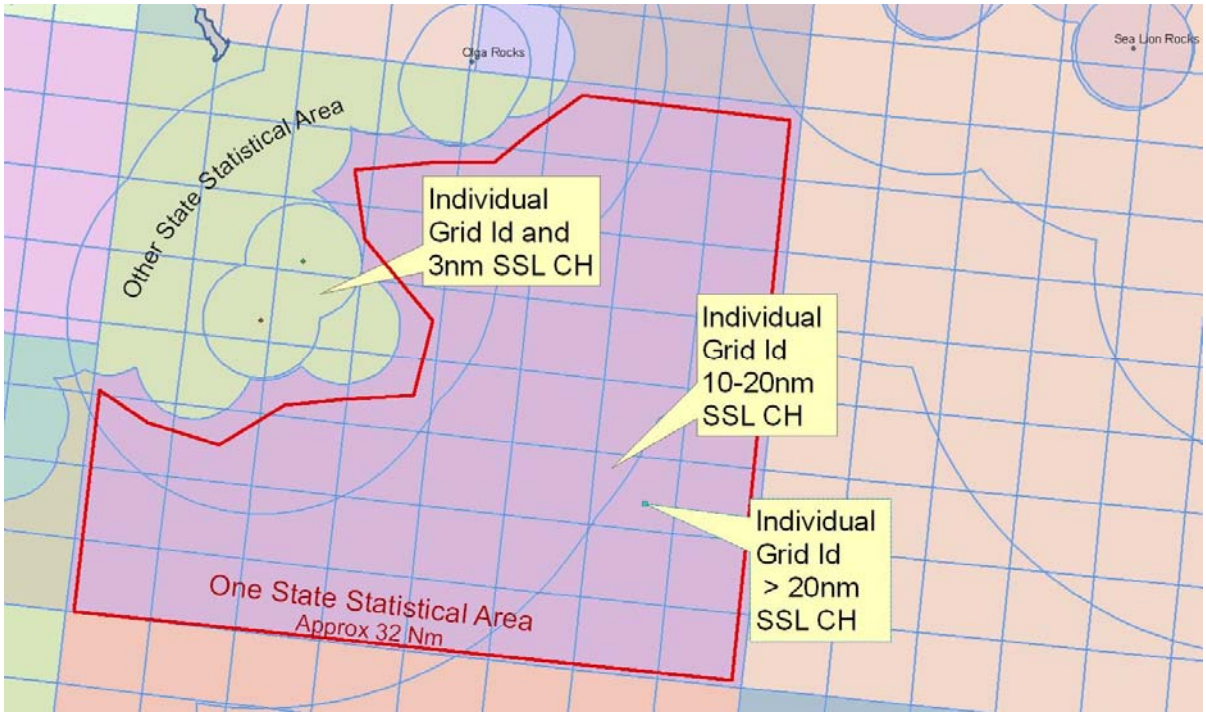
APPENDIX II
VESSEL MONITORING SYSTEM ENABLED CATCH-IN-AREAS DATABASE

Appendix 2: VMS-Observer Enabled Catch-In-Areas Database

In 2007, NMFS/Alaska Region began developing a fisheries harvest database that would integrate data acquired from onboard observers and data on vessel movements acquired by satellite through the Vessel Monitoring System (VMS). This VMS-Observer Enabled Catch-In-Areas (VOE-CIA) database is designed to increase the spatial resolution of the Catch Accounting System for both the observed and unobserved vessel fleet and thus to facilitate more accurate analysis of fisheries management issues.

The VOE-CIA database integrates catch data from the Catch Accounting System (which has the spatial resolution of a NMFS Reporting Area) into a database that resolves the GIS data into polygons with areas of approximately seven kilometers. In an unrestricted area, sixty four grid IDs fit inside one state statistical area. However, a given seven-kilometer polygon may be further divided into smaller polygons by the boundary of state statistical areas, the boundary of state and federal waters, or by the boundary of Steller sea lion critical habitat (broken out at 3, 10, and 20 nautical miles from one of 154 Steller sea lion rookeries or haulouts). Where confidentiality needs to be protected, a seven-kilometer polygon may be grouped with others into 20km polygons. Each polygon (the exact size of which will vary with latitude) and its subparts will have a distinct grid ID.



Splitting the Catch Accounting data from NMFS Reporting Areas into these grid IDs requires an iterative and ordered process; no single step can capture all the data. To start, a record is reported and entered into the database, and a unique transaction ID is created for that record. A record is considered either a single haul for an observed vessel, a single fishing trip for an unobserved catcher vessel, or a single week—as designated by the week-ending-date—for an unobserved catcher processor (at present, this is the finest temporal catch resolution currently

available; in 2009, however, catcher processors will begin reporting at a finer temporal resolution).

After the transaction ID is established for that record, one of the following six steps is then used to incorporate the record into the Catch-in-Areas database. (Note that the following tables and figures use 2008 data solely for purposes of illustrating the operations of the database.)

1) The first step in the process coordinates the date and time of observed deployment and retrieval of gear with the vessel's VMS points that are within the same observed date and time. This ‘fixes’ the VMS points associated with an observed haul.

   VMS data are designed to transmit position reports every 30 minutes. It is probable that the process could miss the first and last VMS point by only a few minutes since it is based on Observed times. Therefore, a trackline is also drawn between the observed and deployed locations. A distinct set of grid IDs for both the VMS and Observer points are coordinated and associated.

   The associated grid IDs from the steps above are then attributed an equal amount of the catch for that record. Hence, a record that has eight grid IDs associated with it will receive 12.50% of the catch for that record from Catch Accounting.

   In 2008, 827,140 tons or 47.4% of the catch was matched in Step 1; and 52.6% of the catch remained to be matched in the processes that follow.

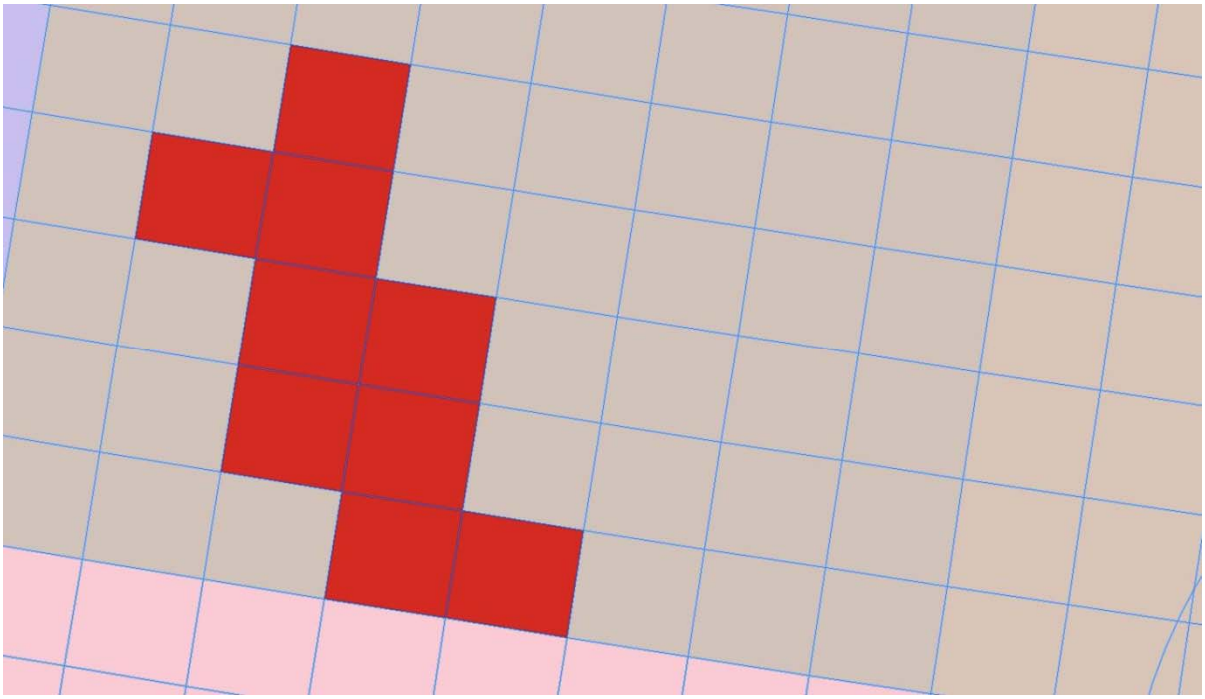
The tables below indicate average number of Grid IDs that were captured in Step 1: VMS-Observer by Date/Time matching process. The average is based on individual hauls shown by each row in the table. The data is shown in three base groups: FMP, FMP and harvest sector, and, FMP, harvest sector, and target fishery.

FMP	Avg#Grid IDs / Grid
AI	6
BS	8
GOA	6

FMP	Harvest Sector	Avg#Grid IDs per Grid
AI	CP	7
AI	CV	12
BS	CP	7
BS	CV	16
GOA	CP	6
GOA	CV	5

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs per Grid
AI	CP	Pcod	7
AI	CP	Rock	3
AI	CV	Pcod	13
AI	CV	Rock	5
BS	CP	Pcod	9
BS	CP	Rock	4
BS	CP	Plck	5
BS	CV	Plck	17
GOA	CP	Pcod	7
GOA	CP	Rock	4
GOA	CV	Rock	4

A graphic illustrating captured Observed grid IDs (red - highlighted blocks below) from Bering Sea using a combination of VMS and Observer data.



2) The next step uses observer data that were not matched from Step 1. Some vessels are unmatched from Step-1 because transponder IDs may not be directly associated with a vessel ID for a given trip: for example, a vessel may lend a VMS transponder to another vessel, but the database fails to be updated to reflect that before catch is assigned to a trip/haul.

   As in the observer data process above, a line is drawn from the observer deployment location to the retrieved location, and the associated grid IDs are identified for that trackline. Catch is equally apportioned between the grid IDs for that record.

   In 2008, 219,709 tons or 12.59% of the catch was matched in Step 2; and 40.01% of the catch remained to be matched.

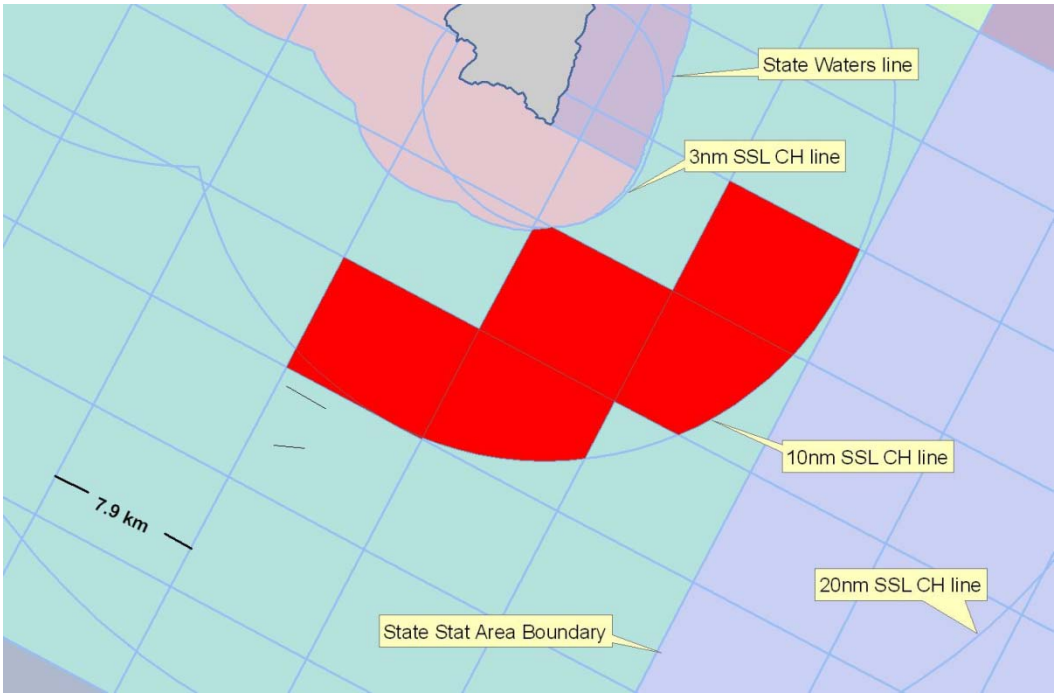
The tables below indicate average number of Grid IDs that were captured in Step 2: an individual observed haul trackline from observed deploy location to the retrieve location. The average is based on individual hauls shown by each row in the table. The data is shown in three base groups: FMP, FMP and harvest sector, and, FMP, harvest sector, and target fishery.

FMP	Avg#Grid IDs
AI	6
BS	8
GOA	5

FMP	Harvest Sector	Avg#Grid IDs
AI	CP	7
AI	CV	8
BS	CP	7
BS	CV	16
GOA	CP	5
GOA	CV	5

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs
AI	CP	Pcod	8
AI	CP	Rock	3
AI	CV	Pcod	9
AI	CV	Rock	6
BS	CP	Pcod	9
BS	CP	Rock	4
BS	CP	Plck	7
BS	CV	Plck	16
GOA	CP	Pcod	7
GOA	CP	Rock	4
GOA	CV	Rock	5

A graphic illustrating captured Observed grid IDs (red - highlighted blocks below) that were not captured in Step 1.



3) The next step uses VMS data to capture an individual record for unobserved catcher vessels. In order to capture a vessel 'fishing,' four criteria must be in place: 1) A vessel must be operating between .9 knots and 4.1 knots; 2) a vessel must not be in an area known not to be a fishing area, e.g., very near ports; 3) a vessel must be operating inside at least one of the state statistical areas reported on its fish ticket; and 4) the date of the VMS point must match the date range on the fish ticket.

   We use the vessel's VMS points to calculate vessel speed for the database. In a GIS Albers conic coordinate system, we find the meters traveled using the Pythagorean Theorem and divide that by the time between one VMS point and the next.

   A catch record is weighted by how many VMS points are associated with a particular grid ID that met the four criteria above. For example, a vessel transiting through Unimak Pass: the vessel has to slow down to fishing speed (greater than .9 knots and less than 4.1 knots), is not in an area known not to be a fishing area, is inside at least one of the state statistical areas reported for the vessel, and has a trip time within the date range on the fish ticket. A single ping will be associated with that grid ID even though the vessel may not have been fishing. But a few hours later the vessel gets to its fishing grounds and continues to fish for the next two days. The vessel's trip time was three days. For two days (48 hours) the vessel met all of four of the criteria for fishing.

   The single grid ID associated with Unimak Pass receives $1/48^{th}$ (2.08%) of the catch. If the vessel spends a full day in one grid ID, that grid ID gets nearly 50% of the catch. If the vessel then spends the entire next fishing day equally in eight other grid IDs, each of

those eight grid IDs gets 6.25% of the catch. It should be noted that this is a simple example and chances are that a vessel will not meet all four criteria for two full days.

A final adjustment is made after the catch is weighted. Consider a catcher vessel targeting flatfish in the GOA and which uses its MRA to top off with Pacific cod on the way back to port. On the fish ticket the vessel is reported to have been in one state statistical area with a catch composed of mostly flatfish and in another state statistical area with a catch of mostly Pacific cod. We do not reapportion the total amount of the catch; we only adjust the species composition in the grid ID associated with state statistical areas. This algorithm will not change the overall species composition or the overall catch weight associated with a grid ID.

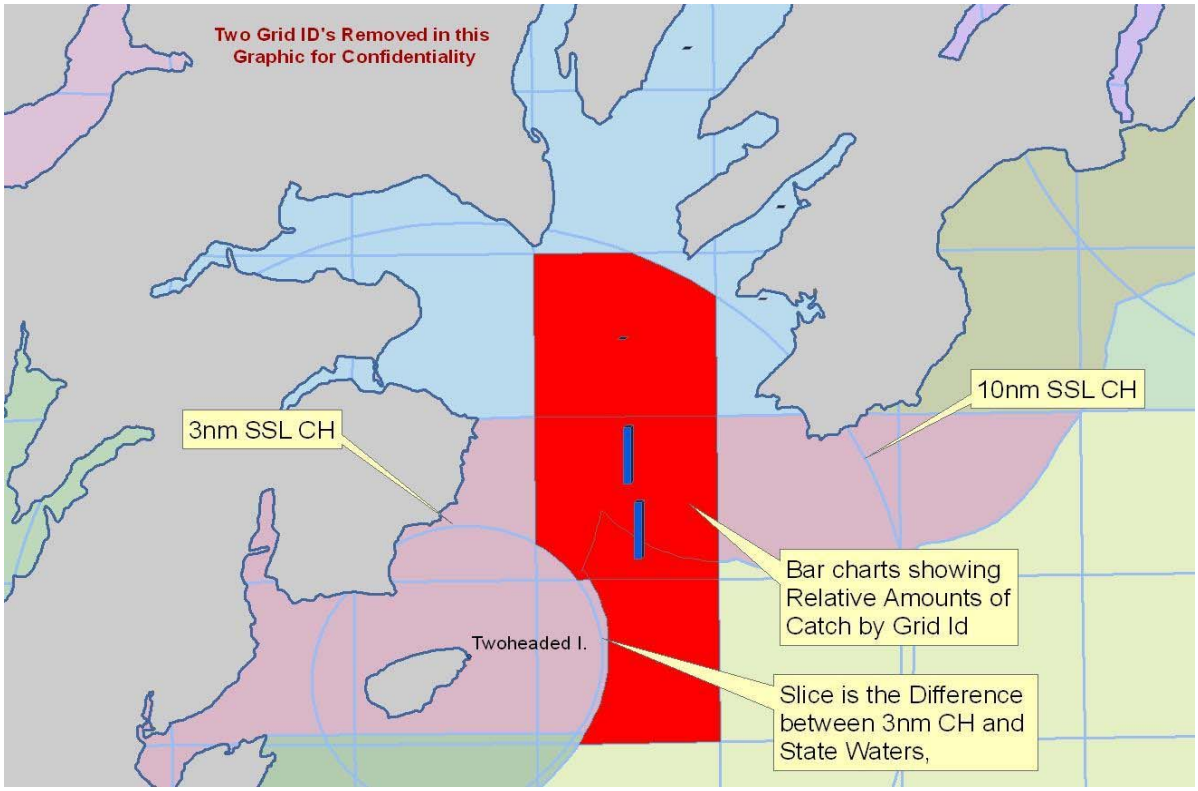
In 2008, 569,074 tons or 32.65% of the catch was matched in Step 3; and 7.35% of the catch remained to be matched in the following steps.

The tables below indicate average number of grid IDs that were captured in Step 3. The four criteria for the catcher vessel: speed, trip dates, fishing area, and state stat area. **The average of captured grid IDs is based on individual trips. The data is shown in two base groups: FMP and FMP and target fishery.**

FMP	Avg#Grid IDs
AI	15
BS	19
GOA	10

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs
AI	CV	Pcod	9
AI	CV	Rock	14
AI	CV	Plck	7
BS	CV	Pcod	17
BS	CV	Plck	20
GOA	CV	Pcod	8
GOA	CV	Rock	9
GOA	CV	Plck	7

A graphic illustrating a catcher vessel's trip and the grid IDs captured using the criteria outlined in Step 3. Blue bar charts show relative amounts of catch distribution by grid ID. Captured grid IDs shown in red - highlighted blocks below



4) Some catcher vessels may not accurately report their state statistical areas. In step 4, we drop the requirement for state statistical areas and replace it with NMFS Reporting Areas. The four criteria become: 1) a vessel must be operating between .9 knots and 4.1 knots; 2) a vessel must not be in an area known not to be a fishing area, e.g., very near ports; 3) a vessel is operating inside their reported NMFS Reporting Areas; and 4) the date of the VMS point must match the date range on their fish ticket.

   As with Step 3, this catch is weighted as to how many VMS fishing points are associated with a Grid ID. No reapportionment of catch composition is completed in this step.

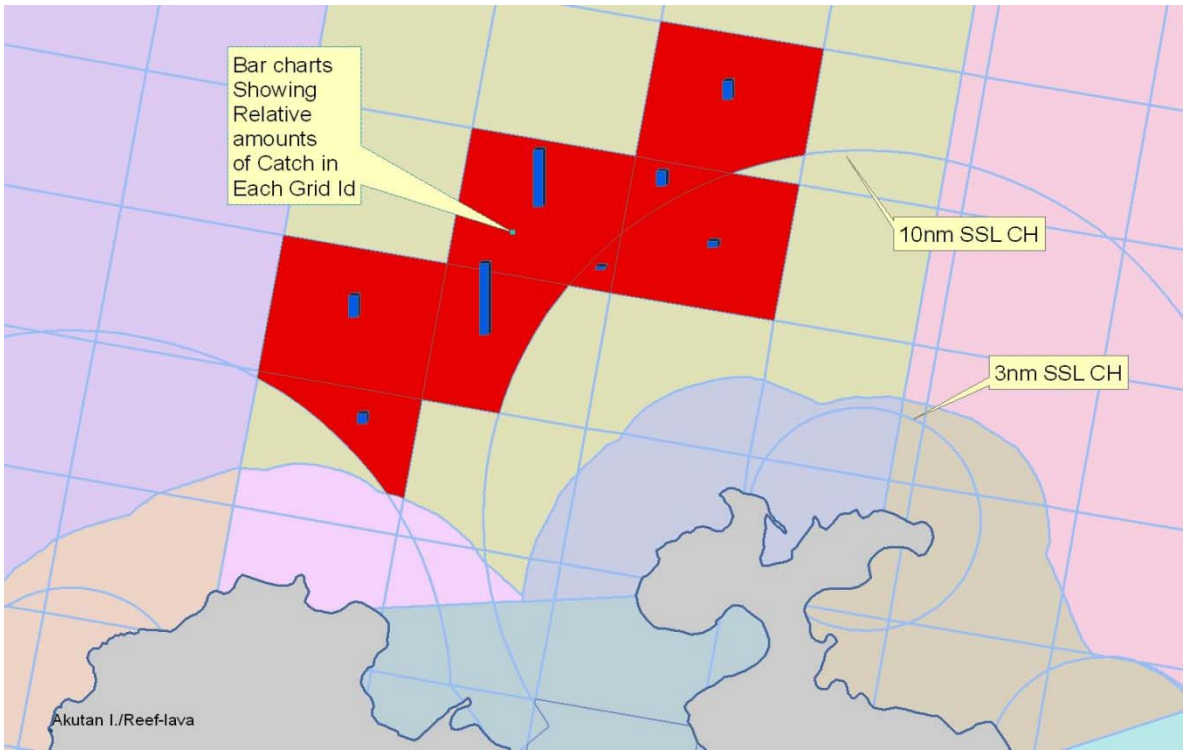
   In 2008, 20,683 tons or 1.19% of the catch was matched in Step 4.; and 6.17% of the catch remained to be matched in the following steps.

The tables below indicate average number of Grid IDs that were captured in Step 4. The 4 criteria for the catcher vessel: speed, dates, fishing area, NMFS Reporting Areas. The average is based on individual trips. The data is shown in two base groups: FMP and FMP and target fishery.

FMP	Avg#Grid IDs
AI	11
BS	13
GOA	8

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs
AI	CV	Pcod	6
BS	CV	Pcod	10
BS	CV	Plck	16
GOA	CV	Pcod	8
GOA	CV	Rock	7
GOA	CV	Plck	8

A graphic illustrating a catcher vessel's trip. Grid IDs captured using the criteria outlined in Step 4. Blue bar charts showing relative amounts of catch based on time the vessel spent inside Grid IDs. Captured grid IDs shown in red - highlighted blocks below.



5) Step 5 addresses unobserved catcher processors who report weekly on their production. Like an unobserved catcher vessel without a state statistical area, four criteria must be met: 1) A vessel must be operating between .9 knots and 4.1 knots; 2) a vessel must not be in an area known not to be a fishing area, e.g., very near ports; 3) a vessel must be operating inside its reported NMFS Reporting Areas; and 4) the date of the VMS point must match the week ending date reported on the catcher processor's weekly production report. In 2009 with additional reporting for unobserved catch processors, the temporal resolution will increase and hence the data for this step. Additionally, some catcher vessels are captured in this step by week ending date rather than by their reported trip dates.

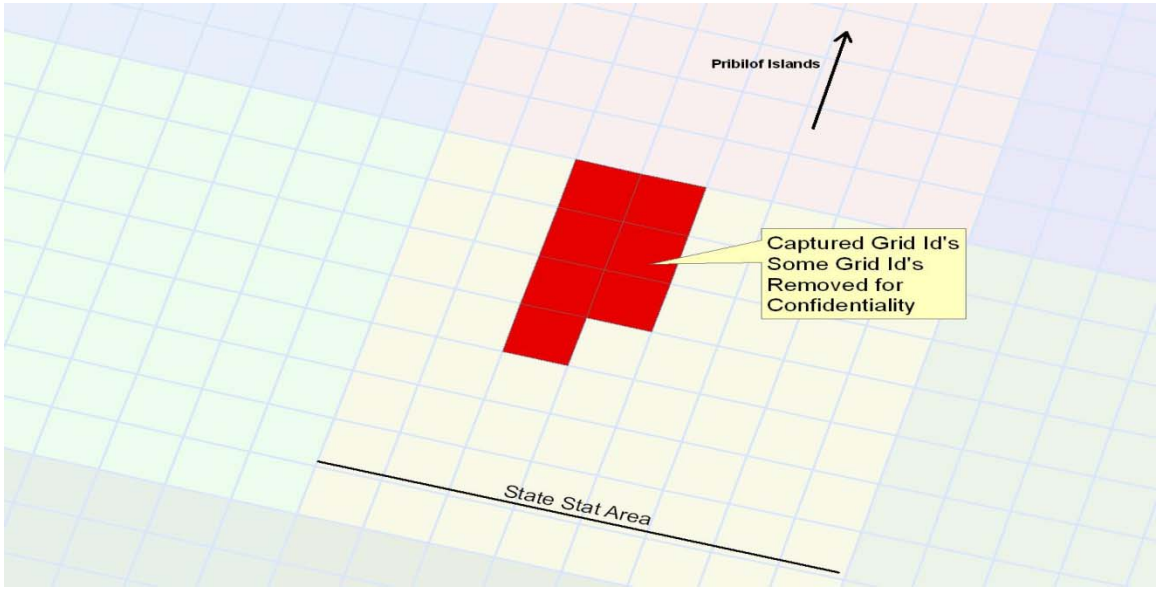
The tables below indicate average number of grid IDs that were captured in Step 5: The four criteria for these unmatched unobserved vessels: speed, week ending date (Saturday), fishing area, and NMFS Reporting Area. The average is based on a week ending date. The data is shown in three base groups: FMP, FMP and harvest sector, and, FMP, harvest sector, and target fishery.

FMP	Avg#Grid IDs
AI	3
BS	4
GOA	3

FMP	Harvest Sector	Avg#Grid IDs
AI	CP	3
AI	CV	2
BS	CP	4
BS	CV	2
GOA	CP	3
GOA	CV	2

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs
AI	CP	Pcod	3
AI	CV	Pcod	2
AI	CV	Plck	2
BS	CP	Pcod	4
BS	CP	Plck	3
BS	CV	Pcod	2
BS	CV	Plck	2
GOA	CP	Pcod	3
GOA	CP	Rock	2
GOA	CV	Pcod	2
GOA	CV	Rock	2
GOA	CV	Plck	2

A graphic illustrating an unobserved weekly trip. These grid IDs were captured using the criteria outlined in Step 5. Captured grid IDs shown in red - highlighted blocks below. Some grid IDs were removed for confidentiality.



Steps 1 through 5 above capture 96.13% (for the 2008 data) of the catch from Catch Accounting inside one of the seven-kilometer grid IDs. The final steps, called Average Vessel, match catch from the previously matched vessels (from steps 1 – 5) to the unmatched vessel records. All but 604 tons (for the 2008 data) of the unmatched catch are matched using this final process.

6) The Average Vessel algorithm groups all previously matched vessels operating in the groupings shown below, and then apportions catch equally to the associated grid IDs for the unmatched records. The first grouping includes vessel ID. Vessel ID is included with week ending date, NMFS Reporting Area, Harvest Sector, Gear, Target, etc., as we assume the best extrapolation is on a vessel operating as itself. We have seen this grouping to be effective when a catcher vessel with multiple trips in a single week may not be captured during a single trip due to a reporting or recording error.

   The following groupings, shown in the table below, were coordinated by such aspects as Management Program Code, Harvest Sector, NMFS Reporting Area, Gear, Target, and Week Ending Date. After matches for all those groupings are found (between the unmatched records in catch accounting and the previously match records in Catch-In-Areas), the grid IDs are compiled for those matched records and the catch is evenly divided among those grid IDs.

   After an average vessel record is apportioned to a set of grid IDs, a transaction ID is created and that vessel record is removed from further matching. The groupings for Average Vessel are then slightly liberalized, and the next groupings are formed, matched and apportioned to grid IDs. As noted above, these steps capture greater than 99.98% of

the catch. Catch that is not captured is often groundfish caught by non-federally permitted groundfish catcher vessels.

Match-Groupings for the Iterative Average Vessel Extrapolation Algorithm.

- Mgt_Prog_Code HarvestSector Rpting Area Target, Gear WeekEndDate Vessel ID
- Harvest Sector NMFS Area Gear Target WeekEndDate Processor ID
- Mgt_Prog_Code HarvestSector NMFS Area Gear Target WeekEndDate
- Mgt_Prog_Code HarvestSector NMFS Area Gear WeekEndDate Target
- Mgt_Prog_Code NMFS Area Gear Target WeekEndDate
- Harvest Sector NMFS Area Target WeekEndDate
- Harvest Sector NMFS Area Gear WeekEndDate
- NMFS Area Gear Target WeekEndDate
- NMFS Area Target WeekEndDate
- NMFS Area Gear WeekEndDate
- NMFS Area Gear Target Month Year
- NMFS Area Target Month Year
- NMFS Area Gear Month Year
- FMPAreaCode Gear Target WeekEndDate
- FMPAreaCode Target WeekEndDate
- FMPAreaCode Gear WeekEndDate
- FMPAreaCode Gear Target Month Year
- FMPAreaCode Target Month Year
- FMPAreaCode Gear Month Year

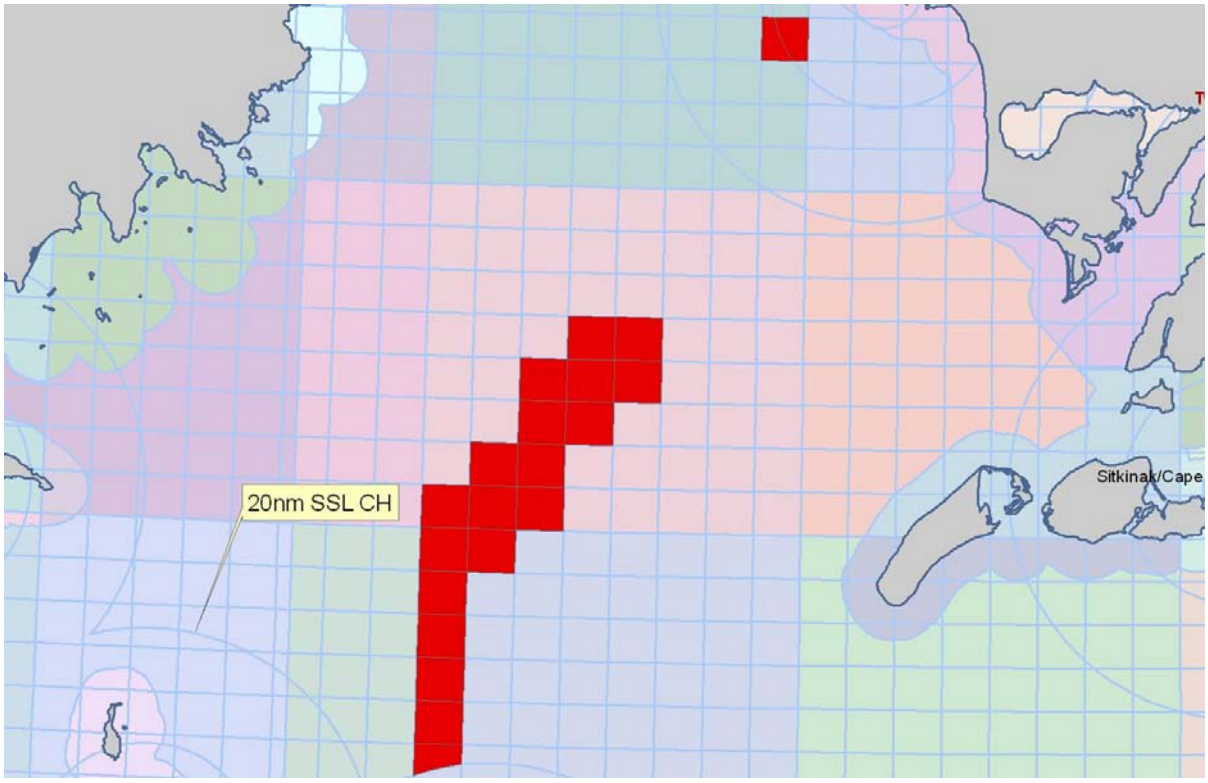
For clarity, the following summary tables aggregate all 19 levels of the Average Vessel extrapolation algorithm into a single set of tables.

FMP	Avg#Grid IDs
AI	33
BS	32
GOA	28

FMP	Harvest Sector	Avg#Grid IDs
AI	CP	36
AI	CV	23
BS	CP	38
BS	CV	30
GOA	CP	33
GOA	CV	28

FMP	Harvest Sector	Example Species Code	Avg#Grid IDs
AI	CP	Pcod	36
AI	CV	Pcod	23
BS	CP	Pcod	39
BS	CP	Plck	24
BS	CV	Pcod	33
BS	CV	Plck	30
GOA	CP	Pcod	34
GOA	CP	Rock	27
GOA	CV	Pcod	28
GOA	CV	Rock	28
GOA	CV	Pcod	13
GOA	CV	Plck	2

This graphic illustrating the Average Vessel Extrapolation Algorithm grid id's that was captured, shown in red - highlighted blocks below. This Average Vessel was grouped and matched on a vessel or group of vessels with the same Harvest Sector, NMFS Reporting Area, Gear Type, Target, and Week Ending Date.



The table below illustrates the amount of catch by each matching method.

Analysis based on 2008			
Matching Method	**Tons Matched**	**% of Total Catch**	**Cumulative % Matched**
VMS-Obs by Time and Obs Trackline	827,140	47.39%	47.39%
OBS Deploy and Retrieve Trackline	219,709	12.59%	59.98%
CV-Stat_Area	569,754	32.65%	92.63%
CV-NMFS_Area	20,683	1.19%	93.82%
CP_NMFS_Area	40,332	2.31%	96.13%
Grouping for Extrapolations for unmatched catch:			
Avg_MgtPrg_HS_RA_Gr_Tgt_WED_Ves	1,321	0.08%	96.20%
Avg_HS_RA_Gr_Tgt_WED_VesID	24	0.00%	96.20%
Avg_HS_RA_Gr_Tgt_WED_PID	32,466	1.86%	98.07%
Avg_MgtPrg_HS_RA_Gr_Tgt_WED	17,701	1.01%	99.08%
Avg_MgtPrg_RA_Gr_Tgt_WED	513	0.03%	99.11%
Avg_HS_RA_Tgt_WED	5,829	0.33%	99.44%
Avg_HS_RA_Gr_WED	4,516	0.26%	99.70%
Avg_RA_Gr_Tgt_WED	166	0.01%	99.71%
Avg_RA_Gr_WED	447	0.03%	99.74%
Avg_RA_Tgt_WED	250	0.01%	99.75%
Avg_RA_Gr_Mnt_Yr	2,534	0.15%	99.90%
Avg_FMP_GrT_Tgt_WED	894	0.05%	99.95%
Avg_FMP_Gr_Mnt_Yr	16	0.00%	99.95%
Avg_FMP_Tgt_WED	582	0.03%	99.98%
Avg_FMP_Gr_WED	23	0.00%	99.98%
Total VOE-CIA by Grid_ID to Catch Accounting	1,744,900		
Total of full Catch Accounting System	1,745,504		

The final dataset includes data from Steps 1 – 5 above, plus data derived from the Average Vessel processes. This creates a geospatial database that matches the Catch Accounting system. Several additional columns of information are added to Catch Accounting that include Percent in Grid, Weight-In-Grid, Match Source, 'ESA Critical Habitat,' '679 Critical Habitat,' and assorted protection areas. Each area of study resides in a separate column (which may be queried) to insure that catch is not double or triple counted.

Match Source is the metadata column. It provides analysts information as to which step captured the data: Step 1: VMS-Obs, Step 2: OBS, Step 3: CV-Stat_Area, Step 4: CV-NMFS_Area, Step 5: CP_NMFS_Area, or Average Vessel. Average Vessel is further broken down by which groupings were used for the extrapolations. For instance, the first grouping above includes AVG: Harvest Sector-NMFS_Area GEAR Type, Target, Week Ending Date and Vessel Id. The Average Vessel catch can be removed from queries if requested by the analyst.

With the database complete, it can then be joined back to the GIS, or a GIS feature class can be joined to the native database by the grid ID. Other geospatial data that are currently complete and attached to the CIA include distance from aggregated Steller sea lion Critical habitat sites; distance from individual, overlapping SSL sites; and distance from foraging areas and some of the habitat protection and conservation areas.

This table illustrates most of the relevant columns in the VOE-CIA dataset. Note that data can be selected independently or grouped by any of the columns bellow, including, Target Fishery, Gear Type, Vessel ID, Processor, Sector, Management Program, Coop or Group or operating in any of several zones (SSL or Habitat) or management areas.

Base Catch Accounting Data
Reporting Area Code
Catch Activity Date
Week End Date
Trip Target Date
Year, Month, Quarter
Catch Report Type Code
CA Reference / Haul-SLog Join
Vessel ID
Gear Type
Harvest Sector
Trip Target Code
Management Program Code
AFA Coop ID
Processor ID
State Waters Flag
FMP Area Code
Species Group Code
BSAI Processing Sector
Vessel Size Catagory
PSCNQ Processing Sector
CDQ Group ID
Agency Species Code
Source Table: Obs, WPR, State
Directed Fishing Flags
Weight Posted

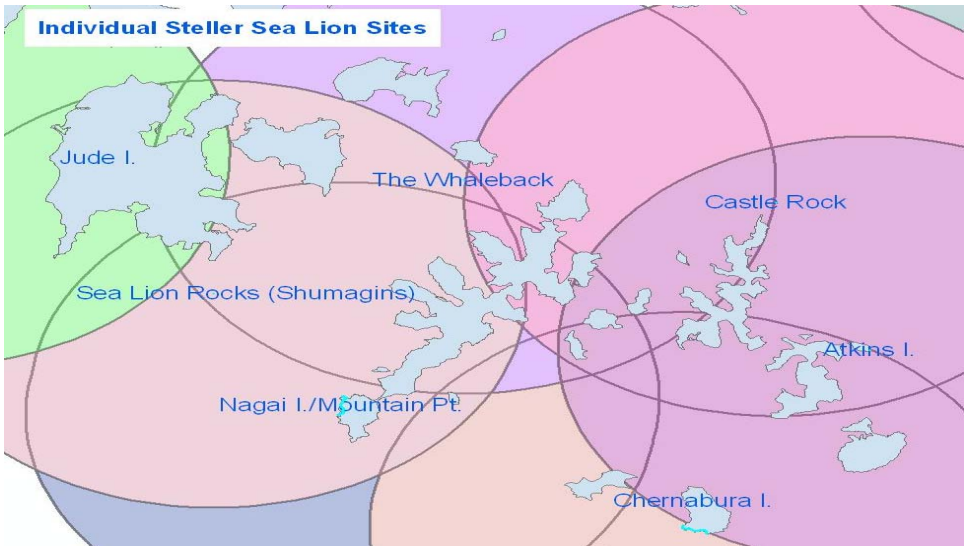
Additional VOE-CIA Columns
7Km Grid ID
Weight In Grid
Match Source: Matching Algorthm
Species Adjusted Weight
ADFG STAT AREA
Percent in Grid
20Km Grid ID
226 SSL Critical Habitat
679 SSL Critical Habitat
No NPT Areas

Other Distinct VOE-CIA Datasets
Overlapping SSL Sites
PSC: Prohibited Species

Other Datasets: Prohibited Species and Overlapping Steller Sea Lion Site VOE-CIA Datasets

Two separate VOE-CIA datasets have also been created: Prohibited Species (PSC) and Overlapping SSL sites. The overlapping SSL site dataset is by each of the 154 Steller sea lion sites, split out by 3, 10 and 20nautical miles; and, where the individual SSL sites overlap, the catch will overlap. This will give analysts and policy makers the ability to look at individual vessels, fleets, and target fisheries, gears types etc., operating in or around each individual SSL sites. Catch by the overlapping Steller sea lion site cannot be grouped and

summed by management areas since catch from the overlapping Steller sea lion sites would be counted several times where the sites overlap.



PSC: The PSC database (PSC) is joined by the associated values to the VOE-CIA and the records divided into Grid ID's in the same proportions that were made with Catch Accounting groundfish database. The noted caveats to this PSC dataset are embedded within the PSC data. These caveats include how the base PSC data was collected and then extrapolated to the non observed fleets.

Included Prohibited Catch Species.

Blue King Crab
Bairdi Tanner Crab
Chinook
Grenadier
Hake
Golden King Crab
Herring
Halibut
Non Chinook Salmon
Other King Crab
Red King Crab

Use of the VOE-CIA for Analytical Purposes

The VOE-CIA database uses an iterative, ordered process to match VMS records, Observer collected data and VMS/Catch Accounting System indicators to a fishing vessel. This gives analysts the capability to analyze unobserved vessels that may have been transparent when only using earlier analytical tools such as observer data. For example, the comparative analysis in the tables below, show a difference in catch between the VOE-CIA and the Expanded Observer Dataset (extrapolated Observer data, also called the EOD) for the

unobserved/small vessel fleet that operates within 3 and 10 nm from unrestricted Steller sea lion sites.

It should be noted that VOE-CIA data only go back as far as 2003. This is due to the unavailability of reliable VMS data and a vessel linked catch accounting system before 2003. Observer data on the other hand goes back to the early 1990s, giving analysts the ability to look at long-term trends in groundfish catch and that can be related to Steller sea lion population trends. Both VOE-CIA and the EOD are utilized in this document to insure the best available data is being used for the appropriate analysis. When considering *trends* in catch it would be inappropriate to mix these data sets or to substitute a single year of catch data from one data set into a trend analysis based on the other data set.

The VOE-CIA gives analysts the ability to look at fine scale spatial groundfish catch data. For instance, ESA listed, Part 226 Critical Habitat for Steller sea lions is designated by 133 Steller Sea lion sites and foraging areas in the Bering Sea, Aleutian Islands and the Gulf of Alaska. These sites are buffered at a radius of 20nm, and for analysis only, are further divided from the point of origin at the Steller sea lion site at 0-3, 3-10, and 10-20nm. It is important to note that the catch shown in foraging areas is only that catch taken outside the 20nm SSL zones.

Catch from the additional 19 'RPA sites' (1998 and 1999) are not included in these tables since the Biological Opinion is predominately looking at ESA listed, Part 226 Critical Habitat. Most of the RPA sites overlap other Steller sea lion sites so most of this RPA catch is accounted for in SSL Critical Habitat.

Table A examines VOE-CIA 2003 data with VOE-CIA 2008 data, using the ESA listed, Part 226 SSL Critical Habitat as the basis of comparison. Note the catch difference in the pollock fishery in the Bering Sea CH/CVOA (Bering Sea Foraging Area). It shows that the fishing fleet is moving north and outside of the CH/CVOA in the Bering Sea. The catch difference reflects a change in species catch composition away from predominately pollock to a more varied species composition.

Table A sums pollock, Atka mackerel, Pacific cod, and ArrowTooth flounder into a single table by Steller sea lion area and FMP area: GOA, AI and BS. Total catch of these species is shown whether or not the species was being targeted.

Table B is the same catch data as in Table A but divided into the four species groups as analyzed in the Biological Opinion. Tables A and B do not compare VOE-CIA to Expanded Observer Data (EOD); but, those comparisons can be found in the final Tables: 1 through 10 below.

Table A. A negative or red number represents catch that is lower in 2008 than in 2003.

FMP	YEAR	Area	Tons 2003	Tons 2008	Change/Tons
AI	2003	Outside CH	41,601	42,920	1,318
AI	2003	0-3'	169	646	477
AI	2003	3-10'	11,304	12,070	766
AI	2003	10-20'	30,568	36,891	6,323
AI	2003	Seguam Pass	44	20	-23
BS	2003	Outside CH	757,228	843,081	85,853
BS	2003	0-3'	530	84	-446
BS	2003	3-10'	18,561	10,081	-8,480
BS	2003	10-20'	176,371	75,783	-100,588
BS	2003	CH/CVOA	569,427	221,045	-348,382
GOA	2003	Outside CH	54,428	54,275	-153
GOA	2003	0-3'	2,566	4,988	2,423
GOA	2003	3-10'	23,824	31,117	7,294
GOA	2003	10-20'	49,614	46,235	-3,379
GOA	2003	Shelikof	3,663	5,580	1,916

Table B. A negative or red number represents catch that is lower in 2008 than in 2003.

FMP	226 Critical Habitat	Species	Tons - 2003	Tons - 2008	Change/Tons
AI	Outside of SSL CH	AMCK	31,781	38,423	6,642
AI	Outside of SSL CH	ARTH	343	333	-10
AI	Outside of SSL CH	PCOD	9,030	3,640	-5,390
AI	Outside of SSL CH	PLCK	447	524	77
AI	3-10'	AMCK	781	299	-482
AI	3-10'	ARTH	156	811	655
AI	3-10'	PCOD	9,774	10,748	974
AI	3-10'	PLCK	593	212	-382
AI	10-20'	AMCK	16,394	18,966	2,572
AI	10-20'	ARTH	368	1,364	996
AI	10-20'	PCOD	13,285	16,022	2,737
AI	10-20'	PLCK	520	538	18
AI	0-3'	AMCK	4	1	-3
AI	0-3'	ARTH	13	3	-10
AI	0-3'	PCOD	111	637	527
AI	0-3'	PLCK	41	5	-36
AI	Seguam_Pass	AMCK	0	0	0
AI	Seguam_Pass	ARTH	35	10	-25
AI	Seguam_Pass	PCOD	2	10	8
AI	Seguam_Pass	PLCK	7	0	-7

Table B continued.

FMP	226 Critical Habitat	Species	Tons - 2003	Tons - 2008	Change/Tons
BS	Outside of SSL CH	AMCK	222	17	-205
BS	Outside of SSL CH	ARTH	5,606	7,760	2,155
BS	Outside of SSL CH	PCOD	93,518	100,378	6,860
BS	Outside of SSL CH	PLCK	657,882	734,926	77,044
BS	3-10'	AMCK	200	35	-164
BS	3-10'	ARTH	106	4,019	3,914
BS	3-10'	PCOD	7,103	2,662	-4,441
BS	3-10'	PLCK	11,153	3,364	-7,789
BS	10-20'	AMCK	3,117	328	-2,789
BS	10-20'	ARTH	2,467	3,603	1,136
BS	10-20'	PCOD	16,793	10,733	-6,060
BS	10-20'	PLCK	153,994	61,120	-92,875
BS	0-3'	AMCK	15	2	-13
BS	0-3'	ARTH	1	1	0
BS	0-3'	PCOD	405	81	-323
BS	0-3'	PLCK	110	1	-109
BS	CH/CVOA	AMCK	1,535	17	-1,518
BS	CH/CVOA	ARTH	3,772	3,958	186
BS	CH/CVOA	PCOD	46,660	25,818	-20,843
BS	CH/CVOA	PLCK	517,460	191,253	-326,207

FMP	226 Critical Habitat	Species	Tons - 2003	Tons - 2008	Change/Tons
GOA	Outside of SSL CH	AMCK	510	1,389	878
GOA	Outside of SSL CH	ARTH	20,924	19,055	-1,869
GOA	Outside of SSL CH	PCOD	20,403	21,715	1,312
GOA	Outside of SSL CH	PLCK	12,591	12,117	-474
GOA	3-10'	AMCK	3	91	88
GOA	3-10'	ARTH	1,307	3,174	1,867
GOA	3-10'	PCOD	13,932	14,383	451
GOA	3-10'	PLCK	8,582	13,469	4,888
GOA	10-20'	AMCK	62	629	567
GOA	10-20'	ARTH	7,055	6,520	-535
GOA	10-20'	PCOD	13,728	16,318	2,590
GOA	10-20'	PLCK	28,769	22,768	-6,001
GOA	0-3'	AMCK	0	1	0
GOA	0-3'	ARTH	3	29	26
GOA	0-3'	PCOD	2,369	4,748	2,379
GOA	0-3'	PLCK	193	211	17
GOA	Shelikof	ARTH	1,073	541	-532
GOA	Shelikof	PCOD	2,009	1,752	-257
GOA	Shelikof	PLCK	581	3,287	2,706

Comparison between Catch-In-Areas database and Expanded Observer Database

The following tables analyze the difference between catch reported by the VOE-CIA and the Expanded Observer Database (EOD), inside each RCA area, by distance zone (0-3 nm, 3-10 nm, and 10-20 nm) and year. 2003 through 2008 pollock, Atka mackerel, Pacific cod, and

ArrowTooth flounder catch is analyzed here. At the time of this analysis, 2009 CIA data was incomplete and is therefore not shown. Differences are indicated between the VOE-CIA and EOD in the observed fleet and as noted, the unobserved or partially observed smaller vessel fleet that often operates between 0-10 nm from SSL sites. An example of the catch differences between these two databases in the partially observed, small vessel fleet, see 2003: SSL BiOp Area 8, in zone 3-10, for Pacific cod.

Negative numbers represent EOD catch that was less than was estimated in the CIA. These lower estimates are due to fewer observed hauls in a given area. The small catch discrepancies inside the Steller sea lion zones were understood by authors when doing their analyzes. And while some of these estimates were lower in the EOD then in the CIA, they were viewed as a conservative approach to evaluate relationships between catch and Steller sea lion trends in adjacent areas.

TAC refers to limits that vary spatially by target fisheries from NMFS Reporting Areas and by the FMP extents. TAC was not disaggregated in this analysis by area and therefore should not be used a direct indication of the status of each fishery by the RCA without first looking at the spatial extent of the TAC. TAC for RCA 6 is the BS or BSAI, depending on fishery. GOA TAC is not included in RCA 6.

2003

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	51	99	0	150	355	0	86	72		158	305	0	-35	27	0	-8	-15	1,000	31%
Pacific Cod	2003	0	1460	1211	0	2,671	3,323	3	17	1000		1,020	2,974	-3	1,443	211	0	1,651	3,301	207,500	1%
Atka Mackerel	2003	0	21	5,357	0	5,378	19,077	0	1,377	3369		4,746	17,884	0	-1,356	1,988	0	632	1,265	19,990	89%
ArrowTooth Flounder	2003	0	7	44	0	51	141	1	58	38		97	135	-1	-51	6	0	-46	-92	12,000	1%
Sum all four species	2003	0	1,539	6,711	0	8,250	22,896	4	1,538	4,478	0	6,020	21,298	-4	1	2,233	0	2,230	4,459	240,490	9%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	263	70	0	333	437	6	370	80		456	553	-6	-107	-10	0	-123	-116	1,000	55%
Pacific Cod	2003	14	287	1,457	0	1,758	4,645	20	477	1323		1,821	4,618	-6	-190	134	0	-63	27	207,500	2%
Atka Mackerel	2003	0	105	12,629	0	12,734	26,086	0	181	12097		12,278	24,835	0	-76	532	0	456	1,251	29,360	85%
ArrowTooth Flounder	2003	0	8	19	0	27	102	0	13	18		31	116	0	-5	1	0	-4	-14	12,000	1%
Sum all four species	2003	14	663	14,175	0	14,852	31,270	27	1,042	13,518	0	14,586	30,123	-13	-379	657	0	266	1,147	249,860	12%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	59	124	7		190	191	35	145	9		189	191	24	-21	-2	0	1	0	1,000	19%
Pacific Cod	2003	1	716	457		1,174	1,175	38	1,388	412		1,838	1,844	-37	-672	45	0	-664	-669	207,500	1%
Atka Mackerel	2003	7	362	799		1,168	1,189	4	271	342		616	643	3	91	457	0	552	546	29,360	2%
ArrowTooth Flounder	2003	18	52	29		99	100	12	59	28		99	104	6	-7	1	0	0	-4	12,000	1%
Sum all four species	2003	85	1,254	1,292	0	2,631	2,655	89	1,862	791	0	2,742	2,782	-4	-608	501	0	-111	-127	249,860	1%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	9	280		289	398	0	10	233		243	326	0	-1	47	0	46	72	1,000	33%
Pacific Cod	2003	0	4,489	6,101		10,590	14,437	50	6,471	4636		11,157	14,338	-50	-1,982	1,465	0	-567	99	207,500	7%
Atka Mackerel	2003	0	190	196		386	411	0	111	296		407	420	0	79	-100	0	-21	-9	10,650	4%
ArrowTooth Flounder	2003	0	38	50		88	109	0	27	57		85	109	0	11	-7	0	3	0	12,000	1%
Sum all four species	2003	0	4,726	6,627	0	11,353	15,355	50	6,620	5,221	0	11,892	15,194	-50	-1,894	1,406	0	-539	161	231,150	7%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	19	191	11	221	301		11	127	0	139	232	0	8	64	11	82	69	1,000	23%
Pacific Cod	2003	0	10	6,325	1	6,336	8,871		61	5918	10	5,988	8,468	0	-51	407	-9	348	403	207,500	4%
Atka Mackerel	2003	0	56	336	1	393	6,149		131	291	0	423	5,178	0	-75	45	1	-30	971	10,650	49%
ArrowTooth Flounder	2003	0	17	325	45	387	533		39	228	10	276	451	0	-22	97	35	111	82	12,000	4%

Sum all four species	2003	0	102	7,177	58	7,337	15,854	0	242	6,564	20	6,826	14,329	0	-140	613	38	511	1,525	231,150	6%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	126	14365	185766	468,478	668,735	1,492,079	110	11,168	154116	517,479	682,873	1,341,342	16	3,197	31,650	-49,001	-14,138	150,737	1,491,760	90%
Pacific Cod	2003	112	9,178	15,070	25,983	50,343	179,472	448	7,205	17366	46,853	71,873	165,948	-336	1,973	-2,296	-20,870	-21,530	13,524	207,500	80%
Atka Mackerel	2003	6	419	4,440	374	5,239	5,462	15	200	3117	1,541	4,873	5,064	-9	219	1,323	-1,167	366	398	10,650	48%
ArrowTooth Flounder	2003	0	74	2255	3,550	5,879	11,187	1	112	2609	3,897	6,619	14,500	-1	-38	-354	-347	-740	-3,313	12,000	121%
Sum all four species	2003	244	24,036	207,531	498,385	730,196	1,688,200	574	18,686	177,208	569,771	766,238	1,526,854	-330	5,350	30,323	-71,386	-36,042	161,346	1,721,910	89%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	5961	5329		11,290	14,528	160	5,959	5779		11,898	15,774	-160	2	-450	0	-608	-1,246	16,788	94%
Pacific Cod	2003	18	8,662	4,877		13,557	20,274	1,038	9,806	5300		16,145	20,433	-1,020	-1,144	-423	0	-2,588	-159	15,450	132%
Atka Mackerel	2003	0	100	42		142	417	0	C	59		59	445	0		-17	0	83	-28	600	74%
ArrowTooth Flounder	2003	0	447	1872		2,319	6,497	1	50	301		352	5,690	-1	397	1,571	0	1,967	807	8,000	71%
Sum all four species	2003	18	15,170	12,120	0	27,308	41,716	1,199	15,815	11,439	0	28,453	42,342	-1,181	-745	681	0	-1,145	-626	40,838	104%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	292	13559	341	14,192	19,455	0	356	12328	362	13,046	19,776	0	-64	1,231	-21	1,146	-321	19,685	100%
Pacific Cod	2003	0	72	3,994	172	4,238	6,983	1,091	810	1467	1,094	4,462	7,080	-1,091	-738	2,527	-922	-224	-97	22,690	31%
Atka Mackerel	2003	0	0	3	0	3	138	0	0	C	0	1	142	0	0		0	2	-4	600	24%

ArrowTooth Flounder	2003	0	336	3609	532	4,477	8,747	0	368	2989	701	4,058	8,734	0	-32	620	-169	419	13	25,000	35%
Sum all four species	2003	0	700	21,165	1,045	22,910	35,323	1,091	1,535	16,784	2,158	21,568	35,731	-1,091	-835	4,378	-1,113	1,342	-408	67,975	53%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	1668	8964	202	10,834	11,229	33	1,614	9736	219	11,602	12,321	-33	54	-772	-17	-768	-1,092	10,339	119%
Pacific Cod	2003	0	4,565	4,096	236	8,897	22,761	164	2,930	6307	915	10,316	23,099	-164	1,635	-2,211	-679	-1,419	-338	24,000	96%
Atka Mackerel	2003	0	0	1	0	1	21	0	0	0	0	1	21	0	0	1	0	0	0	600	3%
ArrowTooth Flounder	2003	0	910	5740	702	7,352	13,355	C	879	3615	372	4,866	13,401		31	2,125	330	2,486	-46	25,000	54%
Sum all four species	2003	0	7,143	18,801	1,140	27,084	47,366	197	5,423	19,658	1,506	26,784	48,842	-197	1,720	-857	-366	300	-1,476	38,339	127%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2003	0	768	2155		2,923	3,484	0	637	805		1,442	2,115	0	131	1,350	0	1,481	1,369	1,078	196%
Pacific Cod	2003	0	357	494		851	968	33	277	75		385	469	-33	80	419	0	466	499	2,400	20%
Atka Mackerel	2003	0	0	0		0	0		C	C		0	0	0			0	0	0	600	0%
ArrowTooth Flounder	2003	0	0	39		39	144	0	0	0		0	71	0	0	39	0	39	73	2,500	3%
Sum all four species	2003	0	1,125	2,688	0	3,813	4,596	33	914	881	0	1,828	2,655	-33	211		0	1,985	1,941	6,578	40%

2004

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	86	79	0	165	550	0	91	69		160	245	0	-5	10	0	5	305	1,000	25%
Pacific Cod	2004	2	1,135	1,706	0	2,843	3,228	C	1,325	2028		3,353	3,639		-190	-322	0	-510	-411	215,500	2%
Atka Mackerel	2004	0	9	727	0	736	18,375	0	19	1291		1,310	19,547	0	-10	-564	0	-574	-1,172	20,660	95%
ArrowTooth Flounder	2004	0	11	20	0	31	128	0	16	33		49	127	0	-5	-13	0	-18	1	12,000	1%
Sum all four species	2004	2	1,241	2,532	0	3,775	22,281	0	1,451	3,421	0	4,872	23,558		-210	-889	0	-1,097	-1,277	249,160	9%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	40	97	0	137	286	0	141	96		237	373	0	-101	1	0	-100	-87	1,000	37%
Pacific Cod	2004	42	1,195	2,152	0	3,389	5,008	73	1,588	1488		3,150	4,890	-31	-393	664	0	239	118	215,500	2%
Atka Mackerel	2004	30	1	12,907	0	12,938	27,899	C	446	12300		12,746	27,799		-445	607	0	192	100	31,100	89%
ArrowTooth Flounder	2004	1	10	73	0	84	156	1	16	64		82	157	0	-6	9	0	2	-1	12,000	1%
Sum all four species	2004	73	1,246	15,229	0	16,548	33,349	75	2,192	13,948	0	16,214	33,219		-946	1,281	0	334	130	259,600	13%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	82	53	2		137	139	57	80	5		143	144	25	-27	-3	0	-6	-5	1,000	14%
Pacific Cod	2004	7	718	843		1,568	1,569	56	1,358	657		2,072	2,072	-49	-640	186	0	-504	-503	215,500	1%
Atka Mackerel	2004	39	143	2,216		2,398	2,405	51	164	2155		2,370	2,378	-12	-21	61	0	28	27	31,100	8%
ArrowTooth Flounder	2004	16	36	21		73	79	12	59	27		98	103	4	-23	-6	0	-25	-24	12,000	1%
Sum all four species	2004	144	950	3,082	0	4,176	4,192	177	1,661	2,844	0	4,682	4,697	-33	-711	238	0	-506	-505	259,600	2%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	9	124		133	150	0	14	60		74	123	0	-5	64	0	59	27	1,000	12%
Pacific Cod	2004	21	5,268	5,883		11,172	12,556	84	4,599	5644		10,326	11,648	-63	669	239	0	846	908	215,500	5%
Atka Mackerel	2004	0	160	125		285	285	0	175	138		313	321	0	-15	-13	0	-28	-36	11,240	3%
ArrowTooth Flounder	2004	1	34	28		63	69		24	27		51	63		10	1	0	12	6	12,000	1%
Sum all four species	2004	22	5,471	6,160	0	11,653	13,060	84	4,812	5,869	0	10,765	12,155		659	291	0	888	905	239,740	5%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	38	116	0	154	301		11	140	0	151	273	0	27	-24	0	3	28	1,000	27%
Pacific Cod	2004	0	88	3,993	0	4,081	6,491		90	4044	C	4,134	6,617	0	-2	-51		-53	-126	215,500	3%
Atka Mackerel	2004	0	50	61	0	111	3,559		50	65	0	115	3,360	0	0	-4	0	-4	199	11,240	30%
ArrowTooth Flounder	2004	0	79	117	14	210	369		37	163	15	215	368	0	42	-46	-1	-5	1	12,000	3%
Sum all four species	2004	0	255	4,287	14	4,556	10,720	0	188	4,412	15	4,615	10,618	0	67	-125		-59	102	239,740	4%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	10561	105710	492,337	608,608	1,482,910	8	8,516	104833	544,609	657,966	1,481,207	-8	2,045	877	-52,272	-49,358	1,703	1,492,000	99%
Pacific Cod	2004	22	7,739	14,863	29,517	52,141	184,002	118	6,139	18039	45,314	69,610	184,993	-96	1,600	-3,176	-15,797	-17,469	-991	215,500	86%
Atka Mackerel	2004	0	504	5,009	623	6,136	6,535	C	332	4520	1,916	6,767	7,091		172	489	-1,293	-631	-556	11,240	63%
ArrowTooth Flounder	2004	1	236	3507	7,183	10,927	17,575	22	205	3595	7,237	11,059	17,855	-21	31	-88	-54	-132	-280	12,000	149%
Sum all four species	2004	23	19,040	129,089	529,660	677,812	1,691,022	148	15,191	130,987	599,076	745,403	1,691,147		3,849	-1,898	-69,416	-67,591	-125	1,730,740	98%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	3728	9469		13,197	20,860	0	3,587	11723		15,310	22,367	0	141	-2,254	0	-2,113	-1,507	22,930	98%
Pacific Cod	2004	0	3,604	7,938		11,542	20,261	2,084	7,454	5774		15,312	20,253	-2,084	-3,850	2,164	0	-3,770	8	16,957	119%
Atka Mackerel	2004	0	69	93		162	777	0	3	166		170	840	0	66	-73	0	-8	-63	600	140%
ArrowTooth Flounder	2004	0	535	610		1,145	2,573	0	26	4191		4,217	9,041	0	509	-3,581	0	-3,072	-6,468	8,000	113%
Sum all four species	2004	0	7,936	18,110	0	26,046	44,471	2,084	11,069	21,855	0	35,009	52,501	-2,084	-3,133	-3,745	0	-8,963	-8,030	48,487	108%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	299	14741	2,287	17,327	19,646	0	468	14437	2,001	16,905	19,150	0	-169	304	286	422	496	26,490	72%
Pacific Cod	2004	160	1,220	2,085	1,155	4,620	7,346	1,349	720	1520	1,118	4,708	7,249	-1,189	500	565	37	-88	97	27,116	27%
Atka Mackerel	2004	0	0	2	0	2	28	0	0	0	0	0	30	0	0	2	0	2	-2	600	5%
ArrowTooth Flounder	2004	0	44	723	651	1,418	2,266	C	10	752	93	855	2,214		34	-29	558	563	52	25,000	9%
Sum all four species	2004	160	1,563	17,551	4,093	23,367	29,286	1,349	1,199	16,709	3,212	22,468	28,642	-1,189	364	842	881	899	644	79,206	36%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004		849	17832	66	18,747	19,296	C	1,359	17134	38	18,531	20,309		-510	698	28	216	-1,013	14,040	145%
Pacific Cod	2004	87	7,214	7,031	129	14,461	27,111	763	5,694	8342	695	15,494	27,536	-676	1,520	-1,311	-566	-1,033	-425	27,116	102%
Atka Mackerel	2004	0	1	1	0	2	9	0	C	2	0	2	19	0		-1	0	0	-10	600	3%
ArrowTooth Flounder	2004	0	287	5333	276	5,896	10,054	6	980	6490	1,669	9,145	13,950	-6	-693	-1,157	-1,393	-3,249	-3,896	25,000	56%
Sum all four species	2004	87	8,351	30,197	471	39,106	56,470	769	8,033	31,969	2,402	43,173	61,813	-682	317	-1,772	-1,931	-4,067	-5,343	66,756	93%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2004	0	0	748		748	1,353	0	406	696		1,102	1,510	0	-406	52	0	-354	-157	1,280	118%
Pacific Cod	2004	0	24	11		35	164		8	5		12	114		16	6	0	23	50	3,960	3%
Atka Mackerel	2004	0	0	0		0	0					0	0	0	-2	-2	0	0	0	600	0%
ArrowTooth Flounder	2004	0	0	17		17	137		2	2		4	93				0	13	44	2,500	4%
Sum all four species	2004	248	574	1,761	0	2,583	1,654	176	1,047	334	0	1,557	1,717	72	-473	1,427	0	1,026	557	8,340	21%

2005

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	239	72	0	311	550	C	204	94		298	516		35	-22	0	13	34	19,000	3%
Pacific Cod	2005	0	363	2,960	0	3,323	4,225	0	564	2886		3,450	4,177	0	-201	74	0	-127	48	206,000	2%
Atka Mackerel	2005	0	2	3,543	0	3,545	19,130	0	17	3542		3,559	19,496	0	-15	1	0	-14	-366	20,000	97%
ArrowTooth Flounder	2005	1	7	20	0	28	178	2	12	23		36	183	-1	-5	-3	0	-8	-5	12,000	2%
Sum all four species	2005	1	611	6,595	0	7,207	24,083	2	797	6,545	0	7,344	24,373	-1	-186	50	0	-137	-290	257,000	9%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	54	46	0	100	166		104	40		145	201		-50	6	0	-45	-35	19,000	1%
Pacific Cod	2005	0	793	743	0	1,536	2,779	0	794	825		1,619	2,469	0	-1	-82	0	-83	310	206,000	1%
Atka Mackerel	2005	0	225	15,707	0	15,932	31,648	0	381	15462		15,843	31,209	0	-156	245	0	89	439	35,500	88%
ArrowTooth Flounder	2005	0	5	13	0	18	65		22	11		33	80		-17	2	0	-15	-15	12,000	1%
Sum all four species	2005	0	1,077	16,509	0	17,586	34,658	0	1,302	16,338	0	17,640	33,958	0	-225	171	0	-54	700	272,500	12%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	41	59	13		113	113	49	160	6		215	215	-8	-101	7	0	-102	-102	19,000	1%
Pacific Cod	2005		650	454		1,104	1,104		643	440		1,083	1,085		7	14	0	21	19	206,000	1%
Atka Mackerel	2005	15	439	3,784		4,238	4,244	16	259	3827		4,102	4,107	-1	180	-43	0	136	137	35,500	12%
ArrowTooth Flounder	2005	10	64	39		113	113	18	67	35		120	120	-8	-3	4	0	-7	-7	12,000	1%
Sum all four species	2005	66	1,212	4,290	0	5,568	5,574	82	1,129	4,308	0	5,519	5,527	-16	83	-18	0	49	47	272,500	2%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	6	17		23	212	0	6	17		24	182	0	0	0	0	-1	30	19,000	1%
Pacific Cod	2005	0	3,845	2,118		5,963	6,795		4,210	2815		7,025	7,806		-365	-697	0	-1,062	-1,011	206,000	4%
Atka Mackerel	2005	0	27	4		31	32		21	9		30	31		6	-5	0	1	1	7,500	0%
ArrowTooth Flounder	2005	0	43	10		53	63		38	14		52	62		5	-4	0	1	1	12,000	1%
Sum all four species	2005	0	3,921	2,149	0	6,070	7,102	0	4,276	2,856	0	7,131	8,080	0	-355	-707	0	-1,061	-978	244,500	3%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	11	484	11	506	580		16	373		389	508	0	-5	111		117	72	19,000	3%
Pacific Cod	2005	0	229	5,926	0	6,155	7,475		308	5135	31	5,474	7,147	0	-79	791	-31	681	328	206,000	3%
Atka Mackerel	2005	0	135	272	1	408	3,421		144	321		465	3,631	0	-9	-49		-57	-210	7,500	48%
ArrowTooth Flounder	2005	0	59	263	37	359	413		32	263	30	324	386	0	27	0	7	35	27	12,000	3%
Sum all four species	2005	0	434	6,945	49	7,428	11,889	0	500	6,092	61	6,653	11,671	0	-66	853	-24	775	218	244,500	5%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	9004	80915	365,081	455,000	1,486,963	24	6,478	79222	423,718	509,442	1,484,746	-24	2,526	1,693	-58,637	-54,442	2,217	1,478,500	100%
Pacific Cod	2005	0	5,327	9,882	30,769	45,978	186,827	83	4,513	13350	48,162	66,108	184,307	-83	814	-3,468	-17,393	-20,130	2,520	206,000	89%
Atka Mackerel	2005	0	694	2,444	95	3,233	3,523	6	291	1875	844	3,016	3,498	-6	403	569	-749	217	25	7,500	47%
ArrowTooth Flounder	2005	0	204	1690	3,911	5,805	13,524	1	167	2100	4,831	7,099	13,743	-1	37	-410	-920	-1,294	-219	12,000	115%
Sum all four species	2005	0	15,229	94,931	399,856	510,016	1,690,837	114	11,449	96,547	477,555	585,665	1,686,294	-114	3,780	-1,616	-77,699	-75,649	4,543	1,704,000	99%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	920	9274	6439		16,633	16,708	35	8,992	13173		22,200	29,468	885	282	-6,734	0	-5,567	-12,760	30,380	97%
Pacific Cod	2005	0	5,973	3,857		9,830	18,070	2,361	6,620	4706		13,687	16,756	-2,361	-647	-849	0	-3,857	1,314	15,687	107%
Atka Mackerel	2005	0	0	120		120	410	0	4	79		83	440	0	-4	41	0	37	-30	600	73%
ArrowTooth Flounder	2005	31	768	293		1,092	2,299		131	442		573	2,261	#######	637	-149	0	519	38	8,000	28%
Sum all four species	2005	951	16,015	10,709	0	27,675	37,487	2,396	15,747	18,400	0	36,543	48,925	#######	268	-7,691	0	-8,868	-11,438	54,667	89%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	2020	16953	467	19,440	27,370	894	886	16800	526	19,106	27,798	-894	1,134	153	-59	334	-428	34,404	81%
Pacific Cod	2005	0	23	904	927	1,854	1,630	0	413	1259	1,313	2,984	4,725	0	-390	-355	-386	-1,130	-3,095	25,086	19%
Atka Mackerel	2005	0	0	2	0	2	379	0	0		1	1	381	0	0	#VALUE!	-1	1	-2	600	64%
ArrowTooth Flounder	2005	0	570	3502	250	4,322	5,645	0	45	2275	334	2,655	5,632	0	525	1,227	-84	1,667	13	25,000	23%
Sum all four species	2005	0	2,613	21,361	1,644	25,618	35,024	895	1,344	20,334	2,174	24,746	38,536	-895	1,269	#VALUE!	-530	872	-3,512	85,090	45%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	2589	15995	308	18,892	19,147	14	2,997	15750	345	19,106	19,700	-14	-408	245	-37	-214	-553	18,718	105%
Pacific Cod	2005	163	7,489	4,098	198	11,948	24,380	458	5,959	6067	652	13,136	24,751	-295	1,530	-1,969	-454	-1,188	-371	25,086	99%
Atka Mackerel	2005	0	1	1	0	2	5	0	1	2	0	3	19	0	0	-1	0	-1	-14	600	3%
ArrowTooth Flounder	2005	0	1434	6484	959	8,877	11,486		1,402	6077	1,126	8,605	11,747		32	407	-167	272	-261	25,000	47%
Sum all four species	2005	163	11,513	26,578	1,465	39,719	55,018	472	10,360	27,895	2,122	40,850	56,218	-309	1,153	-1,317	-657	-1,131	-1,200	69,404	81%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2005	0	412	1954		2,366	3,391	0	339	2072		2,410	2,736	0	73	-118	0	-44	655	1,688	162%
Pacific Cod	2005	0	0	0		0	85			13		13	89			-13	0	-13	-4	3,660	2%
Atka Mackerel	2005	0	0	0		0	0					0		0	0		0	0	0	600	0%
ArrowTooth Flounder	2005	0	1	12		13	82		14	7		22	42		-13	5	0	-9	40	2,500	2%
Sum all four species	2005	0	413	1,966	0	2,379	3,558	0	353	2,092	0	2,445	2,866	0	60	-126	0	-66	692	8,448	34%

2006

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	51	37	0	88	216	0	58	40		98	220	0	-7	-3	0	-10	-4	19,000	1%
Pacific Cod	2006	118	1,950	2,521	0	4,589	4,774	83	1,523	2835		4,442	4,578	35	427	-314	0	147	196	194,000	2%
Atka Mackerel	2006	0	10	3,669	0	3,679	14,962	0	13	3457		3,469	14,616	0	-3	212	0	210	346	41,360	35%
ArrowTooth Flounder	2006	0	22	42	0	64	170	0	20	39		58	172	0	2	3	0	6	-2	13,000	1%
Sum all four species	2006	118	2,033	6,269	0	8,420	20,122	84	1,613	6,371	0	8,067	19,585	34	420	-102	0	353	537	267,360	7%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	0	67	0	67	198		5	81		86	199		-5	-14	0	-19	-1	19,000	1%
Pacific Cod	2006	0	253	831	0	1,084	1,647		366	765		1,131	1,671		-113	66	0	-47	-24	194,000	1%
Atka Mackerel	2006	0	9	16,024	0	16,033	36,602		293	17229		17,522	37,119		-284	-1,205	0	-1,489	-517	46,860	79%
ArrowTooth Flounder	2006	0	2	13	0	15	522		2	13		15	653		0	0	0	0	-131	13,000	5%
Sum all four species	2006	0	264	16,935	0	17,199	38,969	0	665	18,089	0	18,754	39,642	0	-401	-1,154	0	-1,555	-673	272,860	15%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	10	65	1		76	76	9	227	42		277	277	1	-162	-41	0	-201	-201	19,000	1%
Pacific Cod	2006	2	384	581		967	967	13	1,806	1072		2,890	2,895	-11	-1,422	-491	0	-1,923	-1,928	194,000	1%
Atka Mackerel	2006	0	357	2,311		2,668	2,668	0	402	2334		2,736	2,736	0	-45	-23	0	-68	-68	46,860	6%
ArrowTooth Flounder	2006	13	130	53		196	195	11	114	47		173	175	2	16	6	0	23	20	13,000	1%
Sum all four species	2006	25	936	2,946	0	3,907	3,906	33	2,549	3,495	0	6,077	6,084	-8	-1,613	-549	0	-2,170	-2,178	272,860	2%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	105	11		116	122	0	58	531		589	926	0	47	-520	0	-473	-804	19,000	5%
Pacific Cod	2006	74	3,112	1,804		4,990	6,042	93	2,882	1905		4,880	5,965	-19	230	-101	0	110	77	194,000	3%
Atka Mackerel	2006	0	36	21		57	58	0	40	10		51	51	0	-4	11	0	6	7	21,780	0%
ArrowTooth Flounder	2006	0	82	45		127	144		35	35		70	85		47	10	0	57	59	13,000	1%
Sum all four species	2006	74	3,335	1,881	0	5,290	6,366	93	3,015	2,481	0	5,590	7,027	-19	320	-600	0	-300	-661	247,780	3%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	0	1073	2	1,075	1,115	0	0	66		66	123	0	0	1,007		1,009	992	19,000	1%
Pacific Cod	2006	0	115	8,170	3	8,288	10,369		99	7311	5	7,415	9,081		16	859	-2	873	1,288	194,000	5%
Atka Mackerel	2006	0	7	350	0	357	4,280			379		379	4,195		#VALUE!	-29		-22	85	21,780	19%
ArrowTooth Flounder	2006	0	59	214	36	309	420		24	228	31	283	391		35	-14	5	26	29	13,000	3%
Sum all four species	2006	0	181	9,807	41	10,029	16,184	0	123	7,984	36	8,142	13,790	0	#VALUE!	1,823	3	1,887	2,394	247,780	6%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	7110	117441	276,173	400,724	1,494,547	11	6,381	106638	327,874	440,904	1,490,047	-11	729	10,803	-51,701	-40,180	4,500	1,485,000	100%
Pacific Cod	2006	8	4,953	8,365	24,188	37,514	175,226	79	4,478	12912	43,717	61,186	171,098	-71	475	-4,547	-19,529	-23,672	4,128	194,000	88%
Atka Mackerel	2006	0	410	2,009	124	2,543	3,142	9	352	1316	1,083	2,760	3,188	-9	58	693	-959	-217	-46	21,780	15%
ArrowTooth Flounder	2006	0	127	1268	3,237	4,632	11,936	0	119	1338	3,844	5,302	12,295	0	8	-70	-607	-670	-359	13,000	95%
Sum all four species	2006	8	12,600	129,083	303,722	445,413	1,684,851	100	11,330	122,204	376,519	510,152	1,676,628	-92	1,270	6,879	-72,797	-64,739	8,223	1,713,780	98%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	2643	7087		9,730	16,577		2,038	12271		14,309	21,323		605	-5,184	0	-4,579	-4,746	29,187	73%
Pacific Cod	2006	0	2,491	6,831		9,322	15,842	2,831	7,033	5605		15,469	17,478	-2,831	-4,542	1,226	0	-6,147	-1,636	20,141	87%
Atka Mackerel	2006	0	0	81		81	556	0	2	51		53	553	0	-2	30	0	28	3	1,500	37%
ArrowTooth Flounder	2006	0	245	194		439	1,765	4	162	289		454	1,887	-4	83	-95	0	-15	-122	8,000	24%
Sum all four species	2006	0	5,379	14,193	0	19,572	34,740	2,835	9,235	18,216	0	30,286	41,241	-2,835	-3,856	-4,023	0	-10,714	-6,501	58,828	70%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	1227	18751	476	20,454	25,831	108	1,367	16442	590	18,506	25,243	-108	-140	2,309	-114	1,948	588	30,775	82%
Pacific Cod	2006	0	8	792	1,766	2,566	3,935	421	632	1800	1,784	4,637	7,131	-421	-624	-1,008	-18	-2,071	-3,196	28,405	25%
Atka Mackerel	2006	0	0	3	0	3	269	0	0	0		0	270	0	0	3		3	-1	25,000	1%
ArrowTooth Flounder	2006	0	166	5880	1,024	7,070	8,397		114	4180	571	4,865	8,174		52	1,700	453	2,205	223		
Sum all four species	2006	0	1,401	25,426	3,266	30,093	38,432	530	2,113	22,422	2,944	28,009	40,817	-530	-712	3,004	322	2,084	-2,385	84,180	48%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	164	2517	12972	53	15,706	17,110	133	3,357	13557	130	17,177	19,002	31	-840	-585	-77	-1,471	-1,892	18,619	102%
Pacific Cod	2006	127	1,817	4,410	37	6,391	19,968	1,166	5,929	5699	339	13,134	20,431	-1,039	-4,112	-1,289	-302	-6,743	-463	28,405	72%
Atka Mackerel	2006	0	8	12	0	20	45	0	20	5	0	25	47	0	-12	7	0	-5	-2	25,000	0%
ArrowTooth Flounder	2006	59	3784	6720	1,235	11,798	17,087	24	3,498	7686	367	11,575	17,245	35	286	-966	868	223	-158	0	
Sum all four species	2006	350	8,126	24,114	1,325	33,915	54,210	1,324	12,804	26,947	837	41,911	56,726	-974	-4,678	-2,833	488	-7,996	-2,516	72,024	79%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2006	0	576	626	1,202	2,404	4,237		578	850		1,428	3,048		-2	-224	1,202	976	1,189	1,809	168%
Pacific Cod	2006	0	327	65		392	402	C	199	18		217	266		128	47	0	175	136	3,718	7%
Atka Mackerel	2006	0	0	0		0	0		0	0		0	0	0	0	0	0	0	0	1,500	0%
ArrowTooth Flounder	2006	0	1	24		25	85	0	13	14		27	57	0	-12	10	0	-2	28	2,500	2%
Sum all four species	2006	0	904	715	1,202	2,821	4,724	0	791	881	0	1,672	3,370		113	-166	1,202	1,149	1,354	9,527	35%

2007

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	7	50	0	57	122	0	6	52		58	123	0	1	-2	0	-1	-1	19,000	1%
Pacific Cod	2007	37	1,445	3,691	0	5,173	5,446	27	1,321	3339		4,687	4,992	10	124	352	0	486	454	170,720	3%
Atka Mackerel	2007	0	3	3,904	0	3,907	9,401	0	2	3666		3,668	9,102	0	1	238	0	239	299	9,600	95%
ArrowTooth Flounder	2007	0	10	15	0	25	106	C	12	27		39	118		-2	-12	0	-14	-12	20,000	1%
Sum all four species	2007	37	1,465	7,660	0	9,162	15,075	28	1,341	7,083	0	8,452	14,335		124	577	0	710	740	219,320	7%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	34	44	0	78	209	0	36	44		80	213	0	-2	0	0	-2	-4	19,000	1%
Pacific Cod	2007	5	565	889	0	1,459	2,247	45	775	875		1,696	2,419	-40	-210	14	0	-237	-172	170,720	1%
Atka Mackerel	2007	0	10	7,572	0	7,582	21,461	0	192	8768		8,960	22,494	0	-182	-1,196	0	-1,378	-1,033	29,600	76%
ArrowTooth Flounder	2007	0	13	32	0	45	171	0	10	31		41	159	0	3	1	0	4	12	20,000	1%
Sum all four species	2007	5	622	8,537	0	9,164	24,088	45	1,014	9,718	0	10,777	25,284	-40	-392	-1,181	0	-1,613	-1,196	239,320	11%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	14	184	36		234	235	63	169	24		255	256	-49	15	12	0	-21	-21	19,000	1%
Pacific Cod	2007	7	514	1,071		1,592	1,610	106	1,011	1090		2,207	2,227	-99	-497	-19	0	-615	-617	170,720	1%
Atka Mackerel	2007	85	243	4,054		4,382	4,381	30	163	4005		4,198	4,224	55	80	49	0	184	157	29,600	14%
ArrowTooth Flounder	2007	10	39	39		88	92	7	34	40		81	86	3	5	-1	0	7	6	20,000	0%
Sum all four species	2007	116	980	5,200	0	6,296	6,318	206	1,377	5,158	0	6,742	6,793	-90	-397	42	0	-446	-475	239,320	3%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	11	3		14	919	0	130	503		633	1,001	0	-119	-500	0	-619	-82	19,000	5%
Pacific Cod	2007	6	5,000	3,623		8,629	10,501	125	6,517	4502		11,145	13,069	-119	-1,517	-879	0	-2,516	-2,568	170,720	8%
Atka Mackerel	2007	0	20	4		24	26	0	19	6		25	26	0	1	-2	0	-1	0	23,800	0%
ArrowTooth Flounder	2007	0	36	25		61	71		47	45		91	111		-11	-20	0	-30	-40	20,000	1%
Sum all four species	2007	6	5,067	3,655	0	8,728	11,517	126	6,713	5,056	0	11,894	14,207	-120	-1,646	-1,401	0	-3,166	-2,690	233,520	6%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	30	548	5	583	1,038		14	557		571	927	0	16	-9		12	111	19,000	5%
Pacific Cod	2007	8	135	9,557	1	9,701	13,317		105	7620	34	7,759	11,343		30	1,937	-33	1,942	1,974	170,720	7%
Atka Mackerel	2007	0	94	315	0	409	20,298		100	310	0	411	19,896		-6	5	0	-2	402	23,800	84%
ArrowTooth Flounder	2007	0	30	109	32	171	360		22	139	30	190	360	0	8	-30	2	-19	0	20,000	2%
Sum all four species	2007	8	289	10,529	38	10,864	35,013	0	241	8,627	64	8,931	32,526	0	48	1,902	-31	1,933	2,487	233,520	14%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	2653	120356	300,327	423,336	1,352,127	11	2,636	111297	330,621	444,566	1,354,857	-11	17	9,059	-30,294	-21,230	-2,730	1,394,000	97%
Pacific Cod	2007	3	1,470	9,241	24,089	34,803	141,879	113	2,652	12516	29,045	44,325	143,789	-110	-1,182	-3,275	-4,956	-9,522	-1,910	170,720	84%
Atka Mackerel	2007	0	402	2,080	484	2,966	3,025	0	246	1990	621	2,857	3,038	0	156	90	-137	109	-13	23,800	13%
ArrowTooth Flounder	2007	0	108	2028	2,820	4,956	11,248	1	131	2239	2,620	4,991	11,676	-1	-23	-211	200	-35	-428	20,000	58%
Sum all four species	2007	3	4,633	133,705	327,720	466,061	1,508,279	125	5,665	128,042	362,907	496,739	1,513,360	-122	-1,032	5,663	-35,187	-30,678	-5,081	1,608,520	94%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	709	2166	4716		7,591	16,708	14	2,744	10755		13,513	17,447	695	-578	-6,039	0	-5,922	-739	25,012	70%
Pacific Cod	2007	0	1,514	13,566		15,080	21,860	2,329	5,310	5103		12,742	15,651	-2,329	-3,796	8,463	0	2,338	6,209	20,141	78%
Atka Mackerel	2007	0	0	510		510	1,274	0	58	535		594	1,267	0	-58	-25	0	-84	7	1,500	84%
ArrowTooth Flounder	2007	95	270	542		907	2,723	5	86	601		692	2,568	90	184	-59	0	215	155	8,000	32%
Sum all four species	2007	804	3,950	19,334	0	24,088	42,565	2,348	8,199	16,995	0	27,542	36,933	-1,544	-4,249	2,339	0	-3,454	5,632	54,653	68%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	5550	8179	407	14,136	17,381	1	3,276	8948	376	12,601	17,839	-1	2,274	-769	31	1,535	-458	20,890	85%
Pacific Cod	2007	0	15	36	2,175	2,226	4,063	1,091	1,526	2552	1,609	6,778	9,787	-1,091	-1,511	-2,516	566	-4,552	-5,724	28,405	34%
Atka Mackerel	2007	0	0	0	0	0	154	0	0	0	0	1	155	0	0	0	0	-1	-1	1,500	10%
ArrowTooth Flounder	2007	0	75	1535	2,272	3,882	5,295	1	52	857	2,700	3,610	5,414	-1	23	678	-428	272	-119	25,000	22%
Sum all four species	2007	0	5,640	9,750	4,854	20,244	26,893	1,094	4,854	12,357	4,684	22,990	33,194	-1,094	786	-2,607	170	-2,746	-6,301	75,795	44%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	1446	13473	43	14,962	16,184	143	2,199	11679	150	14,170	16,003	-143	-753	1,794	-107	792	181	14,850	108%
Pacific Cod	2007	13	3,426	8,283	0	11,722	21,968	905	5,409	6995	609	13,918	21,838	-892	-1,983	1,288	-609	-2,196	130	28,405	77%
Atka Mackerel	2007	0	12	3	0	15	21	0	5	8	0	13	21	0	7	-5	0	2	0	1,500	1%
ArrowTooth Flounder	2007	19	3733	6128	0	9,880	16,764	13	2,569	6047	1,001	9,630	16,799	6	1,164	81	-1,001	250	-35	25,000	67%
Sum all four species	2007	32	8,617	27,887	43	36,579	54,937	1,061	10,180	24,729	1,761	37,732	54,662	-1,029	-1,563	3,158	-1,718	-1,153	275	69,755	78%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2007	0	41	386		427	596	0		9		9	95	0		377		418	501	1,398	7%
Pacific Cod	2007	0	54	284		338	433	41	437	186		664	752	-41	-383	98	0	-326	-319	3,718	20%
Atka Mackerel	2007	0	0	0		0	0		0	0		0	0		0	0	0	0	0	1,500	0%
ArrowTooth Flounder	2007	0	0	24		24	149	7	6	16		29	95	-7	-6	8	0	-5	54	2,500	4%
Sum all four species	2007	0	95	694	0	789	1,578	48	443	210	0	702	942	-48	-389	484	0	87	236	9,116	10%

2008

SSL BiOp Area 1		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 1	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 1	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	36	34	0	70	114	0	41	28		69	113	0	-5	6	0	1	1	19,000	1%
Pacific Cod	2008	0	2,917	5,793	0	8,710	9,151	7	2,525	4,459		6,991	7,284	-7	392	1,334	0	1,719	1,867	170,720	4%
Atka Mackerel	2008	0	15	5,940	0	5,955	16,509		10	5,714		5,723	16,269	0	5	226	0	232	240	16,900	96%
ArrowTooth Flounder	2008	0	21	25	0	46	200	0	28	39		67	202	0	-7	-14	0	-21	-2	75,000	0%
Sum all four species	2008	0	2,989	11,792	0	14,781	25,974	8	2,603	10,239	0	12,850	23,868	-8	386	1,553	0	1,931	2,106	281,620	8%

SSL BiOp Area 2		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 2	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 2	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	2	31	0	33	123	0	2	31		33	123	0	0	0	0	0	0	19,000	1%
Pacific Cod	2008	50	1,894	585	0	2,529	2,870	379	2,629	696		3,703	4,000	-329	-735	-111	0	-1,174	-1,130	170,720	2%
Atka Mackerel	2008	0	167	8,404	0	8,571	17,917	1	142	8,625		8,768	18,137	-1	25	-221	0	-197	-220	24,300	75%
ArrowTooth Flounder	2008	0	3	34	0	37	91	0	4	30		34	83	0	-1	4	0	3	8	75,000	0%
Sum all four species	2008	50	2,066	9,054	0	11,170	21,001	380	2,777	9,382	0	12,539	22,344	-330	-711	-328	0	-1,369	-1,343	289,020	8%

SSL BiOp Area 3		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 3	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 3	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	7	125	36		168	168	4	141	14		159	160	3	-16	22	0	9	8	19,000	1%
Pacific Cod	2008	0	1,100	340		1,440	1,441	122	1,026	450		1,598	1,625	-122	74	-110	0	-158	-184	170,720	1%
Atka Mackerel	2008	0	113	4,447		4,560	4,560	0	96	4,468		4,564	4,564	0	17	-21	0	-4	-4	24,300	19%
ArrowTooth Flounder	2008	3	87	54		144	148	2	76	63		141	144	1	11	-9	0	3	4	75,000	0%
Sum all four species	2008	10	1,425	4,877	0	6,312	6,317	128	1,339	4,996	0	6,462	6,493	-118	86	-119	0	-149	-176	289,020	2%

SSL BiOp Area 4		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 4	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 4	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	22	47		69	470	0	5	178		183	407	0	17	-131	0	-114	63	19,000	2%
Pacific Cod	2008	0	3,616	2,092		5,708	6,910	130	4,353	3,136		7,618	8,226	-130	-737	-1,044	0	-1,910	-1,316	170,720	5%
Atka Mackerel	2008	0	51	1		52	53	0	48	1		50	51	0	3	0	0	2	2	19,500	0%
ArrowTooth Flounder	2008	0	28	21		49	78	1	23	68		92	117	-1	5	-47	0	-43	-39	75,000	0%
Sum all four species	2008	0	3,717	2,161	0	5,878	7,511	131	4,428	3,383	0	7,943	8,801	-131	-711	-1,222	0	-2,066	-1,290	284,220	3%

SSL BiOp Area 5		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 5	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 5	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	14	328	0	342	404		24	287	0	311	477	0	-10	41	0	31	-73	19,000	3%
Pacific Cod	2008	0	366	8,569	0	8,935	11,821		216	7,286	10	7,512	9,926	0	150	1,283	-10	1,423	1,895	170,720	6%
Atka Mackerel	2008	0	2	194	0	196	18,650		2	158	0	161	18,669	0	0	36	0	35	-19	19,500	96%
ArrowTooth Flounder	2008	0	838	1,036	8	1,882	1,998		681	1,214	10	1,904	2,021	0	157	-178	-2	-22	-23	75,000	3%
Sum all four species	2008	0	1,220	10,127	8	11,355	32,873	0	923	8,945	20	9,888	31,092	0	297	1,182	-12	1,468	1,781	284,220	11%

SSL BiOp Area 6		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 6	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 6	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	5,708	67,120	173,693	246,521	992,601	1	3,375	61,160	191,253	255,789	990,811	-1	2,333	5,960	-17,560	-9,268	1,790	1,000,000	99%
Pacific Cod	2008	24	2,457	7,732	22,659	32,872	140,492	88	2,766	11,374	25,876	40,105	142,530	-64	-309	-3,642	-3,217	-7,233	-2,038	170,720	83%
Atka Mackerel	2008	0	49	353	6	408	447	2	36	344	17	398	416	-2	13	9	-11	10	31	19,500	2%
ArrowTooth Flounder	2008	1	4,110	3,284	3,113	10,508	19,387	1	4,026	3,716	3,963	11,705	19,530	0	84	-432	-850	-1,197	-143	75,000	26%
Sum all four species	2008	25	12,324	78,489	199,471	290,309	1,152,927	91	10,203	76,594	221,109	307,997	1,153,285	-66	2,121	1,895	-21,638	-17,686	-358	1,265,220	91%

SSL BiOp Area 7		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 7	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 7	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	6,020	3,751		9,771	13,986	178	11,008	5,091		16,277	17,090	-178	-4,988	-1,340	0	-6,506	-3,104	17,602	97%
Pacific Cod	2008	26	4,831	7,173		12,030	18,661	2,183	5,444	5,788		13,415	17,777	-2,157	-613	1,385	0	-1,385	884	19,449	91%
Atka Mackerel	2008	0	174	459		633	1,734	0	89	611		701	1,769	0	85	-152	0	-68	-35	1,500	118%
ArrowTooth Flounder	2008	0	616	383		999	2,919	7	304	458		769	2,946	-7	312	-75	0	230	-27	8,000	37%
Sum all four species	2008	26	11,641	11,766	0	23,433	37,300	2,368	16,846	11,948	0	31,162	39,582	-2,342	-5,205	-182	0	-7,729	-2,282	46,551	85%

SSL BiOp Area 8		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 8	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 8	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	513	6,922	2,760	10,195	17,225	0	657	7,521	3,238	11,417	18,066	0	-144	-599	-478	-1,222	-841	19,181	94%
Pacific Cod	2008	0	35	550	8,006	8,591	11,481	1,771	1,288	2,321	1,521	6,902	11,598	-1,771	-1,253	-1,771	6,485	1,689	-117	28,426	41%
Atka Mackerel	2008	0	0	0	0	0	316	0	2	1	0	3	319	0	-2	-1	0	-3	-3	1,500	21%
ArrowTooth Flounder	2008	0	248	1,721	477	1,721	4,253	0	284	1,008	320	1,613	3,927	0	-36	713	157	108	326	30,000	13%
Sum all four species	2008	0	796	9,193	11,243	21,232	32,959	1,772	2,232	10,851	5,079	19,934	33,910	-1,772	-1,436	-1,658	6,164	1,297	-635	79,107	43%

SSL BiOp Area 9		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 9	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 9	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	162	1205	11,710	7	11,710	16,314	33	1,790	10,087	49	11,958	15,367	129	-585	1,623	-42	-248	947	13,640	113%
Pacific Cod	2008	24	2,971	8721	13	3,008	24,226	611	6,504	7,264	231	14,610	25,023	-587	-3,533	1,457	-218	-11,602	-797	28,426	88%
Atka Mackerel	2008	0	0	0	0	0	4	0	0	0		1	4	0	0	0	0	-1	0	1,500	0%
ArrowTooth Flounder	2008	0	1,560	4,639	454	6,653	22,043	21	2,564	4,885	221	7,691	22,067	-21	-1,004	-246	233	-1,038	-24	30,000	74%
Sum all four species	2008	186	5,736	25,070	474	31,466	62,583	665	10,859	22,236	500	34,260	62,461	-479	-5,123	2,834	-26	-2,794	126	73,566	85%

SSL BiOp Area 10		AMOUNT (mt) of Catch in CH areas Extrapolated observer database (EOD)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Catch In Area Database (CIA)					Total Catch Area 10	AMOUNT (mt) of Catch in CH areas Difference between EOD and CIA					Total Catch Area 10	TAC	CIA/TAC
Gear	Year	0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH		0-3	3-10	10-20	Foraging	Total CH			
Pollock	2008	0	0	701		701	1,166	0	2	27		29	1,165	0	-2	674	0	672	1	1,517	77%
Pacific Cod	2008	248	574	1038		1,860	2,109	176	1,031	299		1,507	1,617	72	-457	739	0	353	492	2,394	68%
Atka Mackerel	2008	0	0	0		0	0			0		0	0	0	0	0	0	0	0	1,500	0%
ArrowTooth Flounder	2008	0	0	22		22	130	0	14	7		22	67	0	-14	15	0	0	63	2,500	3%
Sum all four species	2008	248	574	1,761	0	2,583	3,275	176	1,047	334	0	1,557	2,848	72	-473	1,427	0	1,026	557	7,911	36%

APPENDIX III
FISHERIES CATCH DATA ANALYSIS FOR THE BERING SEA, ALEUTIAN ISLANDS, AND GULF OF ALASKA

Figure III-1. Areas used to designate “Expanded Observer Data” points as catch taken in the Bering Sea (BS), Gulf of Alaska (GOA), or the Aleutian Islands (AI) regions.

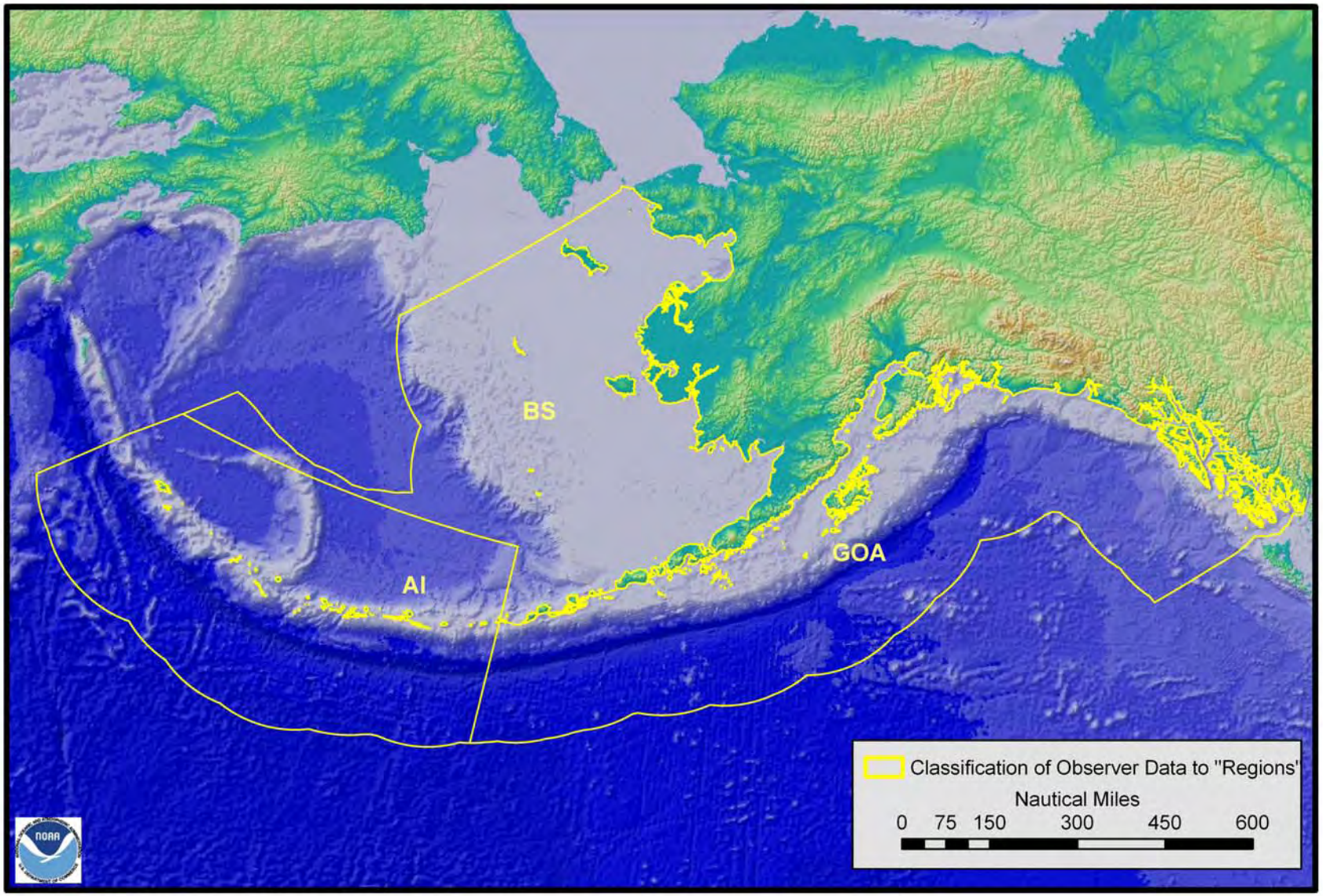
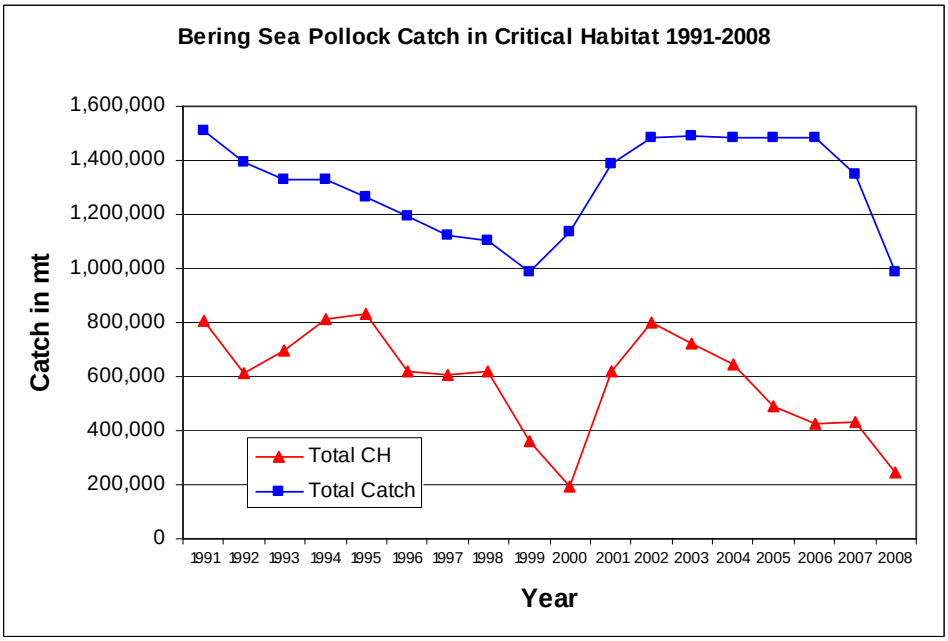
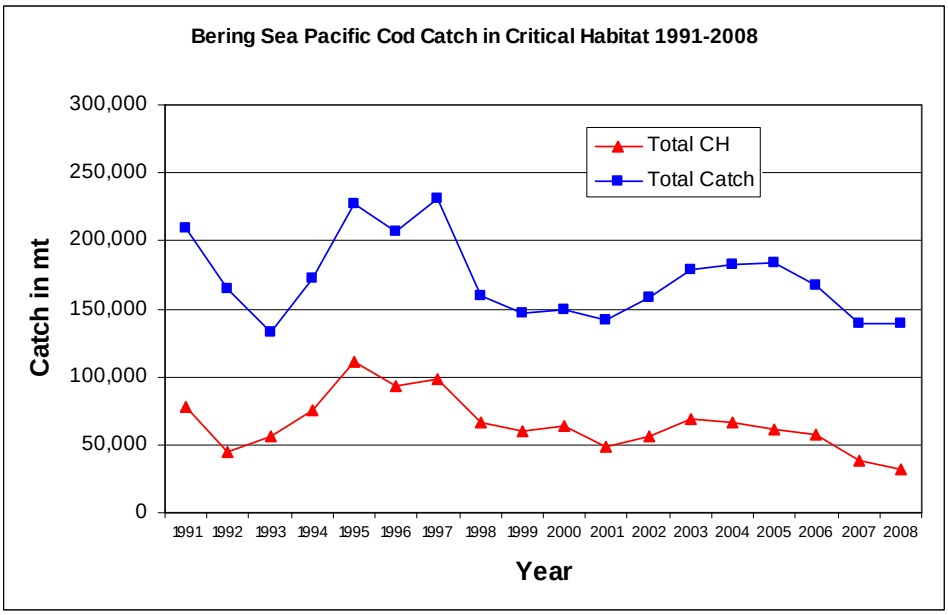


Figure III-2. Bering Sea - catch in critical habitat and total catch of Pollock, Pacific cod and Atka mackerel 1991-2008.





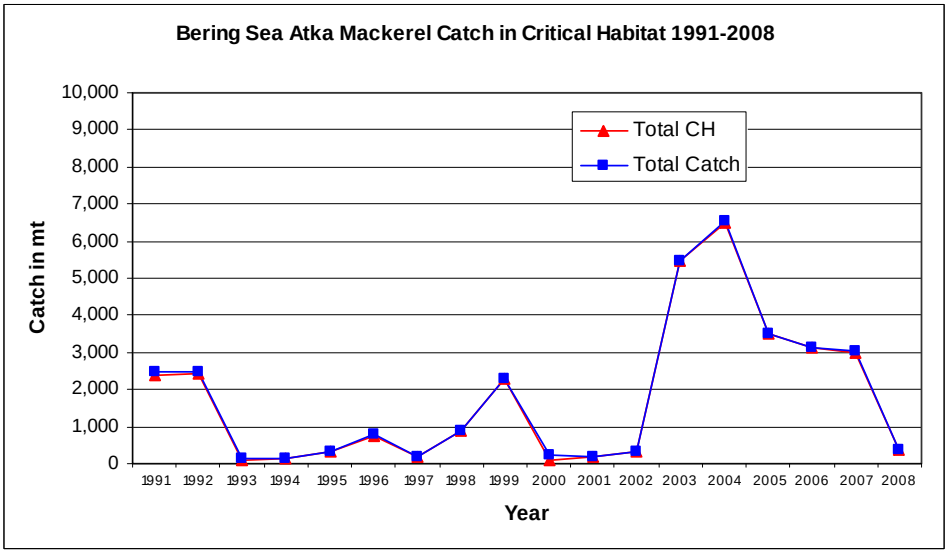
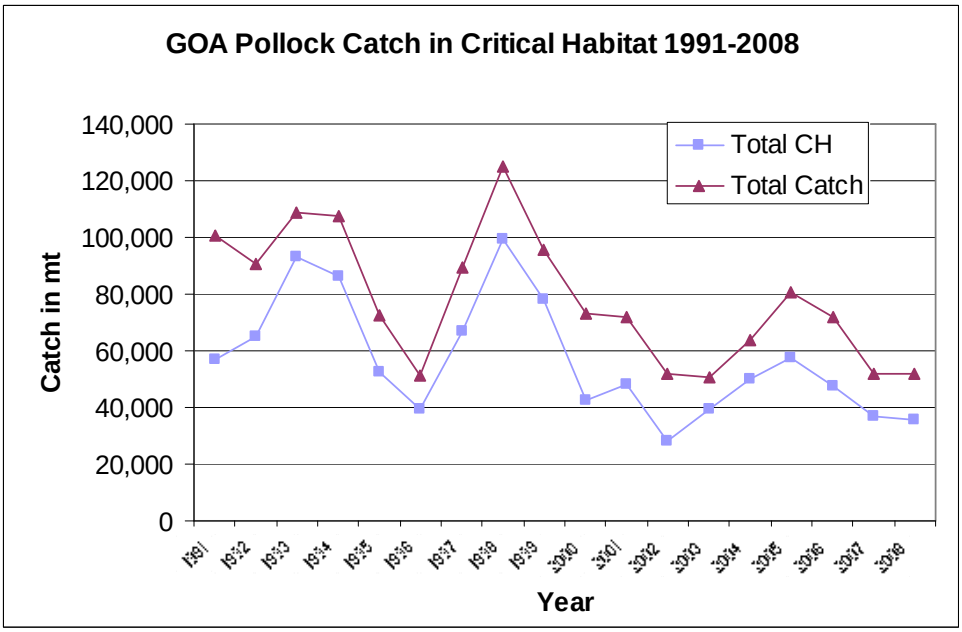
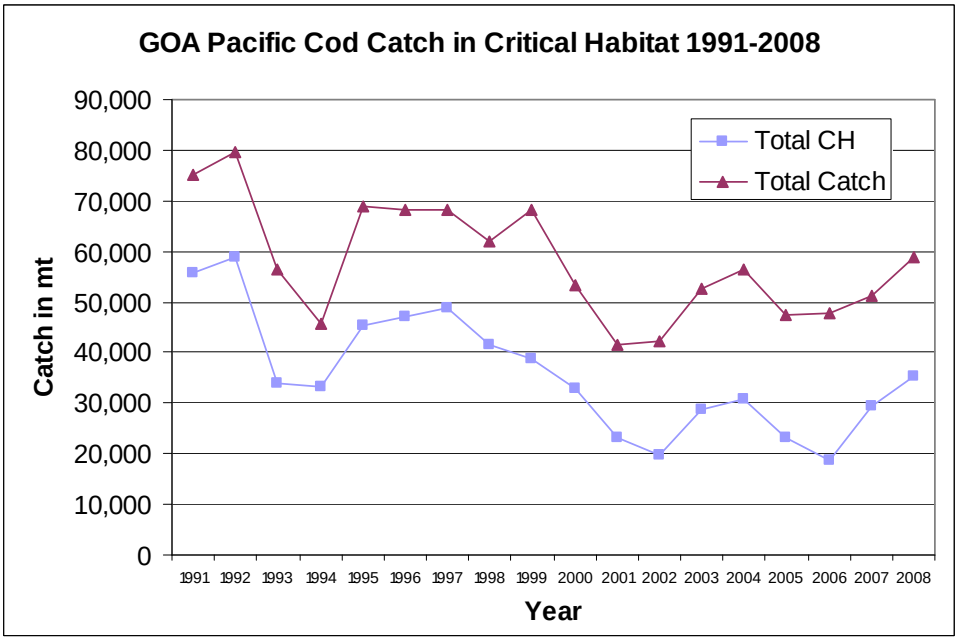


Figure III-3. Gulf of Alaska - catch in critical habitat and total catch of Pollock, Pacific cod, and Atka mackerel, 1991-2008.





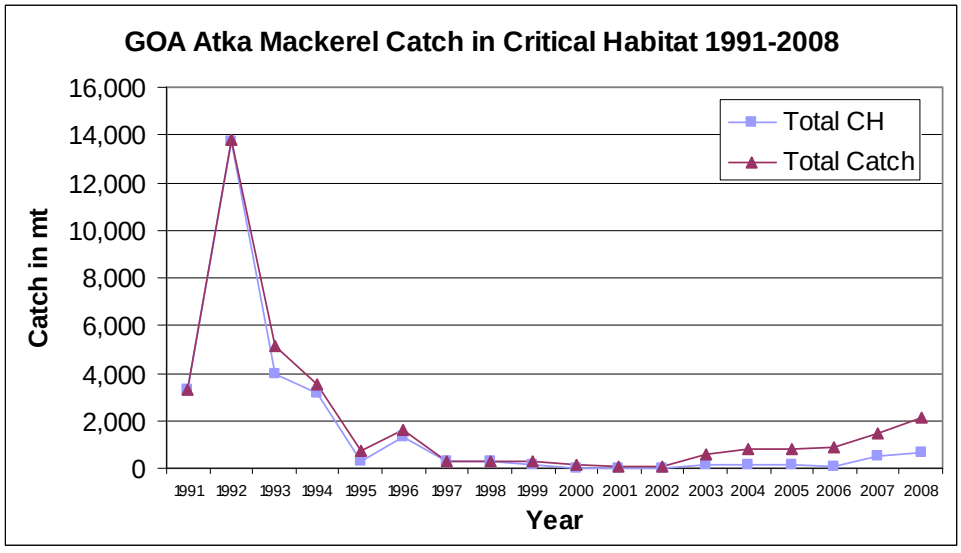
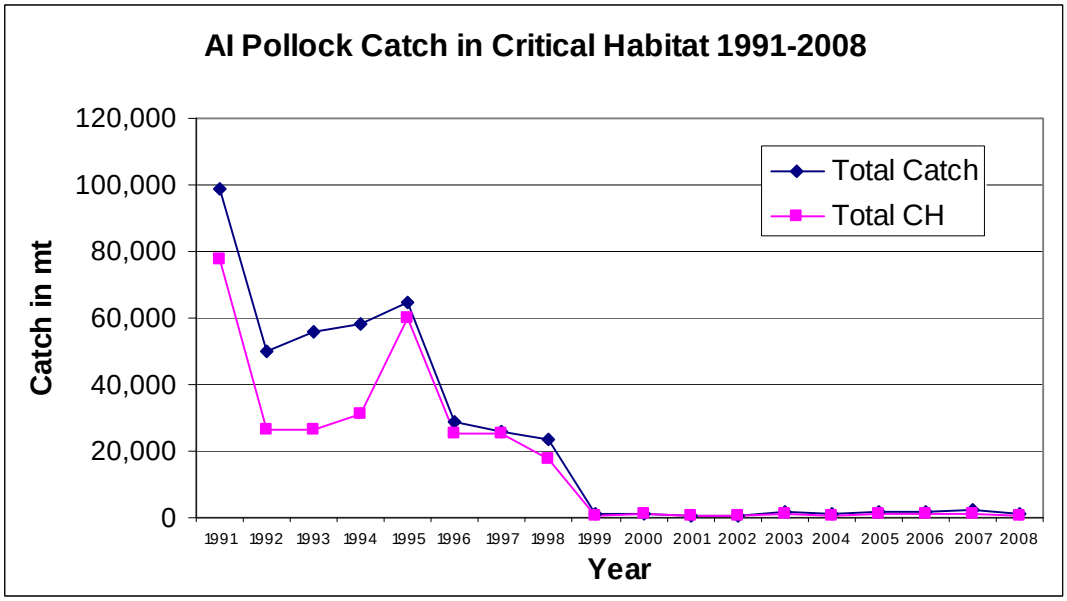
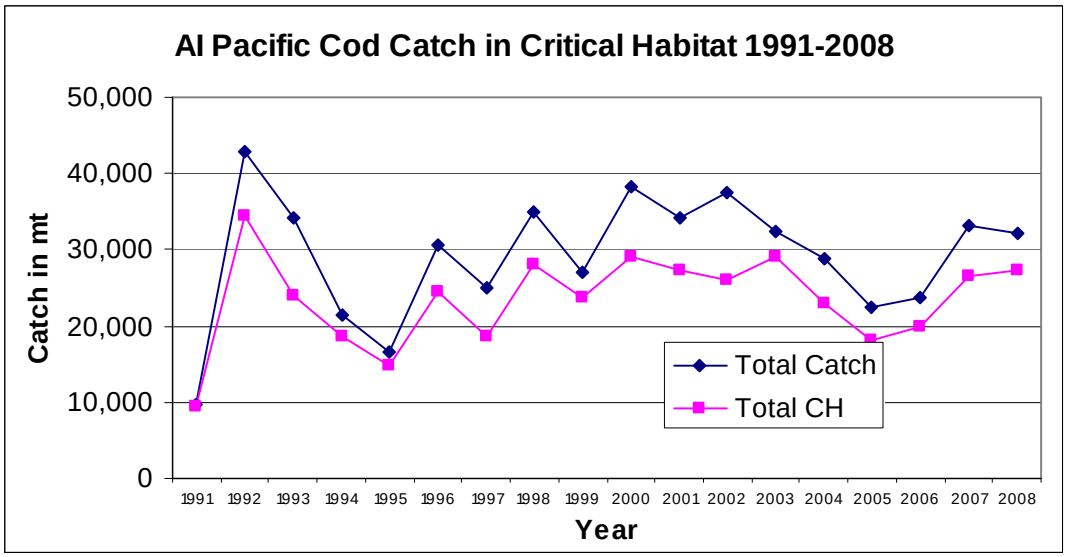


Figure III-4. Aleutian Islands - catch in critical habitat and total catch of Pollock, Pacific cod, and Atka mackerel, 1991-2008.





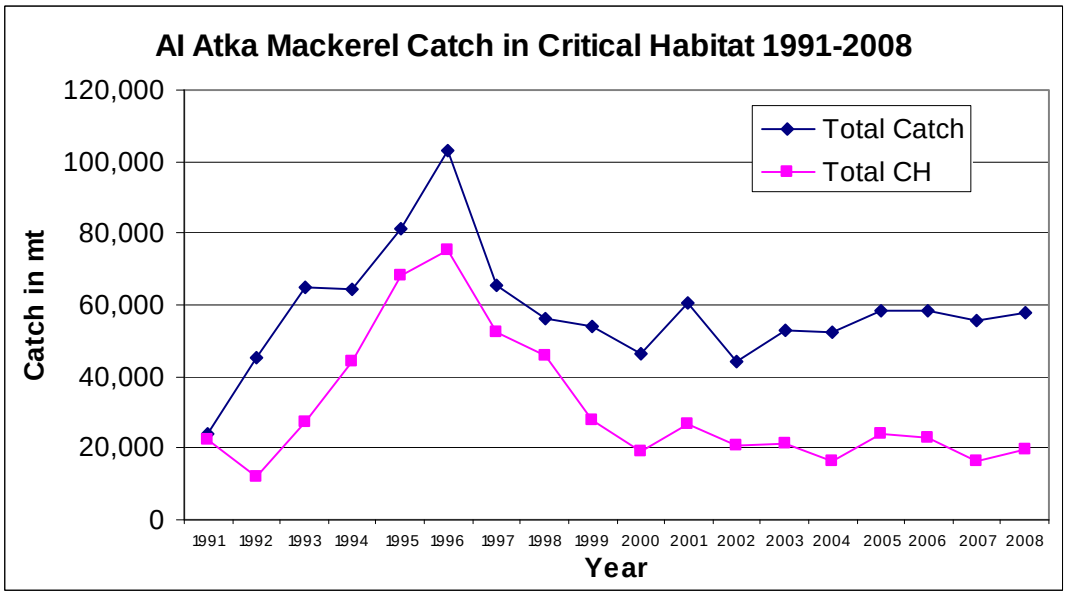
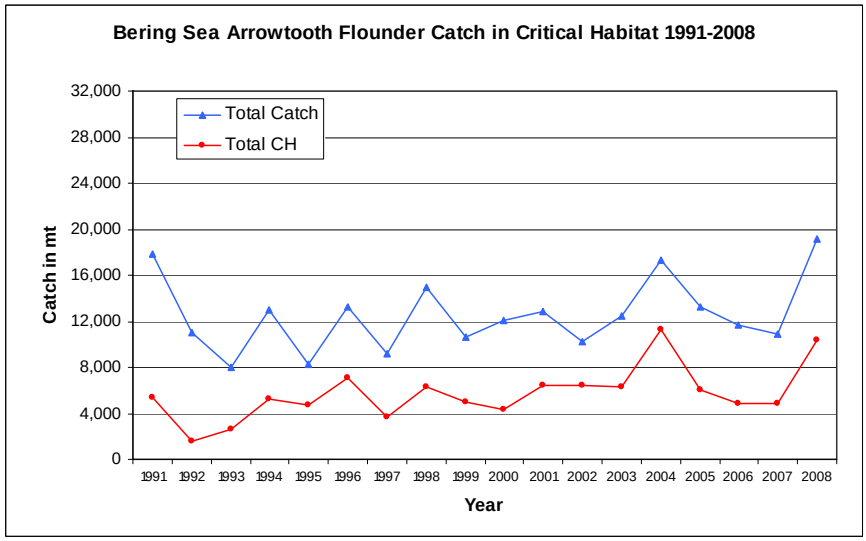
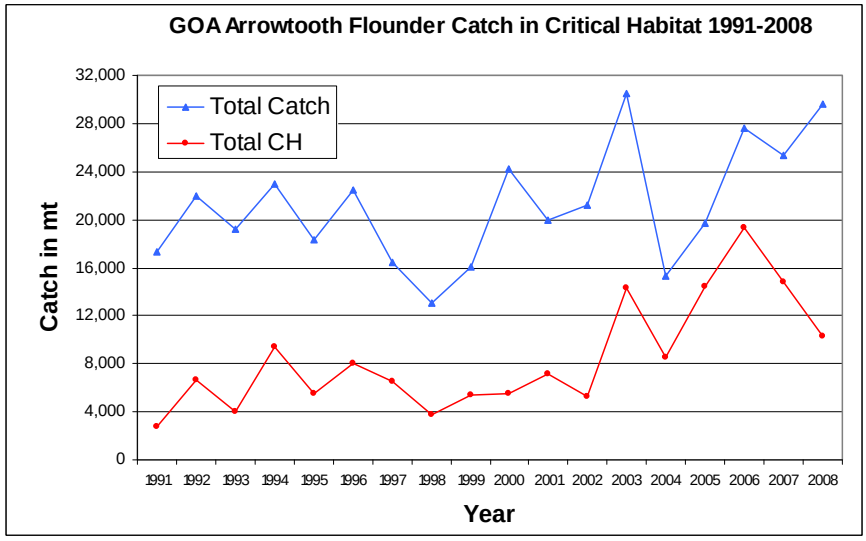


Figure III-5. Catch in critical habitat and total catch of Arrowtooth flounder in the Bering Sea, Gulf of Alaska, and the Aleutian Islands, 1991-2008.





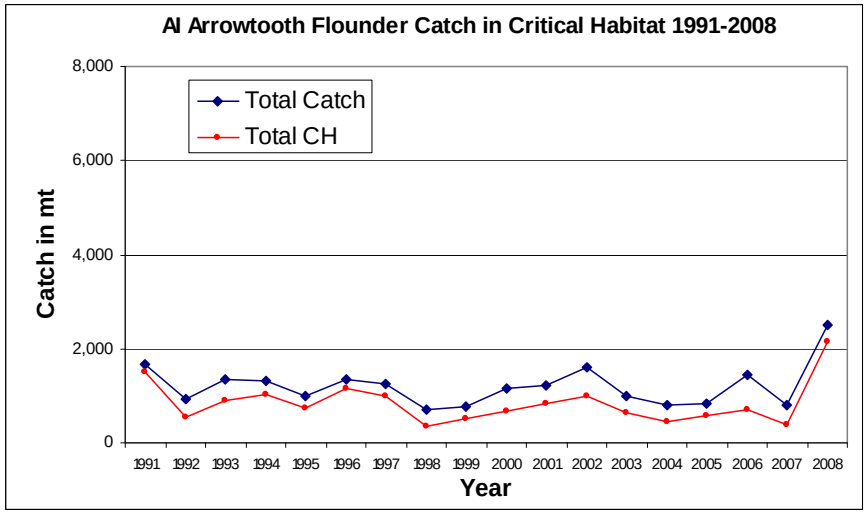


Figure III-6. Proportion of catch within 0-3 nm, 3-10nm, 10-20nm, and foraging areas of critical habitat in the Bering Sea, Gulf of Alaska, and Aleutian Islands by gear types from 1998-2008.

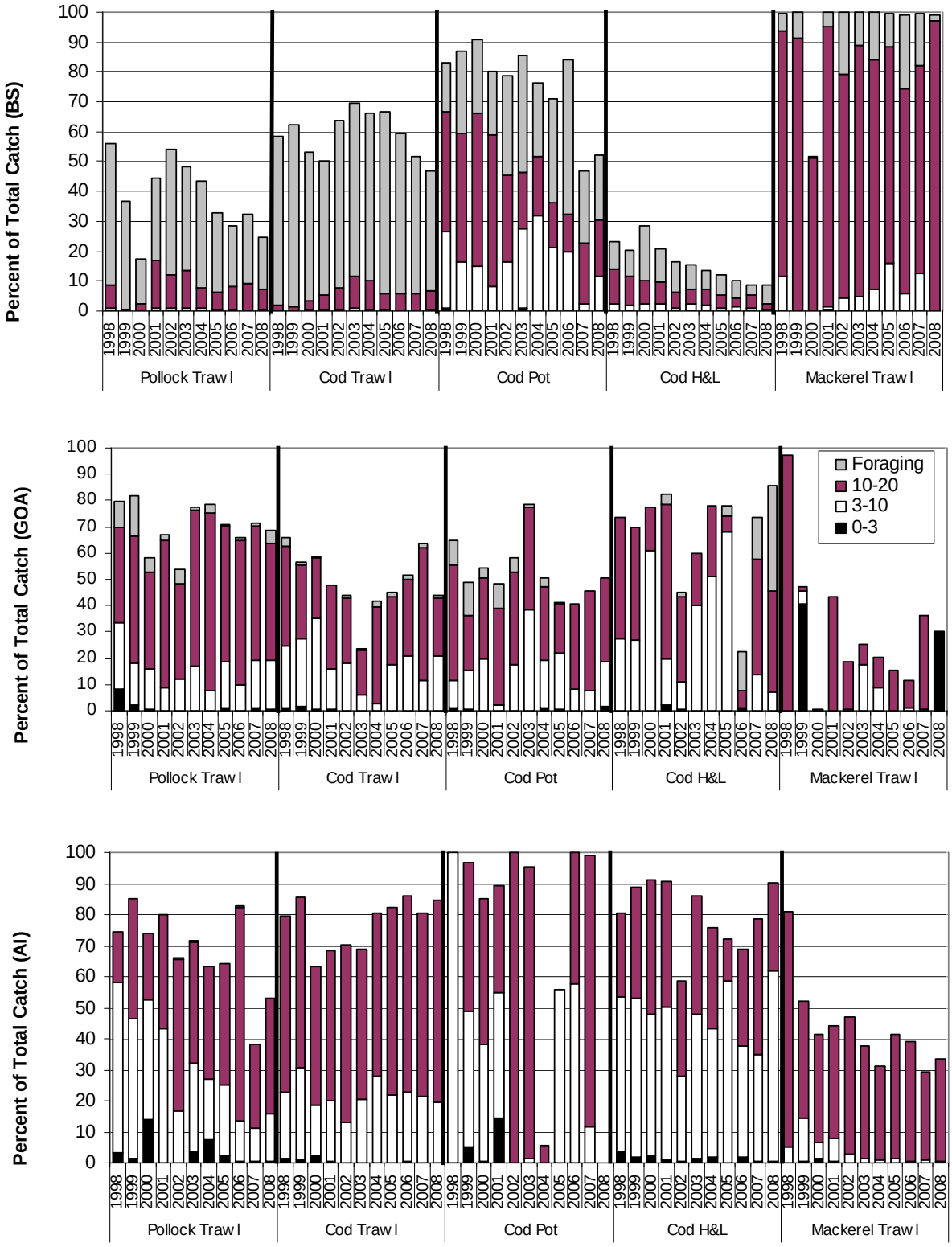


Figure III-6. Proportion of catch within 0-3 nm, 3-10nm, 10-20nm, and foraging areas of critical habitat in the Bering Sea, Gulf of Alaska, and Aleutian Islands by gear types from 1998-2008.

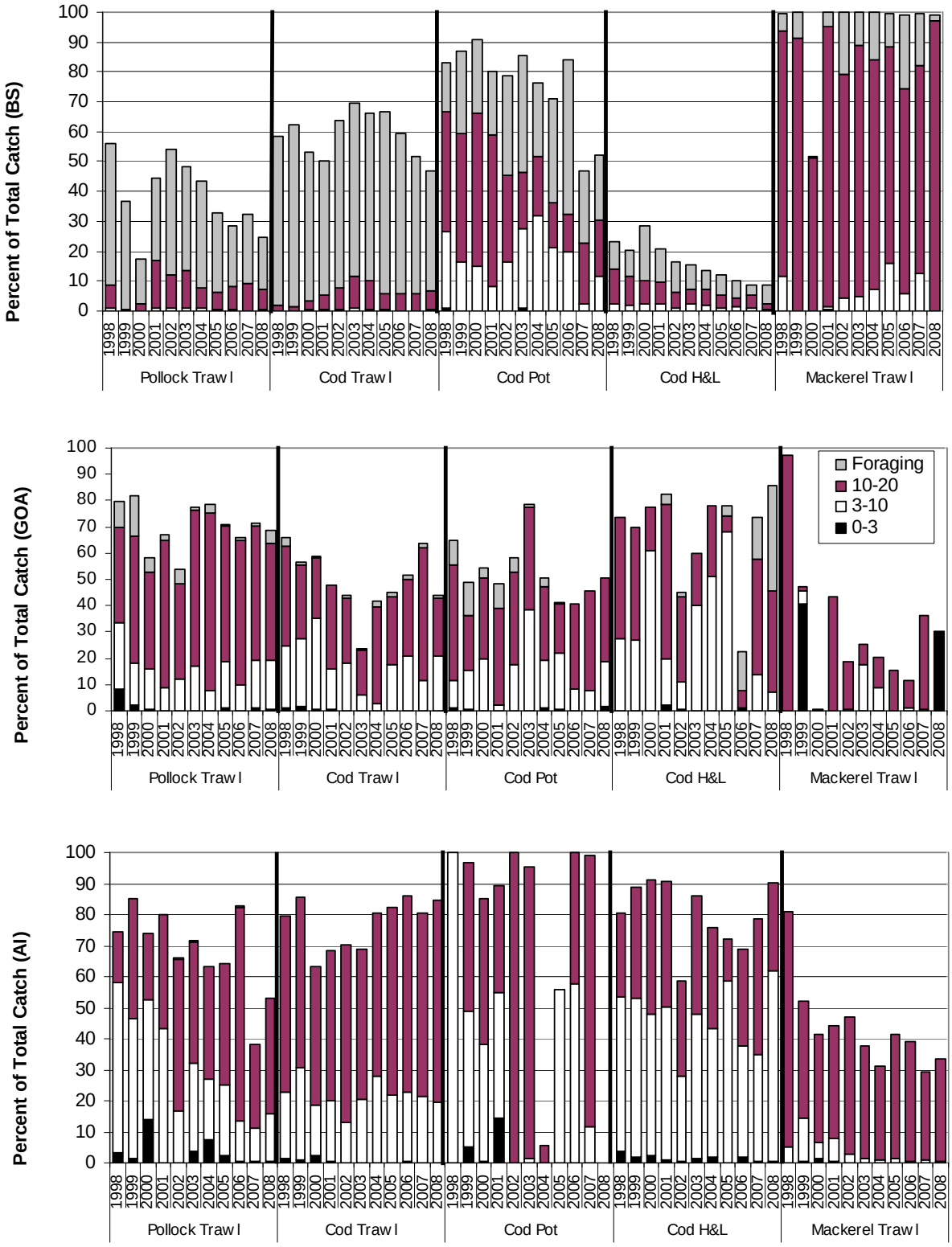


Figure III-7. Proportion of catch taken within Steller sea lion critical habitat in the Bering Sea, Gulf of Alaska, and Aleutian Islands by gear types from 1998-2008.

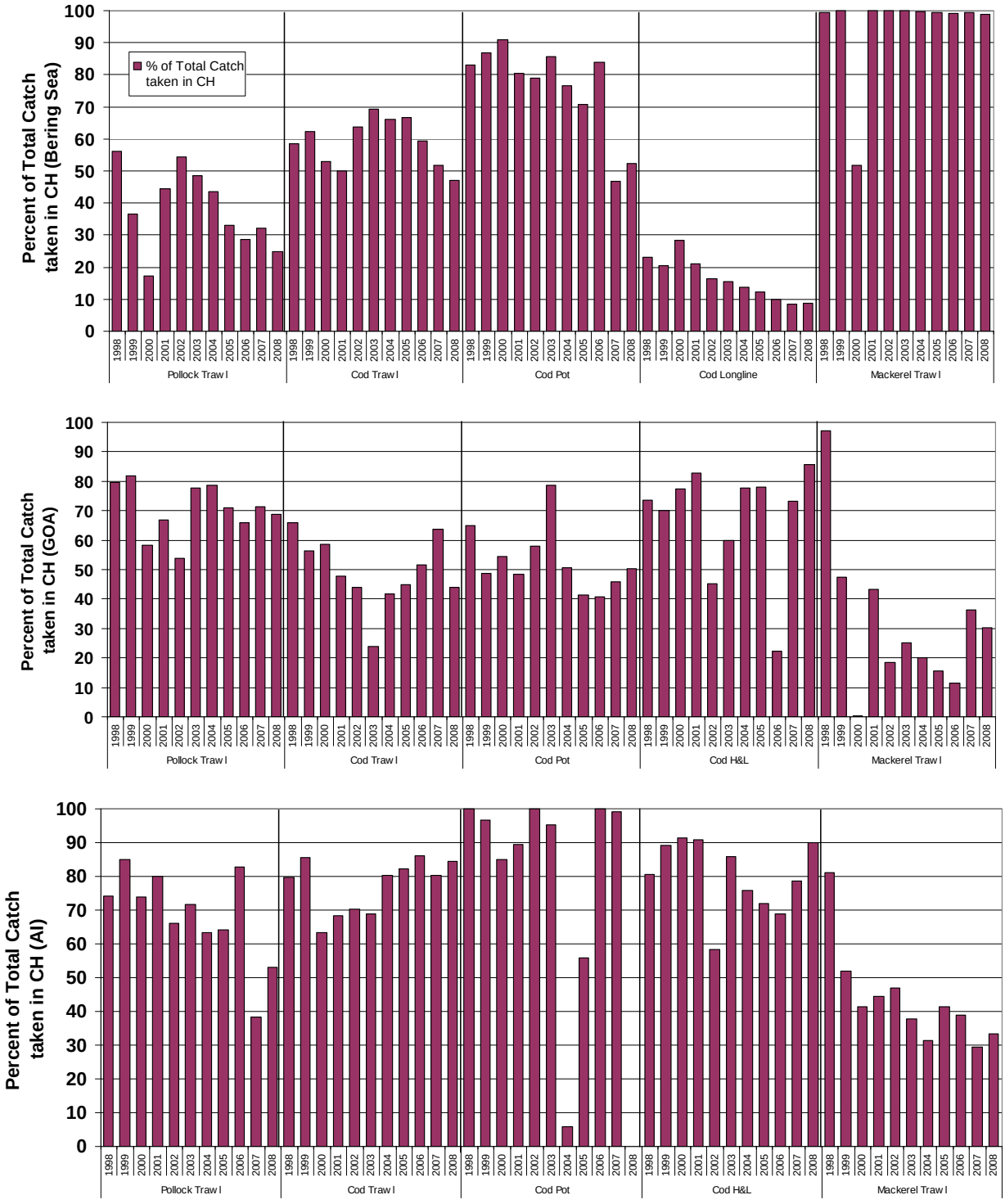


Figure III-8. Proportion of Arrowtooth flounder catch within 0-3 nm, 3-10nm, 10-20nm, and foraging areas of critical habitat in the Bering Sea, Gulf of Alaska, and Aleutian Islands by gear types from 1998-2008.

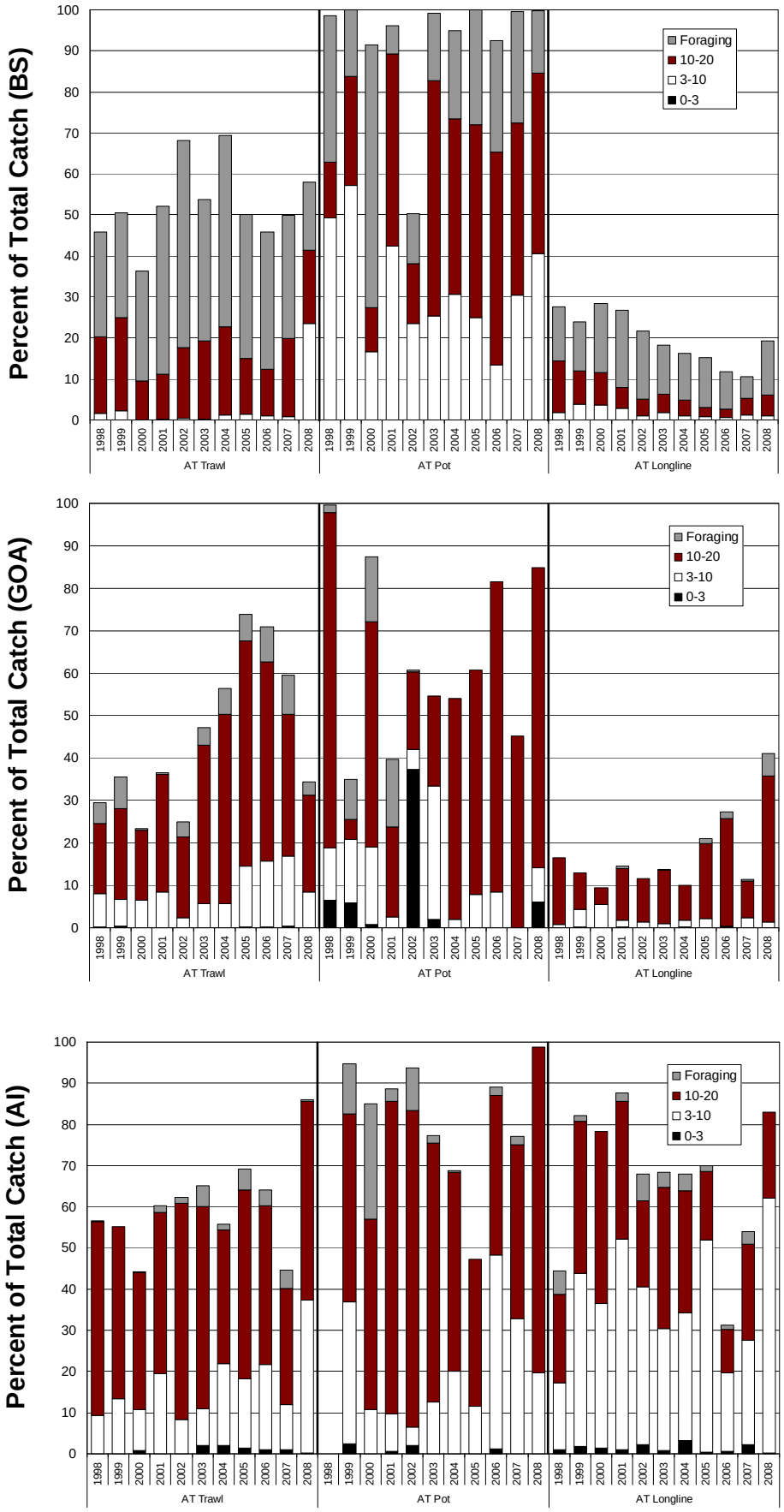


Figure III-9. Percent of the annual catch of Pacific cod harvested in the Bering Sea trawl, pot, longline fisheries in each quarter of the year from 1998-2008.

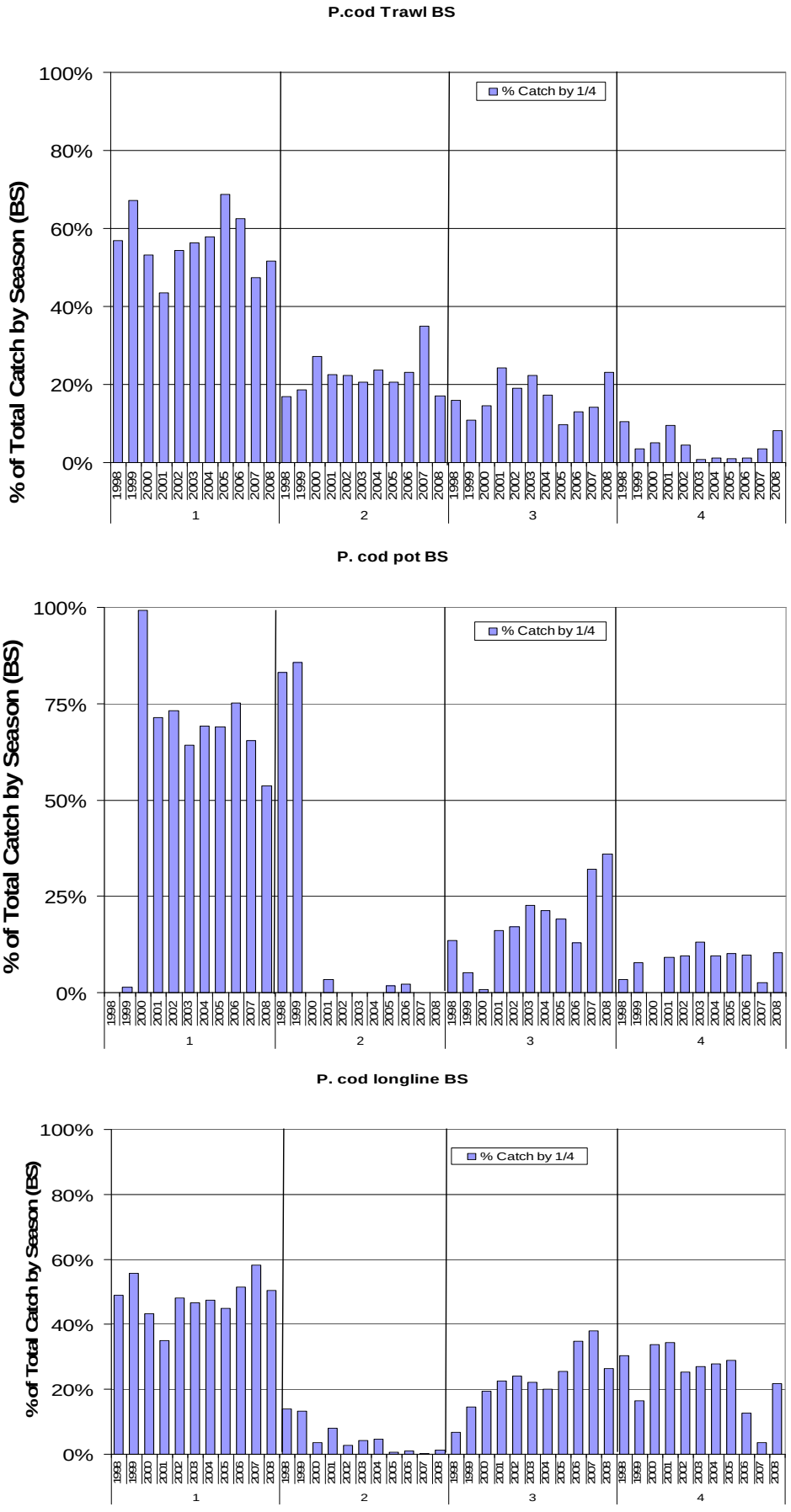
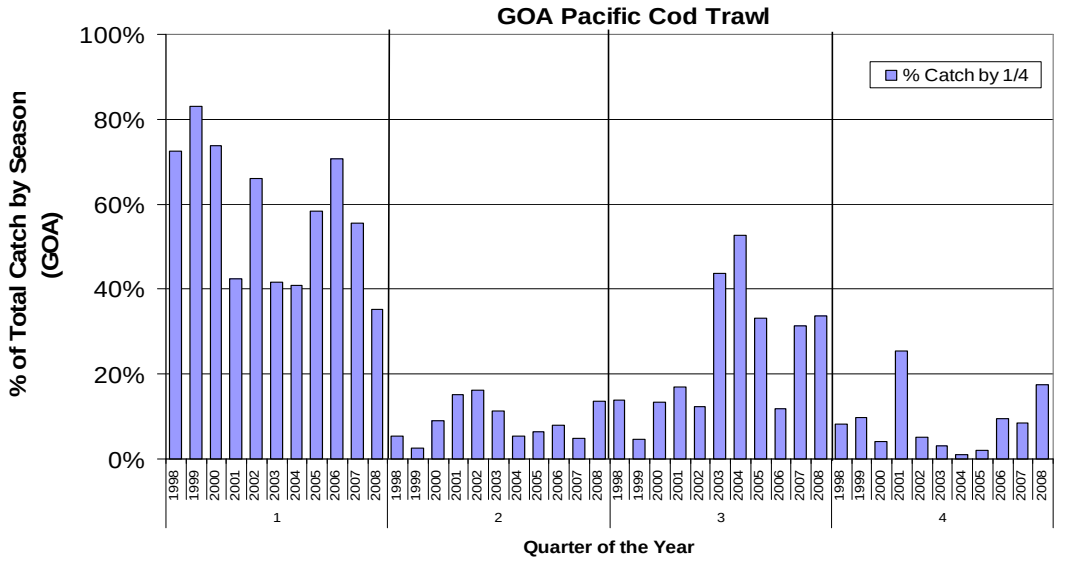
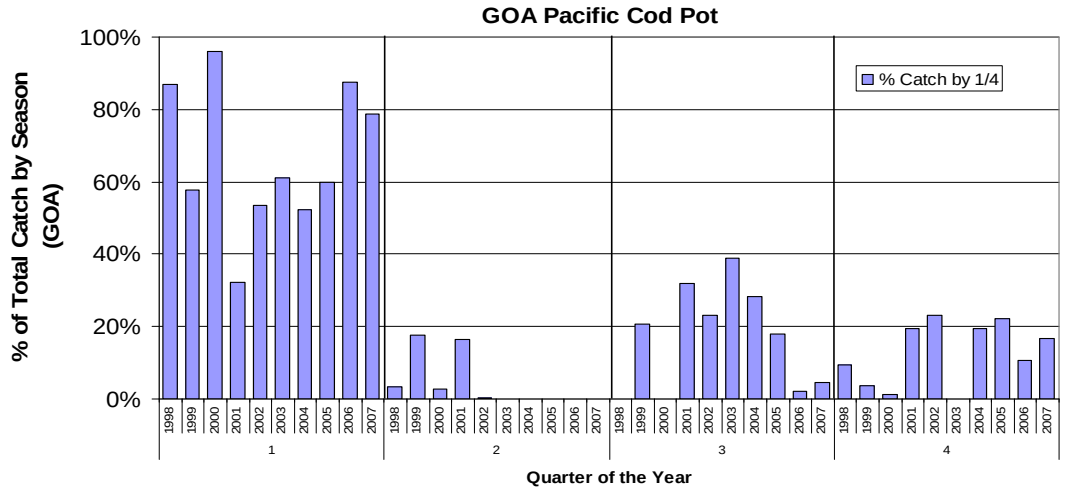


Figure III-10. Percent of the annual catch of Pacific cod harvested in trawl, pot, and longline fisheries from the Gulf of Alaska in each quarter of the year from 1998-2008.





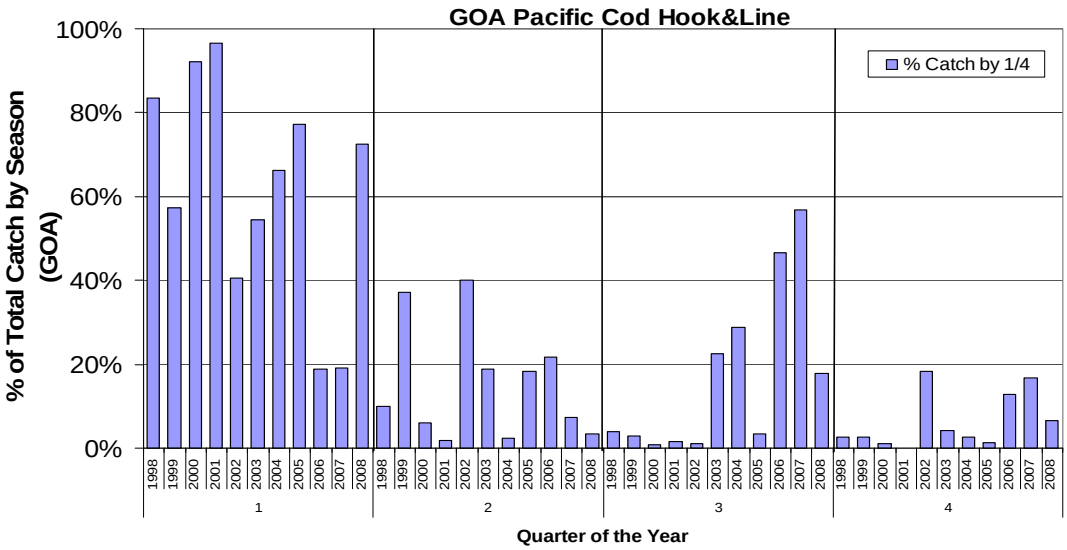
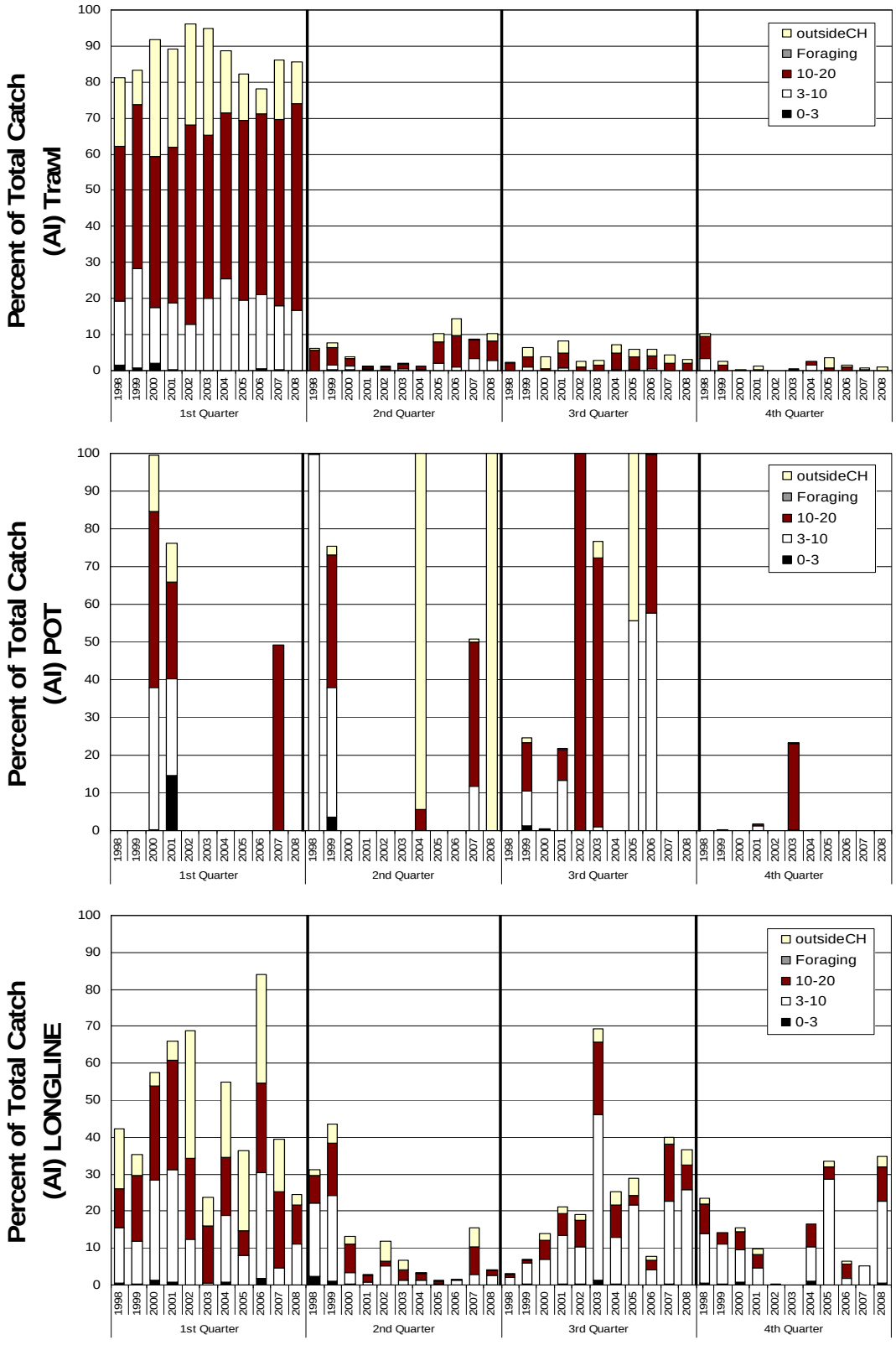


Figure III-11. Percent of the annual catch of Pacific cod harvested from critical habitat zones in each quarter by the trawl, pot, and longline fisheries from the Aleutian Islands, 1998-2008.



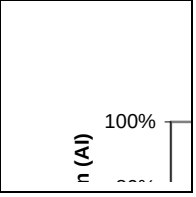


Figure III-12. Seasonal catch of Pacific cod by all gear types in the Gulf of Alaska, Bering Sea and the Aleutian Islands, 1998-2008.

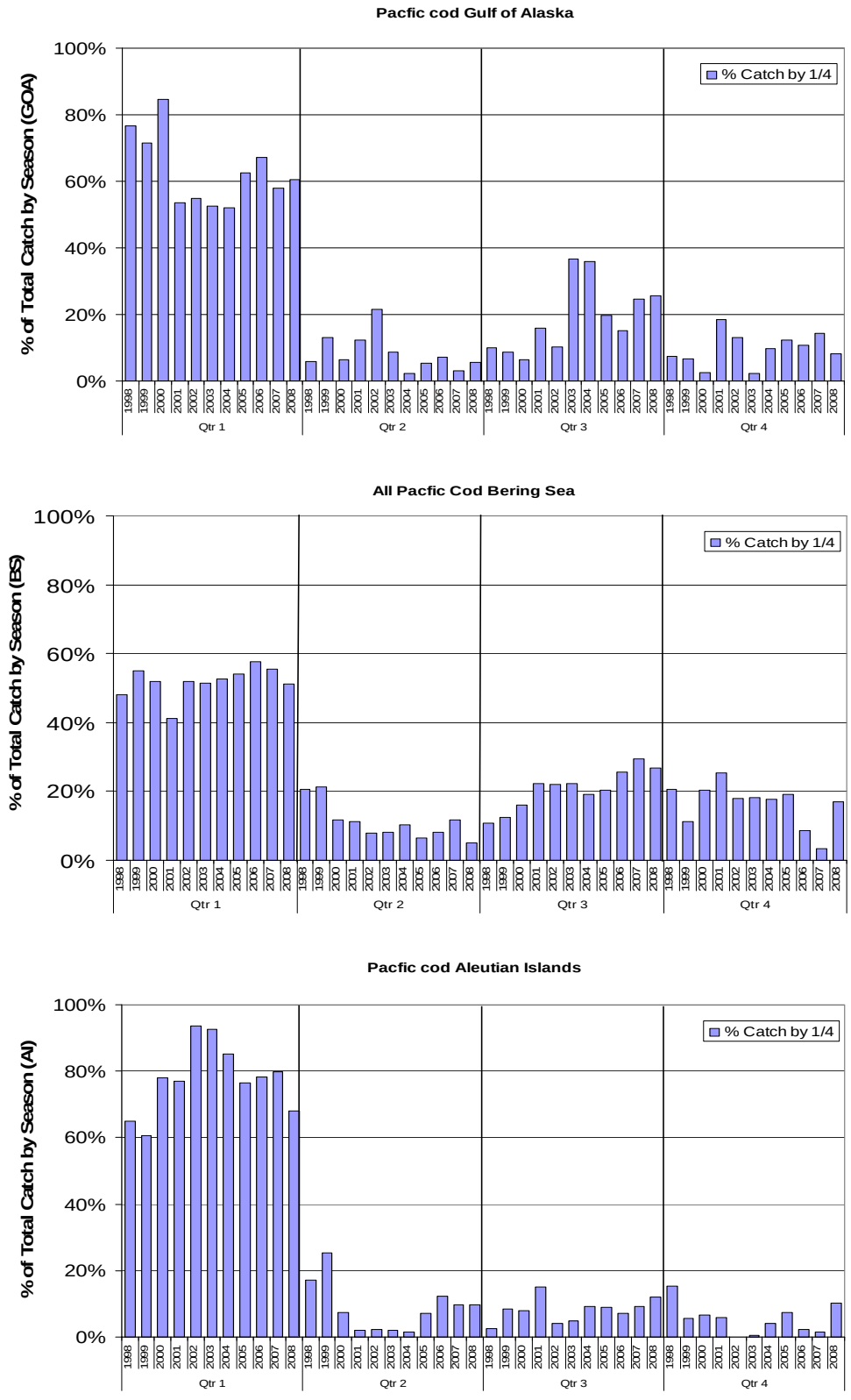


Figure III-13. Percent of the annual catch of pollock harvested in each quarter of the year from 1998-2008.

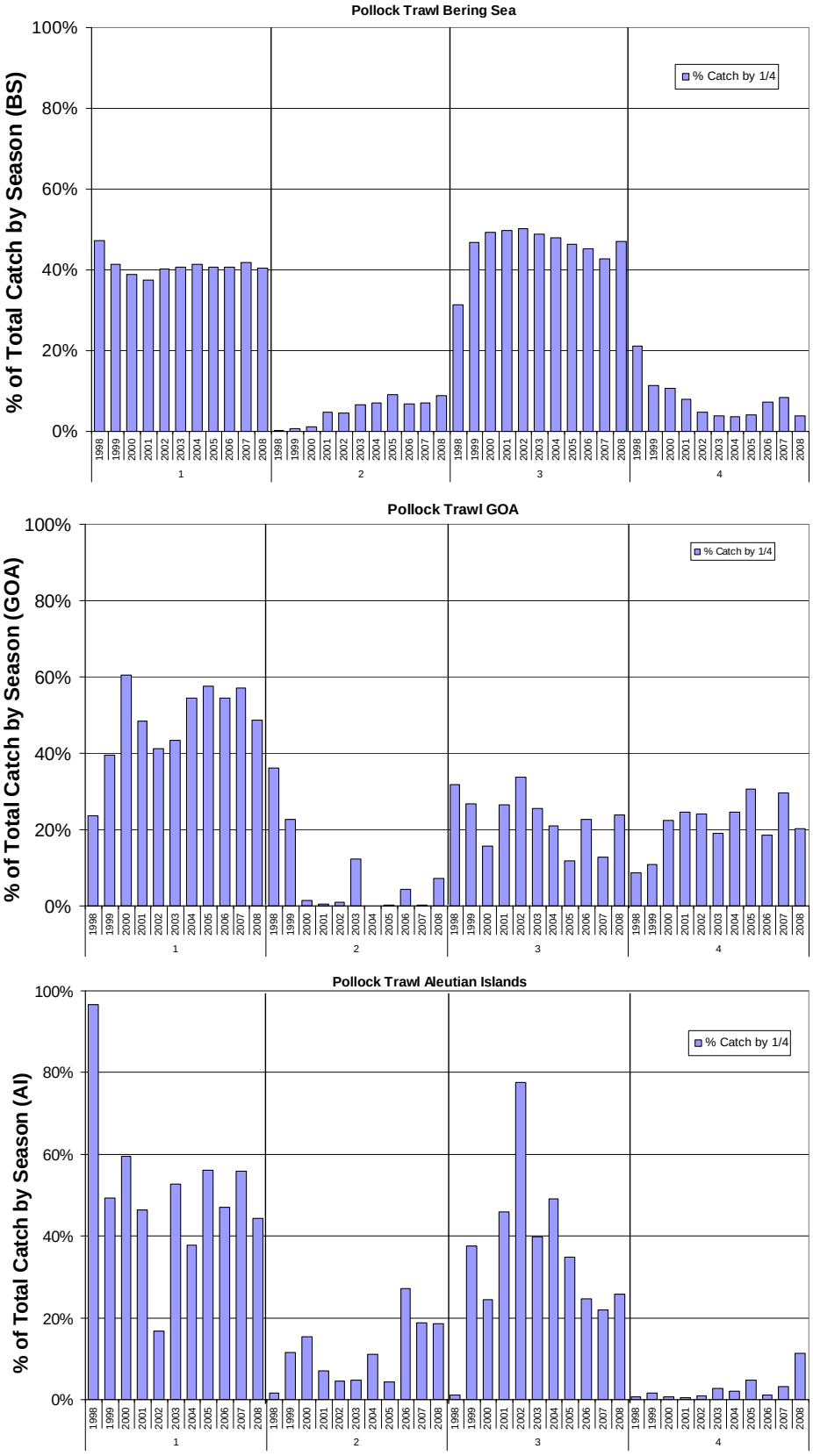


Figure III-14. Percent of the annual catch of Atka mackerel harvested in the Bering Sea, Aleutian Islands, and Gulf of Alaska by trawl in each quarter of the year from 1998-2008.

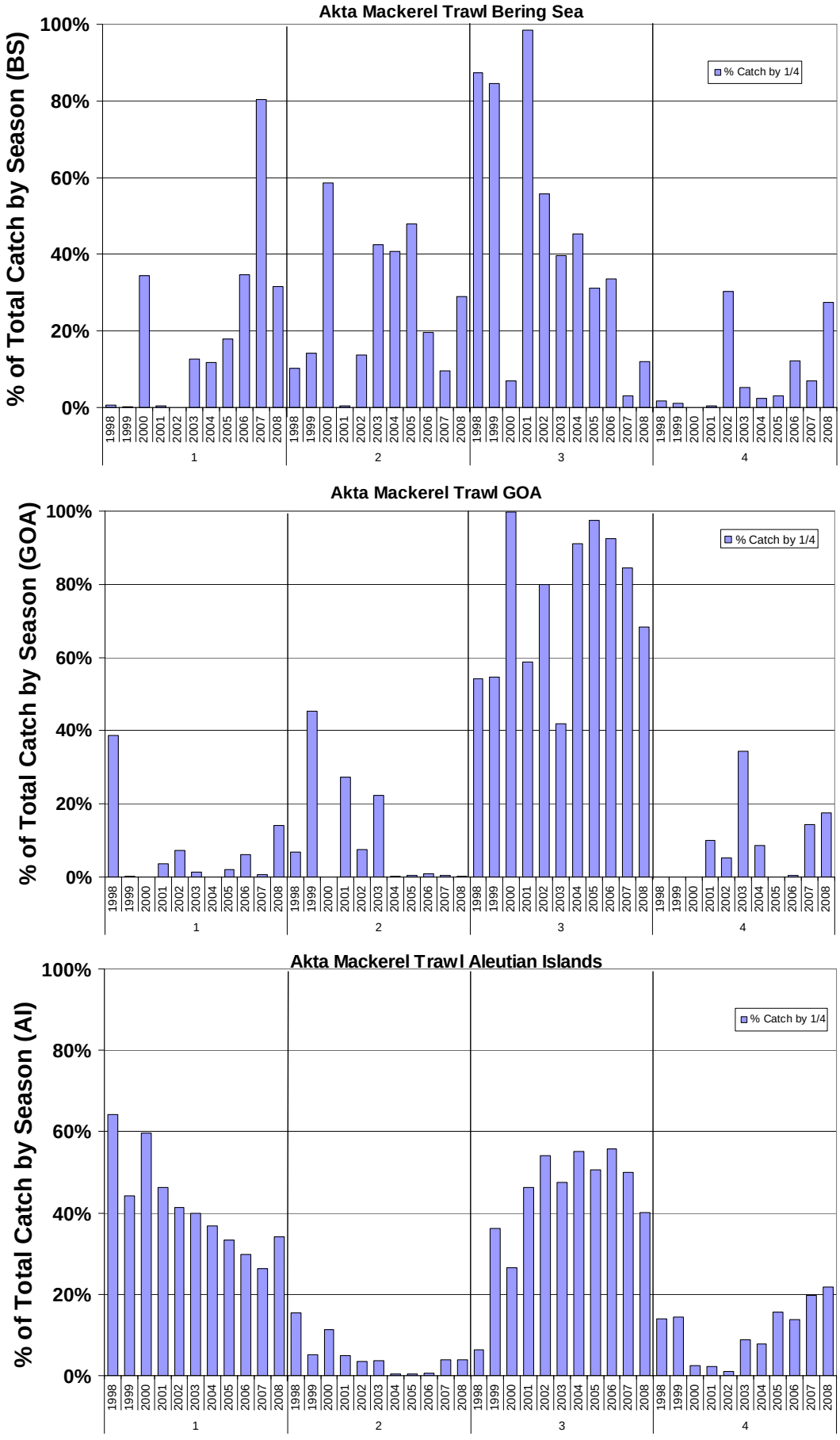


Figure III-15. Percent of the annual catch of arrowtooth flounder harvested in the Bering Sea, Gulf of Alaska, and the Aleutian Islands by trawl in each quarter of the year from 1998-2008.

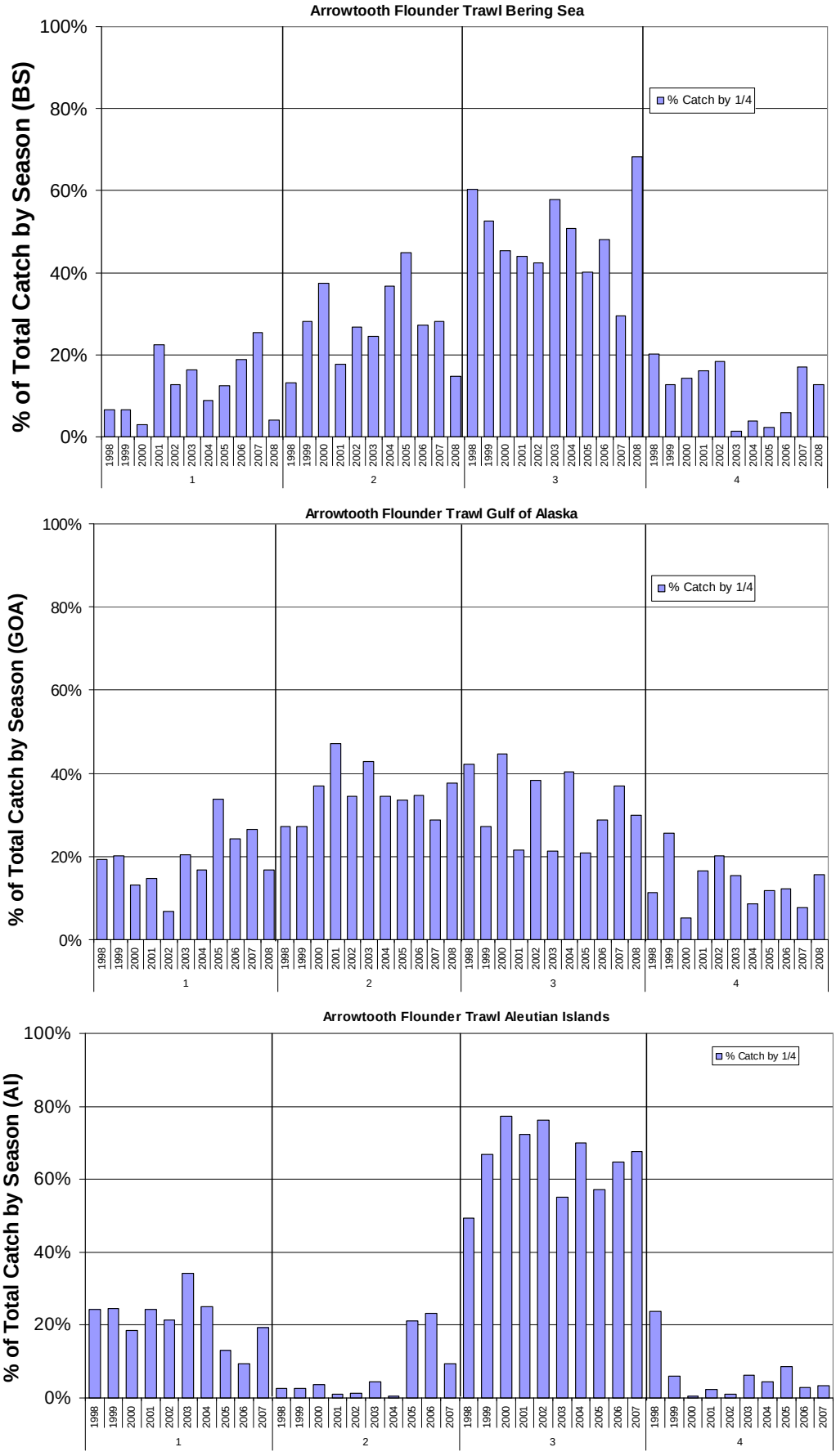


Figure III-16. Seasonal dispersion in the pollock catch in the Eastern Bering Sea, within (black) and outside (gray) of critical habitat. Y axis is per cent of total annual catch (source L. Fritz, NMML). Lower: Duration of directed fishery based on observer data (J. Ianelli, AFSC).

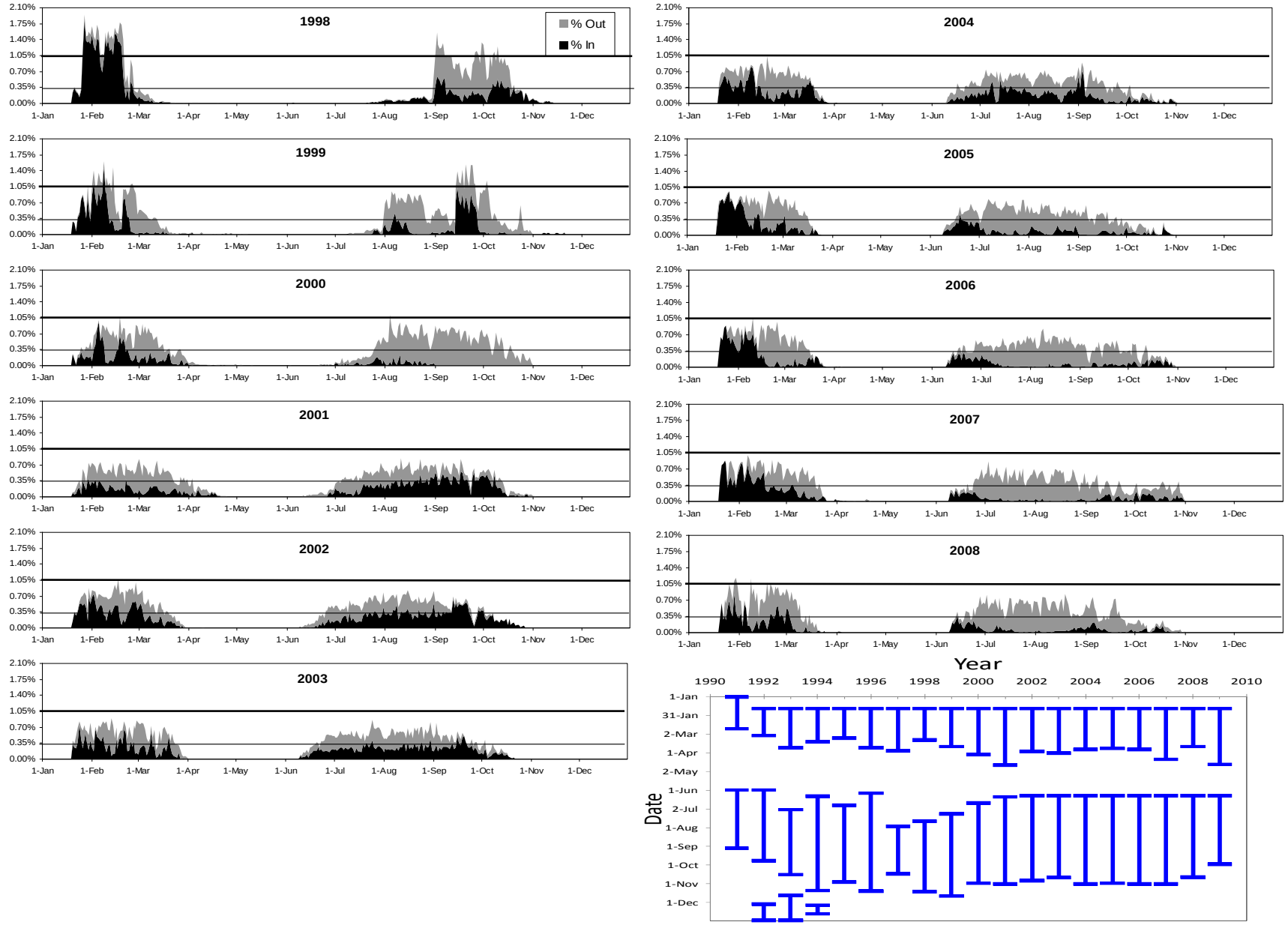
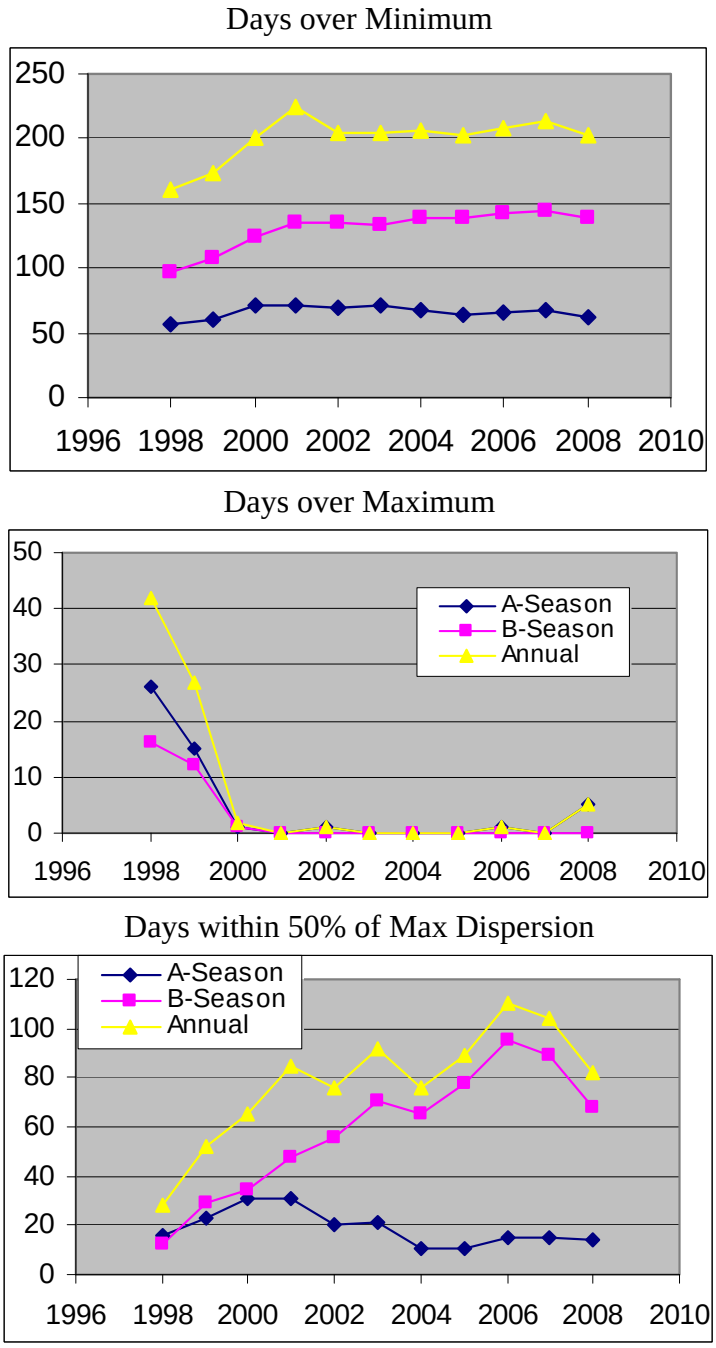


Figure III-17. Daily catch rates of pollock in the Eastern Bering Sea. Table (bottom) provides average catch rates in mt for the entire region in the years 1998-2008 (source: L. Fritz, NMML).



Season	Catch/day	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Average in EBS	7,222	5,685	6,130	7,288	8,188	8,320	8,377	8,259	8,298	7,781	5,436
A	Max in EBS	21,527	15,940	12,338	11,419	15,695	13,199	15,006	14,206	15,769	13,498	11,518
	Average in Critical Habitat	5,686	2,861	2,408	2,356	4,286	3,989	4,137	4,111	3,724	4,242	2,103
	Average in EBS	3,728	3,728	4,450	5,348	5,686	5,701	5,588	5,688	5,712	5,069	3,760
B	Max in EBS	17,122	15,317	12,701	11,741	12,179	12,799	13,017	11,529	12,314	11,688	8,132
	Average in Critical Habitat	1,323	987	273	2,818	3,193	2,790	2,226	1,234	1,005	811	575

Figure III-18. Age 3+ biomass of walleye pollock in the eastern Bering Sea (upper) and Gulf of Alaska (lower) regions, 1977-2008 (blue lines and right y-axes in both panels: Dorn et al. 2007; Ianelli et al. 2007). Total catch of pollock within each region (black lines and left y-axes) and pollock catch within Steller sea lion critical habitat in each region (red lines and left y-axes) are also plotted; upper plot includes catches of pollock in Aleutian Islands region.

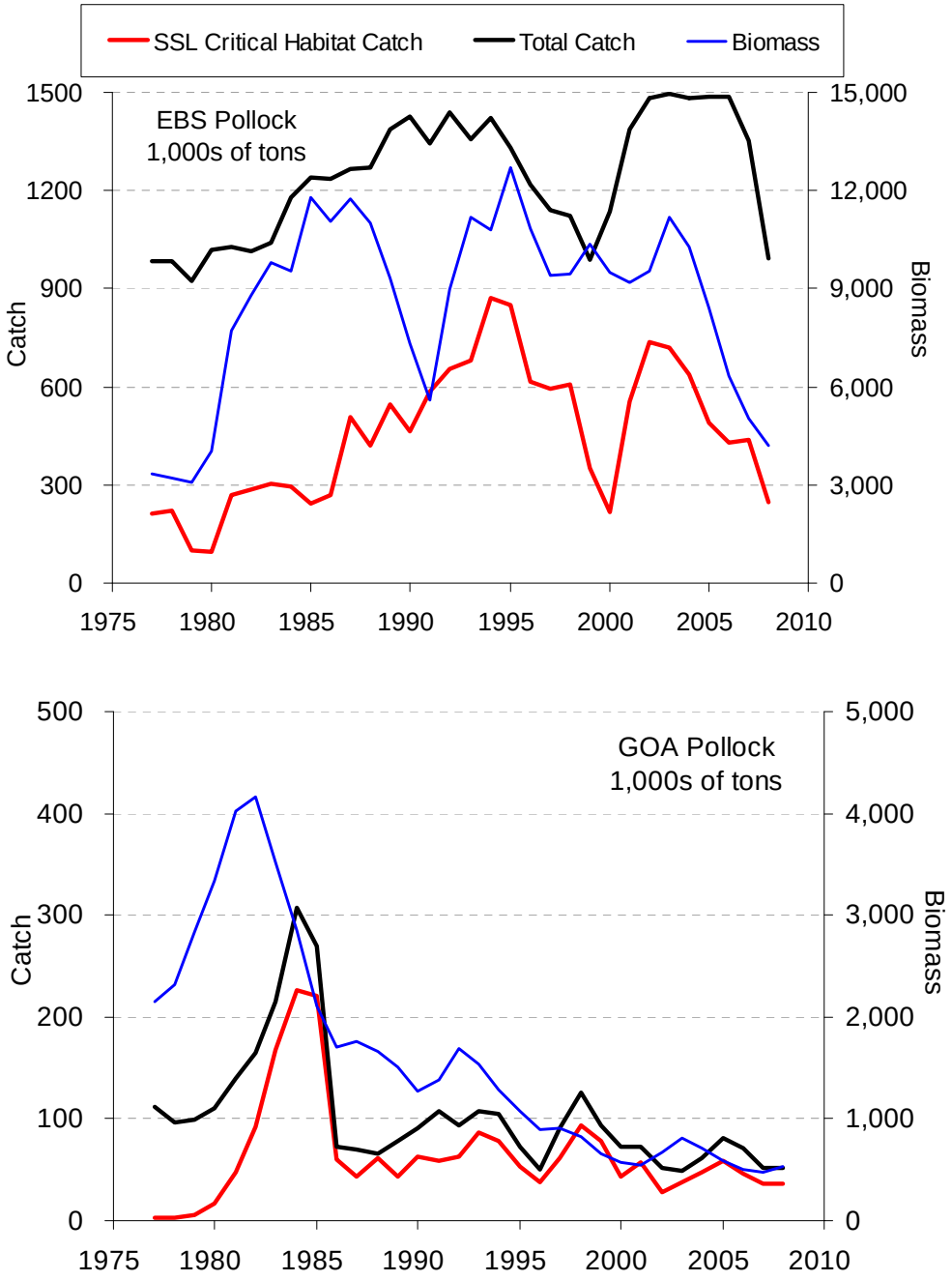


Table III-1. Summary of catch (mt) in critical habitat by zones from 1991-2008 in the Bering Sea area.

BS Pollock Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	391	48,030	302,858	351,279	456,367	239,645	264,491	807,647	1,511,661	53.4
1992	0	8,580	131,714	140,294	472,983	58,677	103,379	613,277	1,392,718	44.0
1993	362	10,137	103,974	114,473	581,942	74,099	54,867	696,415	1,328,523	52.4
1994	414	11,510	113,331	125,255	686,688	98,024	65,645	811,943	1,330,432	61.0
1995	289	11,610	131,566	143,464	691,848	142,429	54,418	835,313	1,264,578	66.1
1996	0	8,939	100,878	109,817	512,401	100,957	50,606	622,218	1,193,261	52.1
1997	118	7,229	66,247	73,594	533,670	61,764	44,256	607,264	1,124,589	54.0
1998	107	9,147	88,807	98,062	520,275	66,933	65,007	618,337	1,101,283	56.1
1999	0	476	5,266	5,742	356,077	1,915	4,974	361,819	989,931	36.5
2000	8	1,932	25,528	27,467	169,032	1,807	26,593	196,500	1,132,754	17.3
2001	227	10,751	224,929	235,907	380,516	175,101	137,180	616,423	1,387,366	44.4
2002	129	12,146	168,060	180,335	621,508	143,217	110,585	801,843	1,481,359	54.1
2003	162	14,597	185,930	200,689	519,784	135,067	159,323	720,473	1,490,754	48.3
2004	0	10,837	105,476	116,313	527,679	68,098	95,487	643,991	1,480,654	43.5
2005	0	9,000	80,837	89,837	399,106	53,980	74,487	488,943	1,482,990	33.0
2006	0	7,044	117,324	124,368	302,323	83,028	87,403	426,691	1,486,433	28.7
2007	0	2,644	120,304	122,949	311,527	92,491	84,099	434,476	1,350,891	32.2
2008	0	3,625	67,065	70,690	196,359	49,609	45,226	244,384	989,329	24.7

BS Pacific Cod Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	169	6,068	13,176	19,412	58,409	13,078	17,469	77,822	209,274	37.2
1992	183	3,346	7,819	11,347	33,117	5,664	10,197	44,464	164,440	27.0
1993	11	2,417	6,517	8,945	46,727	4,271	7,909	55,672	133,153	41.8
1994	18	5,149	10,592	15,758	60,129	10,172	14,349	75,887	172,076	44.1
1995	130	6,505	16,424	23,059	88,348	17,436	20,285	111,407	227,570	49.0
1996	161	8,012	19,234	27,407	66,254	21,857	23,546	93,661	207,256	45.2
1997	16	5,910	20,877	26,804	70,915	18,770	23,789	97,719	230,901	42.3
1998	145	5,415	15,963	21,523	44,689	12,207	19,750	66,212	159,904	41.4
1999	37	3,588	14,115	17,740	42,209	11,581	15,896	59,949	146,546	40.9
2000	50	4,219	14,498	18,766	45,135	12,146	14,451	63,901	149,497	42.7
2001	26	3,610	15,766	19,402	29,548	11,705	18,130	48,950	141,124	34.7
2002	33	3,336	12,641	16,010	39,582	11,598	14,269	55,592	158,031	35.2
2003	234	8,623	14,697	23,555	45,405	17,719	21,462	68,960	178,233	38.7
2004	20	7,736	14,534	22,290	43,493	16,477	20,357	65,784	182,478	36.1
2005	0	5,133	9,848	14,981	46,059	9,657	13,482	61,040	183,444	33.3
2006	8	4,989	8,211	13,208	43,793	8,595	12,053	57,001	167,745	34.0
2007	3	1,322	9,201	10,526	27,632	6,371	9,316	38,158	138,855	27.5
2008	11	2,456	7,292	9,759	22,659	5,452	8,723	32,418	138,558	23.4

Table III-1 (continued). Summary of catch (mt) in critical habitat by zones from 1991-2008 in the Bering Sea area.

BS Atka Mackerel Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	1,040	1,295	2,335	29	2,253	2,122	2,364	2,486	95.1
1992	0	6	1,281	1,287	1,134	1,235	1,053	2,421	2,485	97.4
1993	0	0	59	59	52	55	81	111	163	68.1
1994	0	4	23	27	108	22	23	135	135	100.0
1995	1	124	133	259	75	257	222	333	338	98.6
1996	0	47	575	622	137	619	585	759	783	96.9
1997	0	40	105	145	24	145	126	169	176	95.8
1998	0	112	730	842	51	839	576	893	901	99.2
1999	0	6	2,102	2,108	200	2,107	1,961	2,308	2,309	100.0
2000	0	0	110	110	1	107	191	111	215	51.6
2001	1	3	191	195	10	195	122	205	205	100.0
2002	0	29	223	252	61	251	129	313	313	100.0
2003	9	417	4,440	4,866	589	4,841	3,748	5,455	5,461	99.9
2004	0	504	5,009	5,513	1,005	5,508	4,584	6,518	6,532	99.8
2005	0	693	2,444	3,136	364	3,088	2,759	3,500	3,518	99.5
2006	0	410	2,008	2,418	696	2,296	2,176	3,114	3,139	99.2
2007	0	401	2080	2481	516	2,479	2,319	2,997	3,021	99.2
2008	0	49	336	385	6	385	373	391	396	98.9

BS Arrowtooth Flounder Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	1	802	962	1,765	1,740	1,515	1,506	5,427	17,814	30.46
1992	0	64	712	776	789	343	706	1,566	10,965	14.28
1993	0	86	808	895	1,701	708	352	2,595	7,950	32.64
1994	14	426	1,860	2,300	2,929	1,788	1,864	5,229	12,991	40.25
1995	1	147	1,421	1,570	3,143	1,326	878	4,713	8,281	56.91
1996	0	204	1,970	2,174	4,891	1,950	869	7,065	13,307	53.09
1997	2	132	655	789	2,897	460	477	3,686	9,227	39.95
1998	0	236	2,593	2,829	3,454	2,526	1,289	6,283	14,977	41.95
1999	0	265	2,234	2,499	2,527	2,404	1,307	5,025	10,590	47.45
2000	1	60	1,127	1,187	3,090	1,039	703	4,278	12,071	35.44
2001	0	82	1,337	1,419	4,972	1,216	746	6,392	12,837	49.79
2002	0	95	1,606	1,701	4,730	1,503	682	6,430	10,209	62.99
2003	0	76	2,190	2,266	3,975	1,889	1,392	6,241	12,480	50.01
2004	0	238	3,485	3,724	7,539	3,526	2,430	11,263	17,302	65.09
2005	0	194	1,603	1,797	4,274	1,671	1,231	6,071	13,292	45.68
2006	0	112	1,230	1,342	3,576	1,101	854	4,918	11,664	42.16
2007	0	107	1,884	1,991	2,910	1,698	1,405	4,901	10,834	45.24
2008	0	4,112	3,181	7,293	3,113	7,034	6,034	10,407	19,133	54.4

Table III-2. Summary of catch (mt) in Critical Habitat by zones from 1991-2008 in the Gulf of Alaska area.

GOA Pollock Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2,836	19,892	31,218	53,946	3,194	8,658	49,804	57,140	100,481	56.9
1992	1,996	12,647	44,919	59,562	5,493	6,224	57,402	65,056	90,848	71.6
1993	7,233	29,652	49,416	86,300	6,885	20,378	80,951	93,185	108,901	85.6
1994	1,856	23,898	51,133	76,886	9,113	19,134	74,840	85,999	107,328	80.1
1995	124	7,393	38,651	46,167	6,369	11,779	39,408	52,536	72,570	72.4
1996	804	9,991	23,652	34,446	4,726	5,818	33,281	39,172	51,260	76.4
1997	2,525	20,645	33,719	56,889	9,763	2,831	55,869	66,652	89,365	74.6
1998	10,387	31,267	45,384	87,038	12,633	3,912	86,851	99,671	125,098	79.7
1999	1,856	15,242	46,261	63,359	15,003	3,703	63,236	78,362	95,590	82.0
2000	204	11,729	26,611	38,544	4,131	9,743	38,464	42,675	72,923	58.5
2001	61	6,341	40,378	46,779	1,480	9,578	46,761	48,259	72,076	67.0
2002	0	6,312	18,843	25,155	2,775	3,389	25,129	27,930	51,919	53.8
2003	0	8,689	30,103	38,792	543	4,290	38,658	39,335	50,678	77.6
2004	1	4,877	42,907	47,784	2,353	6,269	47,695	50,137	63,689	78.7
2005	920	14,298	41,420	56,639	774	6,308	56,553	57,413	80,829	71.0
2006	164	7,031	39,553	46,748	529	4,302	46,584	47,278	71,871	65.8
2007	709	9,211	26,806	36,727	450	6,561	36,816	37,177	52,107	71.3
2008	162	9,820	23,140	33,122	2,767	4,738	30,958	35,895	51,965	69.0

GOA Pacific Cod Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	3,096	19,883	31,364	54,343	1,533	28,540	42,602	55,876	75,199	74.3
1992	586	14,672	42,814	58,072	699	25,993	42,499	58,796	79,469	74.0
1993	573	12,483	18,658	31,713	2,042	4,611	29,393	33,755	56,451	59.8
1994	1,424	9,884	21,349	32,657	690	12,172	27,165	33,347	45,749	72.9
1995	773	14,925	27,368	43,066	2,334	17,382	31,960	45,400	68,876	65.9
1996	801	16,235	27,236	44,272	2,845	22,548	35,433	47,117	68,183	69.1
1997	3,252	19,543	24,336	47,131	1,508	17,294	41,715	48,639	68,054	71.5
1998	458	13,701	25,050	39,209	2,347	14,281	34,985	41,556	61,957	67.1
1999	816	15,495	19,611	35,923	2,682	11,098	34,451	38,605	68,068	56.7
2000	97	19,108	12,937	32,141	726	13,790	31,299	32,868	53,391	61.6
2001	334	5,711	16,194	22,239	1,094	7,773	18,860	23,333	41,451	56.3
2002	84	6,474	12,372	18,930	889	4,155	17,771	19,819	42,248	46.9
2003	18	14,277	13,871	28,166	408	7,350	23,122	28,574	52,608	54.3
2004	249	12,065	17,168	29,482	1,284	3,291	27,684	30,766	56,560	54.4
2005	163	13,591	8,894	22,648	686	6,320	22,200	23,334	47,516	49.1
2006	127	4,657	12,253	17,037	1,802	2,629	16,729	18,840	47,745	39.5
2007	13	5,158	22,209	27,380	2,175	5,432	23,556	29,555	51,381	57.5
2008	329	8,875	17,988	27,192	8,019	9,093	26,741	35,328	59,011	59.9

Table III-2. (Continued). Summary of catch (mt) in Critical Habitat by zones from 1991-2008 in the Gulf of Alaska area.

GOA Atka Mackerel Cod Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	95	3,192	3,287	0	3,223	67	3,287	3,301	99.6
1992	0	1	13,698	13,699	0	13,682	1,910	13,699	13,835	99.0
1993	0	138	3,853	3,991	0	4,019	18	3,991	5,133	77.7
1994	3	67	3,111	3,181	0	3,172	10	3,181	3,537	89.9
1995	2	42	234	279	0	219	63	279	699	39.9
1996	0	279	1,015	1,294	0	1,267	32	1,294	1,586	81.6
1997	0	6	317	323	0	261	130	323	328	98.5
1998	1	0	307	308	0	283	308	308	317	97
1999	106	12	5	124	0	6	120	124	261	47.4
2000	0	0	1	1	1	0	1	1	169	0.9
2001	0	0	30	30	0	15	17	30	70	43.0
2002	0	1	16	17	0	2	15	17	85	19.8
2003	0	102	45	147	0	116	133	147	579	25.4
2004	0	70	96	166	0	90	76	166	818	20.3
2005	0	2	122	124	0	31	94	124	798	15.6
2006	0	8	96	104	0	3	102	104	874	11.9
2007	0	12	513	525	0	513	25	537	1,453	36.9
2008	0	174	477	651	0	503	345	651	2,106	30.9

GOA Arrowtooth flounder catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	21	380	2,203	2,604	101	1,139	2,165	2,705	17,352	15.6
1992	113	1,334	5,070	6,518	187	1,771	5,846	6,705	22,010	30.5
1993	43	960	2,964	3,967	45	1,409	3,456	4,012	19,209	20.9
1994	136	1,105	6,555	7,796	1,571	3,739	7,442	9,366	22,958	40.8
1995	42	1,101	3,213	4,356	1,175	1,236	3,916	5,531	18,375	30.1
1996	60	1,670	4,480	6,210	1,830	2,494	5,937	8,040	22,523	35.7
1997	89	1,521	3,906	5,515	1,003	1,054	5,021	6,518	16,411	39.7
1998	34	952	2,164	3,150	598	782	2,696	3,747	13,013	28.8
1999	50	991	3,279	4,320	1,084	1,413	3,898	5,405	16,073	33.6
2000	6	1,572	3,826	5,403	99	1,701	4,712	5,502	24,252	22.7
2001	7	1,636	5,377	7,021	103	1,190	6,693	7,124	19,964	35.7
2002	3	491	4,011	4,505	709	2,203	3,812	5,214	21,222	24.6
2003	0	1,695	11,329	13,024	1,233	3,975	11,974	14,257	30,477	46.8
2004	1	867	6,705	7,573	927	1,553	6,793	8,499	15,335	55.4
2005	31	2,782	10,378	13,191	1,209	1,361	12,703	14,400	19,764	72.9
2006	59	4,211	12,856	17,126	2,259	1,253	17,068	19,385	27,651	70.1
2007	114	4,078	8,375	12,567	2,272	873	12,518	14,839	25,375	58.5
2008	1	2,428	6,869	9,298	958	679	9,013	10,256	29,659	34.6

Table III-3. Summary of catch (mt) in Critical Habitat by zones from 1991-2008 in the Aleutian Islands area.

AI Pollock Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	38	7,655	65,658	73,351	4,271	2,268	73,242	77,622	98,604	78.7
1992	14	6,302	20,148	26,465	17	6,488	25,488	26,482	50,205	52.7
1993	32	9,770	16,417	26,219	0	9,635	20,987	26,219	55,989	46.8
1994	488	8,327	16,643	25,458	5,676	9,314	22,254	31,134	58,084	53.6
1995	4,647	45,743	9,887	60,277	1	24,838	56,091	60,278	64,925	92.8
1996	2,069	21,152	1,938	25,159	1	10,957	24,967	25,160	29,062	86.6
1997	3,329	17,460	4,330	25,118	1	10,270	24,694	25,119	25,940	96.8
1998	819	13,079	3,800	17,698	0	2,241	17,206	17,699	23,822	74.3
1999	14	458	385	857	0	390	767	857	1,010	84.9
2000	169	482	276	927	3	476	876	929	1,244	74.7
2001	1	350	303	654	1	535	538	655	820	79.9
2002	0	160	263	424	1	334	322	425	607	70.0
2003	0	432	508	940	11	677	1,006	951	1,650	57.6
2004	82	226	419	727	0	413	584	727	1,148	63.3
2005	41	368	631	1,041	1	423	901	1,042	1,621	64.3
2006	10	222	1,189	1,420	4	240	1,286	1,424	1,727	82.5
2007	14	265	682	962	5	392	912	967	2,523	38.3
2008	7	199	476	681	0	405	583	681	1,278	53.3

AI Pacific Cod Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	536	4,637	4,138	9,310	16	6,372	6,755	9,326	9,797	95.2
1992	1,037	14,495	18,968	34,500	19	20,748	23,792	34,519	42,932	80.4
1993	346	9,536	14,016	23,897	1	12,136	19,638	23,898	34,172	69.9
1994	312	6,821	11,423	18,556	3	12,967	15,905	18,560	21,399	86.7
1995	1,316	5,523	7,938	14,777	17	9,054	12,227	14,794	16,534	89.5
1996	439	9,015	14,993	24,446	3	13,874	19,982	24,449	30,526	80.1
1997	400	9,128	9,168	18,695	49	10,123	16,656	18,745	25,072	74.8
1998	818	11,611	15,560	27,989	4	17,696	22,607	27,992	34,901	80.2
1999	444	10,177	13,200	23,821	1	12,465	20,238	23,822	27,166	87.7
2000	827	11,375	16,963	29,164	5	14,143	24,348	29,169	38,338	76.1
2001	274	12,084	15,011	27,369	10	17,064	20,539	27,379	34,102	80.3
2002	22	5,447	20,577	26,046	2	8,063	23,389	26,048	37,596	69.3
2003	99	7,448	21,511	29,057	1	11,629	20,396	29,058	32,452	89.5
2004	72	8,404	14,576	23,053	0	13,090	19,835	23,053	28,851	79.9
2005	1	5,968	12,201	18,169	0	8,716	16,728	18,169	22,466	80.9
2006	194	5,839	13,923	19,956	3	6,892	17,862	19,958	23,824	83.8
2007	62	7,658	18,831	26,552	1	8,399	24,042	26,552	33,121	80.2
2008	50	9,893	17,379	27,322	0	13,170	23,131	27,322	32,192	84.9

Table III-3 (continued). Summary of catch (mt) in Critical Habitat by zones from 1991-2008 in the Aleutian Islands area.

AI Atka Mackerel Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	300	21,080	1,250	22,629	3	22,370	22,425	22,632	24,140	93.8
1992	760	4,373	7,040	12,173	0	7,140	10,998	12,173	45,103	27.0
1993	191	791	26,219	27,201	0	54,867	24,739	27,201	64,934	41.9
1994	1,032	4,960	38,018	44,010	0	36,627	38,497	44,010	64,457	68.3
1995	205	6,141	62,025	68,370	0	62,755	41,611	68,370	81,214	84.2
1996	1,004	9,983	64,488	75,476	1	59,826	44,003	75,476	103,158	73.2
1997	2,039	4,460	45,892	52,391	0	41,717	32,589	52,391	65,665	79.8
1998	75	2,935	42,556	45,566	0	39,608	23,979	45,566	56,196	81.1
1999	237	7,484	20,338	28,059	0	23,354	16,965	28,059	53,928	52.0
2000	676	2,390	16,132	19,198	0	17,233	6,956	19,198	46,403	41.4
2001	392	4,463	22,021	26,876	0	23,764	15,249	26,876	60,545	44.4
2002	41	1,303	19,486	20,830	0	17,880	5,977	20,830	44,331	47.0
2003	0	712	20,359	21,072	1	16,070	6,254	21,073	52,912	39.8
2004	69	363	16,036	16,468	0	15,774	3,574	16,468	52,523	31.4
2005	15	828	23,311	24,155	3	24,038	13,721	24,157	58,475	41.3
2006	0	420	22,374	22,794	0	22,649	5,106	22,795	58,571	38.9
2007	85	370	15,849	16,303	0	15,648	8,697	16,303	55,566	29.3
2008	0	348	19,179	19,527	0	7,244	11,306	19,527	57,690	33.8

AI Arrowtooth Flounder Catch by Zones 1991-2008

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	12	460	1,008	1,480	22	1,260	571	1,502	1,676	89.7
1992	4	115	393	512	22	269	355	534	947	56.4
1993	13	122	757	892	10	630	453	902	1,346	67.0
1994	3	97	882	982	33	774	597	1,015	1,307	77.6
1995	9	118	590	717	14	576	610	731	1,001	73.1
1996	6	143	983	1,133	14	1,019	285	1,147	1,345	85.2
1997	12	302	685	999	0	811	514	999	1,240	80.6
1998	3	83	262	347	14	255	275	361	695	52.0
1999	6	198	311	515	5	331	410	520	782	66.5
2000	13	232	425	670	3	475	466	673	1,156	58.2
2001	5	354	459	818	20	526	631	838	1,220	68.7
2002	4	186	789	979	33	708	682	1,012	1,602	63.2
2003	18	122	467	607	45	389	527	653	986	66.2
2004	18	170	259	447	14	302	342	462	802	57.6
2005	11	179	345	535	37	449	356	571	831	68.7
2006	13	295	367	674	36	567	409	711	1,451	49.0
2007	10	128	220	359	32	225	305	390	800	48.8
2008	4	978	1,171	2,153	8	2,026	883	2,161	2,516	85.9

Table III-4 Comparison of the change from 1999 and 2005 as a percent of the portion of catch in critical habitat by zones. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch (mt) in critical habitat areas including the foraging areas.

Gulf of Alaska		GOA % of Total Catch in CH areas					Change from 1999 to 2005 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.9	15.9	48.4	15.7	82.0	+10.9%	+6.0%	-13.4%	78,227	-26.6%	95,428	-15.3%	decrease
	2005	1.1	17.7	51.3	1.0	71.0				57,396		80,811		
Cod Trawl	1999	1.9	25.5	28.0	0.9	56.3	-30.2%	-8.9%	-20.4%	20,800	-68.7%	36,925	-60.7%	decrease
	2005	0.0	17.8	25.5	1.5	44.8				6,507		14,509		
Cod Pot	1999	0.5	14.8	21.0	12.5	48.8	+42.7%	-9.3%	-15.0%	9,164	+10.3%	18,786	+29.8%	increase
	2005	0.7	21.1	19.1	0.7	41.5				10,105		24,377		
Cod Longline	1999	0.1	26.7	43.2	0.0	69.9	+155.0%	-85.2%	+11.4%	8,641	-22.2%	12,358	-30.2%	decrease
	2005	0.0	68.0	6.4	3.5	77.9				6,722		8,631		
Atka Mackerel Trawl	1999	40.7	4.7	2.1	0.0	47.4	-97.2%	+650.3%	-67.2%	124	-1.7%	260	+199.2%	increase
	2005	0.0	0.1	15.4	0.0	15.6				121		779		

Bering Sea		BS % of Total Catch in CH areas					Change from 1999 to 2005 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0.0	0.0	0.5	36.1	36.6	+1286.1%	+993.5%	-9.8%	361,120	+35.3%	985,914	+50.0%	increase
	2005	0.0	0.6	5.5	27.0	33.0				488,492		1,478,746		
P. Cod Trawl	1999	0.0	0.0	1.5	60.9	62.4	+2098.6%	+256.6%	+6.8%	32,362	+8.3%	51,893	+1.4%	increase
	2005	0.0	0.4	5.2	61.0	66.6				35,054		52,621		
P. Cod Pot	1999	0.2	16.2	42.8	27.7	86.8	+30.5%	-64.1%	-18.5%	10,711	+12.0%	12,333	+37.4%	increase
	2005	0.0	21.1	15.4	34.3	70.8				11,994		16,947		
P. Cod Longline	1999	0.0	1.9	9.8	8.7	20.5	-38.5%	-59.6%	-40.1%	16,867	-17.0%	82,320	+38.3%	
	2005	0.0	1.2	4.0	7.1	12.3				13,992		113,876		
Atka Mackerel Trawl	1999	0.0	0.0	91.3	8.6	100.0	+229504.5%	-20.7%	-0.4%	2,298	+42.8%	2,299	+43.5%	increase
	2005	0.0	16.2	72.4	11.0	99.5				3,282		3,298		

Table III-4. Continued.

Aleutian Islands		AI % of Total Catch in CH areas					Change from 1999 to 2005 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.3	45.3	38.4	0.0	85.0	-50.1%	+1.7%	-24.4%	846	+22.8%	996	+62.5%	increase
	2005	2.5	22.6	39.0	0.1	64.2				1,039		1,618		
P. Cod Trawl	1999	1.0	29.7	54.8	0.0	85.5	-26.2%	+9.9%	-3.9%	14,056	+14.7%	16,437	+19.3%	increase
	2005	0.0	21.9	60.2	0.0	82.2				16,116		19,613		
P. Cod Pot	1999	5.0	43.8	47.8	0.0	96.5	+27.3%	-100.0%	-42.3%	2,755	-100.0%	2,854	-100.0%	decrease
	2005	0.0	55.7	0.0	0.0	55.7				0.012		0.021		
P. Cod Longline	1999	1.8	51.4	35.9	0.0	89.0	+13.9%	-62.4%	-19.2%	7,011	-70.7%	7,875	-63.8%	decrease
	2005	0.0	58.5	13.5	0.0	72.0				2,054		2,853		
Atka Mackerel Trawl	1999	0.4	13.8	37.7	0.0	52.0	-90.0%	+5.7%	-20.5%	27,987	-13.8%	53,856	+8.5%	
	2005	0.0	1.4	39.9	0.0	41.3				24,138		58,455		

BS, AI, and GOA combined		% of Total Catch in all CH areas					Change from 1999 to 2005 as %		
ALL GEAR		0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH
All Pollock, cod, mackerel fisheries	1999	0.3%	3.8%	8.8%	30.0%	42.9%	-30.4%	+9.4%	-20.7%
	2005	0.1%	2.7%	9.6%	23.8%	36.1%			

Table III-5 Comparison of the change from 1999 and 2007 as a percent of the portion of catch in critical habitat by zones. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch (mt) in critical habitat areas including the foraging areas.

Gulf of Alaska		GOA % of Total Catch in CH areas					Change from 1999 to 2007 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.9	15.9	48.4	15.7	82.0	+10.9%	+6.5%	-12.9%	78,227	-52.6%	95,428	-45.6%	decrease
	2007	1.4	17.7	51.5	0.8	71.4				37,060		51,916		
Cod Trawl	1999	1.9	25.5	28.0	0.9	56.3	-55.4%	+81.1%	+13.0%	20,800	-54.9%	36,925	-60.1%	decrease
	2007	0.1	11.4	50.7	1.5	63.7				9,387		14,746		
Cod Pot	1999	0.5	14.8	21.0	12.5	48.8	-49.5%	+82.5%	-6.1%	9,164	+21.9%	18,786	+29.8%	increase
	2007	0.0	7.5	38.4	0.0	45.8				11,175		24,382		
Cod Longline	1999	0.1	26.7	43.2	0.0	69.9	-49.2%	+1.8%	+5.0%	8,641	+4.1%	12,358	-0.9%	
	2007	0.0	13.6	44.0	44.0	73.4				8,993		12,252		
Atka Mackerel Trawl	1999	40.7	4.7	2.1	0.0	47.4	-83.0%	+1619.3%	-22.0%	124	+333.3%	260	+455.7%	increase
	2007	0.0	0.8	35.4	0.0	37.0				535		1,447		

Bering Sea		BS % of Total Catch in CH areas					Change from 1999 to 2007 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0.0	0.0	0.5	36.1	36.6	+343.1%	+1686.0%	-12.1%	361,120	+20.2%	985,914	+36.7%	increase
	2007	0.0	0.2	8.9	23.1	32.2				434,090		1,347,549		
P. Cod Trawl	1999	0.0	0.0	1.5	60.9	62.4	+956.5%	+274.5%	-17.0%	32,362	-26.9%	51,893	-11.9%	decrease
	2007	0.0	0.2	5.4	46.1	51.8				23,665		45,710		
P. Cod Pot	1999	0.2	16.2	42.8	27.7	86.8	-86.2%	-52.1%	-46.2%	10,711	-25.0%	12,333	+39.4%	increase
	2007	0.0	2.2	20.5	24.0	46.7				8,033		17,192		
P. Cod Longline	1999	0.0	1.9	9.8	8.7	20.5	-41.7%	-57.3%	-58.5%	16,867	-61.7%	82,320	-7.7%	decrease
	2007	0.0	1.1	4.2	3.2	8.5				6,460		75,953		
Atka Mackerel Trawl	1999	0.0	0.0	91.3	8.6	100.0	+180270.1%	-24.1%	-0.6%	2,298	+27.9%	2,299	+28.8%	increase
	2007	0.0	12.7	69.3	17.3	99.3				2,940		2,960		

Table III-5. Continued.

Aleutian Islands		AI % of Total Catch in CH areas					Change from 1999 to 2007 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.3	45.3	38.4	0.0	85.0	-76.9%	-29.7%	-55.0%	846	+13.5%	996	+152.6%	increase
	2007	0.6	10.5	27.0	0.2	38.2				961		2,515		
P. Cod Trawl	1999	1.0	29.7	54.8	0.0	85.5	-28.3%	+7.5%	-6.0%	14,056	+63.7%	16,437	+74.1%	increase
	2007	0.2	21.3	58.9	0.0	80.4				23,009		28,620		
P. Cod Pot	1999	5.0	43.8	47.8	0.0	96.5	-73.2%	+83.2%	+2.8%	2,755	-99.9%	2,854	-99.9%	decrease
	2007	0.0	11.7	87.5	0.0	99.2				2		2		
P. Cod Longline	1999	1.8	51.4	35.9	0.0	89.0	-32.4%	+21.6%	-11.6%	7,011	-49.5%	7,875	-42.9%	decrease
	2007	0.4	34.7	43.7	0.0	78.7				3,541		4,499		
Atka Mackerel Trawl	1999	0.4	13.8	37.7	0.0	52.0	-95.4%	-24.4%	-43.6%	27,987	-41.8%	53,856	+3.1%	increase
	2007	0.2	0.6	28.5	0.0	29.3				16,278		55,541		

BS, AI, and GOA combined		% of Total Catch in all CH areas					Change from 1999 to 2007 as %		
ALL GEAR		0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH
All Pollock, cod, mackerel fisheries	1999	0.3%	3.8%	8.8%	30.1%	42.9%	-58.1%	+46.3%	-32.6%
	2007	0.1%	1.6%	12.8%	20.3%	34.7%			

Table III-6. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat by zones. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch (mt) in critical habitat areas including the foraging areas.

Gulf of Alaska		GOA % of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.9	15.9	48.4	15.7	82.0	+17.2%	-7.8%	-16.0%	78,227	-54.5%	95,428	-45.9%	decrease
	2008	0.3	18.7	44.6	5.3	68.9				35,575		51,639		
Cod Trawl	1999	1.9	25.5	28.0	0.9	56.3	-18.4%	-22.2%	-22.2%	20,800	-57.6%	36,925	-45.5%	decrease
	2008	0.0	20.8	21.8	1.2	43.8				8,822		20,142		
Cod Pot	1999	0.5	14.8	21.0	12.5	48.8	+16.1%	+49.8%	+3.2%	9,164	+5.9%	18,786	+2.6%	
	2008	1.7	17.1	31.5	0.0	50.3				9,703		19,278		
Cod Longline	1999	0.1	26.7	43.2	0.0	69.9	-73.6%	-10.9%	+22.7%	8,641	+94.5%	12,358	+58.5%	increase
	2008	0.0	7.0	38.4	39.7	85.8				16,803		19,591		
Atka Mackerel Trawl	1999	40.7	4.7	2.1	0.0	47.4	+76.9%	+972.6%	-35.9%	124	+413.5%	260	+701.6%	increase
	2008	0.0	8.3	22.1	0.0	30.4				634		2,087		

Bering Sea		BS % of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0.0	0.0	0.5	36.1	36.6	+739.5%	+1262.9%	-32.5%	361,120	-32.6%	985,914	-0.2%	
	2008	0.0	0.4	6.8	17.6	24.7				243,432		984,081		
P. Cod Trawl	1999	0.0	0.0	1.5	60.9	62.4	+2566.4%	+329.8%	-24.5%	32,362	-51.3%	51,893	-35.5%	decrease
	2008	0.0	0.5	6.3	40.3	47.1				15,762		33,483		
P. Cod Pot	1999	0.2	16.2	42.8	27.7	86.8	-28.5%	-55.3%	-39.9%	10,711	-17.7%	12,333	+36.8%	increase
	2008	0.0	11.6	19.1	21.6	52.2				8,815		16,877		
P. Cod Longline	1999	0.0	1.9	9.8	8.7	20.5	-79.8%	-77.2%	-56.6%	16,867	-53.5%	82,320	+7.1%	increase
	2008	0.0	0.4	2.2	6.3	8.9				7,842		88,198		
Atka Mackerel Trawl	1999	0.0	0.0	91.3	8.6	100.0	+2798.2%	+6.1%	-1.0%	2,298	-85.7%	2,299	-85.6%	decrease
	2008	0.0	0.2	96.9	1.8	98.9				328		332		

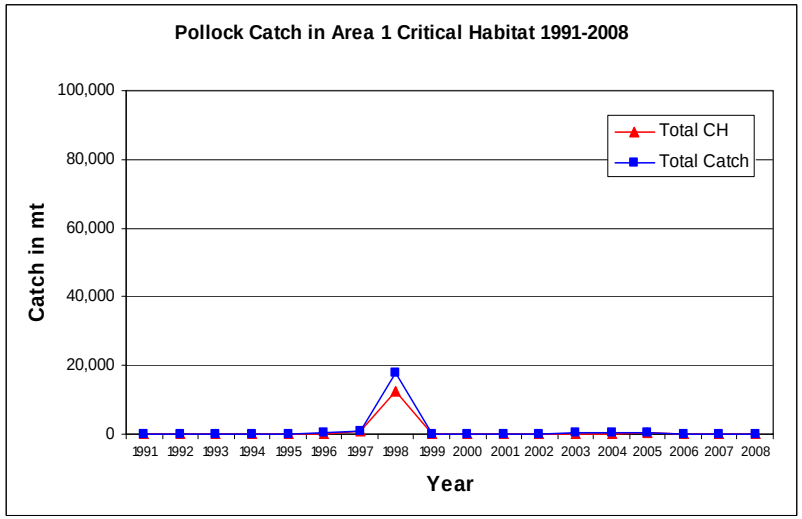
Table III-6. Continued.

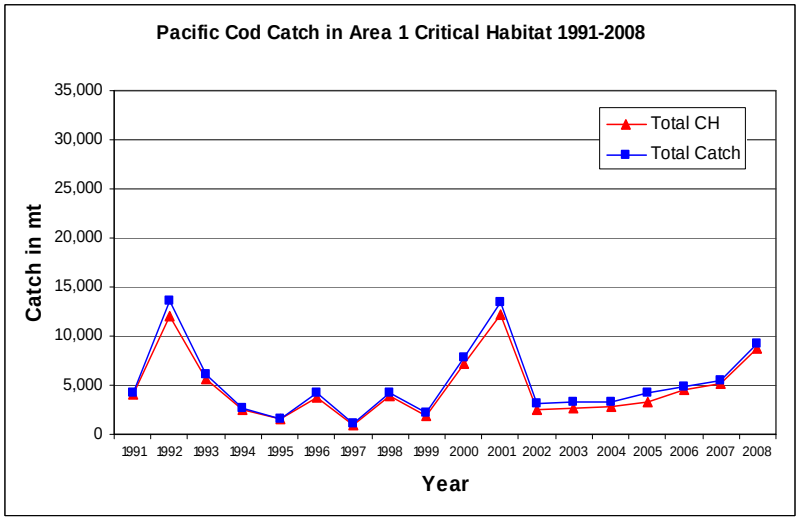
Aleutian Islands		AI % of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT (mt) catch in CH	% change in amount of fish removed from CH	Total Catch (mt) entire region	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.3	45.3	38.4	0.0	85.0	-66.3%	-2.9%	-37.5%	846	-20.4%	996	+27.4%	increase
	2008	0.5	15.3	37.3	0.0	53.1				673		1,269		
P. Cod Trawl	1999	1.0	29.7	54.8	0.0	85.5	-33.6%	+18.0%	-1.3%	14,056	+38.7%	16,437	+40.5%	increase
	2008	0.0	19.7	64.7	0.0	84.4				19,497		23,094		
P. Cod Pot	1999	5.0	43.8	47.8	0.0	96.5	-100.0%	-100.0%	-100.0%	2,755	-100.0%	2,854	-85.6%	decrease
	2008	0.0	0.0	0.0	0.0	0.0				0		410		
P. Cod Longline	1999	1.8	51.4	35.9	0.0	89.0	+19.6%	-21.9%	+1.2%	7,011	+11.6%	7,875	+10.3%	increase
	2008	0.6	61.4	28.1	0.0	90.1				7,825		8,689		
Atka Mackerel Trawl	1999	0.4	13.8	37.7	0.0	52.0	-96.1%	-12.7%	-35.6%	27,987	-31.1%	53,856	+7.0%	increase
	2008	0.0	0.5	32.9	0.0	33.5				19,291		57,642		

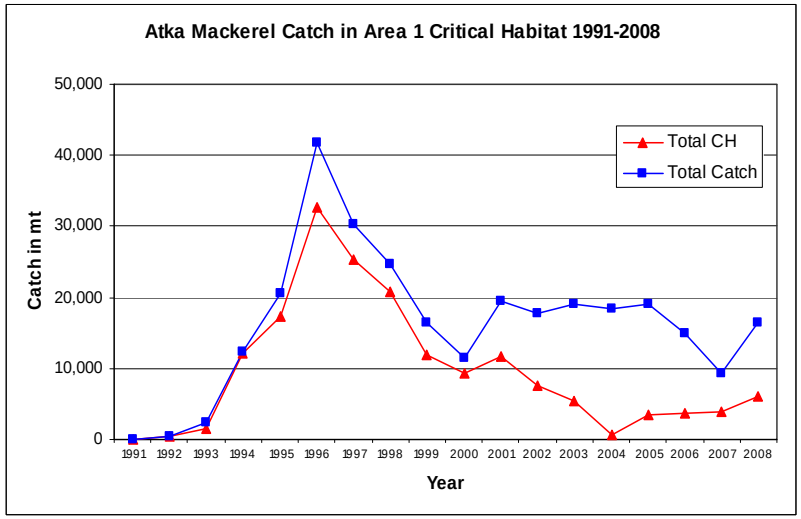
BS, AI, and GOA combined		% of Total Catch in all CH areas					Change from 1999 to 2008 as %		
ALL GEAR		0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH
All Pollock, cod, mackerel fisheries	1999	0.3%	3.8%	8.8%	30.1%	42.9%	-30.4%	+31.4%	-48.2%
	2008	0.0%	2.7%	11.5%	15.6%	29.8%			

APPENDIX IV
FISHERIES CATCH DATA IN CRITICAL HABITAT- FIGURES AND TABLES

Figure IV-1.1. RCA 1: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







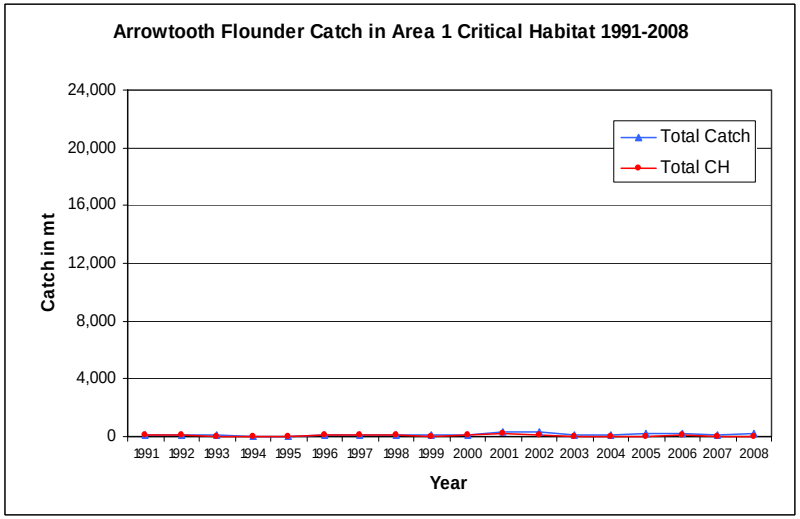
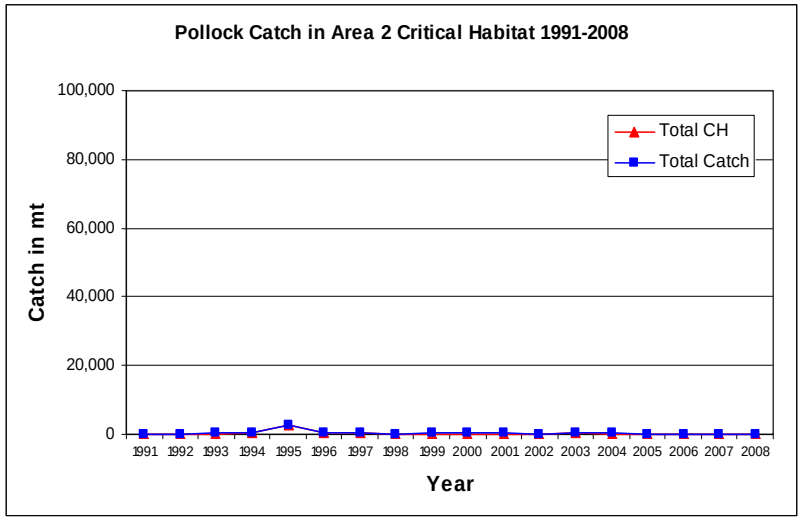
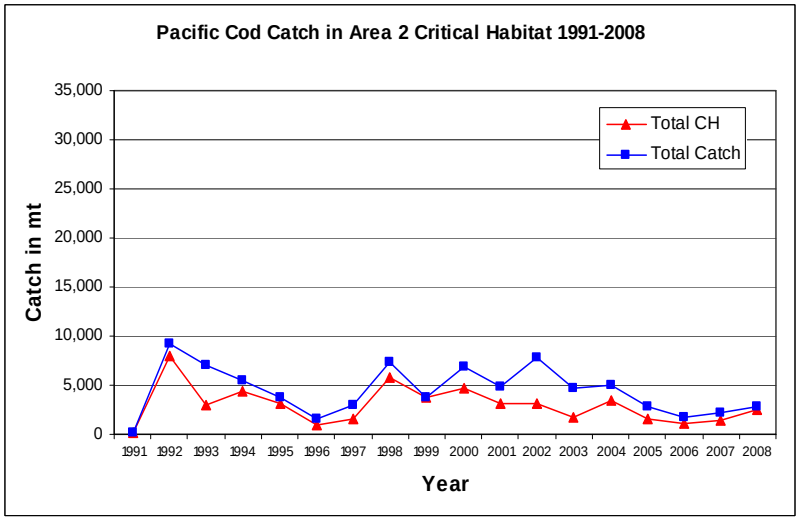
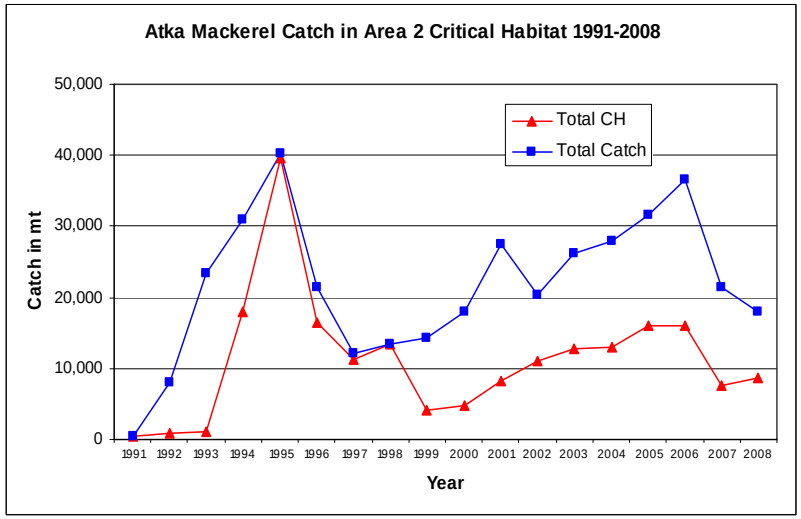


Figure IV-1.2. RCA 2: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







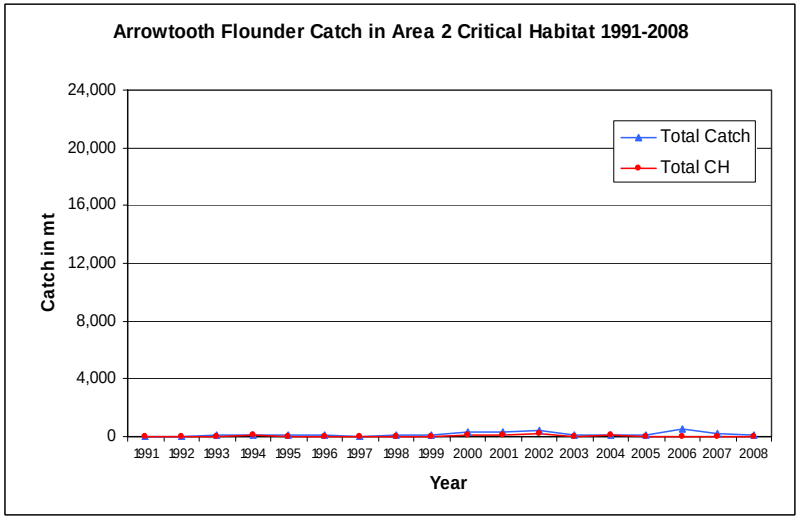
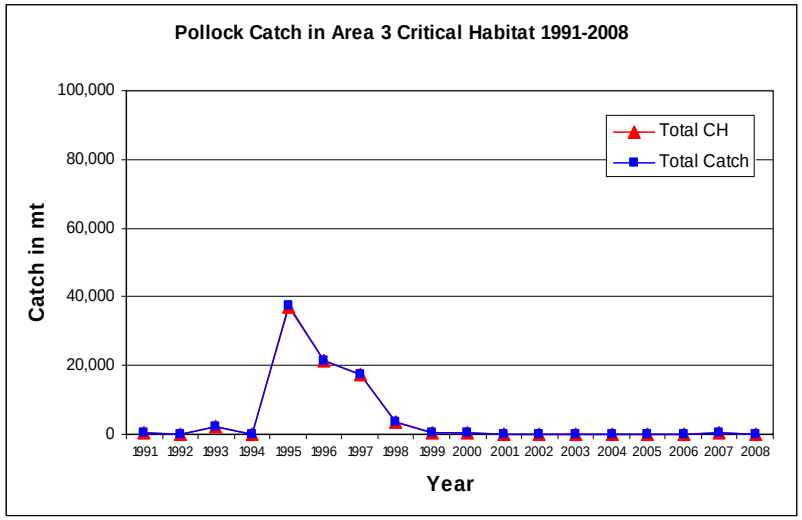
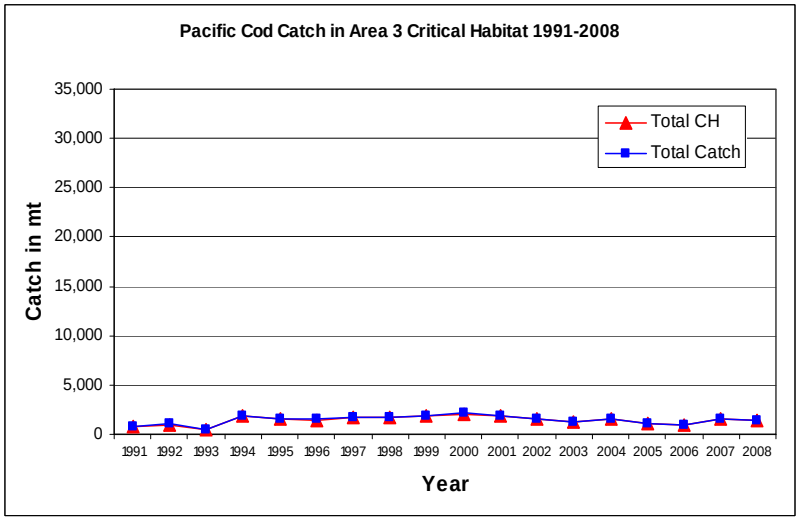
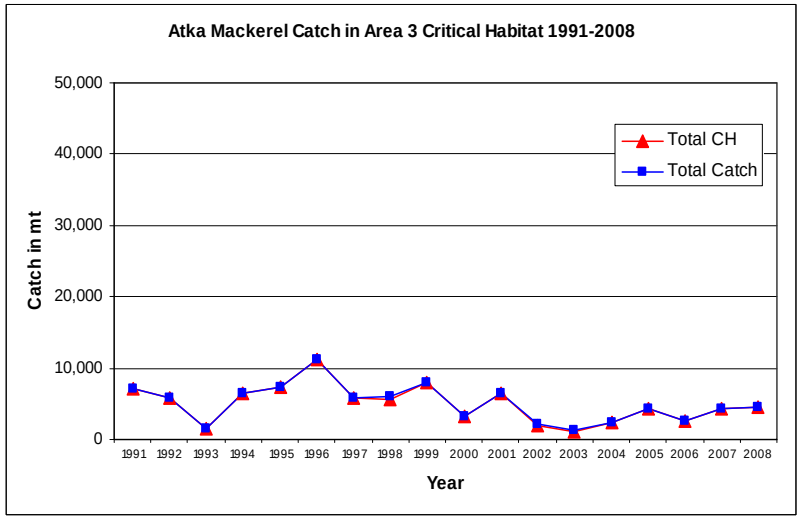


Figure IV-1.3. RCA 3: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







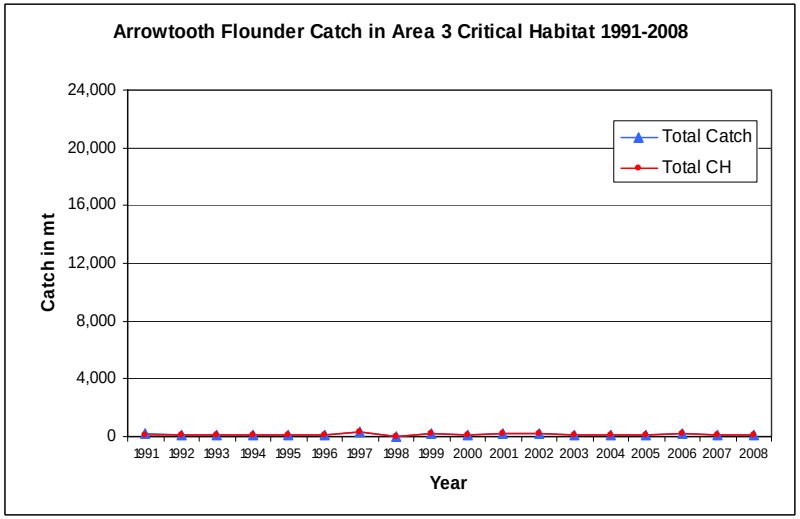
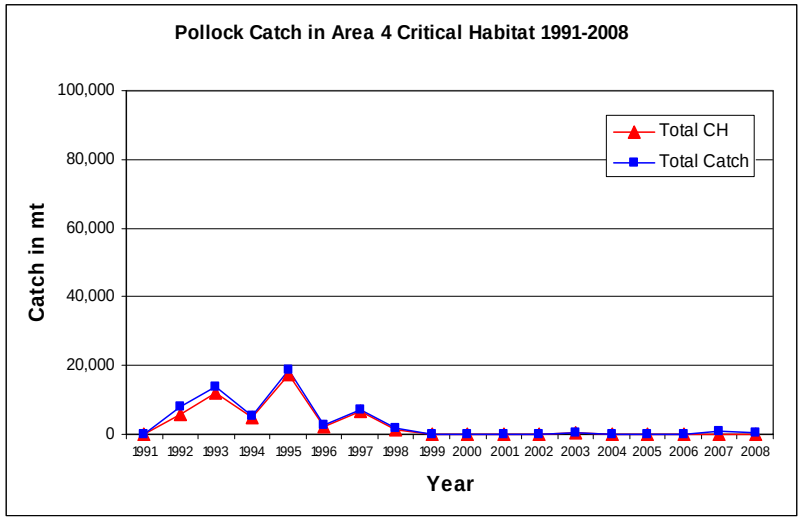
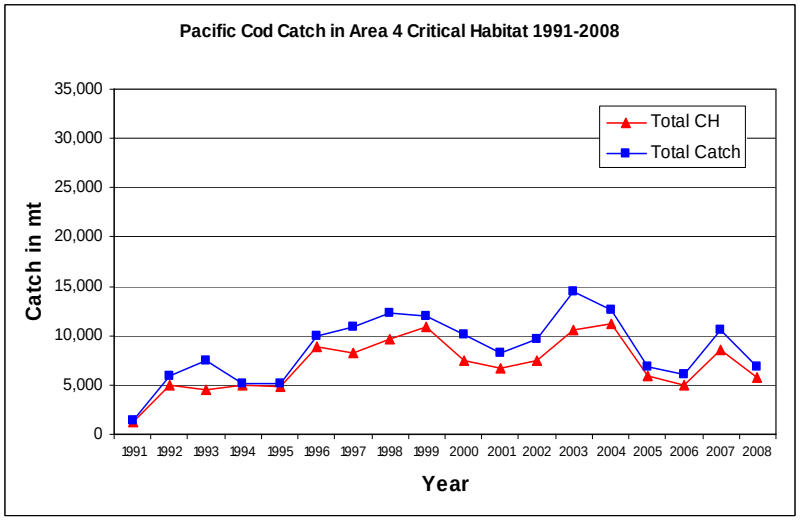
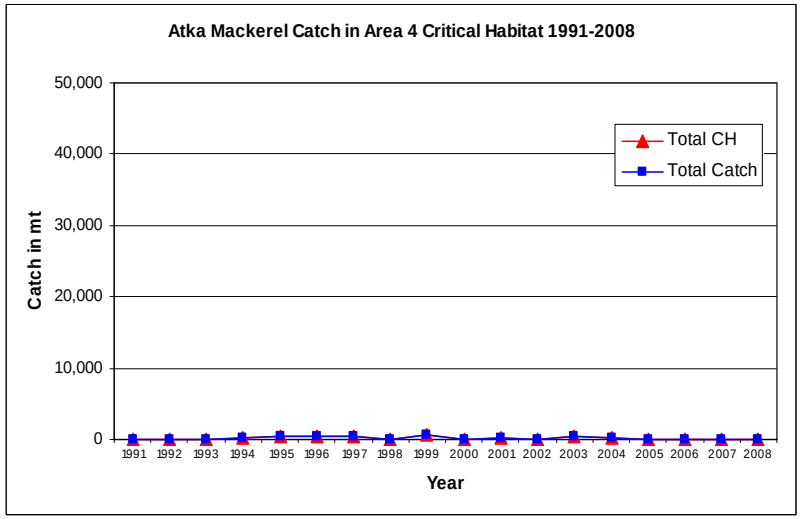


Figure IV-1.4. RCA 4: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







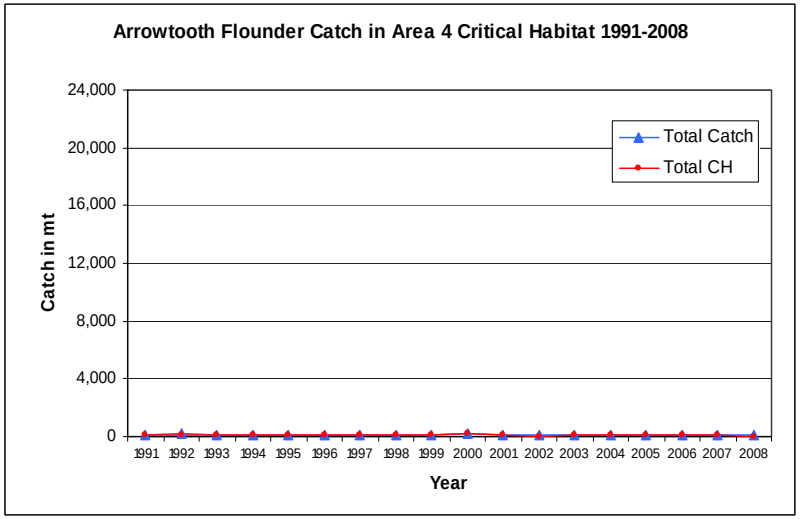
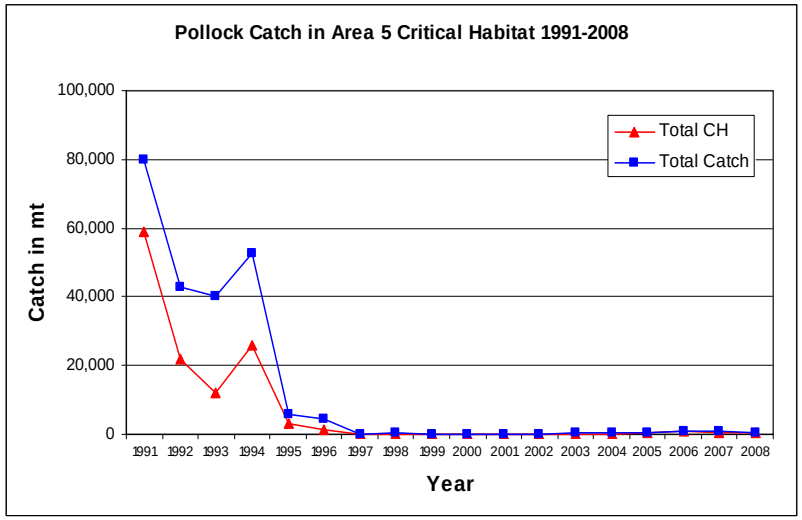
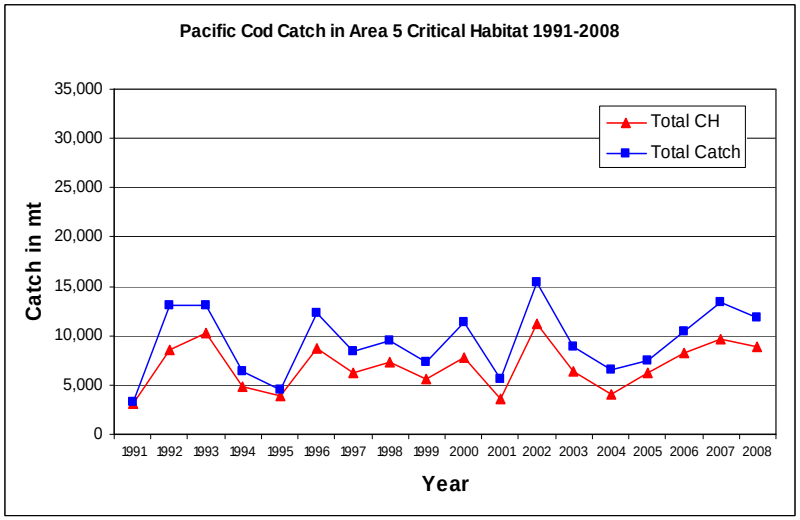
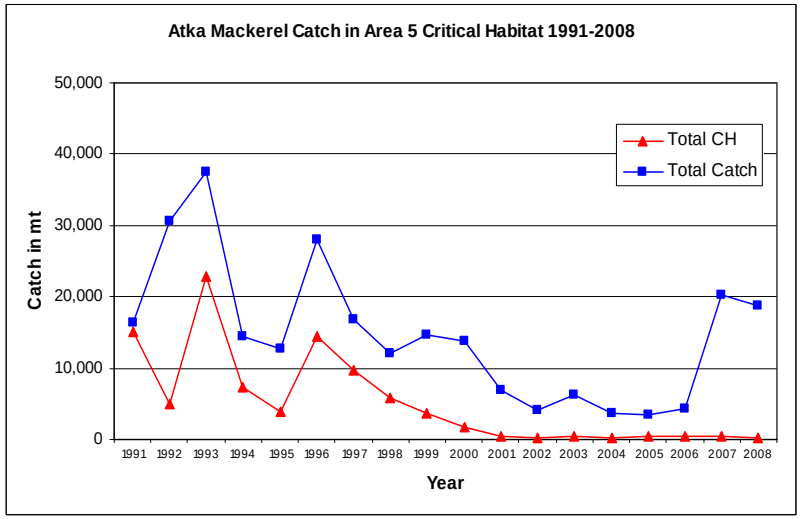


Figure IV-1.5. RCA 5: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







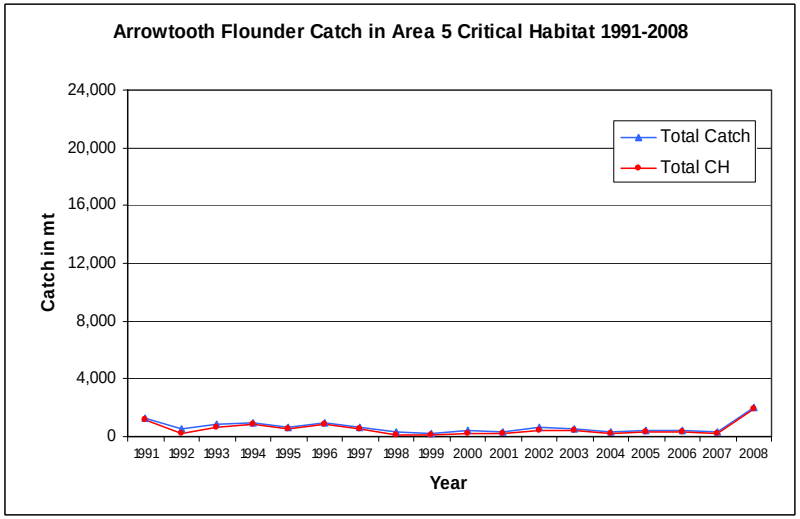
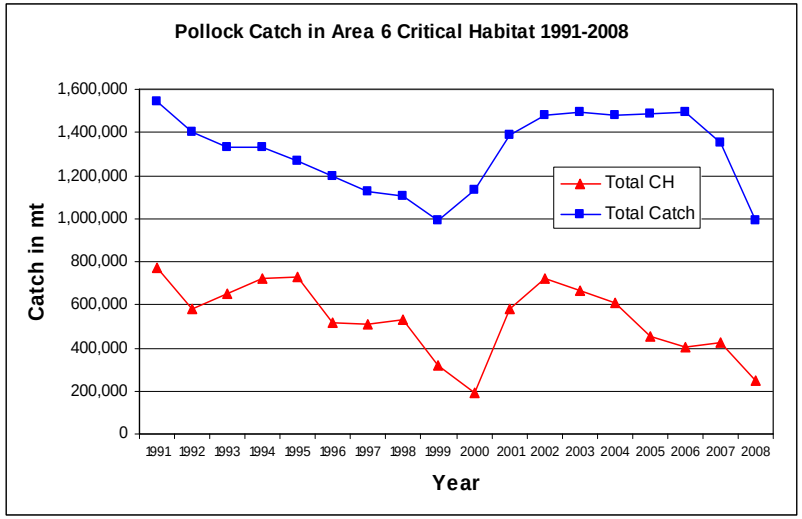
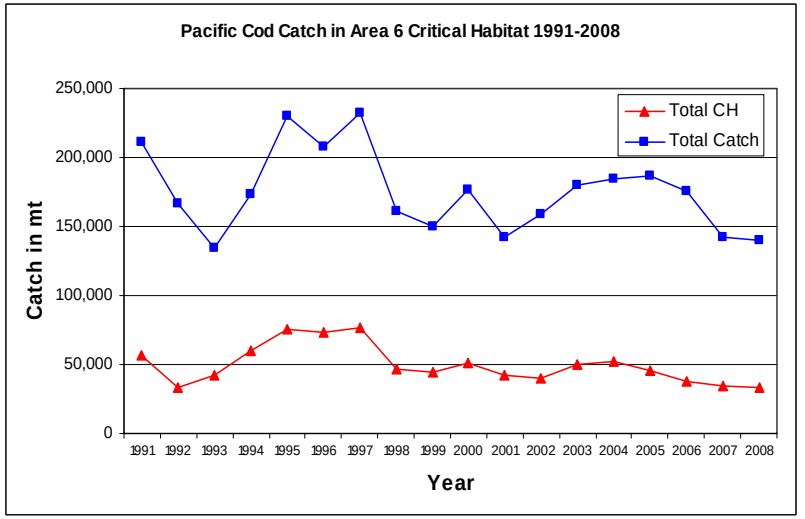
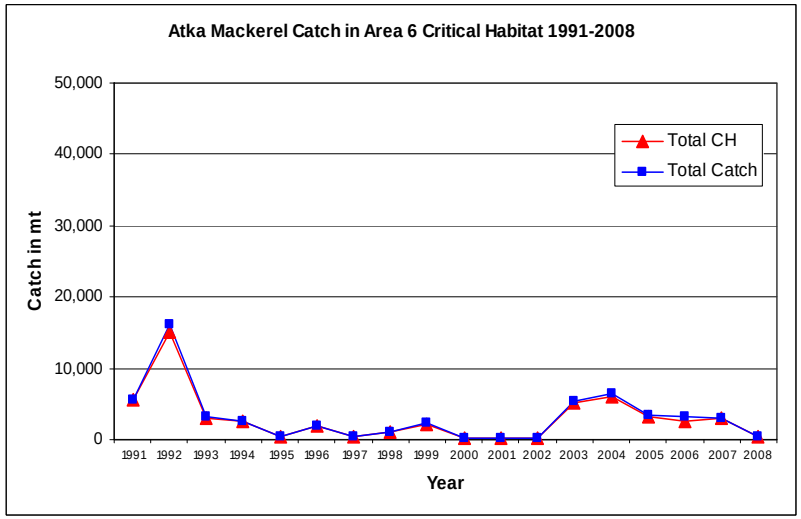


Figure IV-1.6. RCA - 6: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch differs by an order of magnitude for most figures in this series.







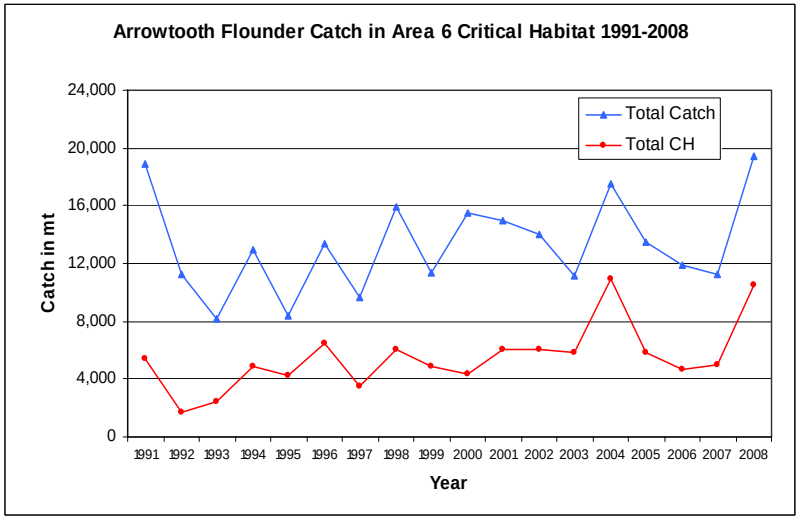
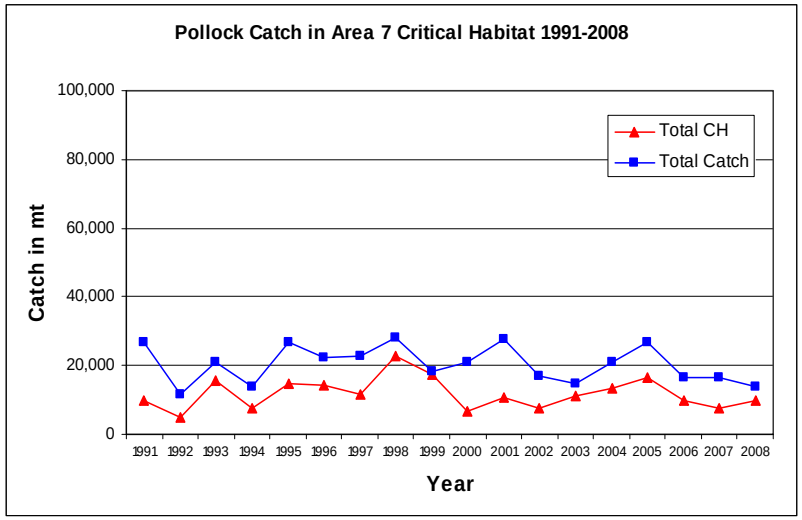
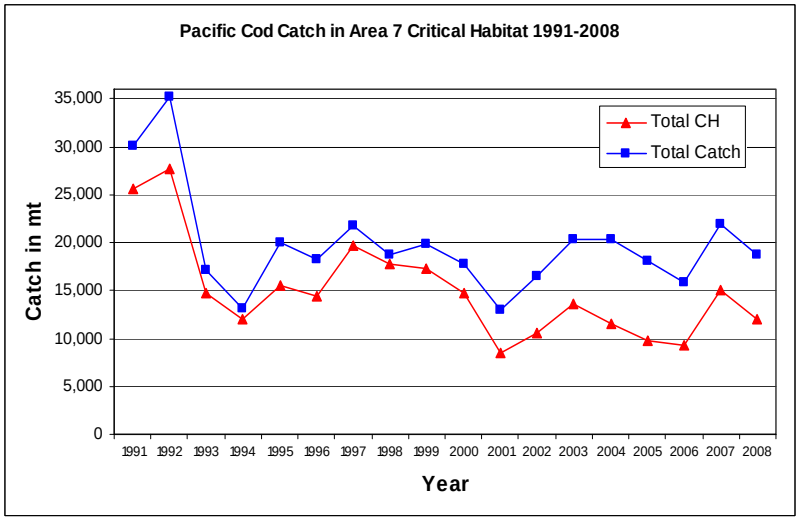
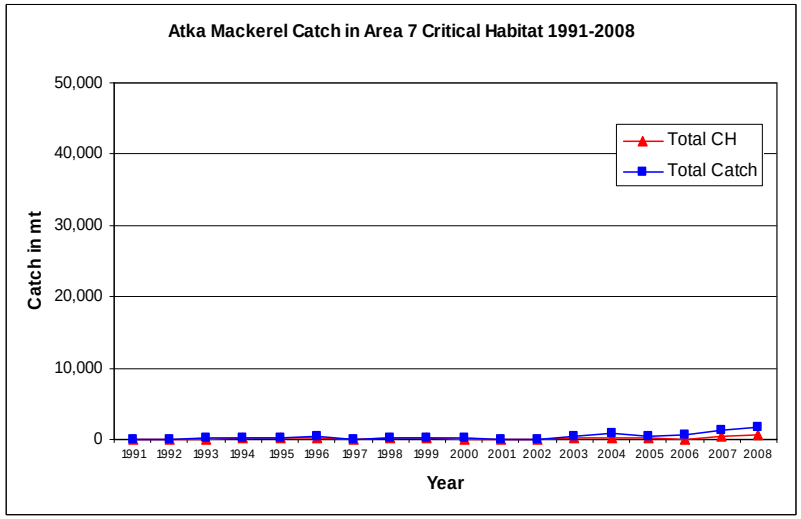


Figure IV-1.7. RCA 7: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







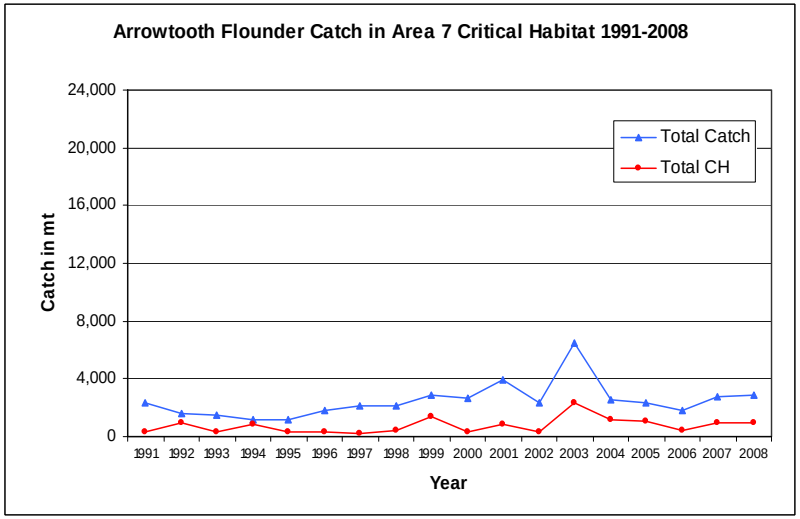
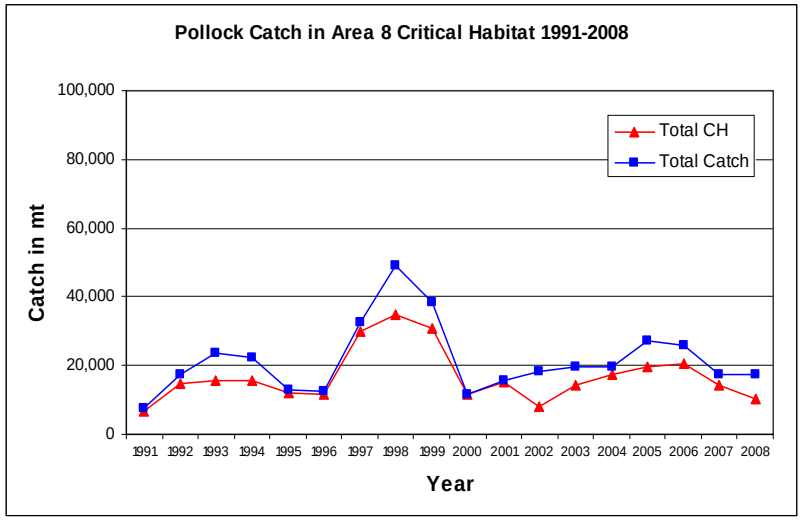
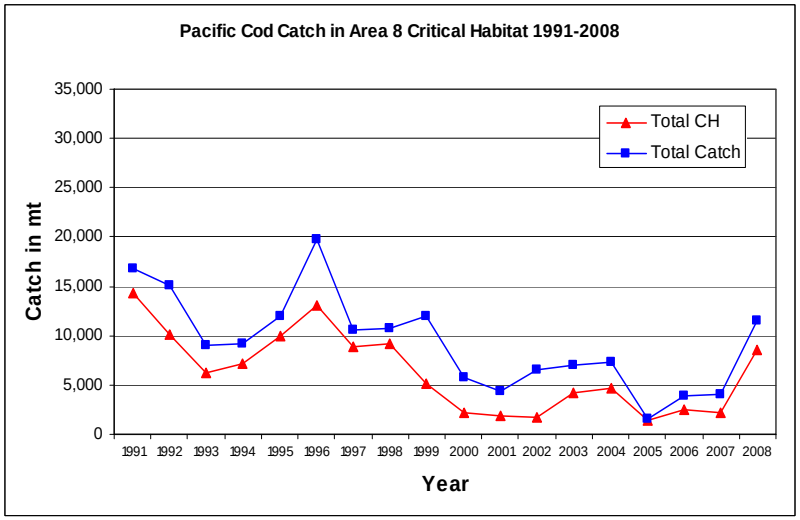
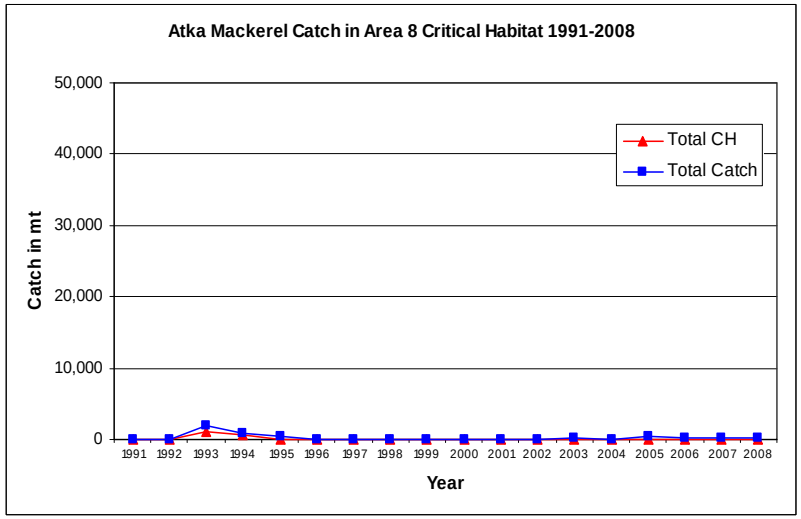


Figure IV-1.8. RCA 8: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







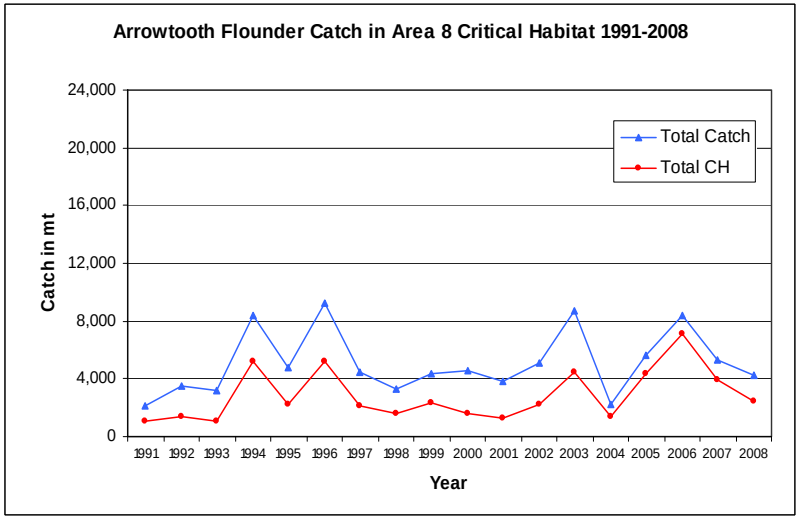
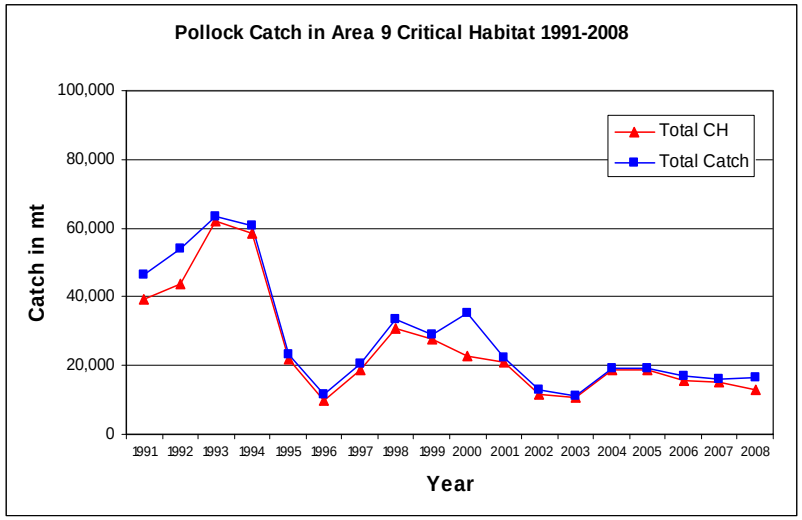
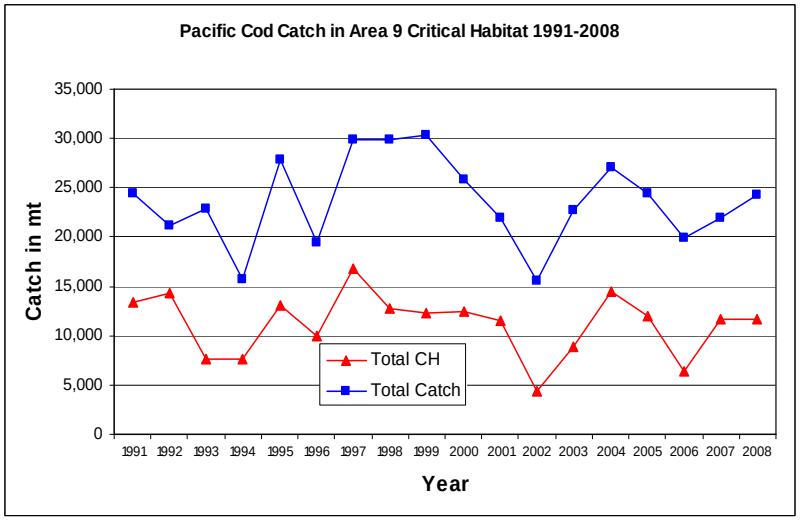
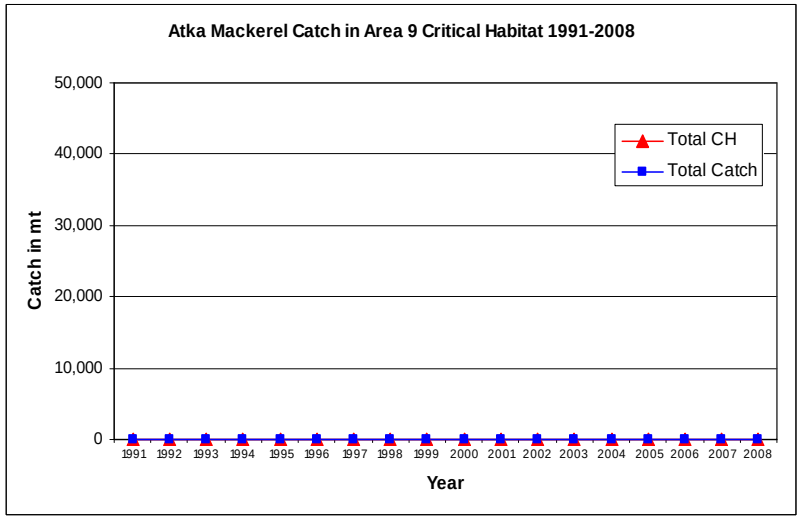


Figure IV-1.9. RCA 9: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







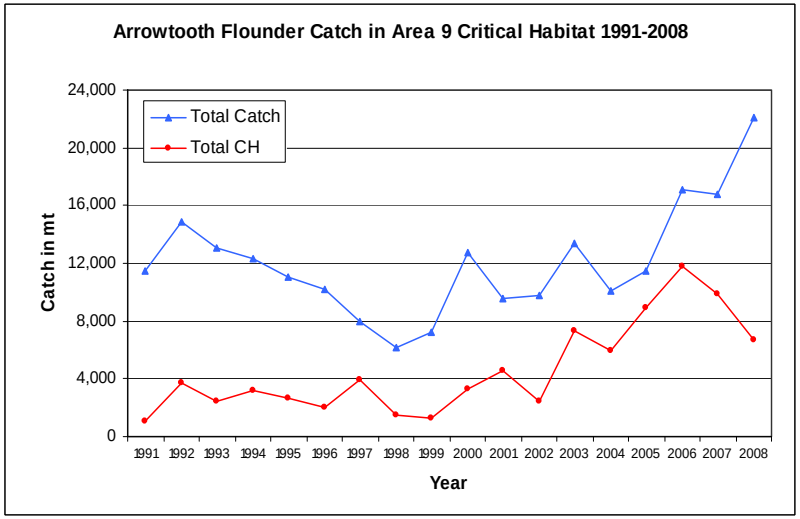
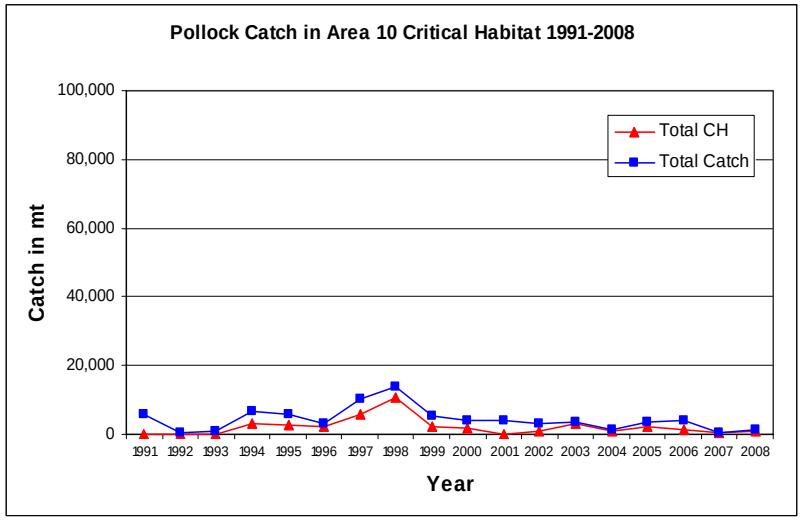
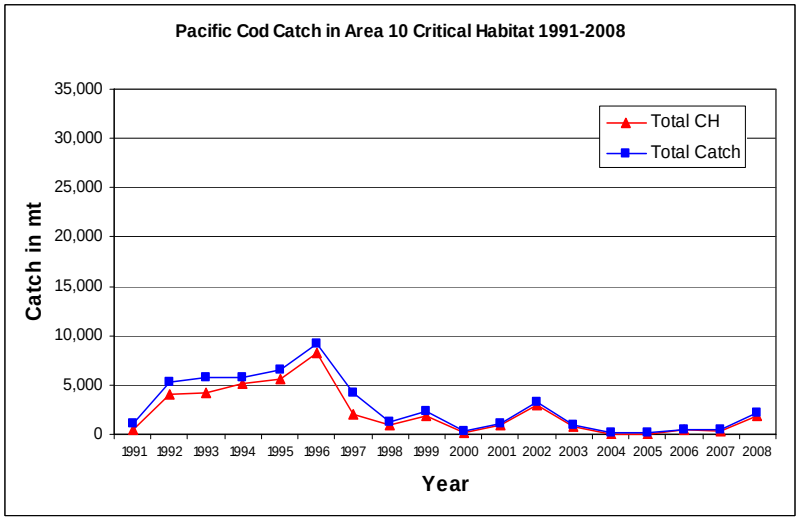
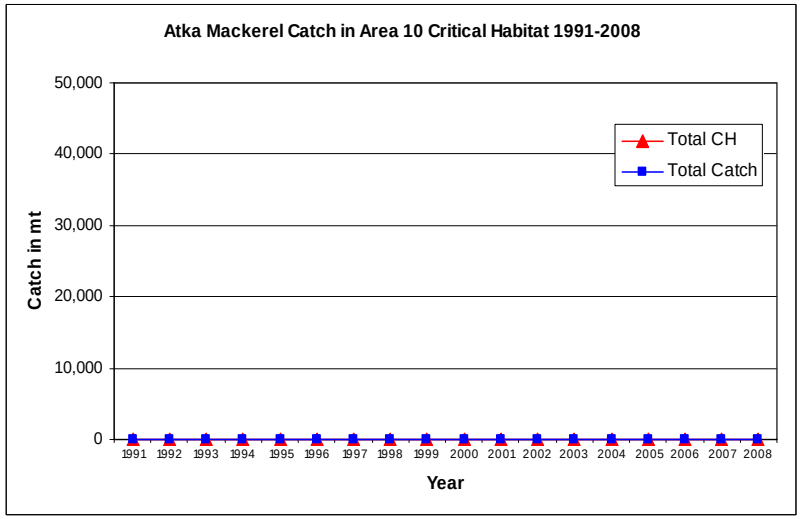


Figure IV-1.10. RCA 10: Catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder throughout each of the fishery analysis areas: total catch all four species within each area and that portion of the catch within Steller sea lion Critical Habitat for each area, 1991-2008. Note: Y-axis for catch is held consistent by species for most figures in this series.







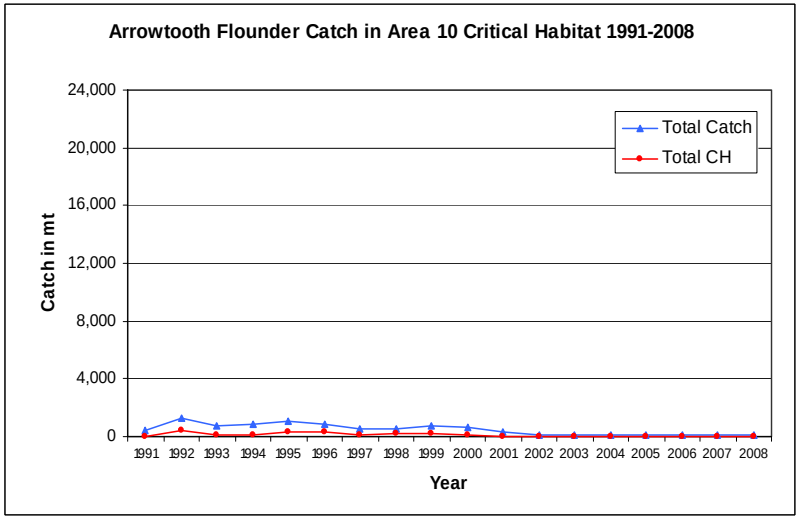
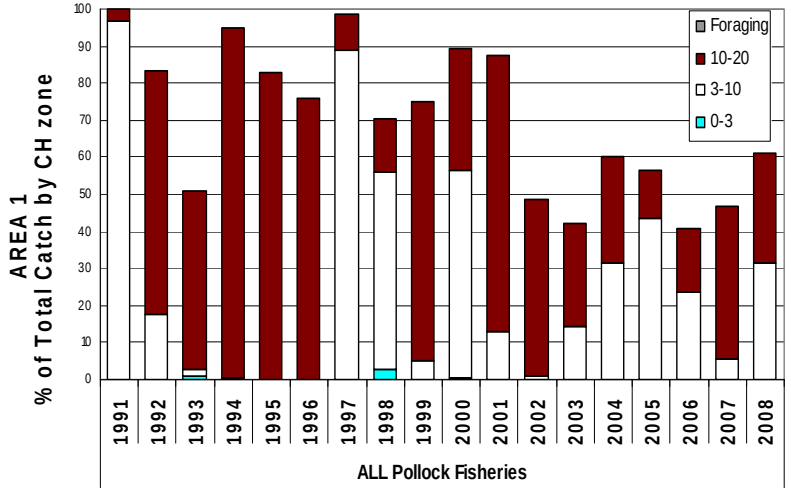
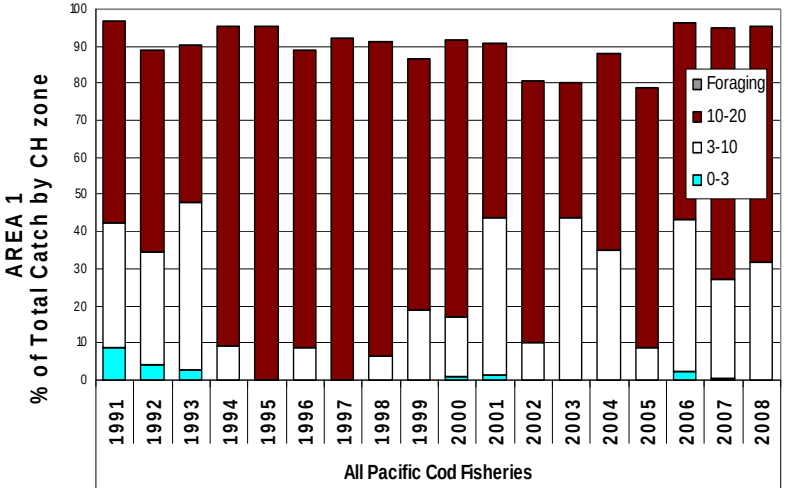
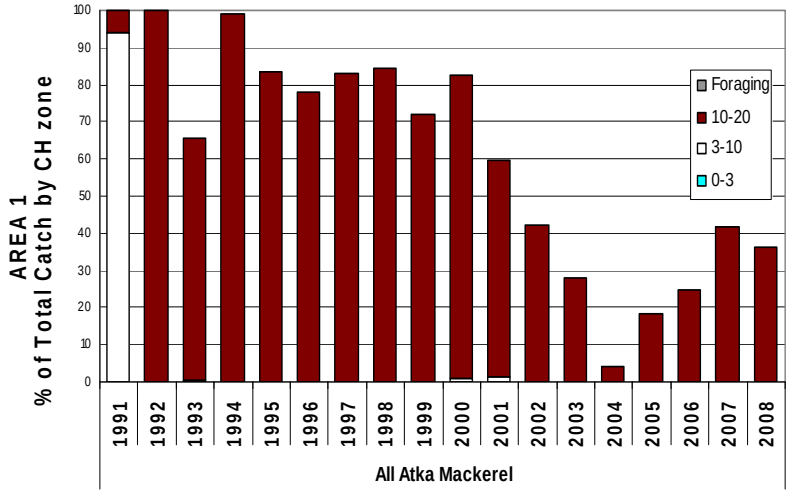


Figure IV-2.1. RCA 1: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.







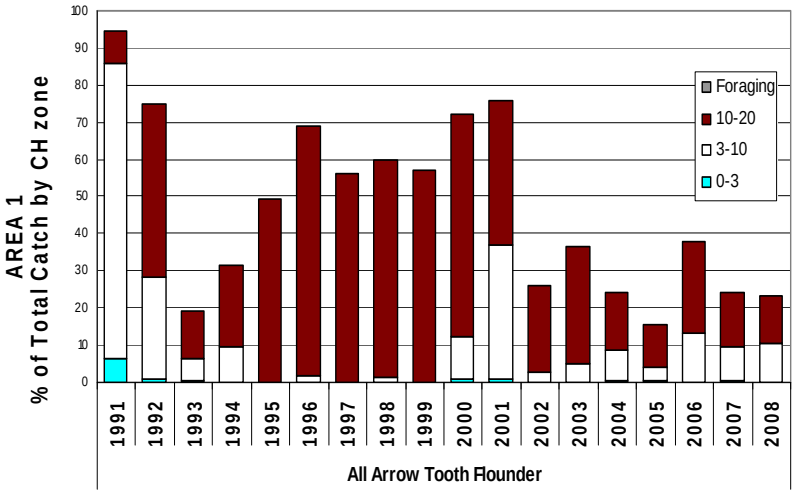


Figure IV-2.2. RCA 2: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

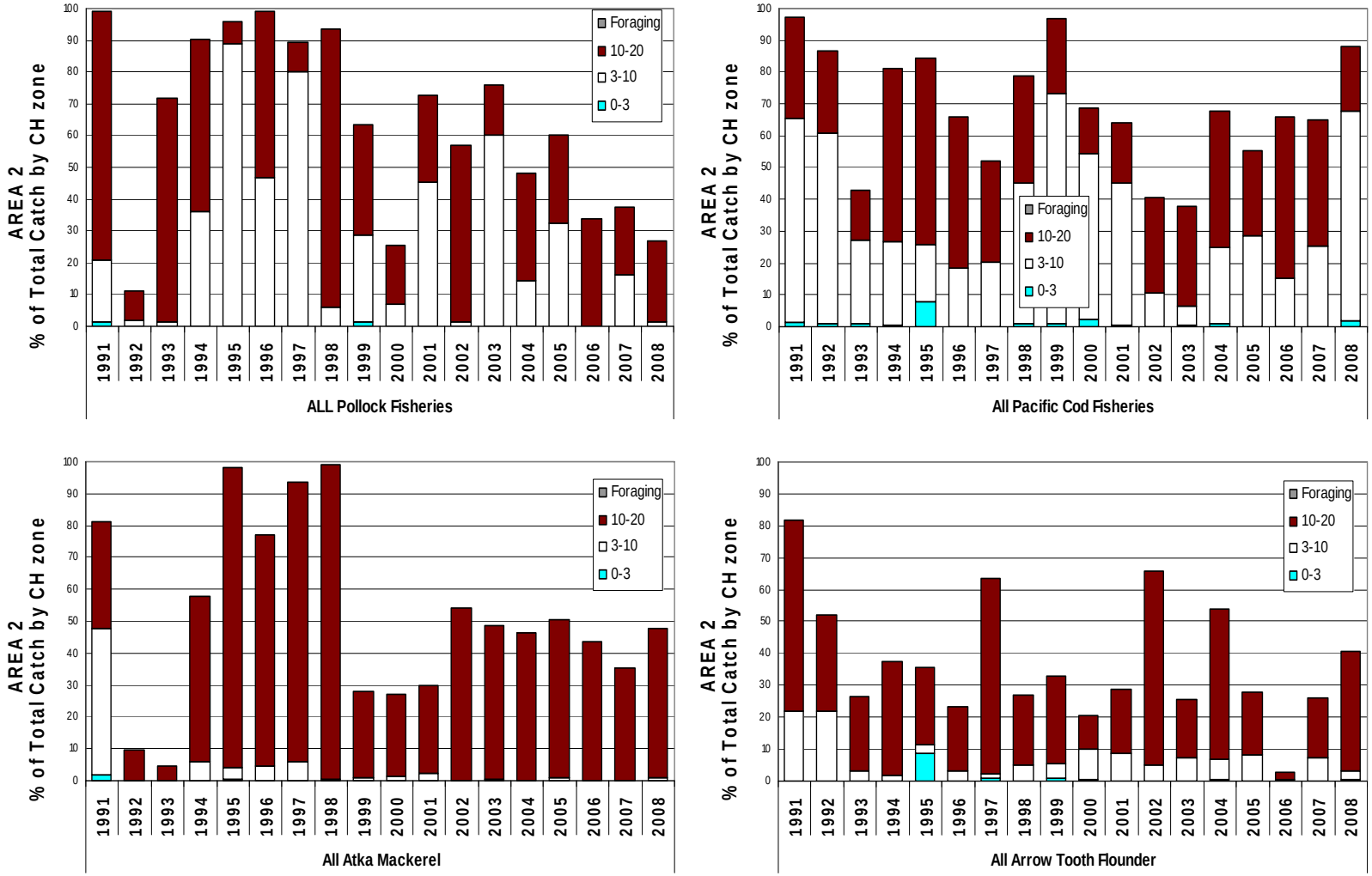


Figure IV-2.3. RCA 3: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

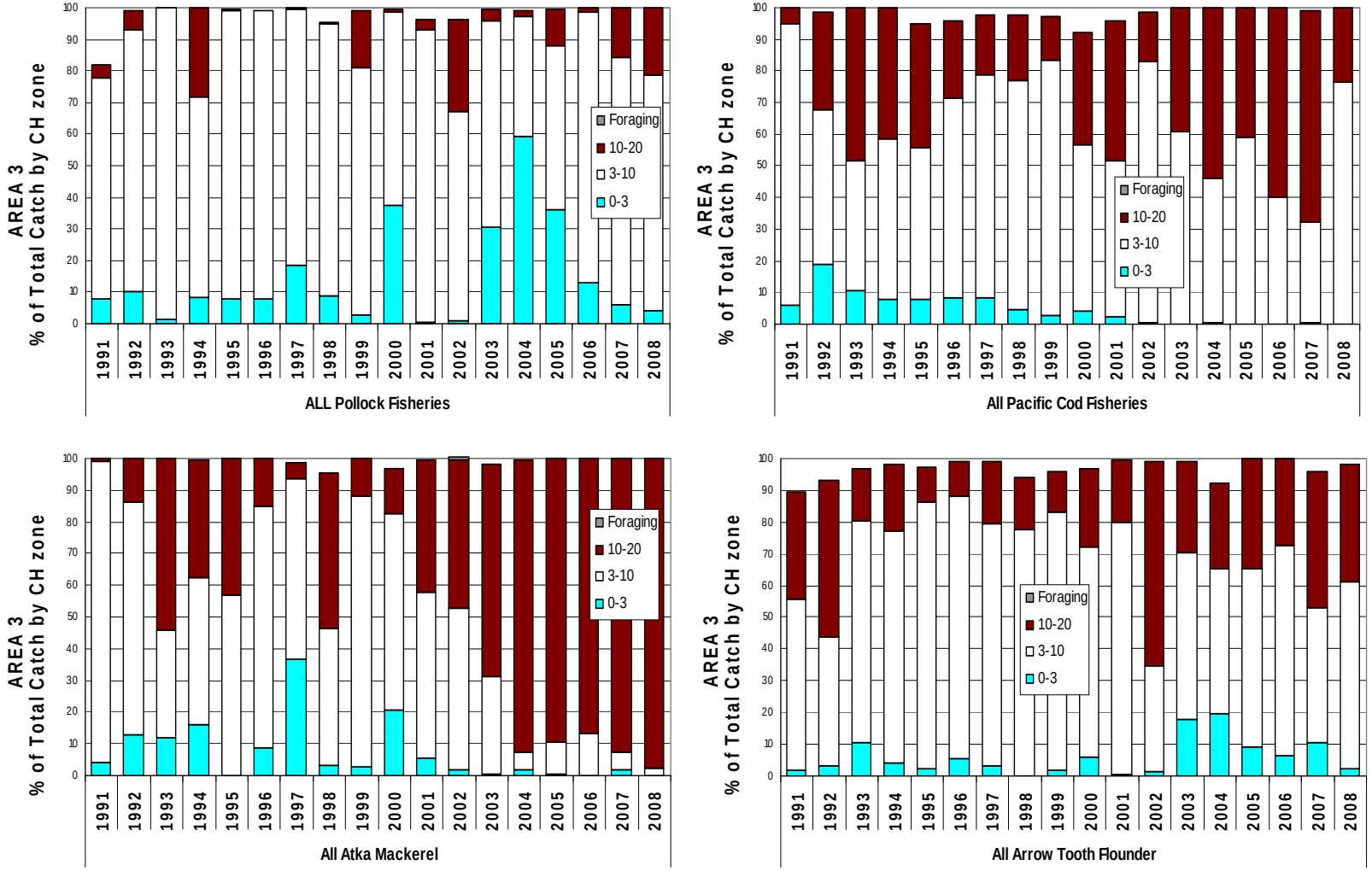
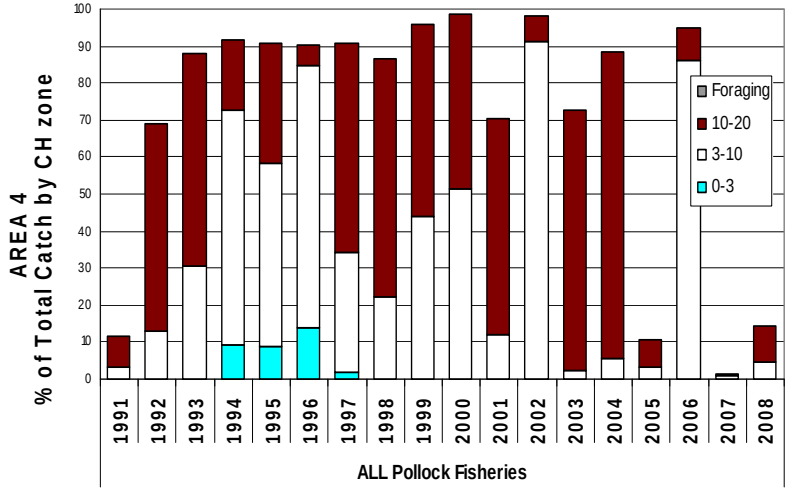
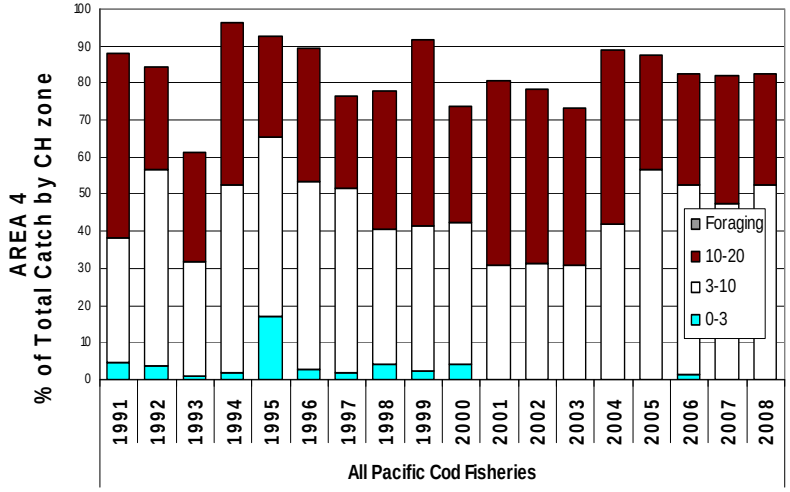
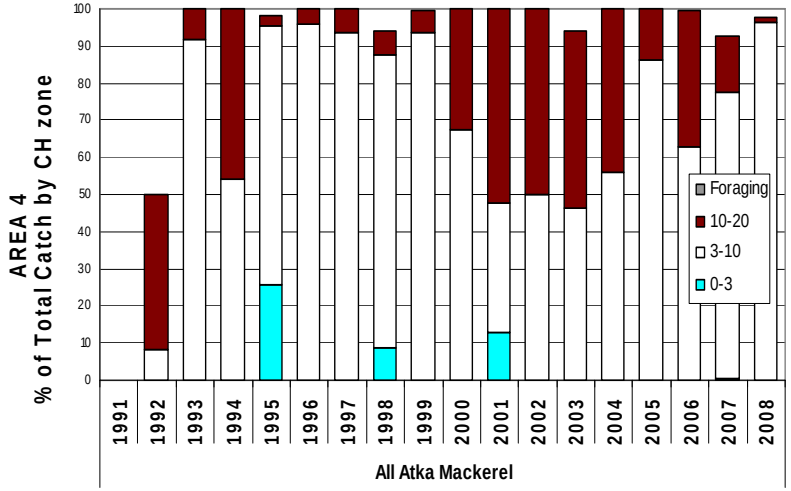


Figure IV-2.4. RCA 4: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.







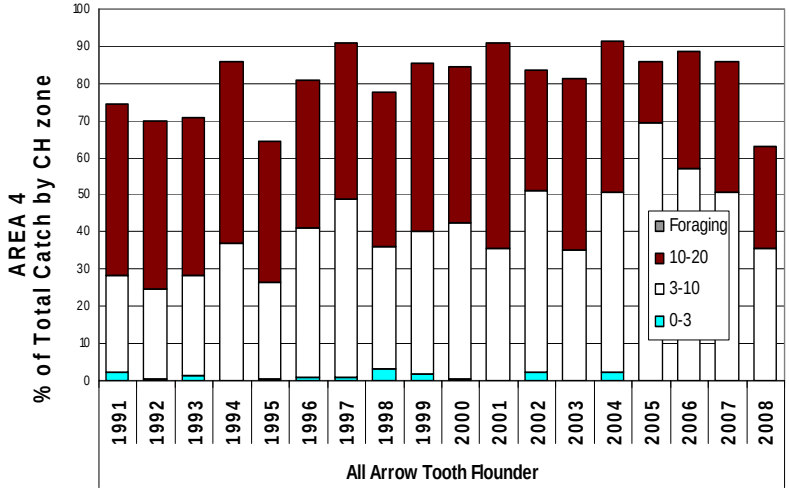


Figure IV-2.5. RCA 5: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

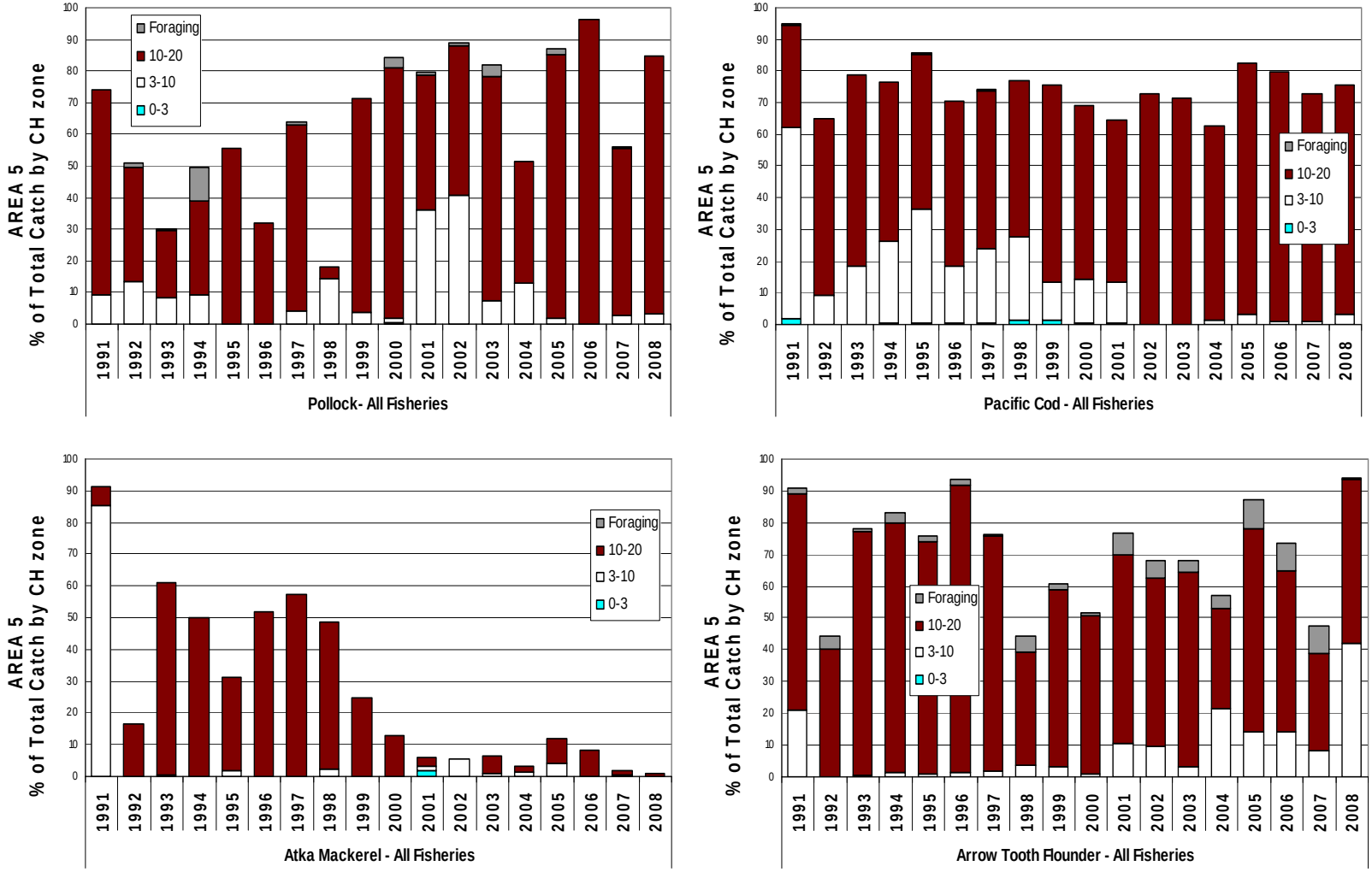
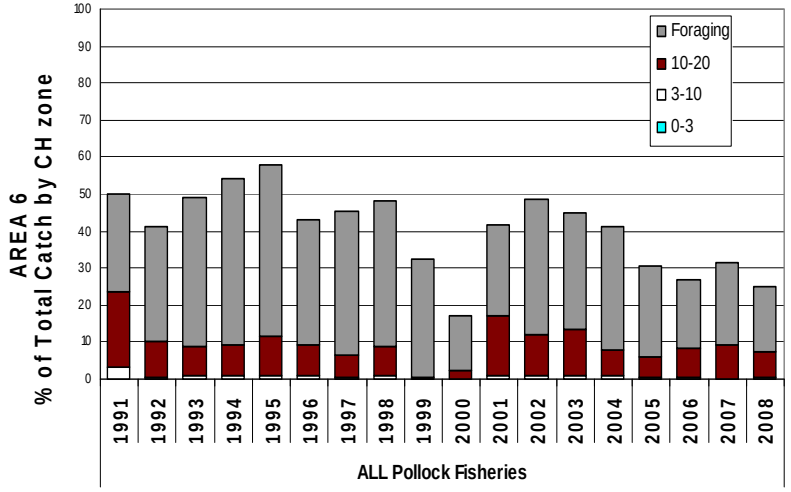
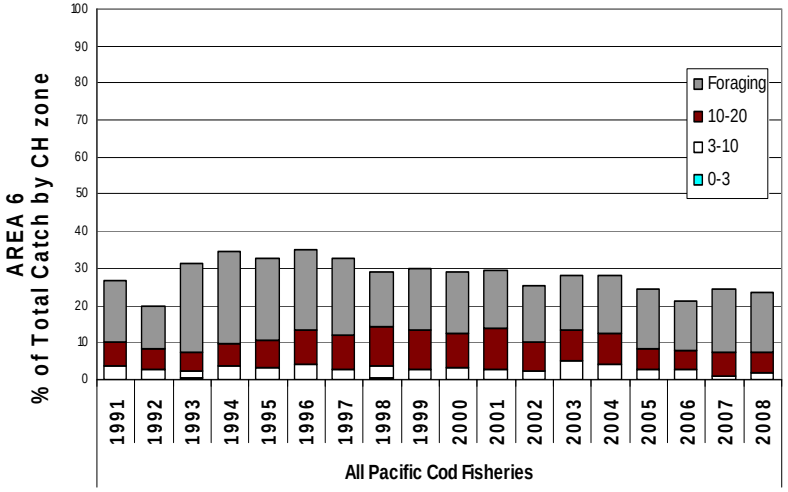
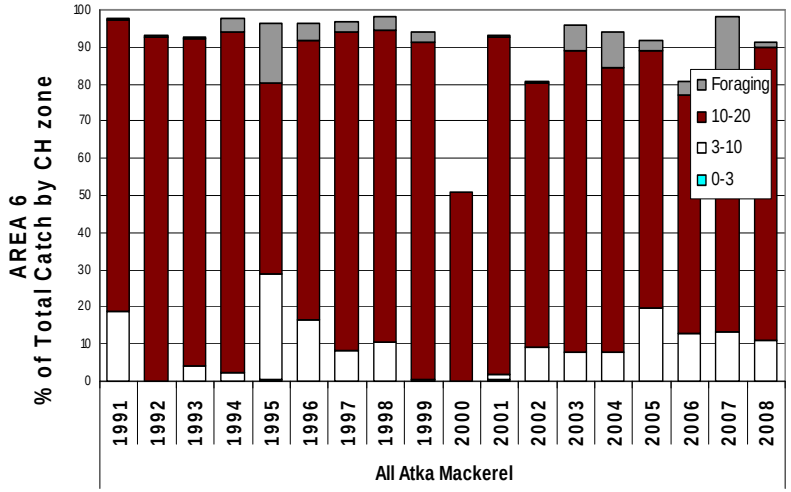


Figure IV-2.6. RCA 6: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.







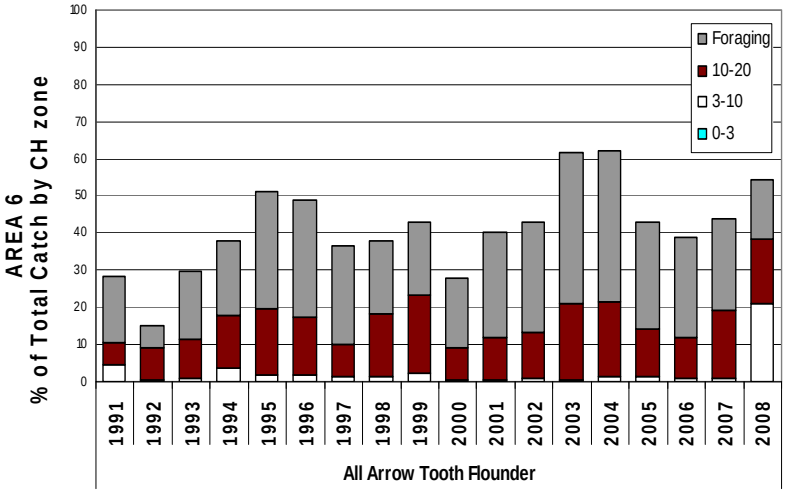


Figure IV-2.7. RCA 7: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

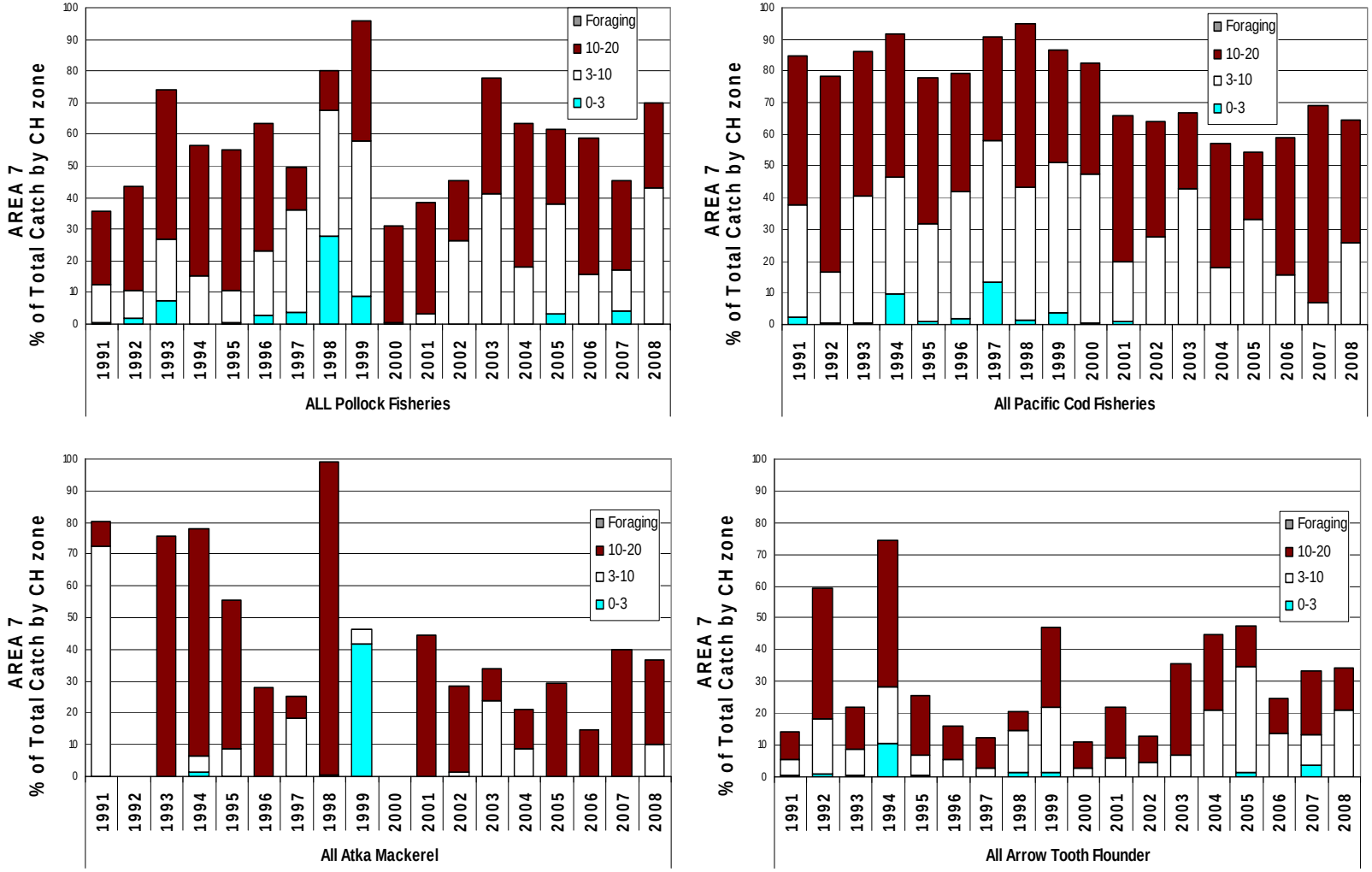


Figure IV-2.8. RCA 8: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

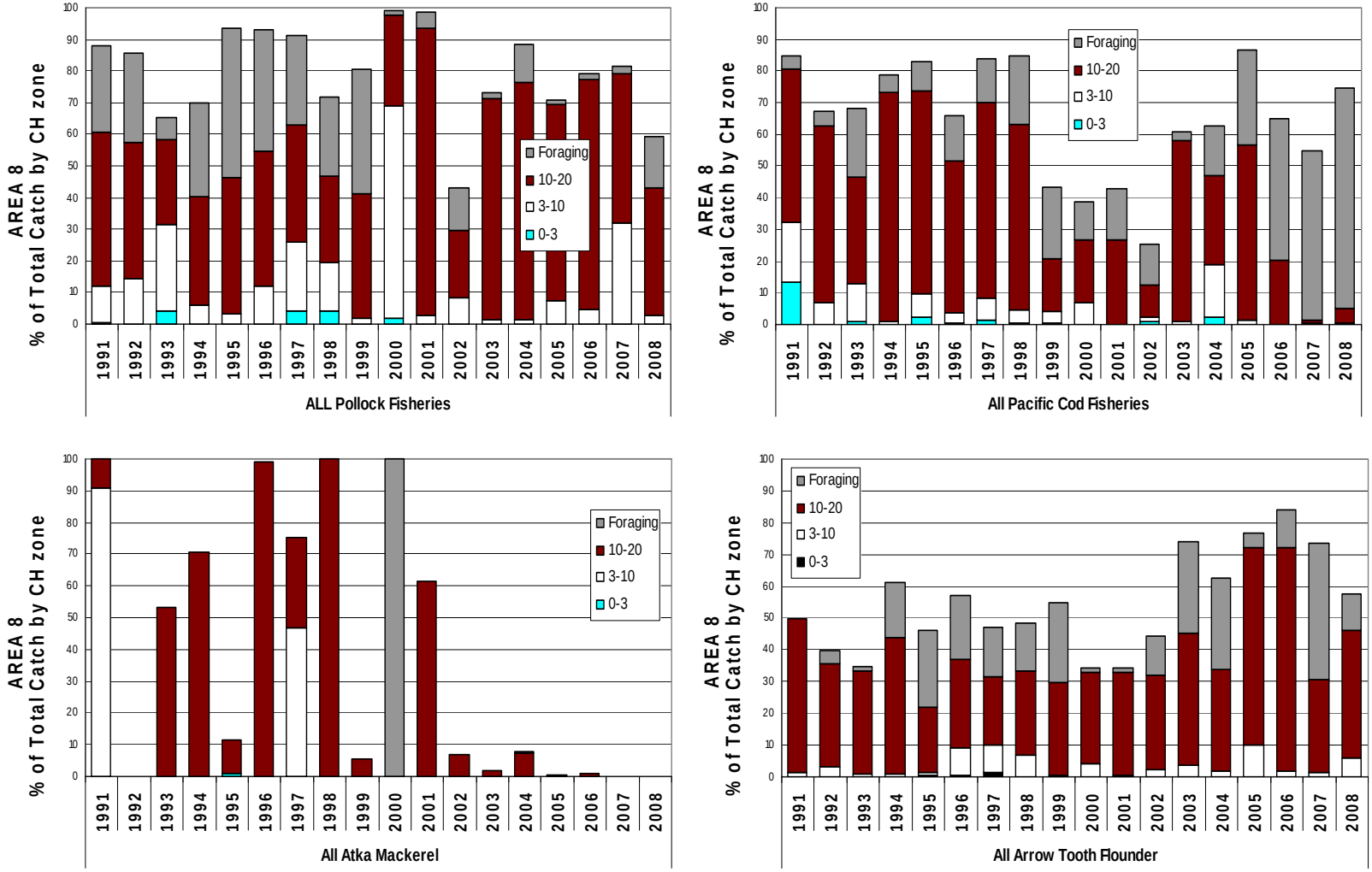


Figure IV-2.9. RCA 9: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

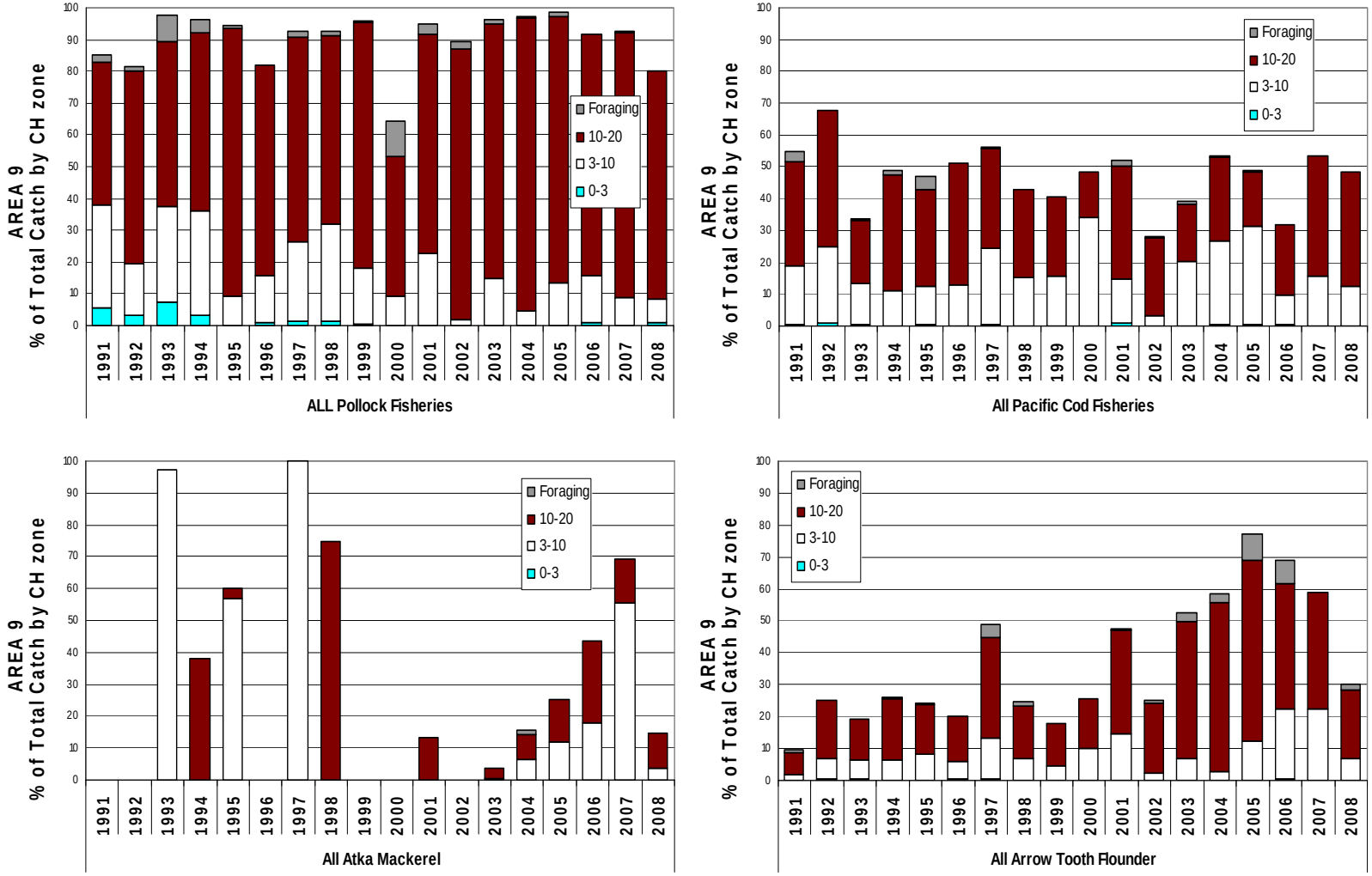


Figure IV-2.10. RCA 10: Proportion of the catch of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder in various zones of Steller Sea Lion Critical Habitat throughout each of the fishery analysis areas; 1991-2008.

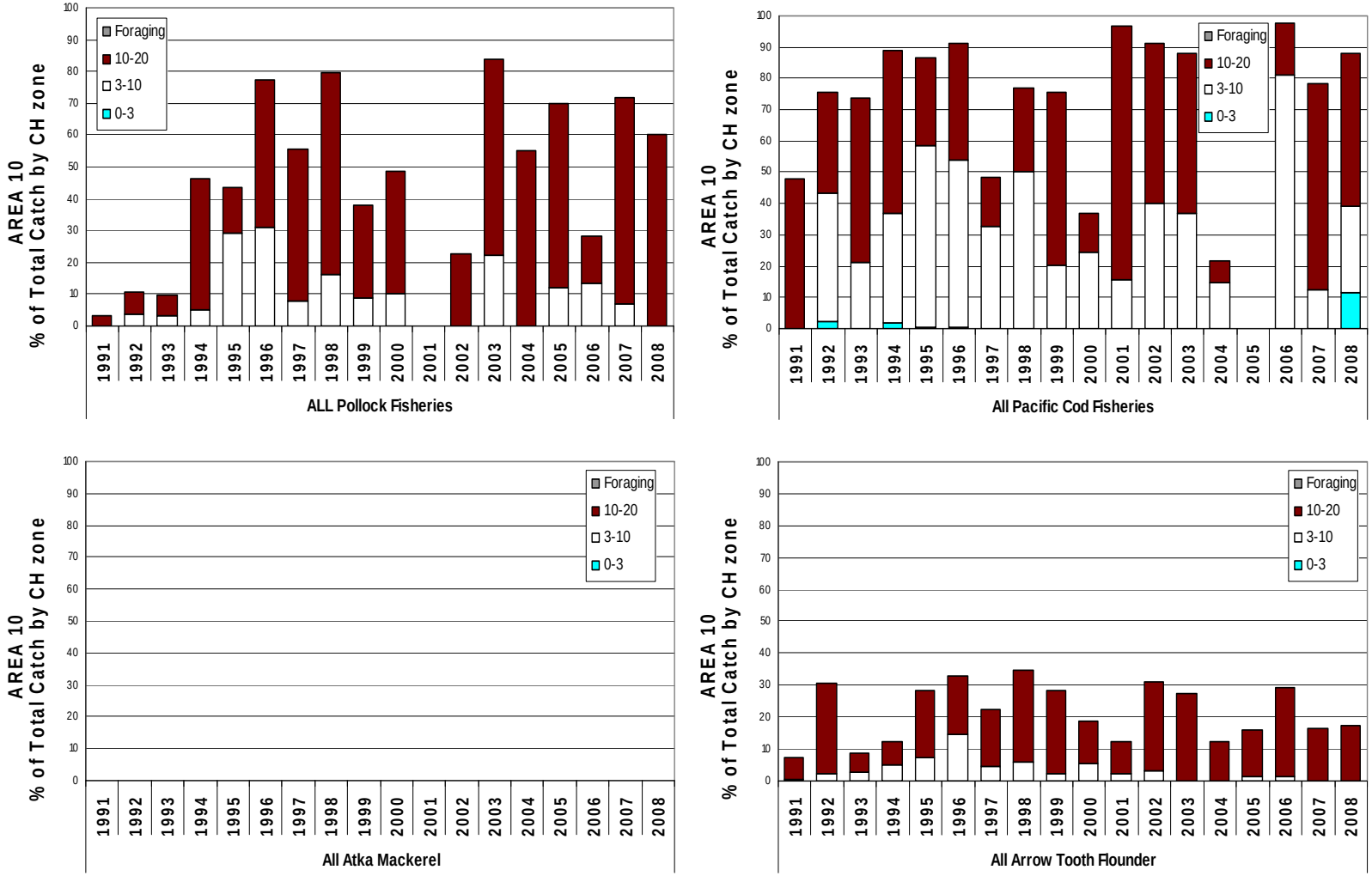


Figure IV-3.1. RCA 1: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

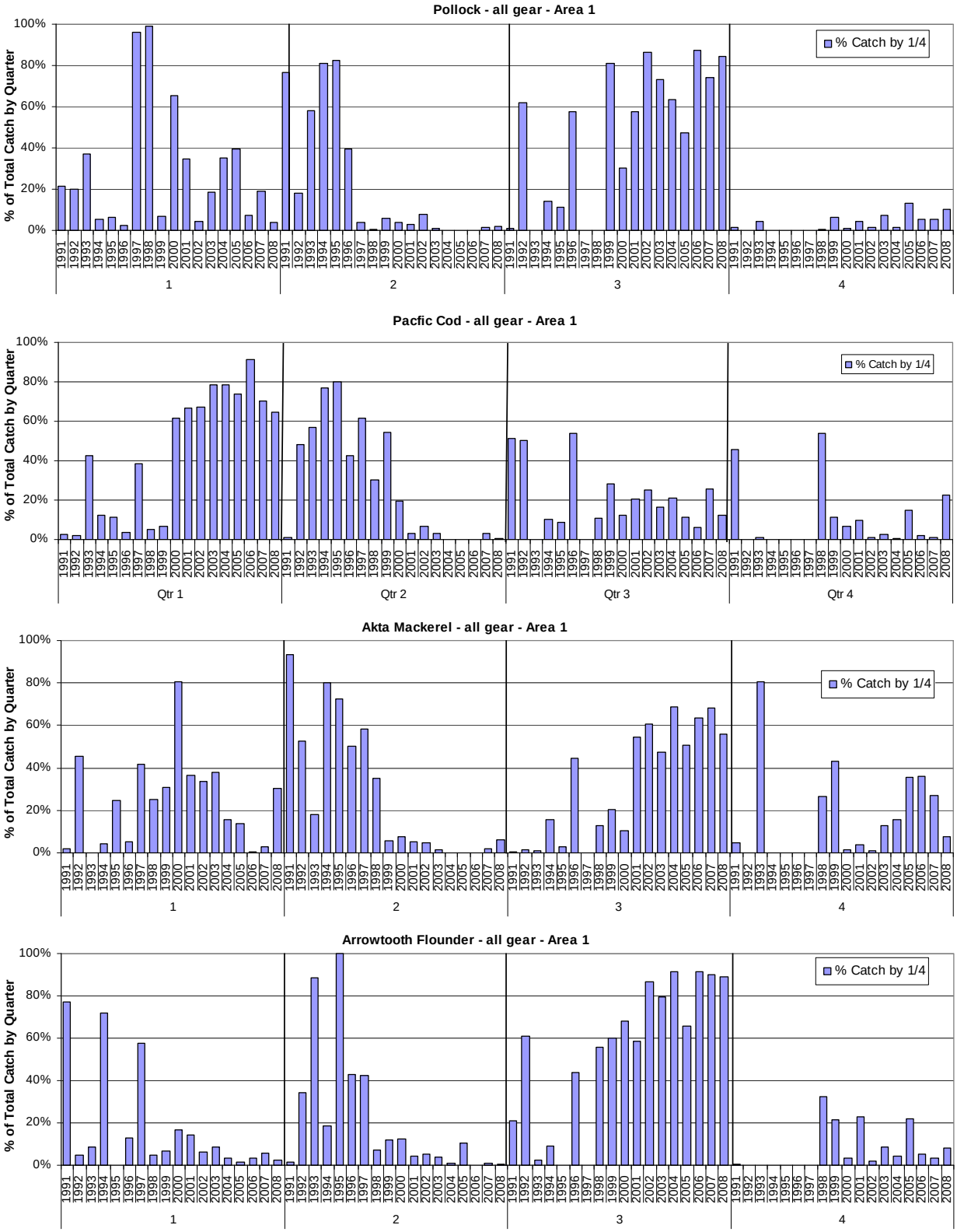


Figure IV-3.2. RCA 2: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

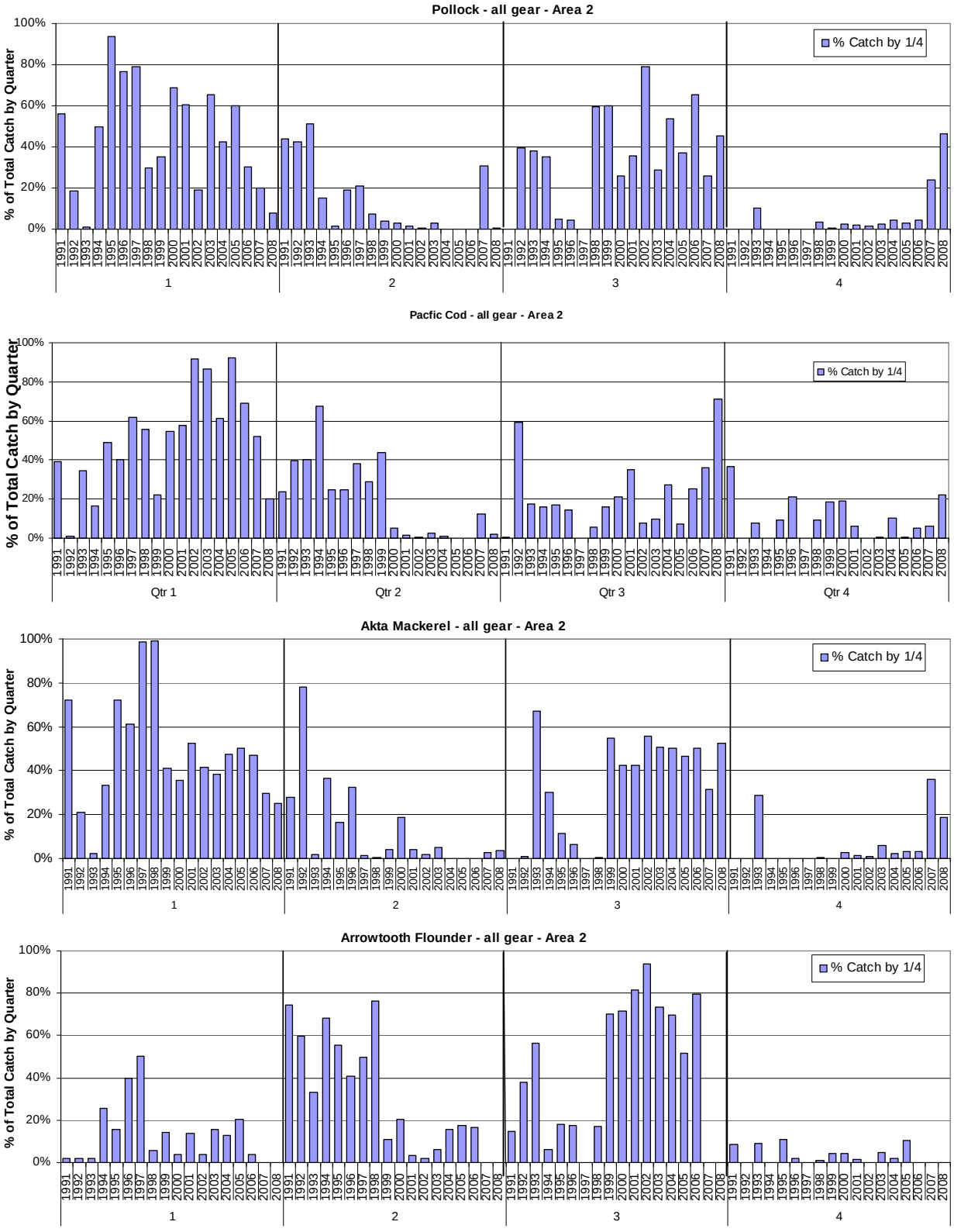


Figure IV-3.3. RCA 3: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

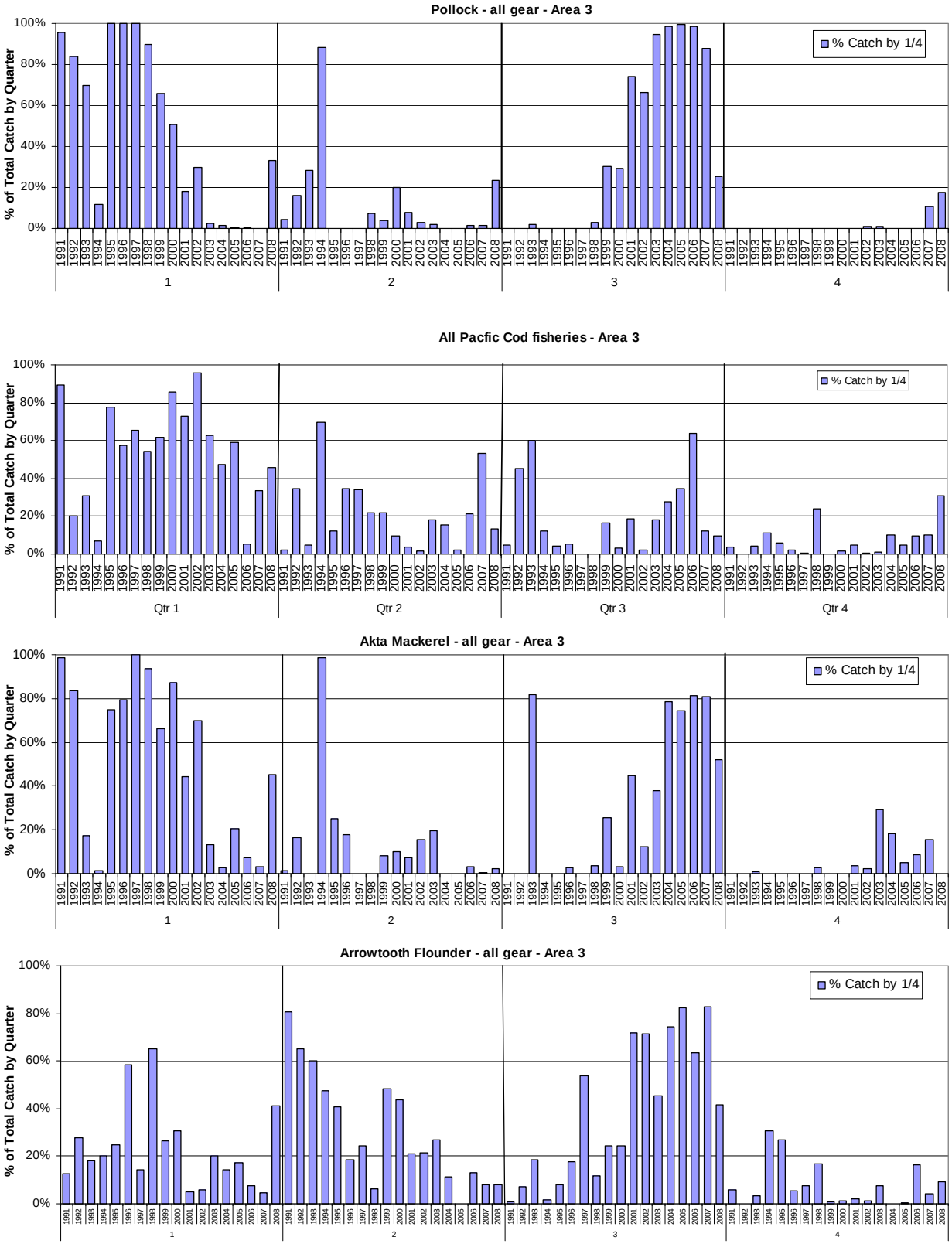


Figure IV-3.4. RCA 4: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

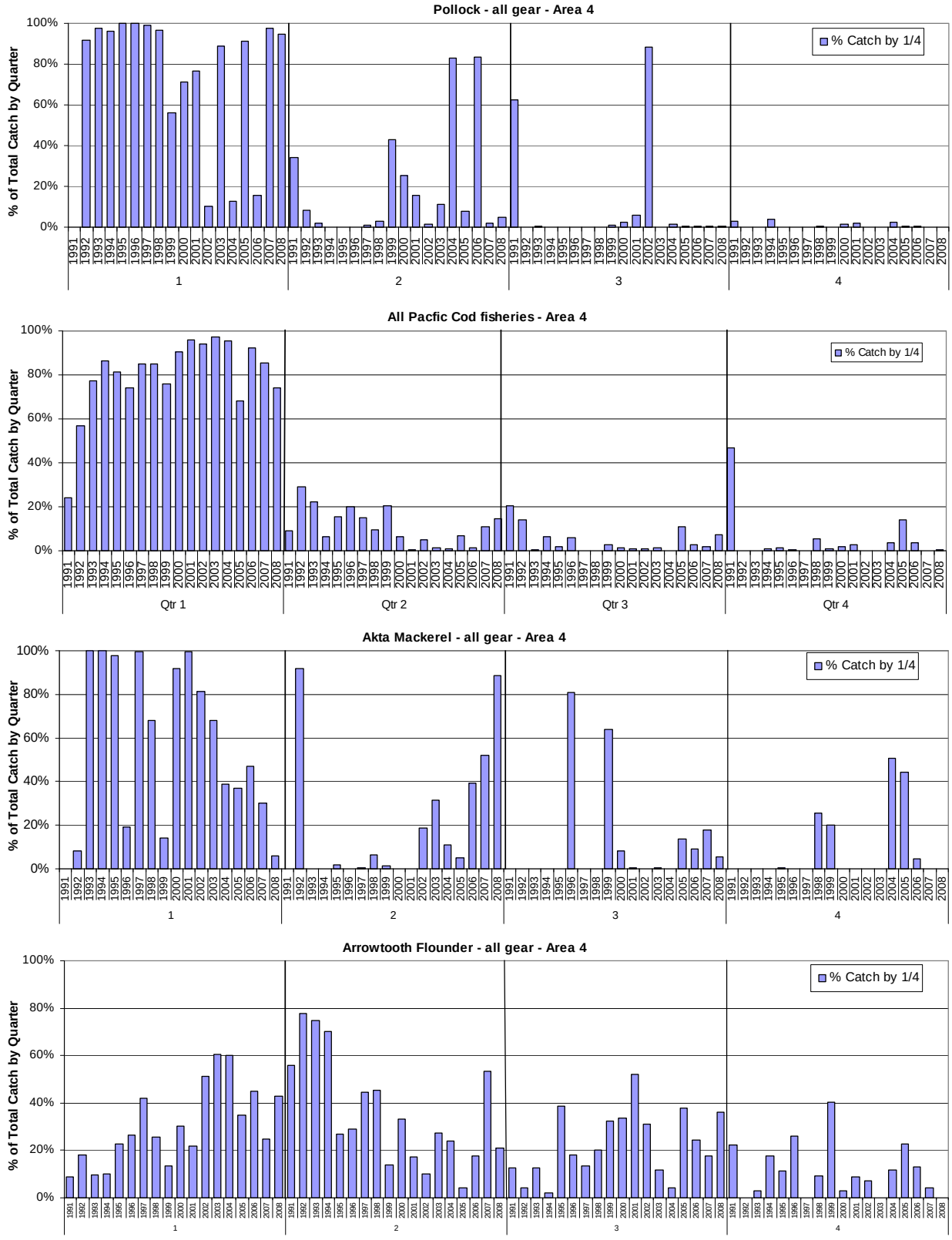


Figure IV-3.5. RCA 5: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

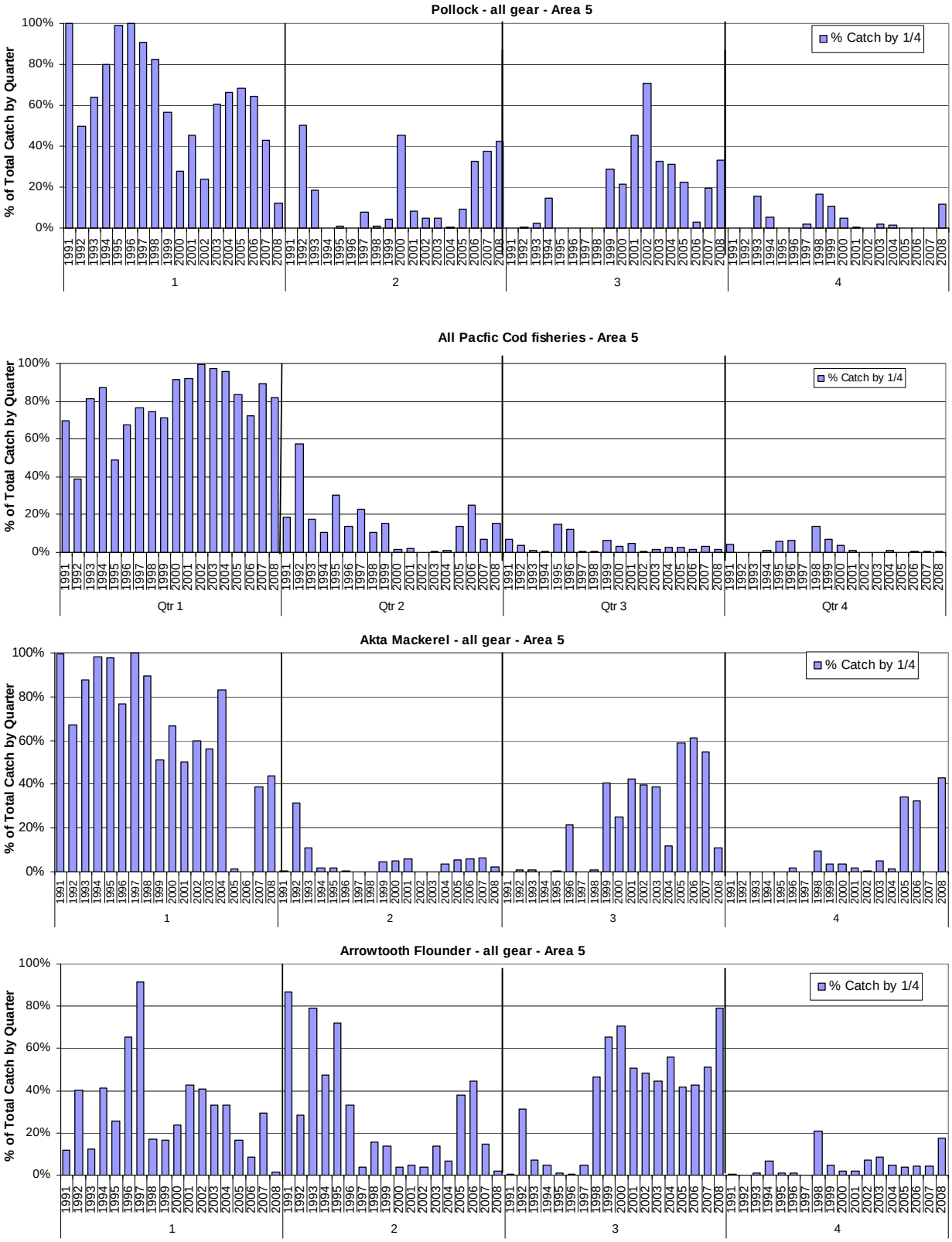


Figure IV-3.6. RCA 6: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 91-2008.

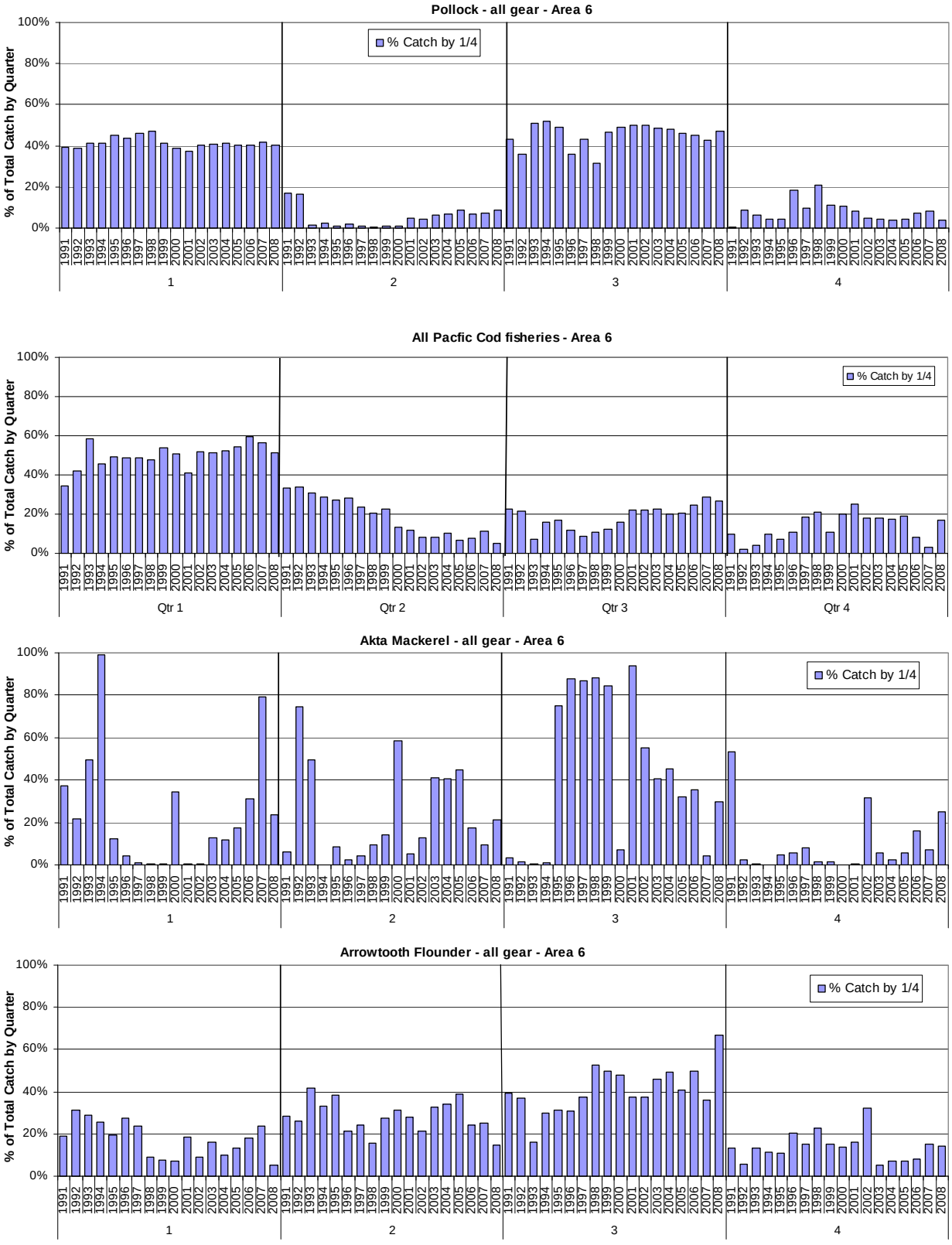


Figure IV-3.7. RCA 7: Proportion of the catch taken by quarter of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder from within each rookery cluster analysis area: 1991-2008.

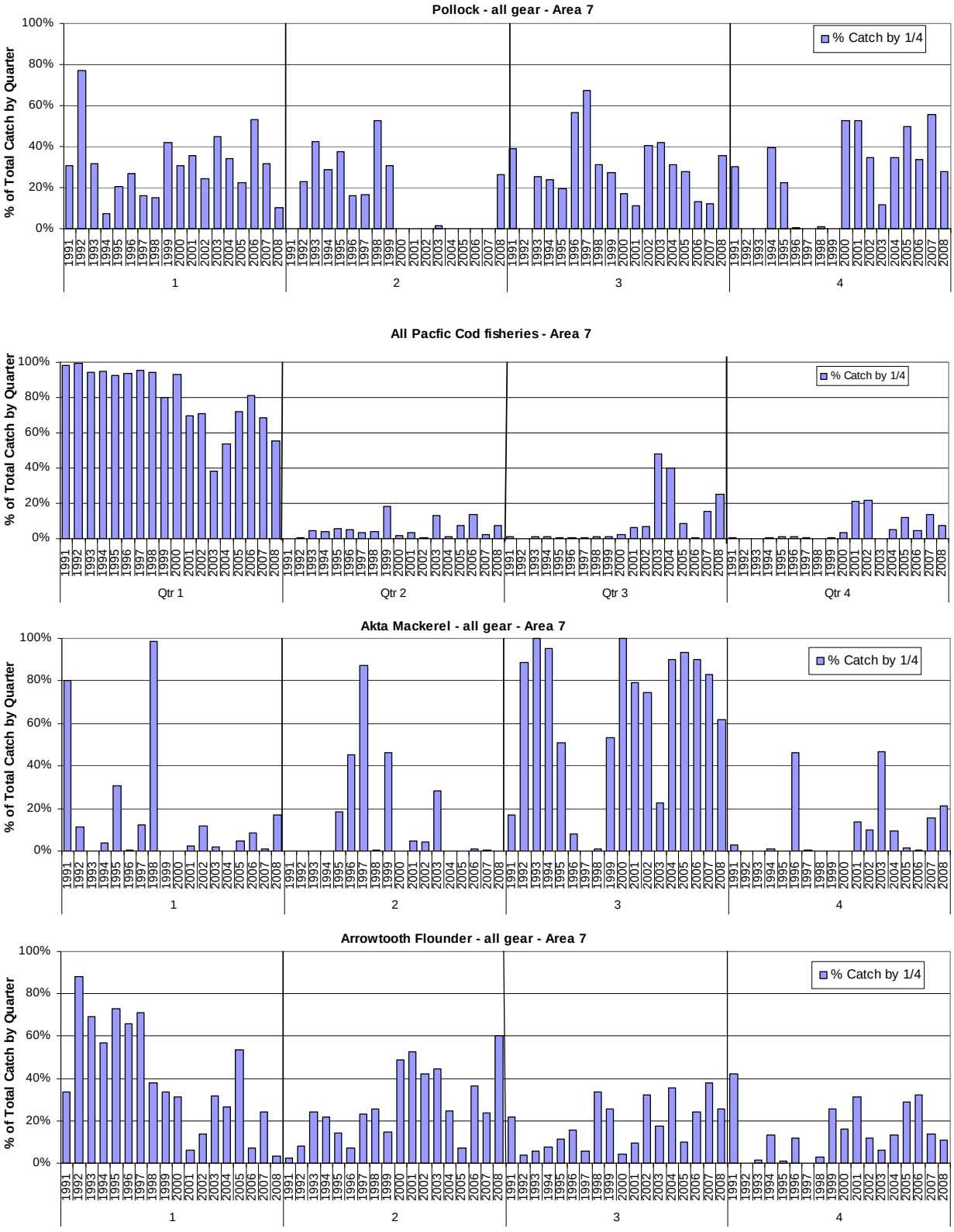


Figure IV-3.8. RCA 8: Proportion of the catch taken by quarter of pollock, Pacific cod, and Atka mackerel from within each rookery cluster analysis area: 1991-2008.

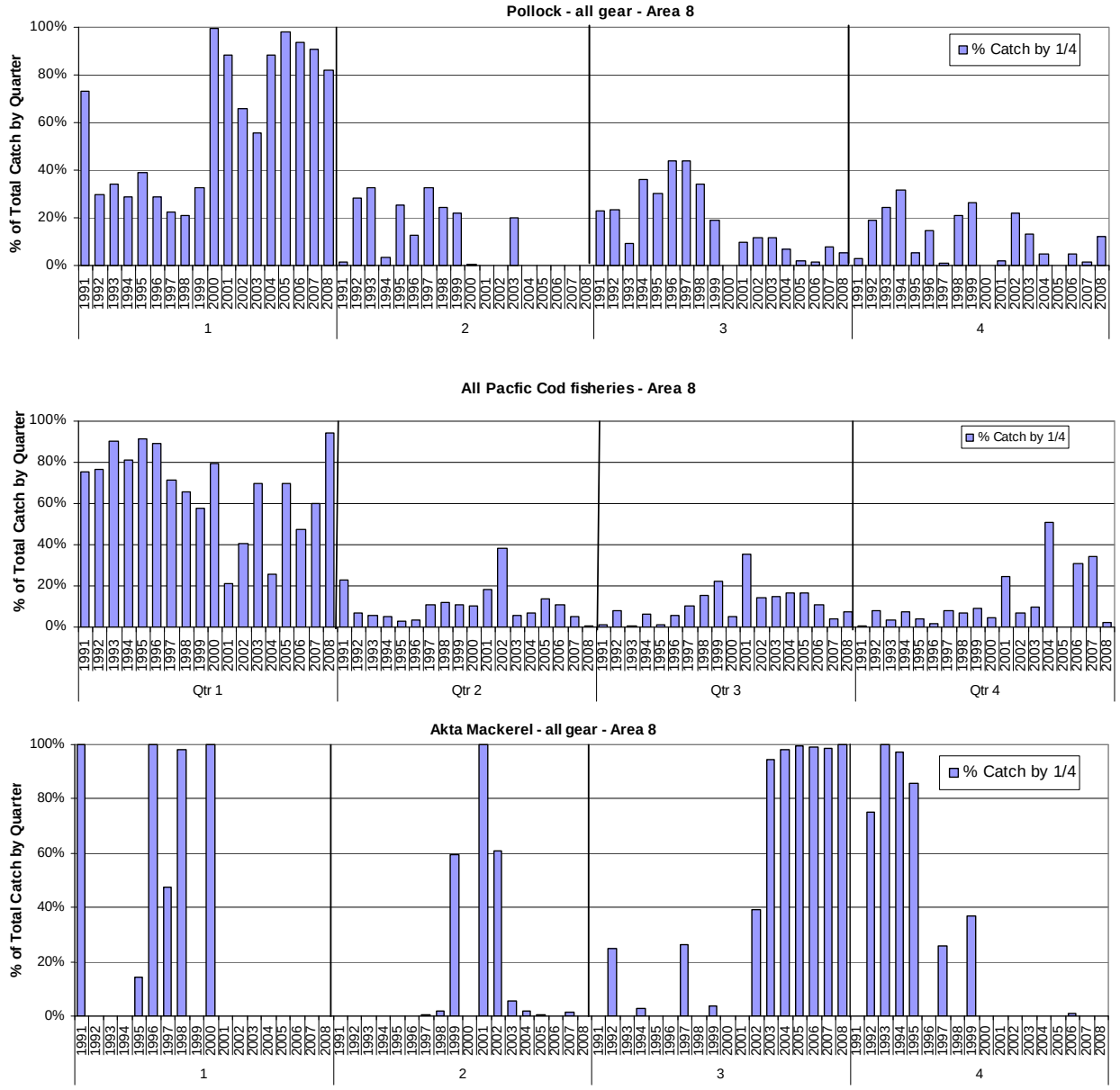


Figure IV-3.9. RCA 9: Proportion of the catch taken by quarter of pollock, Pacific cod, and Atka mackerel from within each rookery cluster analysis area: 1991-2008.

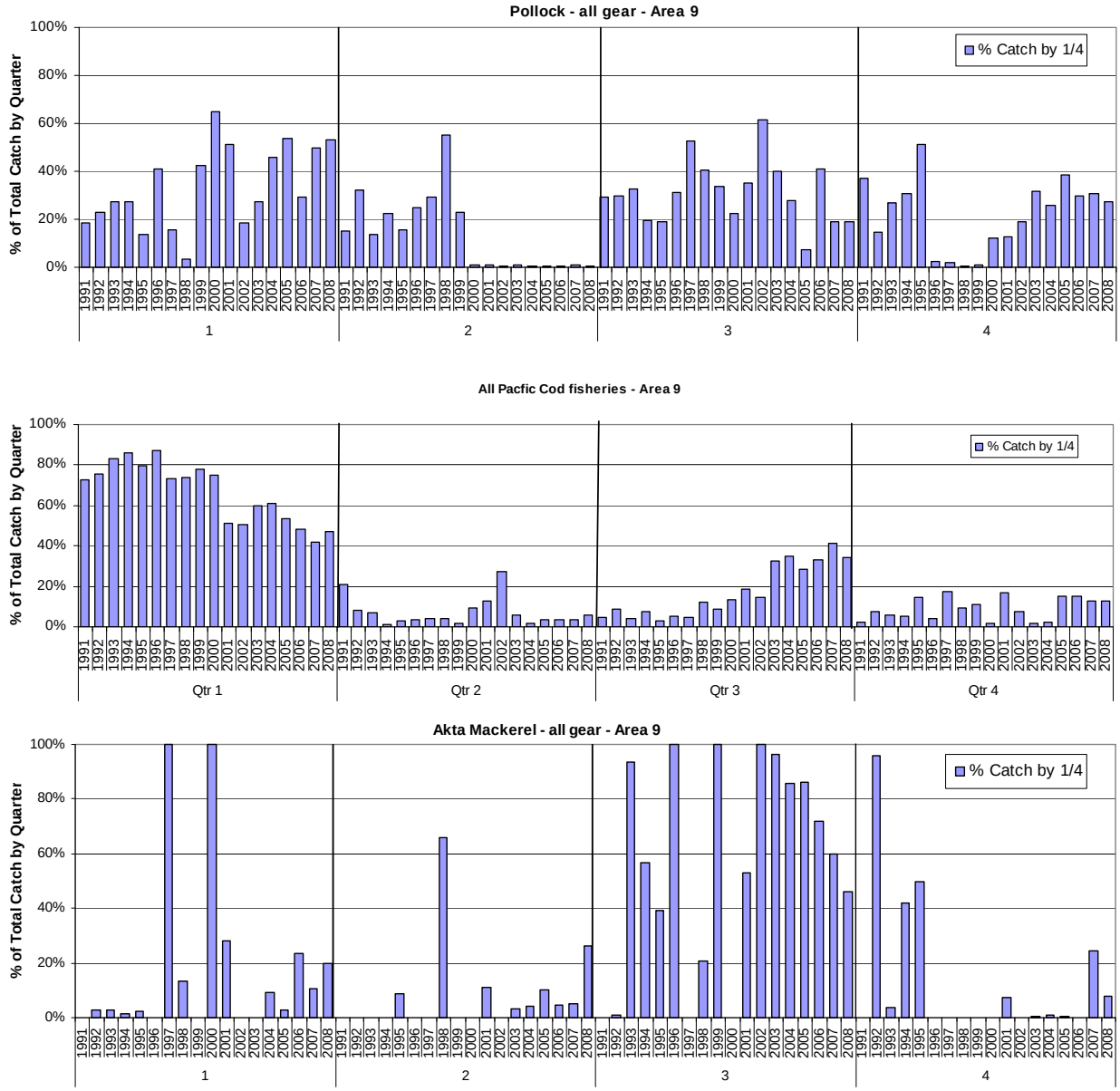


Figure IV-3.10. RCA 10: Proportion of the catch taken by quarter of pollock, and Pacific cod from within each rookery cluster analysis area: 1991-2008.

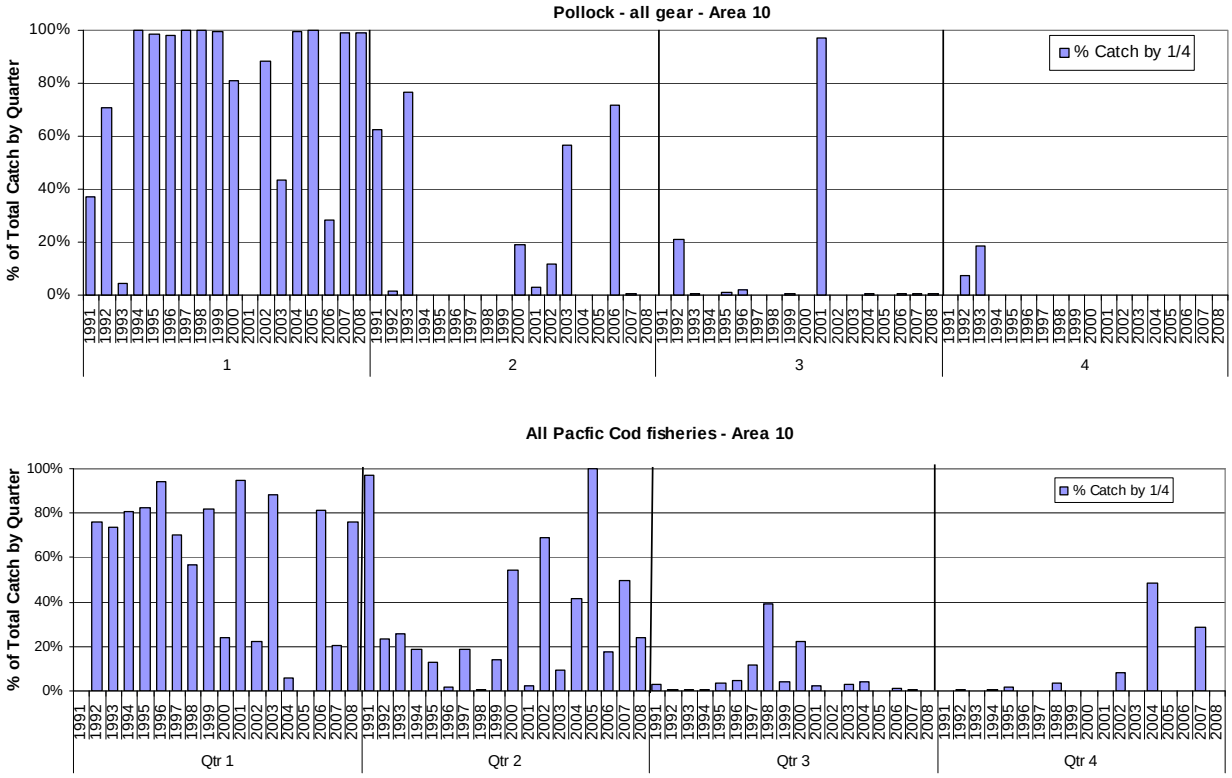


Figure IV-4. The catch of pollock made within the 4 Steller Sea Lion Critical Habitat zones, throughout each of the RCA fishery analysis areas: 1991-2008.
Note: y-axis (mt) scale varies.

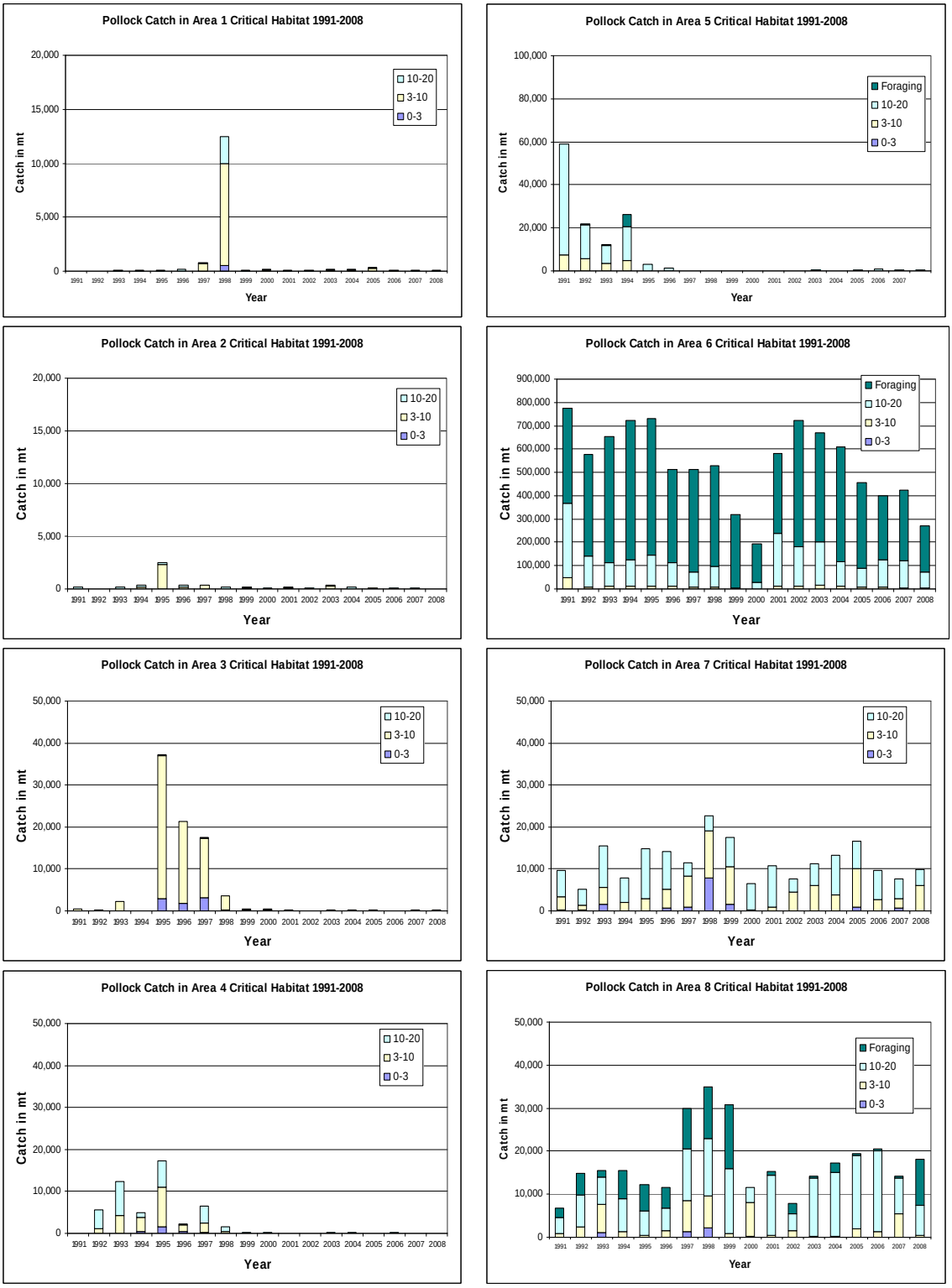
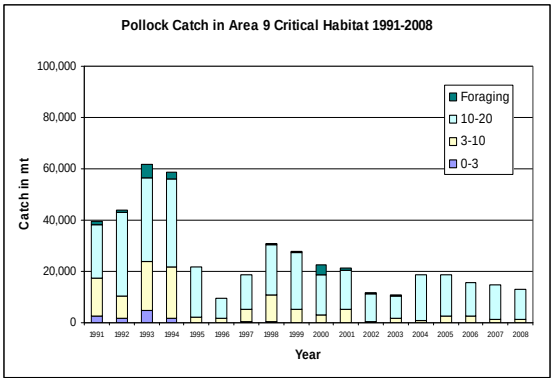


Figure IV-4. (Continued). Note: the scale of these figures may differ from those on the previous page – in some cases by several orders of magnitude.



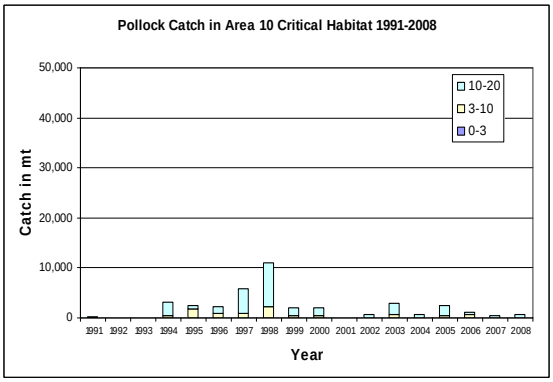
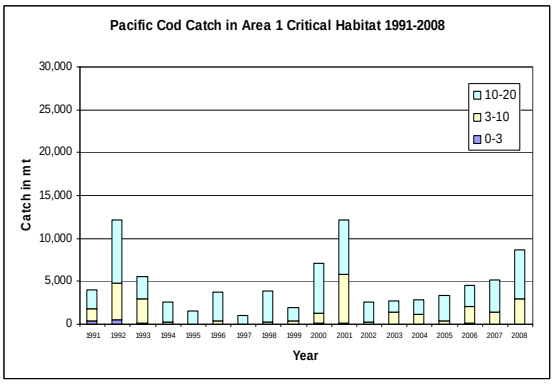
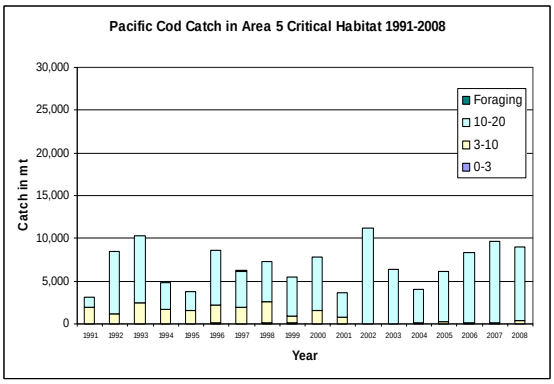
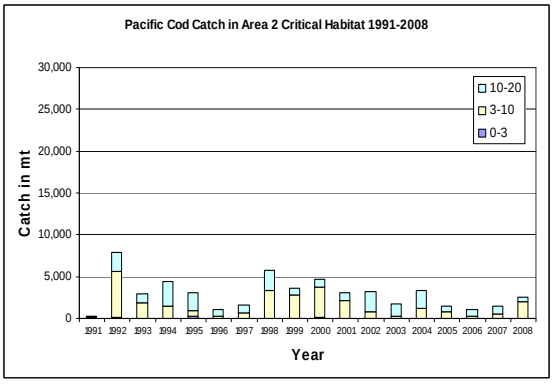
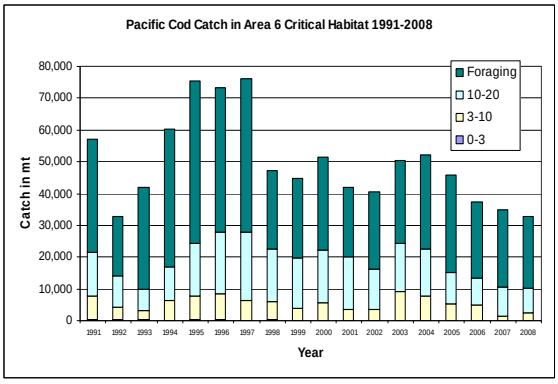


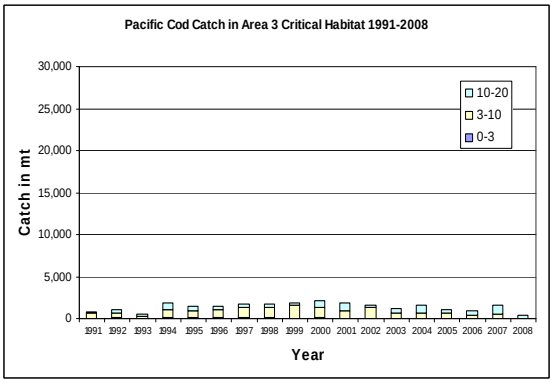
Figure IV-5. The catch of Pacific cod made within the 4 Steller Sea Lion Critical Habitat zones, throughout each of the RCA fishery analysis areas: 1991-2008. Note: y-axis (mt) scale varies.

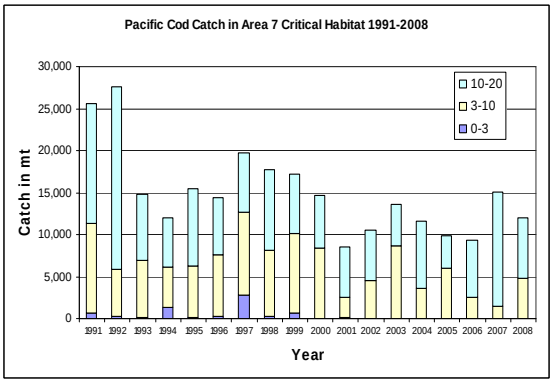


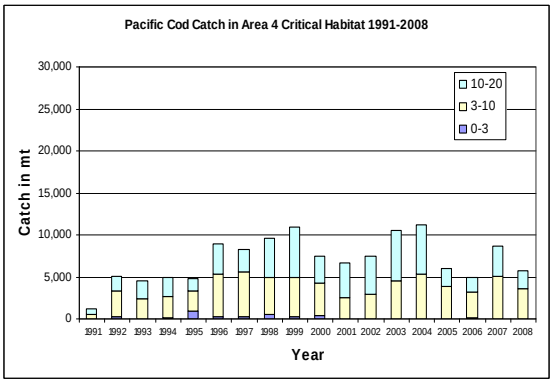


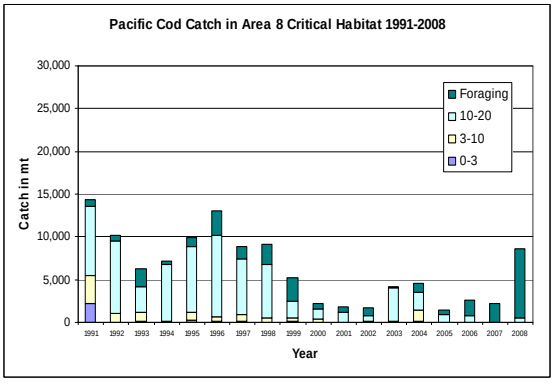












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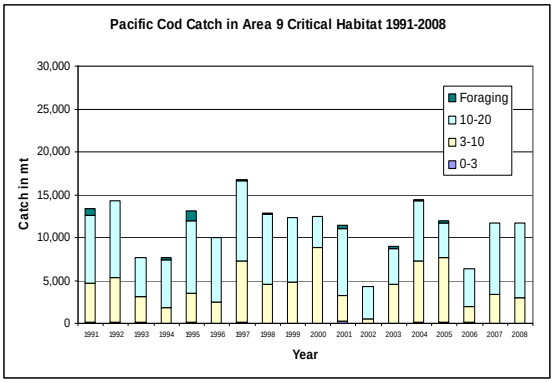


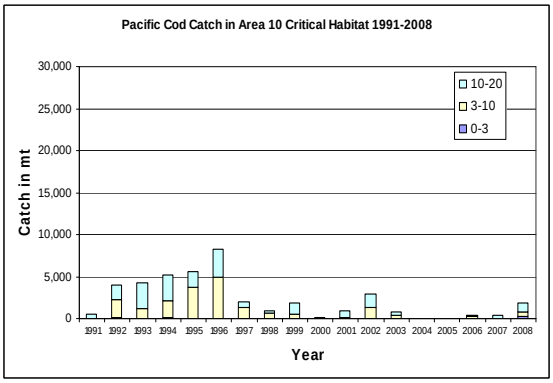
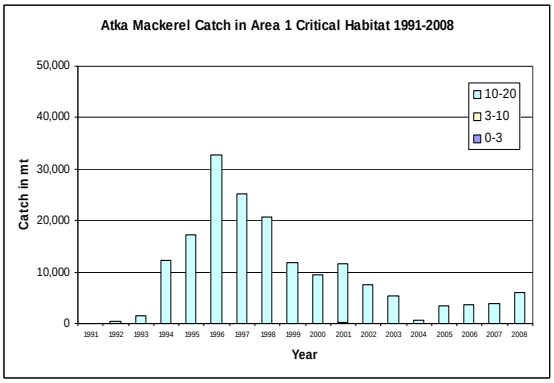
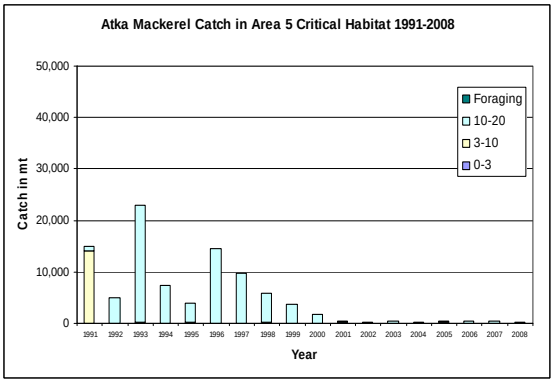
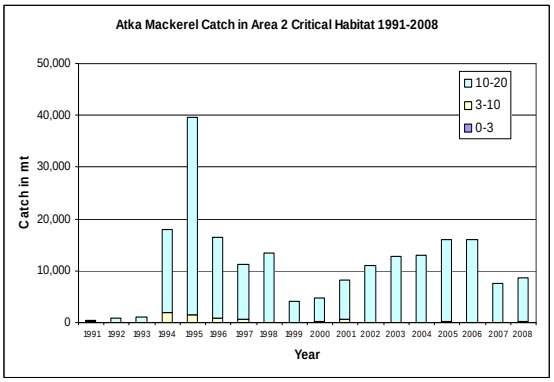
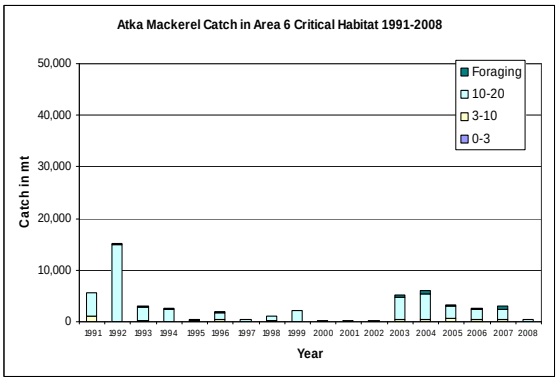


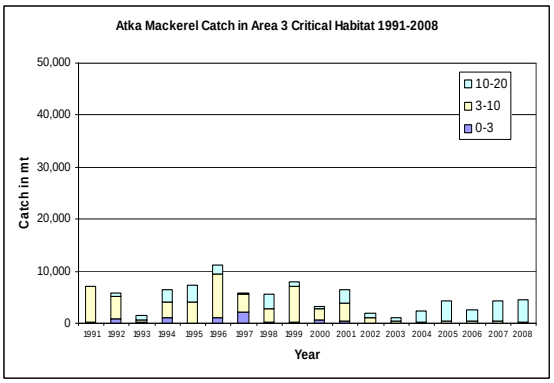
Figure IV-6. The catch of Atka mackerel made within the 4 Steller Sea Lion Critical Habitat zones, throughout each of the RCA fishery analysis areas: 1991-2008.
Note: y-axis (mt) scale varies.

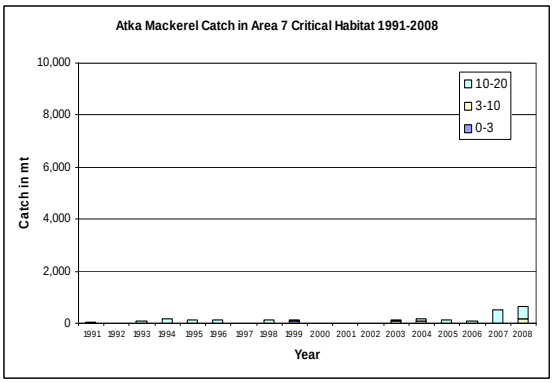


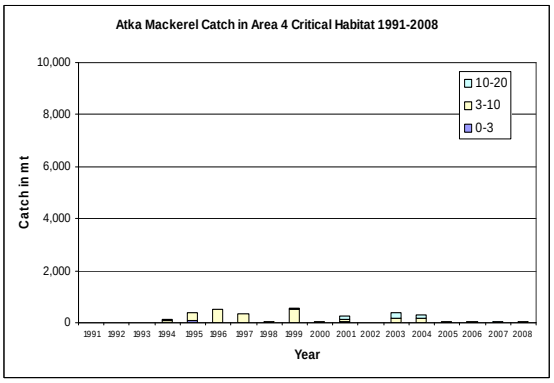


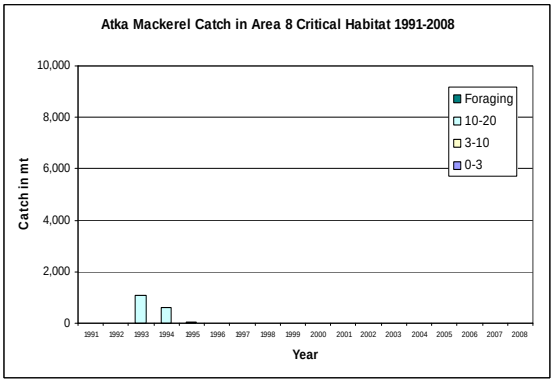












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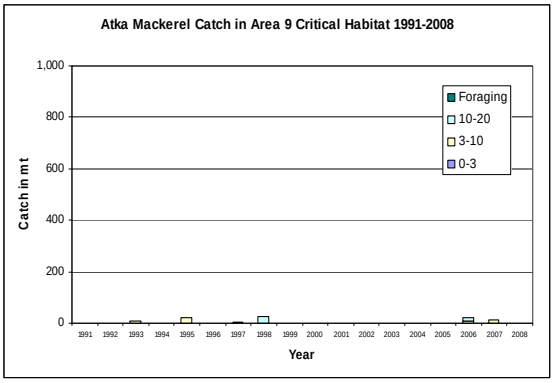


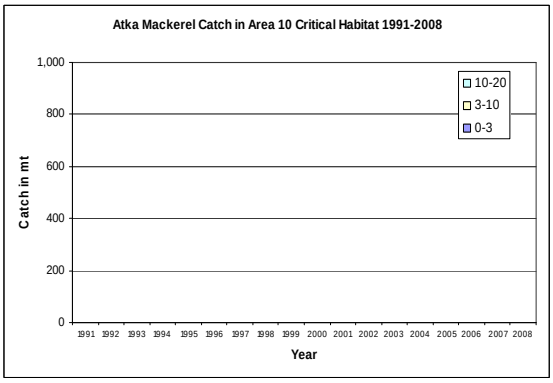
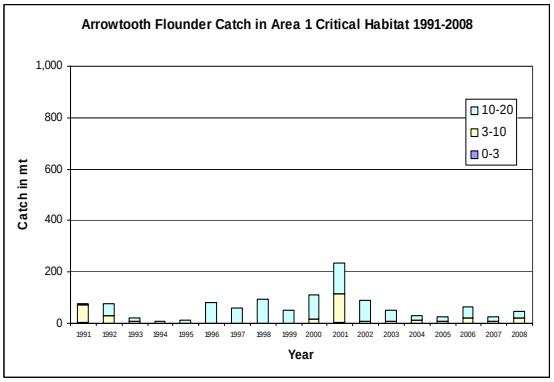
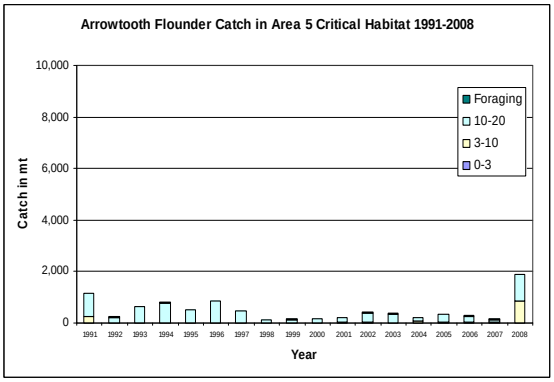
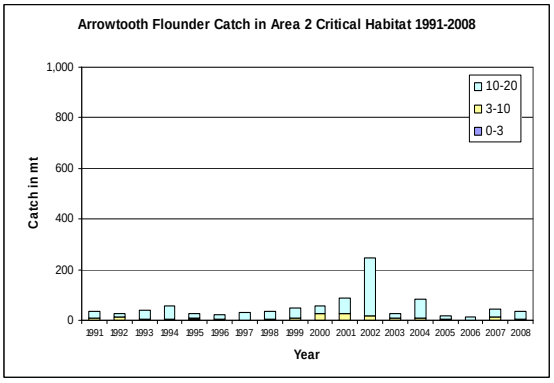
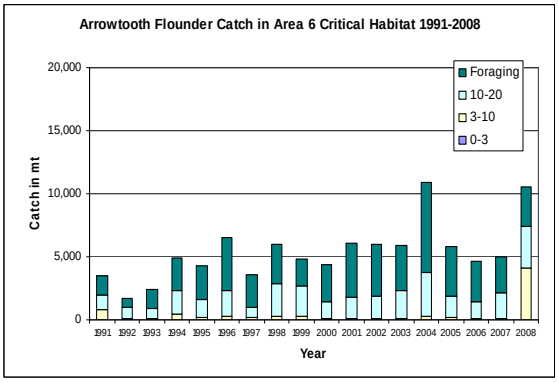


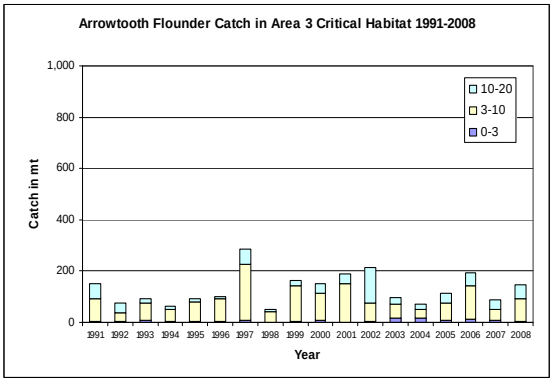
Figure IV-7. The catch of Arrowtooth Flounder made within the 4 Steller Sea Lion Critical Habitat zones, throughout each of the RCA fishery analysis areas: 1991-2008. Note:
y-axis (mt) scale varies.

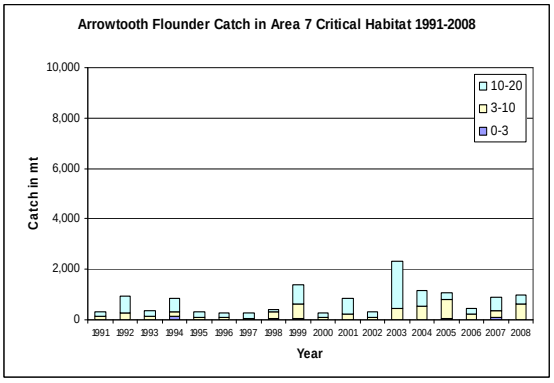


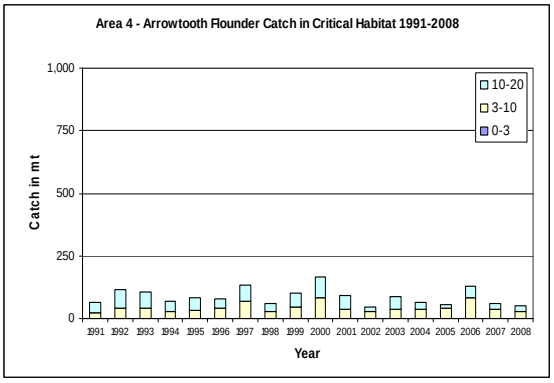












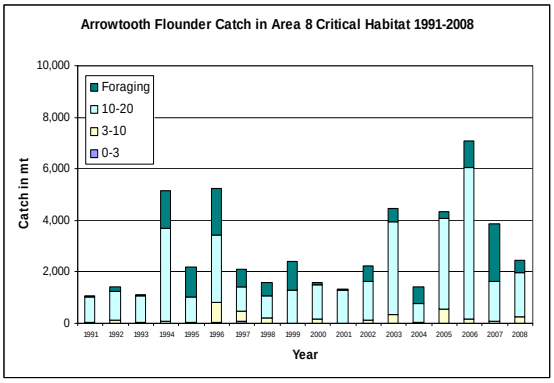
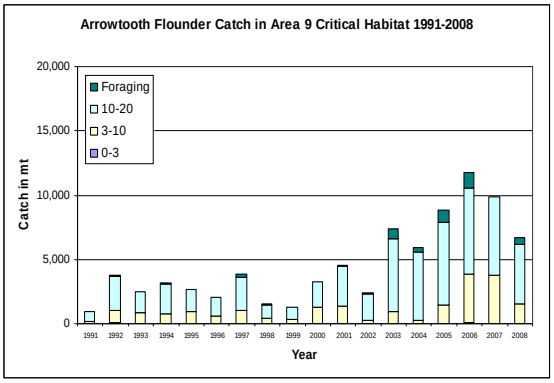


Figure RCA 4.7. (Continued). Note: the scale of these figures may differ from those on the previous page – in some cases by several orders of magnitude.



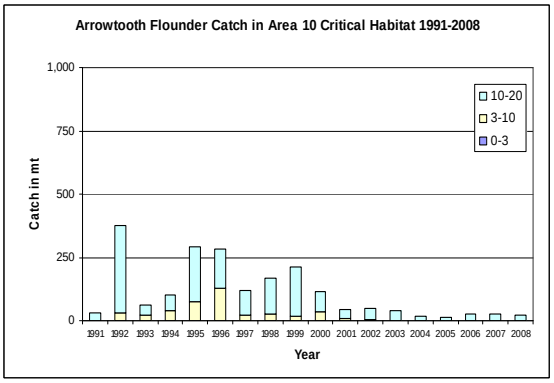


Figure IV-1. Regions used in the “RCA” Fisheries Analysis.

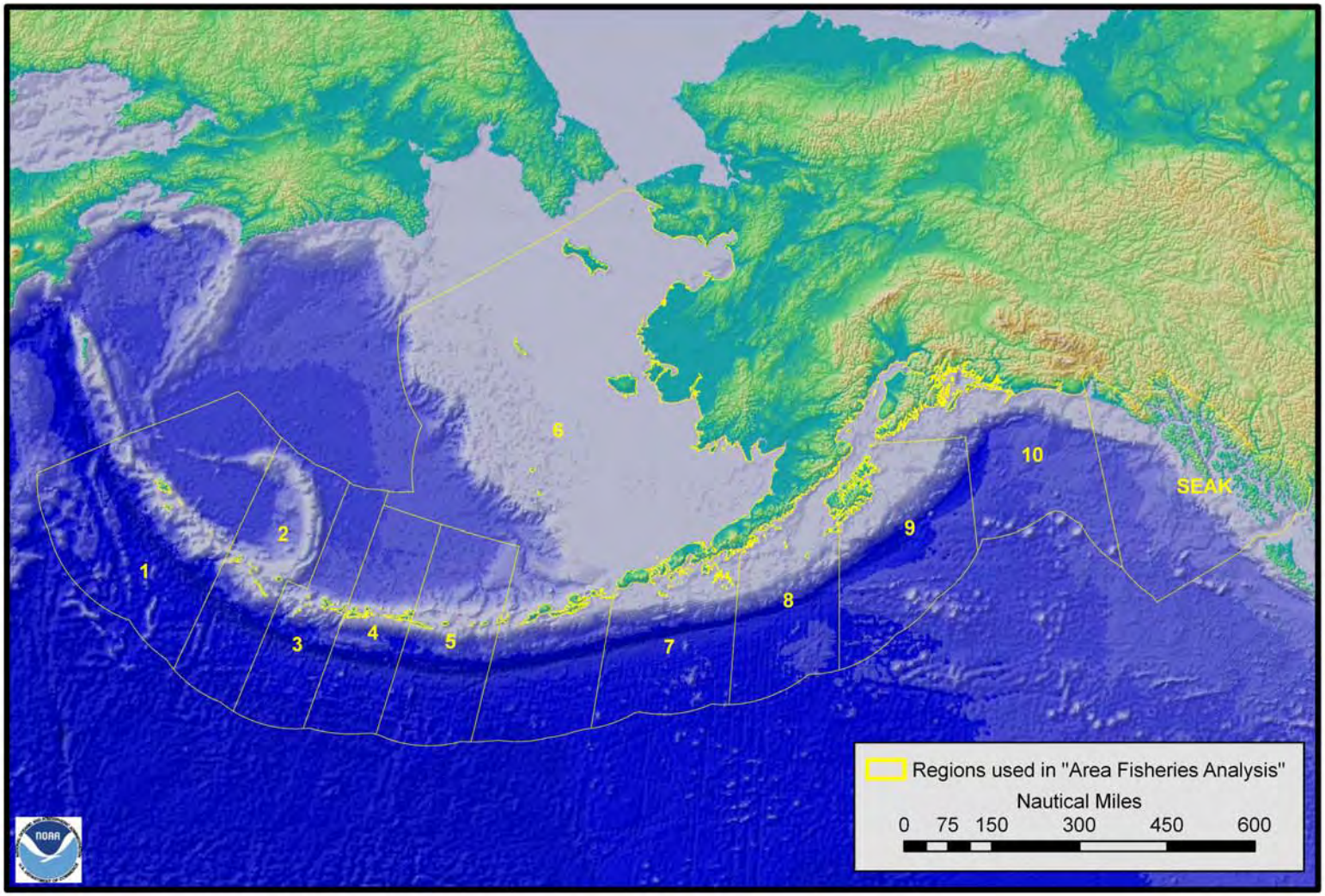


Table IV-1 The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 1. There is no critical habitat foraging zone designated for this Area.

Pollock Catch by Zones 1991-2008 in Area 1

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	% from CH
1991	0	13	0	13	0	12	1	13	13	100.0
1992	0	1	5	7	0	7	2	7	8	83.3
1993	1	2	53	56	0	37	24	56	110	50.9
1994	0	0	115	115	0	115	108	115	121	95.0
1995	0	0	80	80	0	80	17	80	97	82.7
1996	0	0	205	205	0	205	101	205	271	75.8
1997	0	684	75	759	0	43	743	759	772	98.4
1998	491	9,425	2,514	12,429	0	158	12,370	12,429	17,666	70.4
1999	0	6	78	84	0	78	38	84	112	75.2
2000	1	85	50	135	0	50	114	135	151	89.4
2001	0	15	87	102	0	81	78	102	117	87.5
2002	0	1	87	88	0	61	64	88	182	48.5
2003	0	51	99	150	0	92	65	150	355	42.1
2004	0	86	79	165	0	74	112	165	273	60.4
2005	0	239	72	311	0	118	216	311	550	56.6
2006	0	51	37	88	0	83	22	88	216	40.8
2007	0	7	50	57	0	41	52	57	122	46.7
2008	0	36	34	70	0	68	8	70	114	61.2

Pacific Cod Catch by Zones 1991-2008 in Area 1

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	% from CH
1991	361	1,413	2,281	4,056	0	2,475	2,014	4,056	4,195	96.7
1992	541	4,191	7,368	12,099	0	8,540	5,238	12,099	13,630	88.8
1993	170	2,785	2,616	5,572	0	3,403	3,064	5,572	6,155	90.5
1994	2	249	2,291	2,541	0	2,505	1,682	2,541	2,660	95.5
1995	0	0	1,545	1,545	0	1,545	296	1,545	1,616	95.6
1996	0	359	3,367	3,727	0	3,507	1,933	3,727	4,197	88.8
1997	0	0	1,014	1,014	0	1,000	724	1,014	1,100	92.2
1998	6	269	3,564	3,839	0	2,989	2,441	3,839	4,209	91.2
1999	4	422	1,507	1,933	0	1,635	419	1,933	2,232	86.6
2000	81	1,246	5,813	7,139	0	4,130	4,300	7,139	7,775	91.8
2001	178	5,702	6,299	12,180	0	8,120	6,929	12,180	13,436	90.7
2002	5	310	2,222	2,537	0	774	2,246	2,537	3,152	80.5
2003	0	1,460	1,211	2,670	0	1,922	2,524	2,670	3,323	80.4
2004	2	1,135	1,706	2,843	0	2,241	2,371	2,843	3,228	88.1
2005	0	363	2,960	3,323	0	2,413	3,152	3,323	4,225	78.7
2006	118	1,950	2,521	4,588	0	2,765	4,085	4,588	4,774	96.1
2007	37	1,445	3,691	5,172	0	3,372	3,773	5,172	5,446	95.0
2008	0	2,917	5,793	8,709	0	6,694	5,776	8,709	9,151	95.2

Table IV-1. Catch in RCA 1. (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 1

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	% from CH
1991	0	13	1	14	0	14	1	14	14	100.0
1992	0	1	452	453	0	453	8	453	453	100.0
1993	0	13	1,505	1,518	0	1,502	31	1,518	2,322	65.4
1994	0	0	12,212	12,212	0	12,212	8,233	12,212	12,306	99.2
1995	0	0	17,254	17,254	0	17,254	4,444	17,254	20,621	83.7
1996	0	4	32,698	32,702	0	32,370	13,491	32,702	41,861	78.1
1997	0	29	25,258	25,287	0	24,980	13,873	25,287	30,408	83.2
1998	0	0	20,738	20,738	0	20,672	9,693	20,738	24,634	84.2
1999	0	0	11,803	11,803	0	11,507	2,960	11,803	16,388	72.0
2000	0	106	9,297	9,403	0	9,284	749	9,403	11,406	82.4
2001	3	257	11,405	11,665	0	9,022	5,624	11,665	19,516	59.8
2002	0	2	7,510	7,512	0	4,601	3,250	7,512	17,751	42.3
2003	0	21	5,357	5,379	0	1,580	3,925	5,379	19,077	28.2
2004	0	9	727	736	0	85	670	736	18,375	4.0
2005	0	2	3,543	3,545	0	3,494	2,437	3,545	19,130	18.5
2006	0	10	3,669	3,679	0	3,679	2,045	3,679	14,962	24.6
2007	0	3	3904	3907	0	3,514	2,930	3,907	9,401	41.6
2008	0	15	5,940	5,955	0	5,949	4,329	5,955	16,509	36.1

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 1

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	% from CH
1991	5	66	7	78	0	4	75	78	83	94.4
1992	1	29	48	78	0	63	17	78	105	74.8
1993	0	8	15	23	0	13	11	23	119	19.3
1994	0	2	5	7	0	6	3	7	22	31.6
1995	0	0	11	11	0	11	0	11	22	49.5
1996	0	2	80	82	0	77	39	82	119	69.0
1997	0	0	60	60	0	54	30	60	107	56.3
1998	0	2	93	95	0	83	64	95	158	60.0
1999	0	0	52	52	0	52	10	52	92	57.0
2000	2	18	92	112	0	83	52	112	155	72.2
2001	3	112	121	236	0	121	130	236	312	75.6
2002	0	9	82	91	0	71	31	91	350	26.0
2003	0	7	44	51	0	35	18	51	141	36.5
2004	0	11	20	31	0	23	11	31	128	24.4
2005	1	7	20	28	0	20	10	28	178	15.5
2006	0	22	42	65	0	63	4	65	170	37.9
2007	0	10	15	25	0	16	15	25	106	24.0
2008	0	21	25	47	0	40	11	47	200	23.3

Table IV-2. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 2. There is no critical habitat foraging zone designated for this Area.

Pollock Catch by Zones 1991-2008 in Area 2

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2	32	127	161	0	161	94	161	163	99.0
1992	0	2	8	9	0	8	2	9	82	11.1
1993	0	4	171	174	0	174	71	174	243	71.6
1994	0	140	213	353	0	339	276	353	391	90.4
1995	0	2,344	194	2,538	0	2,266	2,454	2,538	2,643	96.0
1996	0	152	170	321	0	321	158	321	324	99.1
1997	0	339	40	379	0	379	327	379	423	89.5
1998	0	9	141	150	0	149	52	150	160	93.7
1999	3	71	90	165	0	165	124	165	259	63.6
2000	0	25	70	96	0	96	66	96	374	25.6
2001	0	115	69	184	0	184	116	184	253	72.7
2002	0	2	86	89	0	88	11	89	156	56.7
2003	0	263	70	332	0	332	264	332	437	76.0
2004	0	40	97	138	0	138	48	138	286	48.2
2005	0	54	46	100	0	99	61	100	166	60.2
2006	0	0	67	67	0	67	4	67	198	33.9
2007	0	34	44	78	0	78	29	78	209	37.3
2008	0	2	31	33	0	33	12	33	123	26.8

Pacific Cod Catch by Zones 1991-2008 in Area 2

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	3	148	73	224	0	224	161	224	230	97.3
1992	78	5,484	2,380	7,942	0	7,933	4,661	7,942	9,169	86.6
1993	51	1,844	1,115	3,010	0	2,987	1,454	3,010	7,018	42.9
1994	28	1,412	2,931	4,372	0	4,286	3,031	4,372	5,393	81.1
1995	28 3	669	2,164	3,116	0	2,857	1,884	3,116	3,693	84.4
1996	0	283	723	1,006	0	1,006	308	1,006	1,525	66.0
1997	2	605	952	1,560	0	1,560	560	1,560	2,986	52.2
1998	66	3,233	2,433	5,732	0	5,560	3,223	5,732	7,290	78.6
1999	32	2,761	886	3,680	0	3,622	2,432	3,680	3,811	96.6
2000	16 9	3,589	988	4,746	0	4,530	3,759	4,746	6,924	68.5
2001	27	2,174	911	3,113	0	3,049	1,998	3,113	4,868	63.9
2002	8	822	2,345	3,175	0	3,109	1,538	3,175	7,838	40.5
2003	14	287	1,457	1,758	0	1,745	241	1,758	4,645	37.8
2004	42	1,195	2,152	3,388	0	3,379	1,437	3,388	5,008	67.7
2005	0	793	743	1,536	0	1,492	986	1,536	2,779	55.3
2006	0	253	831	1,084	0	1,082	286	1,084	1,647	65.8
2007	5	565	889	1,459	0	1,404	685	1,459	2,247	64.9
2008	50	1,894	585	2,529	0	2,508	1,941	2,529	2,870	88.1

Table IV- 2. Catch in RCA 2 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 2

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	8	232	168	409	0	409	222	409	502	81.4
1992	0	2	764	766	0	766	36	766	8,112	9.4
1993	0	7	1,122	1,129	0	1,033	167	1,129	23,468	4.8
1994	0	1,88 2	16,06 9	17,95 1	0	17,926	16,480	17,952	31,060	57.8
1995	10 4	1,51 4	37,93 8	39,55 6	0	39,143	25,608	39,556	40,298	98.2
1996	0	942	15,58 7	16,52 9	0	16,490	4,293	16,529	21,465	77.0
1997	0	700	10,61 7	11,31 8	0	11,318	2,930	11,318	12,092	93.6
1998	0	80	13,23 6	13,31 6	0	13,314	2,780	13,316	13,453	99.0
1999	0	98	3,918	4,016	0	4,016	1,769	4,016	14,269	28.1
2000	2	217	4,609	4,828	0	4,828	1,237	4,828	17,903	27.0
2001	0	617	7,597	8,214	0	8,214	2,816	8,214	27,385	30.0
2002	0	30	11,00 3	11,03 3	0	11,026	442	11,033	20,369	54.2
2003	0	105	12,62 9	12,73 4	0	12,734	385	12,734	26,086	48.8
2004	30	1	12,90 7	12,93 8	0	12,938	110	12,938	27,899	46.4
2005	0	225	15,70 7	15,93 2	0	15,931	6,710	15,932	31,648	50.3
2006	0	9	16,02 4	16,03 3	0	16,030	111	16,033	36,602	43.8
2007	0	10	7572	7583	0	7,583	954	7,583	21,461	35.3
2008	0	167	8,404	8,571	0	8,571	2,171	8,571	17,917	47.8

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 2

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	9	25	34	0	33	1	34	41	81.75
1992	0	12	16	28	0	27	9	28	53	52.06
1993	0	4	36	41	0	40	4	41	152	26.65
1994	0	3	54	57	0	55	17	57	151	37.61
1995	6	2	16	24	0	17	19	24	68	35.44
1996	0	3	20	23	0	23	5	23	99	23.12
1997	0	1	31	32	0	32	5	32	51	63.67
1998	0	6	28	34	0	32	9	34	125	27.04
1999	1	7	40	48	0	48	22	48	146	33.03
2000	1	26	28	56	0	55	39	56	270	20.67
2001	0	26	61	87	0	87	39	87	302	28.96
2002	0	19	230	248	0	248	19	248	377	65.86
2003	0	8	19	26	0	26	4	26	102	25.78
2004	1	10	73	84	0	84	8	84	156	53.72
2005	0	5	13	18	0	18	5	18	65	28.00

2006	0	2	13	15	0	15	0	15	522	2.86
2007	0	13	32	45	0	45	6	45	171	26.11
2008	0	3	34	37	0	37	3	37	91	40.7

Table IV-3. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 3. There is no critical habitat foraging zone designated for this Area.

Pollock Catch by Zones 1991-2008 in Area 3

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	35	308	20	363	0	362	363	363	442	82.1
1992	14	116	8	138	0	105	138	138	139	99.1
1993	31	2,312	2	2,345	0	1,155	2,345	2,345	2,345	100.0
1994	3	25	11	39	0	39	39	39	39	99.9
1995	2,972	34,056	169	37,197	0	17,974	37,197	37,197	37,404	99.4
1996	1,730	19,579	1	21,310	0	9,895	21,062	21,310	21,481	99.2
1997	3,248	14,095	107	17,451	0	8,930	17,402	17,451	17,451	100.0
1998	327	3,184	13	3,524	0	1,503	3,524	3,524	3,698	95.3
1999	10	291	67	368	0	107	368	368	371	99.2
2000	168	272	5	444	0	306	444	444	447	99.5
2001	0	149	5	155	0	153	155	155	161	96.1
2002	0	21	9	30	0	23	30	30	31	96.1
2003	59	124	7	191	0	186	191	191	191	99.5
2004	82	53	2	137	0	135	137	137	139	98.9
2005	41	59	13	112	0	112	112	112	113	99.6
2006	10	65	1	76	0	76	76	76	76	100.0
2007	14	184	36	235	0	231	235	235	235	99.9
2008	7	125	36	168	0	141	168	168	168	100.0

Pacific Cod Catch by Zones 1991-2008 in Area 3

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	43	657	38	739	0	699	732	739	739	99.9
1992	195	499	314	1,008	0	886	987	1,008	1,022	98.6
1993	51	196	232	479	0	406	470	479	479	100.0
1994	150	954	784	1,889	0	1,674	1,866	1,889	1,892	99.8
1995	128	765	635	1,528	0	669	1,525	1,528	1,607	95.0
1996	126	936	367	1,429	0	617	1,427	1,429	1,490	95.9
1997	145	1,236	331	1,713	0	1,086	1,710	1,713	1,753	97.7
1998	82	1,235	354	1,670	0	961	1,652	1,670	1,713	97.5
1999	52	1,513	262	1,828	0	662	1,807	1,828	1,876	97.4
2000	95	1,187	791	2,073	0	1,210	1,941	2,073	2,253	92.0
2001	48	932	839	1,819	0	1,072	1,717	1,819	1,899	95.8
2002	9	1,301	250	1,559	0	452	1,559	1,559	1,583	98.5
2003	1	716	457	1,173	0	675	1,169	1,173	1,175	99.8
2004	7	718	843	1,568	0	770	1,568	1,568	1,569	99.9
2005	1	650	454	1,104	0	485	1,104	1,104	1,104	100.0
2006	2	384	581	967	0	832	967	967	967	100.0
2007	7	514	1,071	1,592	0	570	1,590	1,592	1,610	98.9
2008	0	1,100	340	1,440	0	743	1,371	1,440	1,441	99.9

Table IV-3 Catch in RCA 3 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 3

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	291	6,858	63	7,212	0	7,079	7,209	7,212	7,212	100.0
1992	760	4,349	805	5,914	0	5,559	5,907	5,914	5,914	100.0
1993	191	539	865	1,595	0	1,585	1,585	1,595	1,595	100.0
1994	1,032	2,995	2,387	6,414	0	6,347	6,352	6,414	6,438	99.6
1995	2	4,143	3,114	7,259	0	6,036	7,259	7,259	7,269	99.9
1996	1,002	8,509	1,706	11,218	0	10,832	11,215	11,218	11,218	100.0
1997	2,159	3,371	306	5,836	0	5,354	5,715	5,836	5,910	98.8
1998	190	2,559	2,925	5,673	0	5,272	5,550	5,673	5,937	95.6
1999	231	6,864	932	8,027	0	7,782	8,027	8,027	8,040	99.8
2000	674	2,041	471	3,186	0	3,092	3,186	3,186	3,284	97.0
2001	358	3,421	2,707	6,486	0	6,200	6,200	6,486	6,516	99.5
2002	41	1,037	965	2,043	0	2,012	2,043	2,043	2,048	99.8
2003	7	362	799	1,167	0	1,160	1,167	1,167	1,189	98.2
2004	39	143	2,216	2,398	0	2,385	2,398	2,398	2,405	99.7
2005	15	439	3,784	4,238	0	4,238	4,238	4,238	4,244	99.9
2006	0	357	2,311	2,668	0	2,665	2,668	2,668	2,668	100.0
2007	85	243	4054	4381	0	4,380	4,381	4,381	4,381	100.0
2008	0	113	4,447	4,560	0	4,558	4,559	4,560	4,560	100.0

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 3

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	3	90	57	150	0	85	150	150	168	89.5
1992	3	34	41	77	0	34	77	77	83	93.1
1993	10	66	15	92	0	75	90	92	95	96.7
1994	3	48	13	64	0	50	64	64	65	98.0
1995	2	79	10	91	0	75	90	91	94	97.3
1996	5	85	11	102	0	92	102	102	103	98.9
1997	10	219	58	286	0	258	285	286	288	99.3
1998	0	41	9	49	0	45	48	49	52	94.0
1999	3	138	22	163	0	139	159	163	169	96.1
2000	9	103	38	150	0	139	149	150	156	96.6
2001	0	149	37	187	0	173	187	187	188	99.7
2002	3	73	140	216	0	206	216	216	218	99.0
2003	18	52	29	99	0	74	99	99	100	99.0
2004	16	36	21	73	0	60	73	73	79	92.4
2005	10	64	39	113	0	109	113	113	113	99.9
2006	13	130	53	195	0	175	194	195	195	100.0
2007	10	39	39	88	0	69	88	88	92	96.0
2008	3	87	54	145	0	138	145	145	148	98.1

Table IV-4. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 4. There is no critical habitat foraging zone designated for this Area.

Pollock Catch by Zones 1991-2008 in Area 4

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	6	14	20	0	9	12	20	170	11.7
1992	0	1,044	4,583	5,628	0	486	5,145	5,628	8,158	69.0
1993	0	4,259	8,010	12,270	0	4,388	7,900	12,270	13,933	88.1
1994	484	3,376	994	4,855	0	385	4,471	4,855	5,301	91.6
1995	1,675	9,336	6,183	17,193	0	4,225	13,425	17,193	18,915	90.9
1996	339	1,756	135	2,231	0	329	2,215	2,231	2,476	90.1
1997	129	2,338	4,046	6,513	0	911	6,157	6,513	7,186	90.6
1998	0	381	1,111	1,492	0	338	1,158	1,492	1,727	86.4
1999	0	89	105	194	0	36	191	194	202	95.7
2000	0	99	92	191	0	20	191	191	193	98.8
2001	0	16	78	94	0	58	70	94	133	70.5
2002	0	71	5	76	0	70	76	76	78	98.3
2003	0	9	280	289	0	28	272	289	398	72.6
2004	0	9	124	133	0	27	132	133	150	88.6
2005	0	6	17	23	0	3	22	23	212	10.8
2006	0	105	11	116	0	12	111	116	122	95.0
2007	0	11	3	14	0	3	13	14	919	1.5
2008	0	22	47	68	0	2	68	68	470	14.5

Pacific Cod Catch by Zones 1991-2008 in Area 4

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	65	462	690	1,217	0	595	775	1,217	1,381	88.1
1992	223	3,147	1,648	5,018	0	1,211	4,388	5,018	5,956	84.2
1993	66	2,306	2,215	4,588	0	1,877	4,389	4,588	7,481	61.3
1994	103	2,583	2,223	4,909	0	2,470	4,473	4,909	5,109	96.1
1995	881	2,500	1,409	4,790	0	1,612	4,725	4,790	5,167	92.7
1996	288	5,059	3,560	8,907	0	4,588	7,511	8,907	9,968	89.4
1997	215	5,377	2,720	8,311	0	3,978	7,497	8,311	10,864	76.5
1998	529	4,435	4,604	9,567	0	5,153	7,922	9,567	12,273	78.0
1999	262	4,676	5,990	10,928	0	4,976	10,066	10,928	11,905	91.8
2000	435	3,801	3,174	7,410	0	2,221	6,512	7,410	10,034	73.8
2001	6	2,546	4,063	6,615	0	4,055	6,250	6,615	8,215	80.5
2002	0	2,995	4,521	7,516	0	3,712	6,803	7,516	9,594	78.3
2003	0	4,489	6,101	10,590	0	7,185	10,132	10,590	14,437	73.4
2004	21	5,268	5,883	11,173	0	6,557	10,380	11,173	12,556	89.0
2005	0	3,845	2,118	5,963	0	3,700	5,697	5,963	6,795	87.8
2006	74	3,112	1,804	4,990	0	1,974	4,359	4,990	6,042	82.6
2007	6	5,000	3,623	8,629	0	2,869	8,308	8,629	10,501	82.2
2008	0	3,616	2,092	5,708	0	3,076	5,107	5,708	6,910	82.6

Table IV-4. Catch in RCA 4 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 4

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	0	0	0	0	0	0	0	0	0.0
1992	0	1	5	6	0	0	6	6	12	50.0
1993	0	11	1	12	0	1	12	12	12	100.0
1994	0	79	67	146	0	123	146	146	146	100.0
1995	98	268	10	376	0	101	376	376	384	98.1
1996	0	502	22	524	0	71	524	524	525	99.9
1997	0	341	22	363	0	39	363	363	364	99.8
1998	4	32	3	38	0	21	33	38	41	94.2
1999	1	517	34	552	0	42	549	552	554	99.6
2000	0	25	12	37	0	25	37	37	37	100.0
2001	31	83	124	238	0	114	207	238	238	100.0
2002	0	8	8	16	0	15	16	16	16	100.0
2003	0	190	196	387	0	356	386	387	411	94.1
2004	0	160	125	285	0	283	285	285	285	100.0
2005	0	27	4	32	0	30	32	32	32	99.9
2006	0	36	21	58	0	52	57	58	58	99.6
2007	0	20	4	24	0	15	24	24	26	92.5
2008	0	51	1	52	0	48	52	52	53	97.6

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 4

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2	22	39	63	0	28	48	63	85	74.3
1992	0	40	74	114	0	20	101	114	163	70.0
1993	2	40	64	107	0	38	85	107	151	70.9
1994	0	30	40	70	0	28	53	70	81	86.0
1995	1	33	49	83	0	46	60	83	129	64.5
1996	1	39	39	79	0	26	68	79	98	81.0
1997	2	69	62	132	0	56	96	132	146	91.0
1998	2	25	32	59	0	22	45	59	76	77.8
1999	2	46	54	102	0	61	72	102	119	85.5
2000	1	82	81	164	0	83	132	164	194	84.4
2001	0	36	56	93	0	61	61	93	102	91.0
2002	1	28	19	48	0	32	40	48	58	83.6
2003	0	38	50	88	0	52	81	88	109	81.4
2004	1	34	28	63	0	41	55	63	69	91.4
2005	0	43	10	54	0	42	50	54	63	85.8
2006	0	82	45	127	0	79	101	127	144	88.5
2007	0	36	25	61	0	26	54	61	71	85.6
2008	0	28	21	49	0	29	39	49	78	63.0

Table IV-5. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 5. The Seguam critical habitat foraging area is included in this Area.

Pollock Catch by Zones 1991-2008 in Area 5

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	1	7,296	51,666	58,963	1	1,724	58,941	58,964	79,716	74.0
1992	0	5,665	15,636	21,301	464	5,882	20,819	21,765	42,875	50.8
1993	0	3,287	8,647	11,933	152	3,881	11,207	12,085	40,061	30.2
1994	0	4,842	15,554	20,397	5,676	8,435	17,661	26,072	52,526	49.6
1995	0	7	3,261	3,268	1	292	2,997	3,269	5,865	55.7
1996	0	3	1,427	1,431	1	208	1,430	1,431	4,504	31.8
1997	0	4	61	65	1	6	65	66	104	63.7
1998	0	80	22	102	0	94	102	103	568	18.1
1999	0	2	44	47	0	4	47	47	66	71.3
2000	0	1	59	61	3	4	61	63	75	84.3
2001	0	55	65	119	1	59	119	121	151	79.6
2002	0	65	75	140	1	92	140	142	160	88.9
2003	0	19	191	210	11	39	214	221	269	82.1
2004	0	38	116	155	0	39	154	155	301	51.4
2005	0	11	484	495	11	484	490	506	580	87.3
2006	0	0	1,073	1,074	2	2	1,072	1,075	1,115	96.5
2007	0	30	548	579	5	39	582	584	1,038	56.2
2008	0	14	328	342	0	161	326	343	404	84.8

Pacific Cod Catch by Zones 1991-2008 in Area 5

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	63	1,956	1,056	3,075	16	2,378	3,074	3,091	3,251	95.1
1992	4	1,208	7,312	8,525	19	2,178	8,518	8,543	13,124	65.1
1993	7	2,408	7,844	10,259	1	3,462	10,261	10,259	13,019	78.8
1994	29	1,624	3,195	4,847	3	2,032	4,856	4,850	6,333	76.6
1995	24	1,589	2,185	3,798	17	2,371	3,797	3,814	4,451	85.7
1996	80	2,173	6,408	8,660	3	3,502	8,414	8,663	12,305	70.4
1997	40	1,974	4,151	6,165	49	2,499	6,165	6,214	8,358	74.3
1998	137	2,452	4,670	7,259	4	3,033	7,370	7,263	9,416	77.1
1999	102	864	4,568	5,534	1	1,570	5,515	5,535	7,341	75.4
2000	48	1,565	6,224	7,837	5	2,053	7,837	7,842	11,335	69.2
2001	14	730	2,900	3,645	10	768	3,645	3,655	5,662	64.5
2002	0	24	11,239	11,263	2	15	11,243	11,265	15,435	73.0
2003	0	10	6,325	6,334	1	102	6,330	6,335	8,871	71.4
2004	0	88	3,993	4,081	0	142	4,079	4,081	6,491	62.9
2005	0	229	5,926	6,155	0	626	5,701	6,155	7,475	82.3
2006	0	115	8,170	8,285	3	239	8,140	8,288	10,369	79.9
2007	8	135	9,557	9,699	1	184	9,686	9,701	13,317	72.8
2008	0	366	8,569	8,935	0	149	8,935	8,935	11,821	75.6

Table IV-5. Catch in RCA 5 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 5

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	13,976	1,018	14,994	3	14,868	14,994	14,997	16,411	91.4
1992	0	27	5,014	5,041	0	362	5,041	5,041	30,612	16.5
1993	0	221	22,726	22,947	0	1,174	22,944	22,947	37,537	61.1
1994	0	4	7,282	7,286	0	19	7,286	7,286	14,507	50.2
1995	0	215	3,709	3,925	0	221	3,925	3,925	12,642	31.0
1996	2	26	14,475	14,503	1	63	14,480	14,504	28,078	51.7
1997	1	18	9,689	9,708	0	26	9,708	9,709	16,884	57.5
1998	4	264	5,655	5,924	0	329	5,924	5,924	12,131	48.8
1999	5	5	3,650	3,660	0	7	3,660	3,660	14,677	24.9
2000	0	4	1,743	1,747	0	4	1,747	1,747	13,773	12.7
2001	129	85	188	402	0	214	402	402	6,890	5.8
2002	0	226	0	226	0	226	226	226	4,147	5.4
2003	0	56	336	392	1	240	392	392	6,149	6.4
2004	0	50	61	111	0	83	111	111	3,559	3.1
2005	0	135	272	407	1	345	305	408	3,421	11.9
2006	0	7	350	357	0	223	224	357	4,280	8.3
2007	0	94	315	409	0	156	409	409	20,298	2.0
2008	0	2	194	196	0	2	195	196	18,650	1.0

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 5

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2	273	880	1,155	1	1,110	296	1,177	1,298	90.7
1992	0	1	214	215	22	124	151	237	535	44.3
1993	0	5	626	631	10	463	262	640	819	78.2
1994	0	15	770	784	33	635	460	817	981	83.3
1995	0	5	504	508	14	427	442	522	689	75.9
1996	0	13	834	847	14	800	71	861	921	93.5
1997	0	13	475	488	3	411	97	491	645	76.2
1998	0	10	101	111	14	72	109	125	283	44.3
1999	0	8	142	150	5	30	146	155	255	60.7
2000	0	3	185	188	3	116	94	192	373	51.4
2001	1	31	183	215	20	85	214	235	307	76.6
2002	0	56	319	375	33	151	376	408	599	68.2
2003	0	17	325	342	45	202	325	388	533	72.7
2004	0	79	117	196	14	94	194	210	369	57.1
2005	0	59	263	323	37	260	178	359	413	87.1
2006	0	59	214	272	36	235	109	309	420	73.6
2007	0	30	109	139	32	68	142	171	360	47.5
2008	0	838	1,036	1,874	8	1,782	686	1,882	1,998	94.2

Table IV-6. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 6. The SSLCZ critical habitat foraging area is included in this Area.

Pollock Catch by Zones 1991-2008 in Area 6

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	394	48,875	316,913	366,182	408,503	240,704	279,374	774,685	1,543,509	50.2
1992	0	8,695	132,442	141,137	437,431	59,599	103,928	578,568	1,399,239	41.3
1993	362	10,043	103,691	114,096	539,653	55,050	73,721	653,750	1,327,960	49.2
1994	414	11,542	114,004	125,961	597,813	98,028	66,263	723,774	1,333,405	54.3
1995	289	12,045	132,150	144,484	587,917	142,887	55,420	732,401	1,268,115	57.8
1996	75	10,111	101,098	111,284	402,444	102,385	52,036	513,727	1,194,911	43.0
1997	118	7,395	66,439	73,951	437,863	62,113	44,471	511,814	1,126,862	45.4
1998	108	9,147	88,985	98,241	430,290	67,112	65,185	528,531	1,102,225	48.0
1999	0	476	5,564	6,040	314,205	1,921	5,267	320,246	994,545	32.2
2000	8	1,947	25,533	27,488	165,979	1,827	26,611	193,467	1,133,686	17.1
2001	227	10,752	226,128	237,107	342,318	176,300	138,380	579,425	1,389,959	41.7
2002	129	12,148	168,663	180,940	541,991	143,232	110,592	722,931	1,481,865	48.8
2003	126	14,365	185,766	200,258	468,478	134,578	158,692	668,735	1,492,079	44.8
2004	0	10,561	105,710	116,271	492,337	68,146	95,211	608,609	1,482,910	41.0
2005	0	9,004	80,915	89,919	365,081	54,063	74,488	455,000	1,486,963	30.6
2006	0	7,110	117,441	124,551	276,173	83,201	87,422	400,724	1,494,547	26.8
2007	0	2,653	120,356	123,009	300,327	92,532	84,130	423,336	1,352,127	31.3
2008	0	5,708	67,120	72,829	196,359	49,670	45,254	246,522	992,601	24.8

Pacific Cod Catch by Zones 1991-2008 in Area 6

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	335	7,368	13,679	21,382	35,634	14,807	19,144	57,016	211,567	26.9
1992	220	4,100	9,671	13,991	18,808	8,233	10,893	32,800	167,004	19.6
1993	335	2,789	6,743	9,867	32,193	5,174	8,601	42,060	134,356	31.3
1994	27	6,361	10,660	17,049	43,098	11,475	15,547	60,147	173,739	34.6
1995	306	7,275	16,660	24,241	51,318	18,433	21,266	75,559	230,016	32.8
1996	454	8,142	19,380	27,976	45,198	22,345	23,930	73,174	207,645	35.2
1997	97	6,340	21,553	27,991	48,265	19,333	24,912	76,256	232,144	32.8
1998	409	5,751	16,480	22,640	24,461	12,827	20,698	47,101	161,037	29.2
1999	44	3,906	15,805	19,756	25,002	12,618	17,452	44,758	149,538	29.9
2000	51	5,658	16,368	22,077	29,446	12,989	20,081	51,523	176,600	29.2
2001	26	3,652	16,247	19,926	22,097	11,960	18,583	42,023	141,858	29.6
2002	49	3,382	12,890	16,321	24,179	11,816	14,412	40,499	158,508	25.6
2003	112	9,178	15,070	24,360	25,983	18,341	22,202	50,342	179,472	28.1
2004	22	7,739	14,863	22,625	29,517	16,514	20,462	52,142	184,002	28.3
2005	0	5,327	9,882	15,209	30,729	9,771	13,704	45,938	186,827	24.6
2006	8	4,953	8,365	13,326	24,188	8,608	12,091	37,514	175,226	21.4
2007	3	1,470	9,241	10,715	24,089	6,521	9,505	34,804	141,879	24.5
2008	24	2,457	7,732	10,213	22,659	5,468	9,176	32,872	140,492	23.4

Table IV-6. Catch in RCA 6 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 6

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	1,071	4,480	5,552	10	5,469	2,125	5,562	5,703	97.5
1992	0	7	14,979	14,986	128	14,917	2,963	15,114	16,206	93.3
1993	0	131	2,783	2,914	9	2,878	82	2,923	3,156	92.6
1994	0	59	2,347	2,406	98	2,401	23	2,504	2,562	97.7
1995	1	125	225	351	72	343	227	422	438	96.5
1996	0	326	1,474	1,799	89	1,775	610	1,888	1,957	96.5
1997	0	40	421	461	14	404	250	475	490	97.0
1998	0	112	894	1,007	39	1,004	741	1,045	1,065	98.1
1999	0	6	2,107	2,113	62	2,113	1,963	2,175	2,314	94.0
2000	0	0	110	110	0	107	24	110	216	51.1
2001	1	3	195	199	1	195	126	200	215	93.1
2002	0	29	224	253	9	252	129	262	315	83.3
2003	6	419	4,440	4,865	374	4,840	3,747	5,239	5,462	95.9
2004	0	504	5,009	5,513	623	5,508	4,584	6,136	6,535	93.9
2005	0	694	2,444	3,138	95	3,089	2,760	3,233	3,523	91.8
2006	0	410	2,009	2,418	124	2,296	2,176	2,543	3,142	80.9
2007	0	402	2080	2482	484	2,479	2,320	2,966	3,025	98.0
2008	0	49	353	402	6	385	389	408	447	91.2

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 6

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	5	821	1,155	1,980	1,539	1,712	1,550	5,367	18,860	28.5
1992	0	66	957	1,023	678	588	740	1,701	11,229	15.1
1993	0	86	826	912	1,492	719	360	2,405	8,143	29.5
1994	14	443	1,862	2,319	2,598	1,806	1,881	4,917	12,933	38.0
1995	1	151	1,496	1,648	2,652	1,403	896	4,300	8,424	51.0
1996	0	261	2,061	2,322	4,204	2,087	952	6,526	13,415	48.6
1997	2	141	807	950	2,589	608	515	3,538	9,673	36.6
1998	0	237	2,634	2,871	3,156	2,568	1,297	6,027	15,897	37.9
1999	3	276	2,371	2,650	2,211	2,493	1,390	4,862	11,330	42.9
2000	1	66	1,362	1,429	2,911	1,215	853	4,340	15,556	27.9
2001	0	82	1,694	1,777	4,253	1,258	1,088	6,030	14,937	40.4
2002	3	113	1,756	1,872	4,147	1,616	1,010	6,018	13,986	43.0
2003	0	74	2,255	2,329	3,550	1,904	1,432	5,879	11,187	52.6
2004	1	236	3,507	3,744	7,183	3,546	2,432	10,927	17,575	62.2
2005	0	204	1,690	1,894	3,911	1,752	1,260	5,805	13,524	42.9
2006	0	127	1,268	1,395	3,237	1,141	875	4,632	11,936	38.8
2007	0	108	2,028	2,136	2,820	1,711	1,537	4,956	11,248	44.1
2008	1	4,110	3,284	7,396	3,113	7,075	6,103	10,509	19,387	54.2

Table IV-7. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 7. There is no foraging zone designated for this area.

Pollock Catch by Zones 1991-2008 in Area 7

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	164	3,251	6,228	9,643	0	6,131	6,105	9,643	26,985	35.7
1992	231	1,030	3,851	5,112	0	2,602	3,203	5,112	11,758	43.5
1993	1,537	4,049	9,966	15,553	0	8,833	11,001	15,553	20,935	74.3
1994	20	2,066	5,715	7,801	0	3,084	6,511	7,801	13,845	56.3
1995	86	2,764	11,945	14,796	0	9,172	8,333	14,796	26,771	55.3
1996	614	4,544	8,993	14,151	0	1,372	13,462	14,151	22,237	63.6
1997	819	7,475	3,107	11,400	0	1,225	10,891	11,400	22,964	49.6
1998	7,786	11,317	3,558	22,661	0	616	22,743	22,661	28,243	80.2
1999	1,656	8,952	6,970	17,579	0	719	17,578	17,579	18,370	95.7
2000	4	137	6,345	6,486	0	1,365	6,462	6,486	20,996	30.9
2001	38	888	9,774	10,700	0	1,783	10,698	10,700	27,726	38.6
2002	0	4,509	3,216	7,725	0	2,123	7,723	7,725	16,944	45.6
2003	0	5,961	5,329	11,290	0	1,653	11,253	11,290	14,528	77.7
2004	0	3,728	9,469	13,197	0	5	13,192	13,197	20,860	63.3
2005	920	9,274	6,439	16,633	0	3	16,633	16,633	26,945	61.7
2006	0	2,643	7,087	9,730	0	1,700	9,730	9,730	16,577	58.7
2007	709	2,166	4,716	7,591	0	13	7,584	7,591	16,708	45.4
2008	0	6,020	3,751	9,771	0	184	9,724	9,771	13,986	69.9

Pacific Cod Catch by Zones 1991-2008 in Area 7

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	633	10,743	14,230	25,606	0	16,915	21,234	25,606	30,146	84.9
1992	228	5,583	21,796	27,606	0	12,620	21,210	27,606	35,168	78.5
1993	73	6,843	7,855	14,771	0	1,172	14,692	14,771	17,109	86.3
1994	1,292	4,804	5,854	11,950	0	4,075	11,570	11,950	13,049	91.6
1995	153	6,159	9,196	15,508	0	7,974	11,336	15,508	19,954	77.7
1996	317	7,322	6,785	14,423	0	7,656	13,311	14,423	18,179	79.3
1997	2,857	9,765	7,068	19,689	0	11,634	17,835	19,689	21,717	90.7
1998	297	7,809	9,609	17,714	0	7,687	17,374	17,714	18,649	95.0
1999	687	9,494	7,053	17,234	0	7,902	16,846	17,234	19,884	86.7
2000	64	8,393	6,241	14,697	0	7,953	14,069	14,697	17,811	82.5
2001	131	2,467	5,961	8,559	0	2,236	8,464	8,559	13,012	65.8
2002	9	4,554	6,008	10,571	0	2,720	9,747	10,571	16,508	64.0
2003	18	8,662	4,877	13,557	0	5,740	9,019	13,557	20,274	66.9
2004	0	3,604	7,938	11,542	0	2,079	9,792	11,542	20,261	57.0
2005	0	5,973	3,857	9,831	0	843	9,814	9,831	18,070	54.4
2006	0	2,491	6,831	9,322	0	1,457	9,256	9,322	15,842	58.8
2007	0	1,514	13,566	15,080	0	3,689	11,425	15,080	21,860	69.0
2008	26	4,831	7,173	12,030	0	5,191	9,939	12,030	18,661	64.5

Table IV-7. Catch in RCA 7 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 7

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	51	5	56	0	5	52	56	70	80.2
1992	0	0	0	0	0	0	0	0	96	0.0
1993	0	0	87	87	0	78	9	87	115	75.5
1994	3	12	167	182	0	174	9	182	234	77.9
1995	0	19	106	126	0	96	33	126	228	55.3
1996	0	0	113	113	0	108	7	113	400	28.2
1997	0	1	0	1	0	0	1	1	5	25.0
1998	1	0	112	113	0	112	113	113	114	99.2
1999	106	12	0	118	0	0	118	118	255	46.5
2000	0	0	0	0	0	0	0	0	166	0.1
2001	0	0	21	22	0	11	10	22	48	44.5
2002	0	1	15	15	0	0	15	15	54	28.5
2003	0	100	42	141	0	112	129	141	417	33.9
2004	0	69	93	162	0	88	75	162	777	20.9
2005	0	0	120	120	0	27	92	120	410	29.2
2006	0	0	81	81	0	2	79	81	556	14.5
2007	0	0	510	510	0	501	9	510	1,274	40.0
2008	0	174	459	633	0	502	327	633	1,734	36.5

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 7

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	7	124	197	328	0	123	310	328	2,294	14.3
1992	16	266	643	925	0	292	808	925	1,553	59.6
1993	4	127	204	336	0	20	329	336	1,532	21.9
1994	123	202	535	860	0	363	764	860	1,152	74.7
1995	6	78	224	307	0	36	292	307	1,204	25.5
1996	3	96	190	289	0	59	282	289	1,795	16.1
1997	2	52	206	260	0	68	221	260	2,109	12.3
1998	25	282	116	424	0	72	409	424	2,083	20.3
1999	38	607	733	1,378	0	46	1,365	1,378	2,917	47.3
2000	2	73	214	289	0	85	277	289	2,641	10.9
2001	5	229	632	866	0	79	847	866	3,948	21.9
2002	0	108	200	307	0	11	304	307	2,377	12.9
2003	0	447	1,872	2,320	0	270	2,209	2,320	6,497	35.7
2004	0	535	610	1,146	0	102	1,084	1,146	2,573	44.5
2005	31	768	293	1,092	0	23	1,089	1,092	2,299	47.5
2006	0	245	194	439	0	8	432	439	1,765	24.9
2007	95	270	542	908	0	35	887	908	2,723	33.3
2008	0	616	383	999	0	200	837	999	2,919	34.2

Table IV-8. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 8.

Pollock Catch by Zones 1991-2008 in Area 8

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	53	867	3,745	4,665	2,130	120	4,581	6,795	7,705	88.2
1992	2	2,446	7,424	9,872	4,873	2,607	9,825	14,745	17,237	85.5
1993	1,006	6,532	6,337	13,874	1,614	407	13,864	15,489	23,788	65.1
1994	0	1,368	7,567	8,935	6,604	365	8,714	15,539	22,237	69.9
1995	18	379	5,667	6,064	6,197	391	5,791	12,261	13,080	93.7
1996	13	1,463	5,269	6,745	4,718	616	6,424	11,463	12,297	93.2
1997	1,403	7,042	12,147	20,592	9,348	154	20,582	29,940	32,812	91.2
1998	2,081	7,538	13,269	22,888	12,155	4	22,885	35,043	48,891	71.7
1999	0	787	15,060	15,848	14,941	46	15,731	30,789	38,312	80.4
2000	198	7,911	3,355	11,464	149	18	11,456	11,614	11,722	99.1
2001	0	456	13,974	14,429	783	7	14,427	15,212	15,404	98.8
2002	0	1,548	3,892	5,440	2,424	1	5,439	7,863	18,337	42.9
2003	0	292	13,559	13,851	341	7	13,850	14,192	19,455	72.9
2004	0	299	14,741	15,041	2,287	1	15,040	17,328	19,646	88.2
2005	0	2,020	16,953	18,973	467	1	18,972	19,440	27,370	71.0
2006	0	1,227	18,751	19,979	476	11	19,979	20,455	25,831	79.2
2007	0	5,550	8,179	13,729	407	4	13,729	14,136	17,381	81.3
2008	0	513	6,922	7,434	10,766	34	7,432	10,194	17,225	59.2

Pacific Cod Catch by Zones 1991-2008 in Area 8

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2,226	3,237	8,117	13,580	731	6,477	7,398	14,311	16,871	84.8
1992	15	1,012	8,452	9,480	694	6,070	3,625	10,174	15,076	67.5
1993	92	1,067	3,065	4,224	1,993	1,239	3,250	6,217	9,096	68.3
1994	0	69	6,675	6,744	480	5,153	1,897	7,224	9,182	78.7
1995	279	886	7,683	8,849	1,124	6,046	2,826	9,973	12,021	83.0
1996	109	590	9,463	10,161	2,833	7,670	2,890	12,995	19,692	66.0
1997	141	734	6,582	7,458	1,433	4,082	4,473	8,891	10,613	83.8
1998	47	443	6,319	6,809	2,314	3,426	3,507	9,123	10,772	84.7
1999	82	442	1,974	2,498	2,682	253	2,380	5,180	11,965	43.3
2000	12	388	1,119	1,519	699	82	1,454	2,218	5,702	38.9
2001	0	1	1,191	1,192	696	360	1,054	1,888	4,428	42.6
2002	57	84	679	820	842	237	760	1,662	6,524	25.5
2003	0	72	3,994	4,066	172	411	3,715	4,238	6,983	60.7
2004	160	1,220	2,085	3,465	1,155	61	3,462	4,620	7,346	62.9
2005	0	23	904	927	488	73	925	1,415	1,630	86.8
2006	0	8	792	800	1,766	175	782	2,566	3,935	65.2
2007	0	15	36	52	2,175	21	51	2,226	4,063	54.8
2008	0	35	550	585	8,006	35	573	8,591	11,481	74.8

Table IV-8. Catch in RCA 8 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 8

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	13	1	14	0	1	13	14	14	100.0
1992	0	0	0	0	0	0	0	0	14	0.0
1993	0	0	1,074	1,074	0	1,119	0	1,074	2,017	53.2
1994	0	0	619	619	0	619	0	619	875	70.8
1995	2	0	36	38	0	36	2	38	332	11.4
1996	0	0	4	4	0	4	0	4	4	99.2
1997	0	2	1	4	0	1	2	4	5	75.2
1998	0	0	6	6	0	6	6	6	6	100.0
1999	0	0	0	0	0	0	0	0	0	5.4
2000	0	0	0	0	1	0	0	1	1	100.0
2001	0	0	4	4	0	4	2	4	6	61.4
2002	0	0	0	0	0	0	0	0	5	7.1
2003	0	0	3	3	0	2	1	3	138	1.9
2004	0	0	2	2	0	2	0	2	28	7.7
2005	0	0	2	2	0	2	0	2	379	0.5
2006	0	0	3	3	0	0	3	3	269	1.0
2007	0	0	0	0	0	0	0	0	154	0.1
2008	0	0	0	0	0	0	0	0	316	0.1

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 8

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2	29	1,019	1,050	4	736	830	1,055	2,117	49.8
1992	1	110	1,149	1,260	139	990	971	1,400	3,524	39.7
1993	0	23	1,040	1,063	37	1,032	661	1,101	3,185	34.5
1994	0	86	3,602	3,687	1,482	3,068	3,462	5,169	8,418	61.4
1995	24	36	980	1,039	1,155	815	741	2,194	4,773	46.0
1996	32	794	2,605	3,431	1,824	2,097	3,254	5,255	9,224	57.0
1997	66	390	950	1,406	676	600	1,164	2,082	4,448	46.8
1998	2	223	862	1,086	499	311	922	1,585	3,280	48.3
1999	1	18	1,284	1,304	1,084	1,004	972	2,388	4,360	54.8
2000	0	189	1,324	1,513	58	957	1,134	1,571	4,591	34.2
2001	0	11	1,256	1,267	54	396	1,003	1,321	3,873	34.1
2002	0	115	1,503	1,618	632	1,016	1,452	2,250	5,083	44.3
2003	0	336	3,609	3,944	532	1,056	3,850	4,476	8,747	51.2
2004	0	44	723	768	651	188	765	1,419	2,266	62.6
2005	0	570	3,502	4,071	250	384	4,048	4,322	5,645	76.6
2006	0	166	5,880	6,046	1,024	1,015	6,020	7,070	8,397	84.2
2007	0	75	1,535	1,610	2,272	294	1,607	3,882	5,295	73.3
2008	0	248	1,721	1,969	477	27	1,963	2,446	4,253	57.5

Table IV-9. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 9.

Pollock Catch by Zones 1991-2008 in Area 9

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	2,616	14,928	20,825	38,369	1,064	1,347	37,873	39,433	46,287	85.2
1992	1,763	8,629	32,806	43,197	621	91	43,181	43,818	53,850	81.4
1993	4,690	19,049	32,884	56,623	5,270	10,950	55,837	61,893	63,221	97.9
1994	1,836	20,114	34,108	56,058	2,509	15,663	55,524	58,567	60,933	96.1
1995	19	2,114	19,610	21,743	172	1,756	21,738	21,915	23,255	94.2
1996	103	1,768	7,798	9,668	7	2,281	9,668	9,675	11,803	82.0
1997	303	5,121	13,067	18,491	415	1,103	18,490	18,906	20,405	92.7
1998	521	10,182	19,690	30,393	478	3,114	30,128	30,871	33,348	92.6
1999	200	5,021	22,366	27,587	62	2,931	27,587	27,650	28,876	95.8
2000	2	3,252	15,345	18,599	3,982	8,340	18,553	22,581	35,074	64.4
2001	23	4,996	15,431	20,450	697	6,589	20,436	21,147	22,258	95.0
2002	0	252	10,991	11,244	351	1,251	11,233	11,595	12,951	89.5
2003	0	1,668	8,964	10,631	202	2,534	10,631	10,833	11,229	96.5
2004	1	849	17,832	18,682	66	6,147	18,715	18,748	19,296	97.2
2005	0	2,589	15,995	18,584	308	6,221	18,580	18,892	19,147	98.7
2006	164	2,517	12,972	15,653	53	2,417	15,653	15,707	17,110	91.8
2007	0	1,446	13,473	14,920	43	6,504	15,046	14,963	16,184	92.5
2008	162	1,205	11,710	13,077	20	4,456	13,073	13,084	16,314	80.2

Pacific Cod Catch by Zones 1991-2008 in Area 9

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	71	4,604	7,894	12,569	801	3,416	11,789	13,370	24,458	54.7
1992	167	5,142	8,977	14,286	30	3,399	13,564	14,316	21,154	67.7
1993	84	2,982	4,536	7,602	49	1,297	6,547	7,650	22,809	33.5
1994	28	1,734	5,699	7,461	210	620	7,336	7,671	15,750	48.7
1995	135	3,367	8,423	11,925	1,210	2,320	11,139	13,135	27,837	47.2
1996	26	2,492	7,444	9,961	12	2,242	9,612	9,974	19,413	51.4
1997	169	7,141	9,367	16,677	75	910	16,147	16,751	29,899	56.0
1998	24	4,484	8,273	12,781	33	2,515	12,227	12,814	29,904	42.9
1999	40	4,751	7,566	12,357	0	1,811	11,930	12,357	30,377	40.7
2000	19	8,794	3,661	12,475	27	4,906	12,336	12,502	25,856	48.4
2001	202	3,042	7,800	11,045	398	3,974	7,906	11,442	21,895	52.3
2002	3	508	3,790	4,300	47	226	4,179	4,347	15,487	28.1
2003	0	4,565	4,096	8,660	236	337	8,577	8,897	22,761	39.1
2004	87	7,214	7,031	14,332	129	1,113	14,289	14,461	27,111	53.3
2005	163	7,489	4,098	11,751	198	5,290	11,327	11,948	24,380	49.0
2006	127	1,817	4,410	6,355	37	910	6,210	6,392	19,968	32.0
2007	13	3,426	8,283	11,721	0	1,449	11,553	11,721	21,968	53.4
2008	24	2,971	8,721	11,716	13	2,546	11,447	11,728	24,226	48.4

Table IV-9. Catch in RCA 9 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 9

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	0	0	0	0	0	0	0	0	0.0
1992	0	0	0	0	0	0	0	0	4	0.0
1993	0	8	0	8	0	0	8	8	8	97.2
1994	0	0	1	1	0	0	1	1	2	38.1
1995	0	21	1	23	0	0	23	23	38	59.9
1996	0	0	0	0	0	0	0	0	4	0.0
1997	0	3	0	3	0	0	3	3	3	100.0
1998	0	0	24	24	0	0	24	24	32	74.7
1999	0	0	0	0	0	0	0	0	1	0.0
2000	0	0	0	0	0	0	0	0	0	0.0
2001	0	0	1	1	0	0	1	1	6	13.1
2002	0	0	0	0	0	0	0	0	24	0.0
2003	0	0	1	1	0	0	1	1	21	3.7
2004	0	1	1	1	0	0	1	1	9	15.7
2005	0	1	1	1	0	0	1	1	5	25.2
2006	0	8	12	20	0	0	20	20	45	43.8
2007	0	12	3	15	0	0	15	15	21	69.5
2008	0	0	0	1	0	0	1	1	4	14.8

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 9

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	7	207	764	979	0	81	955	1,076	11,417	9.4
1992	96	928	2,687	3,710	48	222	3,668	3,758	14,876	25.3
1993	39	788	1,659	2,487	8	343	2,393	2,494	13,101	19.0
1994	14	758	2,356	3,128	88	266	3,100	3,217	12,341	26.1
1995	12	908	1,719	2,639	20	306	2,572	2,659	11,065	24.0
1996	25	596	1,437	2,059	6	188	2,034	2,065	10,239	20.2
1997	21	1,047	2,496	3,563	326	238	3,481	3,890	7,987	48.7
1998	7	417	1,006	1,430	99	352	1,196	1,529	6,175	24.8
1999	8	336	929	1,272	0	267	1,271	1,272	7,192	17.7
2000	4	1,274	1,970	3,248	41	483	3,034	3,289	12,762	25.8
2001	3	1,390	3,096	4,488	50	672	4,459	4,537	9,521	47.7
2002	0	245	2,114	2,359	77	1,063	1,914	2,436	9,785	24.9
2003	0	910	5,740	6,650	702	2,625	5,826	7,351	13,355	55.0
2004	0	287	5,333	5,620	276	1,244	4,923	5,895	10,054	58.6
2005	0	1,434	6,484	7,918	959	872	7,524	8,877	11,486	77.3
2006	59	3,784	6,720	10,563	1,235	190	10,570	11,798	17,087	69.0
2007	19	3,733	6,128	9,880	0	531	9,867	9,880	16,764	58.9
2008	0	1,560	4,639	6,199	454	406	6,125	6,653	22,043	30.2

Table IV-10. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder by critical habitat zone, 1991-2008 in RCA 10. There is no SSL foraging CH in this area.

Pollock Catch by Zones 1991-2008 in Area 10

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	0	193	193	0	0	193	193	5,704	3.4
1992	0	9	19	28	0	1	27	28	254	10.8
1993	0	21	46	67	0	5	67	67	689	9.8
1994	1	346	2,826	3,173	0	17	3,172	3,173	6,880	46.1
1995	0	1,700	844	2,545	0	2	2,544	2,545	5,857	43.4
1996	0	924	1,372	2,296	0	2	2,179	2,296	2,961	77.5
1997	0	841	4,984	5,825	0	0	5,691	5,825	10,451	55.7
1998	0	2,229	8,688	10,917	0	0	10,917	10,917	13,672	79.8
1999	0	481	1,566	2,047	0	0	2,047	2,047	5,418	37.8
2000	0	414	1,561	1,975	0	0	1,975	1,975	4,048	48.8
2001	0	0	0	0	0	0	0	0	3,943	0.0
2002	0	1	726	727	0	0	727	727	3,180	22.9
2003	0	768	2,155	2,924	0	0	2,924	2,924	3,484	83.9
2004	0	0	748	748	0	0	748	748	1,353	55.3
2005	0	412	1,954	2,366	0	0	2,366	2,366	3,391	69.8
2006	0	576	626	1,202	0	0	1,202	1,202	4,237	28.4
2007	0	41	386	427	0	0	427	427	596	71.6
2008	0	0	701	701	0	1	700	701	1,166	60.1

Pacific Cod Catch by Zones 1991-2008 in Area 10

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	0	507	507	0	2	505	507	1,063	47.7
1992	123	2,182	1,744	4,049	0	1,319	3,389	4,049	5,345	75.7
1993	0	1,219	2,992	4,211	0	0	4,211	4,211	5,708	73.8
1994	104	2,055	3,036	5,195	0	1,020	5,142	5,195	5,828	89.1
1995	29	3,742	1,827	5,598	0	45	5,675	5,598	6,466	86.6
1996	52	4,855	3,409	8,315	0	3,571	8,315	8,315	9,112	91.3
1997	3	1,371	662	2,036	0	18	2,036	2,036	4,206	48.4
1998	0	629	331	960	0	33	927	960	1,248	76.9
1999	0	490	1,324	1,813	0	94	1,719	1,813	2,399	75.6
2000	0	88	46	134	0	0	134	134	362	37.0
2001	0	158	828	986	0	947	981	986	1,021	96.6
2002	0	1,286	1,655	2,942	0	754	2,942	2,942	3,220	91.4
2003	0	357	494	852	0	24	852	852	968	88.0
2004	0	24	11	35	0	0	35	35	164	21.5
2005	0	0	0	0	0	0	0	0	85	0.0
2006	0	327	65	392	0	0	392	392	402	97.5
2007	0	54	284	338	0	124	338	338	433	78.2
2008	248	574	1,038	1,860	0	822	1,860	1,860	2,109	88.2

Table IV-10. Catch in RCA 10 (Continued).

Atka Mackerel Catch by Zones 1991-2008 in Area 10

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	0	0	0	0	0	0	0	0	0.0
1992	0	0	0	0	0	0	0	0	0	0.0
1993	0	0	0	0	0	0	0	0	0	0.0
1994	0	0	0	0	0	0	0	0	0	0.0
1995	0	0	0	0	0	0	0	0	0	0.0
1996	0	0	0	0	0	0	0	0	0	0.0
1997	0	0	0	0	0	0	0	0	0	0.0
1998	0	0	0	0	0	0	0	0	0	0.0
1999	0	0	0	0	0	0	0	0	0	0.0
2000	0	0	0	0	0	0	0	0	0	0.0
2001	0	0	0	0	0	0	0	0	0	0.0
2002	0	0	0	0	0	0	0	0	0	0.0
2003	0	0	0	0	0	0	0	0	0	0.0
2004	0	0	0	0	0	0	0	0	1	0.0
2005	0	0	0	0	0	0	0	0	0	0.0
2006	0	0	0	0	0	0	0	0	0	0.0
2007	0	0	0	0	0	0	0	0	0	0.0
2008	0	0	0	0	0	0	0	0	0	0.0

Arrowtooth Flounder Catch by Zones 1991-2008, Analysis Area 10

Year	0-3	3-10	10-20	0-20	Foraging	Rookery	Haulout	Total CH	Total Catch	CH %
1991	0	1	29	30	0	3	27	30	396	7.5
1992	1	29	346	375	0	23	364	375	1,225	30.6
1993	0	21	43	64	0	4	64	64	750	8.5
1994	0	42	59	101	0	24	99	101	816	12.4
1995	0	76	216	292	0	2	292	292	1,028	28.4
1996	0	128	155	283	0	13	283	283	865	32.7
1997	0	23	95	118	0	1	118	118	526	22.4
1998	0	29	140	168	0	6	162	168	487	34.5
1999	0	19	195	214	0	7	207	214	752	28.5
2000	0	34	83	117	0	0	117	117	621	18.8
2001	0	7	36	43	0	1	42	43	345	12.5
2002	0	5	44	49	0	0	49	49	159	31.1
2003	0	0	39	39	0	0	39	39	144	27.3
2004	0	0	17	17	0	0	17	17	137	12.4
2005	0	1	12	13	0	0	13	13	82	16.1
2006	0	1	24	25	0	0	25	25	85	29.2
2007	0	0	24	24	0	0	24	24	149	16.4
2008	0	0	22	22	0	5	18	22	130	17.3

Table IV-11. The catch (mt) of pollock, Pacific cod, Atka mackerel, and arrowtooth flounder, 1991-2008 in the SEAK area.

	Total Catch by Species this Area			
Year	Pollock	Pacific cod	Atka Mackerel	Arrow Tooth Flounder
1991	4	171	0	80
1992	18	4	0	495
1993	0	392	0	383
1994	12	104	0	204
1995	0	148	0	161
1996	3	296	0	204
1997	94	122	0	829
1998	0	200	0	68
1999	0	414	0	113
2000	7	109	0	91
2001	0	77	0	105
2002	0	12	0	41
2003	0	95	0	21
2004	0	142	0	24
2005	0	40	0	19
2006	0	54	0	43
2007	1	33	0	29
2008	1	52	0	58

Table IV-12. Comparison of estimated biomass, total allowable catch (TAC), and estimated catch (expanded observer data in Appendix IV) for 1999 and 2008. Biomass data by NMFS Area based on NMFS survey mean values (tables 5.2 and 5.5). Bering Sea pollock and Pacific cod biomass based on the 2009 stock assessment.

		RCA	1	2	3	4	5	6	7	8	9	10
		NMFS Area	543	542		541		Bering Sea	610	620	630	640
Pollock	1999	Biomass	15,052	36,424		44,532		10,421,000	315,713		339,191	
		TAC			2,000			992,000	23,120	38,840	30,520	2,110
		Total Catch	112	259	371	202	66	994,545	23,385	38,312	28,876	5,418
		Catch in CH	84	165	368	194	47	320,246	17,579	30,789	27,650	2,047
	2008	Biomass	7,748	32,762		87,076		3,809,000	150,084		226,771	
		TAC			19,000			1,000,000	17,602	19,181	13,640	1,517
		Total Catch	114	123	168	470	404	992,601	13,986	17,225	16,314	1,166
		Catch in CH	70	33	168	68	343	246,522	9,771	10,194	13,084	701
Pacific cod	1999	Biomass	30,528	40,067		53,124		1,422,590	140,108		259,755	
		TAC				210,000			23,630	42,935		1,270
		Total Catch	2,232	3,811	1,876	11905	7,341	149,538	19,884	11,965	30,377	2,399
		Catch in CH	1,933	3,680	1,828	10,928	5,535	44,758	17,234	5,180	12,357	1,813
	2008	Biomass	17,302	20,152		39,804		998,912	128,512		214,601	
		TAC				146,837			19,449	28,426		2,394
		Total Catch	9,151	2,870	1,441	6,910	11,821	140,492	18,661	11,481	24,226	2,109
		Catch in CH	8,709	2,529	1,440	5,708	8,935	32,872	12,030	8,591	11,728	1,860
Atka mackerel	1999	Biomass	226,121	196,433		93,829			123,583		568	
		TAC	27,000	22,400		17,000		--		600		
		Total Catch	16,388	14,269	8,040	554	14,677	2,314	255	0	1	0
		Catch in CH	11,803	4,016	8,027	552	3,660	2,175	118	0	0	0
	2008	Biomass	243,692	268,957		295,765			91,670		2,847	
		TAC	16,900	24,300		19,500		--		1,500		
		Total Catch	16,509	17,917	4,560	53	18,650	447	1,734	316	4	0
		Catch in CH	5,955	8,571	4,560	52	196	408	633	0.3	1	0

Table IV-1999-2008-Area 1. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 1. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 1.

Proportion

Area 1		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 1	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0	4.9	70.3		75.2	519.20%	-58.60%	-20.60%	84	-22.90%	112	-2.90%	
	2008	0	30.6	29.1		59.7				65		108		
P. Cod Trawl	1999	0	0.3	82		82.4	4452.10%	0.50%	18.60%	685	644.30%	832	527.70%	increase
	2008	0	15.2	82.5		97.7				5,102		5,223		
P. Cod Pot	1999	0.3	34.6	61.5		96.4	-100.00%	-100.00%	-100.00%	1,167	-100.00%	1,211	-100.00%	decrease
	2008	0	0	0		0				0		0		
P. Cod Longline	1999	0	0	42.3		42.3	0	-10.70%	116.90%	80	4405.80%	189	1977.10%	increase
	2008	0	54	37.8		91.9				3,608		3,927		
Atka Mackerel Trawl	1999	0	0	72		72	0	-50.00%	-50.00%	11,802	-49.70%	16,387	0.60%	
	2008	0	0	36		36				5,942		16,492		

Amounts (mt)

Area 1		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 1999 to 2008				AMT (mt) catch in CH, Area 1	AMT change in amount of fish removed from CH	Total Catch Area 1	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	0	6	78		84	0	28	-47		84	-19	112	-3	
	2008	0	33	32		65					65		108		
P. Cod Trawl	1999	0	3	683		685	0	792	3,625		685	4,416	832	4,391	increase
	2008	0	794	4307		5,102					5,102		5,223		
P. Cod Pot	1999	4	419	745		1,167	-4	-419	-745		1,167	-1,167	1,211	-1,211	decrease
	2008	0	0	0		0					0		0		
P. Cod Longline	1999	0	0	80		80	0	2,123	1,405		80	3,528	189	3,738	increase
	2008	0	2123	1485		3,608					3,608		3,927		
Atka Mackerel Trawl	1999	0	0	11802		11,802	0	5	-5,865		11,802	-5,860	16,387	105	
	2008	0	5	5937		5,942					5,942		16,492		

Table IV-1999-2008-Area 1 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 1. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 1.

Total Catch All Gear

Proportion

Area 1		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 1	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0	4.9	70.3	0	75.2	540.80%	-58.10%	-18.70%	84	-17.00%	112	2.10%	
	2008	0	31.7	29.5	0	61.2				70		114		
Pacific Cod	1999	0.2	18.9	67.5	0	86.6	68.80%	-6.30%	9.90%	1,933	350.60%	2,232	309.90%	increase
	2008	0	31.9	63.3	0	95.2				8,709		9,151		
Atka Mackerel	1999	0	0	72	0	72	100%	-50.00%	-49.90%	11,803	-49.50%	16,388	0.70%	
	2008	0	0.1	36	0	36.1				5,955		16,509		
Arrowtooth Flounder	1999	0	0.1	57	0	57	13970.90%	-77.90%	-59.10%	52	-10.90%	92	117.90%	
	2008	0	10.7	12.6	0	23.3				47		200		
% all four species	1999	0	2.3	71.4	0	73.7	407.20%	-36.40%	-22.80%	13,872	6.60%	18,824	**38.00%**	increase
	2008	0	11.5	45.4	0	56.9				14,781		25,974		

Amounts (mt)

Area 1		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 1999 to 2008				AMT (mt) catch in CH Area 1	AMT change in amount of fish removed from CH	Total Catch Area 1	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	6	78	0	84	0	31	-45	0	84	-14	112	2	
	2008	0	36	34	0	70					70		114		
Pacific Cod	1999	4	422	1507	0	1,933	-4	2,495	4,285	0	1,933	6,777	2,232	6,918	increase
	2008	0	2917	5793	0	8,709					8,709		9,151		
Atka Mackerel	1999	0	0	11803	0	11,803	0	15	-5,863	0	11,803	-5,848	16,388	121	
	2008	0	15	5940	0	5,955					5,955		16,509		
Arrowtooth Flounder	1999	0	0	52	0	52	0	21	-27	0	52	-6	92	108	increase
	2008	0	21	25	0	47					47		200		
Sum all four species	1999	4	427	13441	0	13,872	-4	2,562	-1,650	0	13,872	909	18,824	7,150	increase
	2008	0	2989	11792	0	14,781					14,781		25,974		

Table IV-1999-2008-Area 2. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 2. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 2.

Proportion

Area 2		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 2	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	1.4	27.4	35.3	0	64	-97.00%	-28.40%	-59.30%	164	-80.70%	256	-52.50%	decrease
	2008	0	0.8	25.2	0	26.1				32		121		
P. Cod Trawl	1999	0	8.4	62.4	0	70.8	266.30%	-41.20%	-5.00%	307	128.10%	433	140.10%	increase
	2008	0	30.6	36.7	0	67.3				700		1,040		
P. Cod Pot	1999	5	77.2	17.9	0	100	-100.00%	- 100.00%	- 100.00%	413	-100.00%	413	-100.00%	decrease
	2008	0	0	0	0	0				0		0		
P. Cod Longline	1999	0.4	81.2	18.3	0	99.8	6.10%	-39.10%	0.20%	2,960	-38.20%	2,965	-38.30%	decrease
	2008	2.7	86.1	11.1	0	100				1,830		1,830		
Atka Mackerel Trawl	1999	0	0.4	27.4	0	27.9	97.30%	71.00%	71.40%	3,961	115.90%	14,213	25.90%	increase
	2008	0	0.8	46.9	0	47.8				8,551		17,898		

Amounts (mt)

Area 2		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 2	AMT change in amount of fish removed from CH	Total Catch Area 2	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	3	70	90	0	164	-3	-69	-59	0	164	-132	256	-134	decrease
	2008	0	1	31	0	32					32		121		
P. Cod Trawl	1999	0	36	270	0	307	0	282	111	0	307	393	433	607	increase
	2008	0	318	381	0	700					700		1,040		
P. Cod Pot	1999	21	318	74	0	413	-21	-318	-74	0	413	-413	413	-413	decrease
	2008	0	0	0	0	0					0		0		
P. Cod Longline	1999	11	2407	542	0	2,960	39	-831	-339	0	2,960	-1,131	2,965	-1,136	decrease
	2008	50	1576	204	0	1,830					1,830		1,830		
Atka Mackerel Trawl	1999	0	61	3900	0	3,961	0	90	4,500	0	3,961	4,590	14,213	3,684	increase
	2008	0	150	8401	0	8,551					8,551		17,898		

Table IV-1999-2008-Area 2 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 2. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 2.

Total Catch All Gear

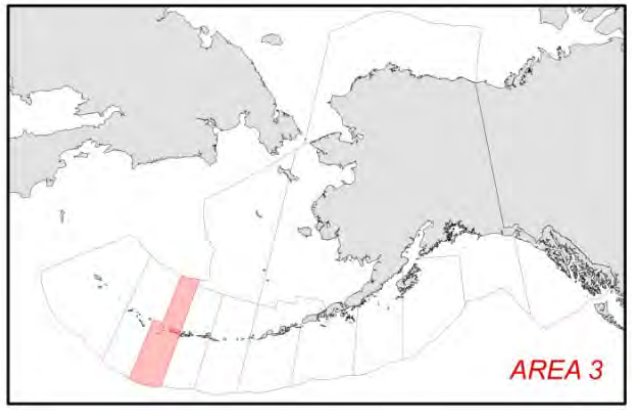
Proportion

Area 2		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 2	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	1.3	27.4	34.8	0	63.6	-95.50%	-26.70%	-57.80%	165	-80.00%	259	-52.70%	decrease
	2008	0.1	1.2	25.5	0	26.8				33		123		
Pacific Cod	1999	0.8	72.5	23.3	0	96.6	-8.90%	-12.30%	-8.70%	3,680	-31.30%	3,811	-24.70%	decrease
	2008	1.7	66	20.4	0	88.1				2,529		2,870		
Atka Mackerel	1999	0	0.7	27.5	0	28.1	35.50%	70.80%	70.00%	4,016	113.40%	14,269	25.60%	increase
	2008	0	0.9	46.9	0	47.8				8,571		17,917		
Arrowtooth Flounder	1999	1	4.5	27.6	0	33	-35.30%	36.30%	23.20%	48	-23.00%	146	-37.50%	decrease
	2008	0.2	2.9	37.6	0	40.7				37		91		
% all four species	1999	0.2	15.9	26.7	0	42.8	-38.10%	61.50%	24.30%	7,909	41.20%	18,485	**13.60%**	increase
	2008	0.2	9.8	43.1	0	53.2				11,170		21,001		

Amounts (mt)

Area 2		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 2	AMT change in amount of fish removed from CH	Total Catch Area 2	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	3	71	90	0	165	-3	-70	-59	0	165	-132	259	-137	decrease
	2008	0	2	31	0	33					33		123		
Pacific Cod	1999	32	2761	886	0	3,680	18	-867	-301	0	3,680	-1,150	3,811	-941	decrease
	2008	50	1894	585	0	2,529					2,529		2,870		
Atka Mackerel	1999	0	98	3918	0	4,016	0	69	4,486	0	4,016	4,555	14,269	3,649	increase
	2008	0	167	8404	0	8,571					8,571		17,917		
Arrowtooth Flounder	1999	1	7	40	0	48	-1	-4	-6	0	48	-11	146	-55	decrease
	2008	0	3	34	0	37					37		91		
Sum all four species	1999	37	2937	4935	0	7,909	13	-872	4,120	0	7,909	3,262	18,485	2,516	increase
	2008	50	2065	9055	0	11,170					11,170		21,001		

Table IV-1999-2008-Area 3. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 3. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 3.



Proportion

Area 3		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %								
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH	AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 3	as % change in amt caught from '99		
Pollock trawl	1999	2.6	78.4	18.2		99.2	-5.00%	18.10%	0.80%	366	-54.30%	369	-54.60%	decrease	
	2008	4	74.5	21.5		100				168		168			
P. Cod Trawl	1999	2.3	90.5	6.4		99.1	-47.80%	718.00%	0.70%	1,343	-58.50%	1,355	-58.80%	decrease	
	2008	0	47.2	52.6		99.8				558		559			
P. Cod Pot	1999	9.4	46	44.7		100	-100.00%	-100.00%	-100.00%	129	-100.00%	129	-100.00%	decrease	
	2008	0	0	0		0				0		0			
P. Cod Longline	1999	2.4	58.2	29.8		90.5	62.80%	-82.60%	10.50%	355	148.40%	392	124.90%	increase	
	2008	0	94.8	5.2		100				882		882			
Atka Mackerel Trawl	1999	2.9	85.4	11.6		99.8	-97.20%	741.50%	0.20%	8,019	-43.20%	8,033	-43.30%	decrease	
	2008	0	2.4	97.6		100				4,555		4,555			

Amounts (mt)

Area 3		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 3	AMT change in amount of fish removed from CH	Total Catch Area 3	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	10	289	67		366	-3	-165	-31	0	366	-199	369	-202	decrease
	2008	7	125	36		168					168		168		
P. Cod Trawl	1999	31	1225	87		1,343	-31	-962	207	0	1,343	-786	1,355	-796	decrease
	2008	0	264	294		558					558		559		
P. Cod Pot	1999	12	59	58		129	-12	-59	-58	0	129	-129	129	-129	decrease
	2008	0	0	0		0					0		0		
P. Cod Longline	1999	10	228	117		355	-10	608	-71	0	355	527	392	490	increase
	2008	0	836	46		882					882		882		
Atka Mackerel Trawl	1999	231	6856	932		8,019	-231	-6,749	3,515	0	8,019	-3,465	8,033	-3,478	decrease
	2008	0	107	4447		4,555					4,555		4,555		

Table IV-1999-2008-Area 3 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 3. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 3.

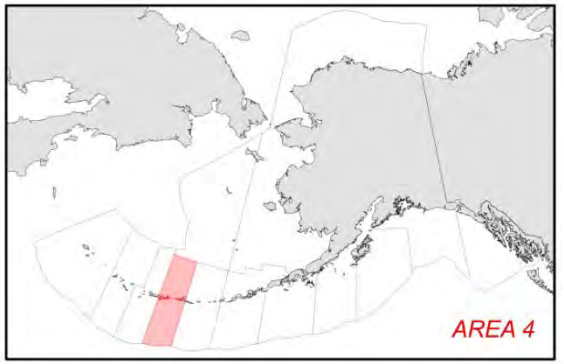
Total Catch All Gear

Proportion

Area 3		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 3	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	2.6	78.5	18.1	0	99.2	-5.00%	18.10%	0.80%	368	-54.30%	371	-54.70%	decrease
	2008	4	74.5	21.4	0	100				168		168		
Pacific Cod	1999	2.8	80.7	14	0	97.4	-5.40%	69.00%	2.60%	1,828	-21.20%	1,876	-23.20%	decrease
	2008	0	76.3	23.6	0	99.9				1,440		1,441		
Atka Mackerel	1999	2.9	85.4	11.6	0	99.8	-97.10%	741.20%	0.20%	8,027	-43.20%	8,040	-43.30%	decrease
	2008	0	2.5	97.5	0	100				4,560		4,560		
Arrowtooth Flounder	1999	1.7	81.4	12.9	0	96.1	-27.50%	183.90%	2.10%	163	-10.70%	169	-12.50%	decrease
	2008	2.3	59	36.7	0	98.1				145		148		
% all four species	1999	2.8	84.2	12.3	0	99.3	-73.20%	529.10%	0.60%	10,386	-39.20%	10,457	**-39.60%**	decrease
	2008	0.2	22.6	77.2	0	99.9				6,313		6,317		

Amounts (mt)

Area 3		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 3	AMT change in amount of fish removed from CH	Total Catch Area 3	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	10	291	67	0	368	-3	-166	-31	0	368	-200	371	-203	decrease
	2008	7	125	36	0	168					168		168		
Pacific Cod	1999	52	1513	262	0	1,828	-52	-414	78	0	1,828	-388	1,876	-436	decrease
	2008	0	1100	340	0	1,440					1,440		1,441		
Atka Mackerel	1999	231	6864	932	0	8,027	-231	-6,751	3,515	0	8,027	-3,467	8,040	-3,480	decrease
	2008	0	113	4447	0	4,560					4,560		4,560		
Arrowtooth Flounder	1999	3	138	22	0	163	1	-51	33	0	163	-17	169	-21	decrease
	2008	3	87	54	0	145					145		148		



Sum all four species	1999	296	8806	1283	0	10,386	-286	-7,381	3,594	0	10,386	-4,072	10,457	-4,140	decrease
	2008	10	1425	4877	0	6,313					6,313		6,317		

Table IV-1999-2008-Area 4. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 4. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 4.

Proportion

Area 4		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 4	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0	43.2	52.5		95.7	-89.60%	-81.10%	-85.00%	190	-64.50%	199	135.70%	increase
	2008	0	4.5	9.9		14.4				67		468		
P. Cod Trawl	1999	1.5	41	53.4		95.8	46.40%	-37.10%	-2.30%	8,557	-42.10%	8,931	-40.70%	decrease
	2008	0	60	33.6		93.6				4,958		5,297		
P. Cod Pot	1999	3.9	43.1	50.6		97.6	-100.00%	-100.00%	-100.00%	956	-100.00%	979	-58.10%	decrease
	2008	0	0	0		0				0		410		
P. Cod Longline	1999	4.7	29.7	36.6		71	22.30%	-28.70%	-12.10%	1,416	-47.00%	1,995	-39.70%	decrease
	2008	0	36.3	26.1		62.4				751		1,203		
Atka Mackerel Trawl	1999	0	93.6	6.1		99.6	5.60%	-91.90%	-0.30%	547	-91.00%	549	-90.90%	decrease
	2008	0	98.8	0.5		99.3				49		50		

Amounts (mt)

Area 4		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 4	AMT change in amount of fish	Total Catch Area 4	as AMT (mt) change
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging				

											removed from CH		in total caught from '99	
Pollock trawl	1999	0	86	104	190	0	-65	-58		190	-123	199	269	increase
	2008	0	21	46	67					67		468		
P. Cod Trawl	1999	130	3661	4765	8,557	-130	-482	-2,987		8,557	-3,599	8,931	-3,635	decrease
	2008	0	3179	1778	4,958					4,958		5,297		
P. Cod Pot	1999	39	422	495	956	-39	-422	-495		956	-956	979	-569	decrease
	2008	0	0	0	0					0		410		
P. Cod Longline	1999	94	593	730	1,416	-94	-155	-416		1,416	-665	1,995	-792	decrease
	2008	0	437	314	751					751		1,203		
Atka Mackerel Trawl	1999	0	514	33	547	0	-464	-33		547	-497	549	-499	decrease
	2008	0	49	0	49					49		50		

Table IV-1999-2008-Area 4 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 4. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 4.

Proportion

Area 4		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 4	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0.2	43.8	51.7	0	95.7	-89.40%	-80.90%	-84.80%	194	-64.70%	202	132.20%	increase
	2008	0	4.6	9.9	0	14.5				68		470		
Pacific Cod	1999	2.2	39.3	50.3	0	91.8	33.30%	-39.80%	-10.00%	10,928	-47.80%	11,905	-42.00%	decrease
	2008	0	52.3	30.3	0	82.6				5,708		6,910		
Atka Mackerel	1999	0.2	93.2	6.2	0	99.6	3.40%	-80.60%	-2.10%	552	-90.60%	554	-90.40%	decrease
	2008	0	96.4	1.2	0	97.6				52		53		
Arrowtooth Flounder	1999	1.7	38.3	45.5	0	85.5	-6.80%	-40.10%	-26.40%	102	-51.70%	119	-34.40%	decrease
	2008	0	35.7	27.3	0	63				49		78		
% all four species	1999	2.1	41.7	48.4	0	92.1	18.80%	-40.50%	-15.10%	11,776	-50.10%	12,781	-41.20%	decrease
	2008	0	49.5	28.8	0	78.3				5,878		7,511		

Amounts (mt)

Area 4		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 4	AMT change in amount of fish removed from CH	Total Catch Area 4	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	89	105		194	0	-67	-58	0	194	-125	202	267	increase
	2008	0	22	47		68					68		470		
Pacific Cod	1999	262	4676	5990		10,928	-262	-1,059	-3,898	0	10,928	-5,220	11,905	-4,995	decrease
	2008	0	3616	2092		5,708					5,708		6,910		

Atka Mackerel	1999	1	517	34		552	-1	-465	-34	0	552	-501	554	-501	decrease
	2008	0	51	1		52					52		53		
Arrowtooth Flounder	1999	2	46	54		102	-2	-18	-33	0	102	-53	119	-41	decrease
	2008	0	28	21		49					49		78		
Sum all four species	1999	266	5326	6183	0	11,776	-266	-1,609	-4,023	0	11,776	-5,898	12,781	-5,270	decrease
	2008	0	3717	2160	0	5,878					5,878		7,511		

Table IV-1999-2008-Area 5. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 5. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.

Proportion

Area 5		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 5	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0	0.5	64	0	64.5	573.80%	27.00%	31.50%	42	709.60%	66	515.80%	increase
	2008	0	3.4	81.3	0.1	84.8				342		403		
P. Cod Trawl	1999	0	0	65.6	0	65.7	-100.00%	13.70%	13.50%	3,208	155.00%	4,886	124.60%	increase
	2008	0	0	74.5	0	74.5				8,180		10,975		
P. Cod Pot	1999	54.9	37.8	4.2	0.5	97.3	-100.00%	-100.00%	-100.00%	119	-100.00%	122	-100.00%	decrease
	2008	0	0	0	0	0				0		0		
P. Cod Longline	1999	1.4	35	58.2	0	94.6	23.50%	-21.00%	-5.80%	2,207	-65.80%	2,333	-63.70%	decrease
	2008	0	43.2	46	0	89.2				755		846		
Atka Mackerel Trawl	1999	0	0	24.9	0	24.9	-98.20%	-95.80%	-95.80%	3,658	-94.70%	14,674	27.10%	increase
	2008	0	0	1	0	1				194		18,648		

Amounts (mt)

Area 5		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 5	AMT change in amount of fish removed from CH	Total Catch Area 5	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	0	0	42	0	42	0	14	286	0	42	300	66	338	increase

	2008	0	14	328	0	342					342		403		
P. Cod Trawl	1999	2	2	3204	0	3,208	-2	-2	4,976	0	3,208	4,972	4,886	6,089	increase
	2008	0	0	8180	0	8,180					8,180		10,975		
P. Cod Pot	1999	67	46	5	1	119	-67	-46	-5	-1	119	-119	122	-122	decrease
	2008	0	0	0	0	0					0		0		
P. Cod Longline	1999	33	816	1358	0	2,207	-33	-451	-969	0	2,207	-1,453	2,333	-1,486	decrease
	2008	0	366	389	0	755					755		846		
Atka Mackerel Trawl	1999	5	3	3650	0	3,658	-5	-3	-3,456	0	3,658	-3,464	14,674	3,974	increase
	2008	0	0	194	0	194					194		18,648		

Table IV-1999-2008-Area 5 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 5. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.

Total Catch All Gear

Proportion

Area 5		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 5	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0	3.5	67.7	0	71.3	-2.70%	20.00%	19.00%	47	633.70%	66	516.50%	increase
	2008	0	3.4	81.3	0.1	84.8				343		404		
Pacific Cod	1999	1.4	11.8	62.2	0	75.4	-73.70%	16.50%	0.30%	5,535	61.40%	7,341	61.00%	increase
	2008	0	3.1	72.5	0	75.6				8,935		11,821		
Atka Mackerel	1999	0	0	24.9	0	24.9	-77.60%	-95.80%	-95.80%	3,660	-94.70%	14,677	27.10%	increase
	2008	0	0	1	0	1				196		18,650		
Arrowtooth Flounder	1999	0	3.1	55.7	1.9	60.7	1257.30%	-6.90%	55.20%	155	1115.20%	255	683.00%	increase
	2008	0	41.9	51.8	0.4	94.2				1,882		1,998		
% all four species	1999	0.5	3.9	37.6	0	42.1	-5.80%	-18.10%	-17.90%	9,397	20.80%	22,339	47.20%	increase
	2008	0	3.7	30.8	0	34.5				11,355		32,873		

Amounts (mt)

Area 5		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 5	AMT change in amount of fish removed from CH	Total Catch Area 5	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	2	44	0	47	0	12	284	0	47	296	66	338	increase
	2008	0	14	328	0	343					343		404		
Pacific Cod	1999	102	864	4568	1	5,535	-102	-498	4,002	-1	5,535	3,401	7,341	4,480	increase
	2008	0	366	8569	0	8,935					8,935		11,821		
Atka Mackerel	1999	5	5	3650	0	3,660	-5	-4	-3,456	0	3,660	-3,465	14,677	3,973	increase
	2008	0	2	194	0	196					196		18,650		
Arrowtooth Flounder	1999	0	8	142	5	155	0	830	894	3	155	1,727	255	1,743	increase
	2008	0	838	1,036	8	1,882					1,882		1,998		
Sum all four species	1999	107	880	8405	5	9,397	-107	340	1,723	3	9,397	1,959	22,339	10,534	increase
	2008	0	1219	10128	8	11,355					11,355		32,873		

Table IV-1999-2008-6. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat by zones. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat areas including the foraging areas. Big 6 includes RCA's SSLCZ, NWBS, EBS, and 6.

Proportion

Area - 6		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 6	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0	0	0.5	31.7	32.3	1224.40%	1187.90%	-22.90%	319,578	-23.20%	990,528	-0.30%	decrease
	2008	0	0.6	6.8	17.5	24.9				245,570		987,353		
P. Cod Trawl	1999	0	0	1.5	34.2	35.8	2247.50%	312.90%	31.50%	18,594	-15.20%	52,008	-35.50%	decrease
	2008	0	0.5	6.3	40.3	47				15,766		33,535		
P. Cod Pot	1999	0.2	16.1	43.1	8.5	67.9	-33.30%	-59.60%	-28.90%	8,948	-2.10%	13,181	37.80%	increase
	2008	0.1	10.7	17.4	20	48.2				8,762		18,162		
P. Cod Longline	1999	0	2.1	11.1	7.2	20.4	-81.50%	-74.80%	-54.00%	17,217	-51.50%	84,349	5.30%	increase
	2008	0	0.4	2.8	6.2	9.4				8,344		88,794		
Atka Mackerel Trawl	1999	0	0	91.3	2.6	94	2415.90%	-3.40%	-4.30%	2,165	-84.10%	2,304	-83.40%	decrease
	2008	0	0.2	88.2	1.6	89.9				345		383		

Amounts (mt)

Area - 6		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 6	AMT change in amount of fish removed from CH	Total Catch Area 6	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	0	432	5222	313924	319,578	0	5,270	61,814	-141,092	319,578	-74,007	990,528	-3,174	decrease
	2008	0	5702	67036	172832	245,570					245,570		987,353		
P. Cod Trawl	1999	0	11	788	17795	18,594	0	151	1,310	-4,290	18,594	-2,828	52,008	-18,472	decrease
	2008	0	162	2098	13505	15,766					15,766		33,535		

P. Cod Pot	1999	29	2123	5675	1120	8,948	-16	-173	-2,516	2,519	8,948	-185	13,181	4,981	increase
	2008	13	1950	3159	3640	8,762					8,762		18,162		
P. Cod Longline	1999	16	1772	9342	6087	17,217	-5	-1,428	-6,868	-573	17,217	-8,873	84,349	4,445	increase
	2008	11	345	2474	5514	8,344					8,344		88,794		
Atka Mackerel Trawl	1999	0	0	2105	60	2,165	0	1	-1,766	-54	2,165	-1,820	2,304	-1,921	decrease
	2008	0	1	338	6	345					345		383		

Table IV-1999-2008-6 (continued).

Total Catch All Gear

Proportion

Area - 6		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 6	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0	0	0.6	31.6	32.2	1101.40%	1108.70%	-22.90%	320,246	-23.00%	994,545	-0.20%	decrease
	2008	0	0.6	6.8	17.5	24.8				246,522		992,601		
Pacific Cod	1999	0	2.6	10.6	16.7	29.9	-33.10%	-47.90%	-21.80%	44,758	-26.60%	149,538	-6.00%	decrease
	2008	0	1.7	5.5	16.1	23.4				32,872		140,492		
Atka Mackerel	1999	0	0.3	91.1	2.7	94	4156.50%	-13.40%	-3.00%	2,175	-81.20%	2,314	-80.70%	decrease
	2008	0	10.9	78.9	1.4	91.2				408		447		
Arrowtooth Flounder	1999	0	2.4	20.9	19.5	42.9	770.10%	-19.10%	26.30%	4,862	116.10%	11,330	71.10%	increase
	2008	0	21.2	16.9	16.1	54.2				10,509		19,387		
% all four species	1999	0	0.4	2.2	29.5	32.1	165.30%	204.90%	-21.60%	372,041	-22.00%	1,157,727	-0.40%	decrease
	2008	0	1.1	6.8	17.3	25.2				290,310		1,152,928		

Amounts (mt)

Area - 6		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 6	AMT change in amount of fish removed from CH	Total Catch Area 6	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	476	5564	314205	320,246	0	5,232	61,556	-140,512	320,246	-73,724	994,545	-1,944	decrease
	2008	0	5708	6712	173693	246,522					246,522		992,601		
Pacific Cod	1999	4	3906	1580	25002	44,758	-21	-1,449	-8,073	-2,343	44,758	-11,887	149,538	-9,046	decrease
	2008	24	2457	7732	22659	32,872					32,872		140,492		
Atka Mackerel	1999	0	6	2107	62	2,175	0	43	-1,754	-56	2,175	-1,767	2,314	-1,867	decrease
	2008	0	49	353	6	408					408		447		
Arrowtooth Flounder	1999	3	276	2,371	2,211	4,862	-2	3,834	913	902	4,862	5,647	11,330	8,058	increase
	2008	1	4,110	3,284	3,113	10,509					10,509		19,387		
Sum all four species	1999	4	4664	2584	341481	372,04	-23	7,660	52,642	-142,010	372,041	-81,731	1,157,72	-4,799	decreas

	9	8		8		1				7	e
	2008	2	1232	7848		290,310		290,310		1,152,928	
		5	4	9	199472	0					

Table IV-1999-2008-Area 7. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 7. A negative indicates a reduction, positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 7.

Proportion

Area 7		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 7	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	9	48.8	37.9		95.7	-12.10%	-29.50%	-27.30%	17,574	-45.10%	18,361	-24.50%	decrease
	2008	0	42.9	26.7		69.6				9,642		13,857		
P. Cod Trawl	1999	4.5	52.6	39.5		96.6	0.70%	-58.60%	-28.30%	14,474	-76.00%	14,983	-66.50%	decrease
	2008	0	52.9	16.4		69.3				3,472		5,012		
P. Cod Pot	1999	0.8	80.9	3.3		85	-72.40%	852.40%	-36.50%	1,444	263.30%	1,698	472.40%	increase
	2008	0.3	22.3	31.4		54				5,245		9,718		
P. Cod Longline	1999	0	7.7	33.4		41.1	-95.90%	151.10%	105.10%	1,316	151.70%	3,203	22.70%	increase
	2008	0	0.3	84		84.3				3,313		3,931		
Atka Mackerel Trawl	1999	41.6	4.8	0		46.5	110.10%	100%	-22.60%	118	421.60%	255	574.00%	increase
	2008	0	10.1	25.9		36				617		1,716		

Amounts (mt)

Area 7		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 7	AMT change in amount of fish removed from CH	Total Catch Area 7	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	1656	8951	6966		17,574	-1,656	-3,013	-3,262		17,574	-7,931	18,361	-4,504	decrease
	2008	0	5938	3704		9,642					9,642		13,857		
P. Cod Trawl	1999	674	7874	5926		14,474	-674	-5,223	-5,105		14,474	-11,002	14,983	-9,971	decrease
	2008	0	2651	821		3,472					3,472		5,012		
P. Cod Pot	1999	13	1374	56		1,444	12	793	2,996		1,444	3,801	1,698	8,020	increase

	2008	26	2167	3052	5,245				5,245		9,718				
P. Cod Longline	1999	0	245	1071	1,316	0	-233	2,230	1,316	1,997	3,203	728	increase		
	2008	0	12	3301	3,313				3,313		3,931				
Atka Mackerel Trawl	1999	106	12	0	118	-106	161	444	118	499	255	1,461	increase		
	2008	0	173	444	617				617		1,716				

Table IV-1999-2008-Area 7 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 7. A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 7.

Total Catch All Gear

Proportion

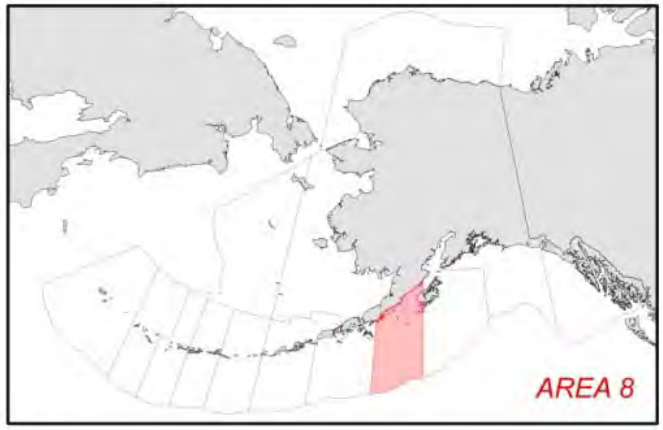
Area 7		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 7	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	9	48.7	37.9	0	95.7	-11.70%	-29.30%	-27.00%	17,579	-44.40%	18,370	-23.90%	decrease
	2008	0	43	26.8	0	69.9				9,771		13,986		
Pacific Cod	1999	3.5	47.7	35.5	0	86.7	-45.80%	8.40%	-25.60%	17,234	-30.20%	19,884	-6.20%	decrease
	2008	0.1	25.9	38.4	0	64.5				12,030		18,661		
Atka Mackerel	1999	41.6	4.8	0	0	46.5	108.30%	100%	-21.40%	118	435.20%	255	581.20%	increase
	2008	0	10	26.5	0	36.5				633		1,734		
Arrowtooth Flounder	1999	1.3	20.8	25.1	0	47.3	1.40%	-47.80%	-27.60%	1,378	-27.50%	2,917	0.10%	increase
	2008	0	21.1	13.1	0	34.2				999		2,919		
% all four species	1999	6.2	47.8	37	0	91.1	-32.27%	-11.40%	-28.30%	36,309	-35.50%	41,426	-10.00%	decrease
	2008	0.1	31.2	31.5	0	62.8				23,433		37,301		

Amounts (mt)

Area 7		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 7	AMT change in amount of fish removed from CH	Total Catch Area 7	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	1656	8952	6970	0	17,579	-1,656	-2,933	-3,219	0	17,579	-7,808	18,370	-4,384	decrease
	2008	0	6020	3751	0	9,771					9,771		13,986		
Pacific Cod	1999	687	9494	7053	0	17,234	-662	-4,663	120	0	17,234	-5,204	19,884	-1,223	decrease
	2008	26	4831	7173	0	12,030					12,030		18,661		
Atka Mackerel	1999	106	12	0	0	118	-106	161	459	0	118	515	255	1,480	increase
	2008	0	174	459	0	633					633		1,734		
Arrowtooth Flounder	1999	38	607	733	0	1,378	-38	9	-351	0	1,378	-379	2,917	2	increase
	2008	0	616	383	0	999					999		2,919		
Sum all four species	1999	2487	19066	14756	0	36,309	-2,462	-7,425	-2,989	0	36,309	-12,876	41,426	-4,125	decrease

2008	26	11641	11767	0	23,433		23,433		37,301	

Table IV-1999-2008-Area 8. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 8. A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.



Proportion

Area 8		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 8	as % change in amt caught from '99	
Gear	**Year**	**0-3**	**3-10**	**10-20**	**Foraging**	**Total CH**	**3-10**	**10-20**	**Total CH**					
Pollock trawl	1999	0	2.1	39.3	39	80.4	45.00%	2.40%	-26.50%	30,783	-67.00%	38,300	-55.10%	decrease
	2008	0	3	40.2	15.9	59.1				10,164		17,194		
P. Cod Trawl	1999	0	3	15.5	10.2	28.7	-78.10%	-11.30%	-21.60%	946	-33.50%	3,290	-15.20%	decrease
	2008	0	0.7	13.8	8.1	22.5				629		2,790		
P. Cod Pot	1999	1	4.1	15.9	28.1	49.1	-100.00%	-100.00%	-100.00%	4,095	-100.00%	8,343	-100.00%	decrease
	2008	0	0	0	0	0				0		0		
P. Cod Longline	1999	0	0.7	41.1	0	41.7	-71.50%	-95.40%	119.50%	139	5630.00%	333	2510.80%	increase
	2008	0	0.2	1.9	89.5	91.6				7,963		8,692		
Atka Mackerel Trawl	1999	0	0	7.5	0	7.5	0.00%	-98.80%	-98.60%	0	+trace%	0	100.00%	increase
	2008	0	0	0.1	0	0.1				0.3		316		

Amounts (mt)

Area 8		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 8	AMT change in amount of fish removed from CH	Total Catch Area 8	as AMT (mt) change in total caught from '99	
Gear	**Year**	**0-3**	**3-10**	**10-20**	**Foraging**	**Total CH**	**0-3**	**3-10**	**10-20**	**Foraging**					
Pollock trawl	1999	0	787	15057	14939	30,783	0	-275	-8,136	-12,208	30,783	-20,619	38,300	-21,106	decrease
	2008	0	513	6920	2731	10,164					10,164		17,194		
P. Cod Trawl	1999	0	99	511	336	946	0	-80	-127	-110	946	-317	3,290	-500	decrease
	2008	0	18	384	226	629					629		2,790		
P. Cod Pot	1999	82	341	1326	2346	4,095	-82	-341	-1,326	-2,346	4,095	-4,095	8,343	-8,343	decrease
	2008	0	0	0	0	0					0		0		

P. Cod Longline	1999	0	2	137	0	139	0	15	29	7,780		139	7,824	333	8,359	increase
	2008	0	17	166	7780	7,963						7,963		8,692		
Atka Mackerel Trawl	1999	0	0	0	0	0	0	0	0	0		0	0.331	0	316	increase
	2008	0	0	0	0	0.3						0.3		316		

Table IV-1999-2008-Area 8 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 8 A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.

Total Catch All Gear

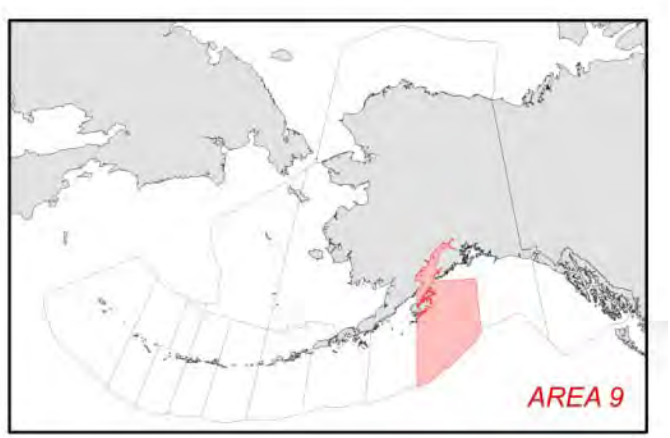
Proportion

Area 8		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 8	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0	2.1	39.3	39	80.4	44.80%	2.20%	-26.40%	30,789	-66.90%	38,312	-55.00%	decrease
	2008	0	3	40.2	16	59.2				10,194		17,225		
Pacific Cod	1999	0.7	3.7	16.5	22.4	43.3	-91.70%	-71.00%	72.90%	5,180	65.90%	11,965	-4.00%	decrease
	2008	0	0.3	4.8	69.7	74.8				8,591		11,481		
Atka Mackerel	1999	0	0	5.4	0	5.4	0.00%	-98.30%	-98.10%	0	+trace	0	100.00%	increase
	2008	0	0	0.1	0	0.1				0.3		316		
Arrowtooth Flounder	1999	0	0.4	29.5	24.9	54.8	1291.40%	37.40%	5.00%	2,388	2.40%	4,360	-2.50%	decrease
	2008	0	5.8	40.5	11.2	57.5				2,446		4,253		
% all four species	1999	0.2	2.3	33.5	34.2	70.2	4.60%	-17.60%	-9.10%	38,357	-44.60%	54,638	**-39.10%**	decrease
	2008	0	2.4	27.6	33.8	63.8				21,232		33,276		

Amounts (mt)

Area 8		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 8	AMT change in amount of fish removed from CH	Total Catch Area 8	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	787	15060	14941	30,789	0	-275	-8,139	-12,181	30,789	-20,594	38,312	-21,087	decrease
	2008	0	513	6922	2760	10,194					10,194		17,225		
Pacific Cod	1999	82	442	1974	2682	5,180	-82	-407	-1,424	5,324	5,180	3,412	11,965	-484	decrease
	2008	0	35	550	8006	8,591					8,591		11,481		
Atka Mackerel	1999	0	0	0	0	0	0	0	0	0	0	+trace	0	316	increase
	2008	0	0	0	0	0.3					0.3		316		
Arrowtooth Flounder	1999	1	18	1,284	1,084	2,388	-1	229	437	-607	2,388	58	4,360	-107	decrease
	2008	0	248	1,721	477	2,446					2,446		4,253		
Sum all four species	1999	83	1248	18319	18707	38,357	-83	-453	-9,125	-7,464	38,357	-17,125	54,638	-21,362	decrease
	2008	0	795	9194	11243	21,232					21,232		33,276		

Table IV-1999-2008-Area 9. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 9. A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.



Proportion

Area 9		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 9	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0.7	17.3	77.1	0.2	95.3	-60.20%	-6.50%	-16.10%	27,528	-53.10%	28,876	-44.10%	decrease
	2008	1	6.9	72.1	0	80				12,924		16,152		
P. Cod Trawl	1999	0.2	6.4	20.8	0	27.4	94.40%	24.30%	40.10%	4,912	-4.00%	17,937	-31.50%	decrease
	2008	0	12.4	25.9	0.1	38.4				4,713		12,287		
P. Cod Pot	1999	0	11.6	19	0	30.6	-84.20%	91.50%	26.10%	1,967	20.20%	6,428	-4.70%	decrease
	2008	0.4	1.8	36.4	0	38.6				2,364		6,127		
P. Cod Longline	1999	0	47.6	43.5	0	91.1	-51.80%	31.30%	-12.20%	5,479	-15.10%	6,012	-3.30%	decrease
	2008	0	23	57.1	0	80				4,651		5,812		
Atka Mackerel Trawl	1999	0	0	0	0	0	100%	100%	100%	0	100%	1	609.80%	increase
	2008	0	3.7	11.1	0	14.8				1		4		

Amounts (mt)

Area 9		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 9	AMT change in amount of fish removed from CH	Total Catch Area 9	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	200	4993	22272	62	27,528	-38	-3,881	-10,630	-56	27,528	-14,604	28,876	-12,725	decrease
	2008	162	1113	11642	7	12,924					12,924		16,152		
P. Cod Trawl	1999	35	1145	3732	0	4,912	-35	379	-556	13	4,912	-199	17,937	-5,651	decrease
	2008	0	1524	3176	13	4,713					4,713		12,287		
P. Cod Pot	1999	3	744	1220	0	1,967	21	-632	1,007	0	1,967	397	6,428	-301	decrease
	2008	24	112	2227	0	2,364					2,364		6,127		
P. Cod Longline	1999	2	2862	2614	0	5,479	-2	-1,528	703	0	5,479	-827	6,012	-200	decrease
	2008	0	1334	3317	0	4,651					4,651		5,812		
Atka Mackerel Trawl	1999	0	0	0	0	0	0	0	0	0	0	1	1	3	increase
	2008	0	0	0	0	1					1		4		

Table IV-1999-2008-Area 9 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 9 A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat.

Total Catch All Gear

Proportion

Area 9		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 9	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0.7	17.4	77.5	0.2	95.8	-57.50%	-7.30%	-16.20%	27,650	-52.70%	28,876	-43.50%	decrease
	2008	1	7.4	71.8	0	80.2				13,084		16,314		
Pacific Cod	1999	0.1	15.6	24.9	0	40.7	-21.60%	44.50%	19.00%	12,357	-5.10%	30,377	-20.30%	decrease
	2008	0.1	12.3	36	0.1	48.4				11,728		24,226		
Atka Mackerel	1999	0	0	0	0	0	100%	100%	100%	0	100%	1	609.80%	increase
	2008	0	3.7	11.1	0	14.8				1		4		
Arrowtooth Flounder	1999	0.1	4.7	12.9	0	17.7	51.50%	63.00%	70.60%	1,272	422.90%	7,192	206.50%	increase
	2008	0	7.1	21	2.1	30.2				6,653		22,043		
% all four species	1999	0.4	15.2	46.4	0.1	62.1	-39.80%	-13.80%	-19.10%	41,279	-23.80%	66,445	-5.80%	decrease
	2008	0.3	9.2	40.1	0.8	50.3				31,466		62,586		

Amounts (mt)

Area 9		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 9	AMT change in amount of fish removed from CH	Total Catch Area 9	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	200	5021	22366	62	27,650	-38	-3,816	-10,656	-56	27,650	-14,566	28,876	-12,562	decrease
	2008	162	1205	11710	7	13,084					13,084		16,314		
Pacific Cod	1999	40	4751	7566	0	12,357	-16	-1,780	1,155	13	12,357	-629	30,377	-6,152	decrease
	2008	24	2971	8721	13	11,728					11,728		24,226		
Atka Mackerel	1999	0	0	0	0	0	0	0	0	0	0	1	1	3	increase
	2008	0	0	0	0	1					1		4		
Arrowtooth Flounder	1999	8	336	929	0	1,272	-8	1,224	3,711	454	1,272	5,381	7,192	14,851	increase
	2008	0	1,560	4,639	454	6,653					6,653		22,043		
Sum all four species	1999	247	10108	30862	63	41,279	-61	-4,373	-5,790	411	41,279	-9,813	66,445	-3,859	decrease
	2008	186	5735	25071	474	31,466					31,466		62,586		

Table IV-1999-2008-Area 10. Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken by specific gear by zones within Area 10. A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 10.

Proportion

Area 10		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 10	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock trawl	1999	0	8.9	28.9		37.8	-100.00%	107.80%	58.90%	2,044	-65.80%	5,404	-78.50%	decrease
	2008	0	0	60.1		60.1				700		1,164		
P. Cod Trawl	1999	0	51.1	21.2		72.3	-100.00%	-100.00%	-100.00%	434	-100.00%	600	-99.80%	decrease
	2008	0	0	0		0				0		1		
P. Cod Pot	1999	0	12.8	66		78.8	173.40%	-25.00%	26.90%	1,127	41.90%	1,431	11.80%	increase
	2008	15.5	35	49.5		100				1,600		1,600		
P. Cod Longline	1999	0	0	68.6		68.6	0.00%	-29.20%	-25.40%	252	3.00%	368	38.00%	increase
	2008	0	2.6	48.6		51.2				260		508		
Atka Mackerel Trawl	1999	0	0	0		0	0	0	0	0	0.00%	0	0.00%	
	2008	0	0	0		0				0		0		

Amounts (mt)

Area 10		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 10	AMT change in amount of fish removed from CH	Total Catch Area 10	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock trawl	1999	0	481	1563		2,044	0	-481	-864		2,044	-1,344	5,404	-4,240	decrease
	2008	0	0	700		700					700		1,164		
P. Cod Trawl	1999	0	306	127		434	0	-306	-127		434	-434	600	-598	decrease
	2008	0	0	0		0					0		1		
P. Cod Pot	1999	0	183	944		1,127	248	377	-153		1,127	472	1,431	169	increase
	2008	248	561	791		1,600					1,600		1,600		
P. Cod Longline	1999	0	0	252		252	0	13	-6		252	7	368	140	increase
	2008	0	13	247		260					260		508		
Atka Mackerel Trawl	1999	0	0	0		0	0	0	0		0	0	0	0	
	2008	0	0	0		0					0		0		

Table IV-1999-2008-Area 10 (Continued). Comparison of the change from 1999 and 2008 as a percent of the portion of catch in critical habitat taken for all gear types by zones within Area 10 . A negative indicates a reduction; positive numbers indicate an increase in catch. The column marked "Total CH" refers to the total catch in critical habitat. There is no designated “foraging CH” in Area 10.

Total Catch All Gear

Proportion

Area 10		Per Cent of Total Catch in CH areas					Change from 1999 to 2008 as %			AMT catch in CH	% change in amount of fish removed from CH	Total Catch Area 10	as % change in amt caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	3-10	10-20	Total CH					
Pollock	1999	0	8.9	28.9	0	37.8	-99.80%	108.00%	59.20%	2,047	-65.70%	5,418	-78.50%	decrease
	2008	0	0	60.1	0	60.1				701		1,166		
Pacific Cod	1999	0	20.4	55.2	0	75.6	33.30%	-10.80%	16.60%	1,813	2.50%	2,399	-12.10%	decrease
	2008	11.7	27.2	49.2	0	88.2				1,860		2,109		
Atka Mackerel	1999	0	0	0	0	0	0.00%	0.00%	0.00%	0	0.00%	0	0.00%	
	2008	0	0	0	0	0				0		0		
Arrowtooth Flounder	1999	0	2.5	26	0	28.5	-100.00%	-33.60%	-39.30%	214	-89.50%	752	-82.70%	decrease
	2008	0	0	17.3	0	17.3				22		130		
% all four species	1999	0	11.5	36	0	47.5	46.00%	43.70%	59.60%	4,074	-36.60%	8,568	-60.30%	decrease
	2008	7.3	16.9	51.7	0	75.9				2,583		3,405		

Amounts (mt)

Area 10		AMOUNT (mt) of Catch in CH areas					AMOUNT (mt) of change from 99 to 2008				AMT (mt) catch in CH Area 10	AMT change in amount of fish removed from CH	Total Catch Area 10	as AMT (mt) change in total caught from '99	
Gear	Year	0-3	3-10	10-20	Foraging	Total CH	0-3	3-10	10-20	Foraging					
Pollock	1999	0	481	1566		2,047	0	-481	-865	0	2,047	-1,346	5,418	-4,251	decrease
	2008	0	0	701		701					701		1,166		
Pacific Cod	1999	0	490	1324		1,813	248	84	-286	0	1,813	46	2,399	-290	decrease
	2008	248	574	1038		1,860					1,860		2,109		
Atka Mackerel	1999	0	0	0		0	0	0	0	0	0	0	0	0	
	2008	0	0	0		0					0		0		
Arrowtooth Flounder	1999	0	19	195		214	0	-19	-173	0	214	-192	752	-622	decrease
	2008	0	0	22		22					22		130		
Sum all four species	1999	0	989	3085	0	4,074	248	-415	-1,324	0	4,074	-1,491	8,568	-5,164	decrease
	2008	248	574	1762	0	2,583					2,583		3,405		

APPENDIX V

DIFFERENCES IN EXPANDED OBSERVER AND VOE- CATCH-IN-AREAS DATABASE RELATIVE TO NMFS CATCH ACCOUNTING DATABASE

Appendix V – Differences in Expanded Observer and VOE- Catch-in-Areas Database Relative to NMFS Catch Accounting Database

This appendix shows the difference between catch estimates generated using the Expanded Observer Data (EOD) method and the VMS-Observer Enabled Catch-In-Areas Database (VOE-CIA) relative to NMFS' official accounting of federal groundfish catch--- the Catch Accounting System (CAS). The EOD and VOE-CIA datasets were developed to allow finer scale spatial interpretation of catch in the groundfish fisheries off Alaska. The methods used to derive the EOD are provided in Chapter 4 of the November 2010 Biological Opinion. VOE-CIA methods are described in Appendix II. As described in the Biological Opinion, both methods for spatially apportioning catch contain estimation error. This appendix shows the differences in estimates generated using the two methods relative to CAS data by year and area, as the amount of error in the estimates varies by year, area, method, and species. The data are provided here to characterize the amount of error about some of the estimates in catch (for example catch in Steller sea lion critical habitat in one year versus another) described in the Biological Opinion.

The EOD were used to describe catch inside and outside of Steller sea lion critical habitat in the Biological Opinion. As discussed in Chapter 4, the EOD comprise the best data available for examining the fine scale spatial distribution of catch over the period of interest in the Biological Opinion and are available back from 1990 to the present. Therefore, the EOD are valuable for comparing catch distribution before and after implementation of Steller sea lion conservation measures. Catch patterns by large geographic regions (BS, AI, and GOA) based on the EOD are presented in Appendix III. Appendix IV contains the EOD estimates for catch over smaller geographic regions (the Rookery Cluster Areas described in Chapter 3 of the Biological Opinion).

The VOE-CIA data are available only back through 2003 and thus do not lend themselves to examining differences in fishing patterns pre- and post-Steller sea lion protection measures. However, they are likely more precise than the EOD; especially in areas where more vessels are required to carry VMS than are required to carry onboard observers. Catch patterns generated using the VOE-CIA data are shown in Appendix II. VOE-CIA data were used to evaluate the efficacy of various RPAs in displacing catch that occurred in recent years (2004-2009) from the areas that would be closed under the RPAs.

Lastly, data directly from the CAS were used to describe fishing patterns by NMFS Fishery Management Area in the Biological Opinion (e.g. harvest rates calculated by dividing catch over the estimated biomass). The CAS data were also used to determine harvest level limits for the RPA (e.g. the fraction of the ABC that historic harvest comprised to set future harvest limits). The CAS data were the best available for that purpose, as they are subject to fewer sources of estimation error than the EOD or VOE-CIA data. Thus, they allowed NMFS to more precisely estimate the levels of harvest likely to be taken in the respective Fishery Management Areas and were used to determine the Atka mackerel harvest limit in Area 542 (47% of ABC) and the percent ABC of Pacific cod harvest in Areas 542 and 541 that would exceed recent harvest levels and require NMFS to reinitiate ESA section 7 consultation.

EOD Comparison PACIFIC COD

	Bering Sea and Aleutian Islands				
Year	RCA 1 (543)	RCA 2 & 3 (542)	RCA 4 & 5 (541)	RCA 6 (BS)	RCA 1-6 (BSAI Total)
1995	-5.6%	4.2%	-1.2%	0.7%	0.6%
1996	4.3%	-33.1%	-3.5%	-0.7%	-1.5%
1997	23.0%	6.7%	-3.1%	0.3%	0.3%
1998	20.7%	-3.2%	-1.1%	1.6%	1.4%
1999	-3.9%	7.8%	-6.3%	2.8%	1.8%
2000	-14.3%	4.3%	-2.0%	16.7%	12.5%
2001	5.2%	-8.0%	-1.5%	-0.5%	-0.4%
2002	39.5%	32.1%	16.9%	-4.7%	-0.5%
2003	13.3%	-10.7%	2.5%	9.2%	7.9%
2004	-11.7%	-3.4%	3.5%	0.5%	0.4%
2005	-1.0%	9.3%	-4.0%	2.3%	1.9%
2006	4.2%	-43.9%	9.7%	4.3%	3.5%
2007	8.8%	-17.2%	-2.3%	1.4%	0.6%
2008	24.8%	-21.9%	3.0%	0.8%	1.4%

EOD Comparison PACIFIC COD

	Gulf of Alaska				
Year	RCA 7 (610)	RCA 8 (620)	RCA 9 (630)	RCA 10 (640)	RCA 7-10 (GOA Total)
1995	-11.4%	0.4%	-16.9%	654.8%	-3.7%
1996	-8.0%	0.0%	-30.4%	1066.7%	-2.5%
1997	-9.3%	3.2%	-10.4%	618.0%	-2.6%
1998	-5.9%	0.0%	-2.5%	141.4%	-1.9%
1999	-14.1%	-0.1%	-6.7%	308.3%	-5.4%
2000	-18.5%	-4.2%	-1.4%	43.6%	-8.4%
2001	-8.1%	0.0%	-4.4%	2317.7%	-2.8%
2002	-3.8%	1.5%	-16.9%	5122.2%	-1.3%
2003	-7.0%	0.0%	-3.5%	1257.4%	-2.8%
2004	-7.1%	-1.4%	-0.3%	596.9%	-2.8%
2005	-0.1%	-67.5%	-0.2%	183.4%	-7.1%
2006	-21.2%	-45.9%	-2.0%	768.8%	-16.0%
2007	13.7%	-58.2%	-1.3%	299.8%	-5.8%
2008	-11.1%	0.4%	-6.9%	604.4%	-3.8%

CIA Comparison PACIFIC COD

	Bering Sea and Aleutian Islands				
Year	RCA 1 (543)	RCA 2 & 3 (542)	RCA 4 & 5 (541)	RCA 6 (BS)	RCA 1-6 (BSAI Total)
1995	*NA*	*NA*	*NA*	*NA*	*NA*
1996	*NA*	*NA*	*NA*	*NA*	*NA*
1997	*NA*	*NA*	*NA*	*NA*	*NA*
1998	*NA*	*NA*	*NA*	*NA*	*NA*
1999	*NA*	*NA*	*NA*	*NA*	*NA*
2000	*NA*	*NA*	*NA*	*NA*	*NA*
2001	*NA*	*NA*	*NA*	*NA*	*NA*
2002	*NA*	*NA*	*NA*	*NA*	*NA*
2003	0.2%	-0.9%	0.3%	0.1%	0.1%
2004	-0.5%	2.3%	-0.8%	0.2%	0.1%
2005	-2.1%	0.0%	0.5%	0.2%	0.2%
2006	-0.1%	-2.0%	0.5%	0.2%	0.2%
2007	-0.3%	-0.3%	0.1%	0.4%	0.3%
2008	-0.6%	1.9%	-0.2%	0.3%	0.2%

CIA Comparison PACIFIC COD

	Gulf of Alaska				
Year	RCA 7 (610)	RCA 8 (620)	RCA 9 (630)	RCA 10 (640)	RCA 7-10 (GOA Total)
1995	*NA*	*NA*	*NA*	*NA*	*NA*
1996	*NA*	*NA*	*NA*	*NA*	*NA*
1997	*NA*	*NA*	*NA*	*NA*	*NA*
1998	*NA*	*NA*	*NA*	*NA*	*NA*
1999	*NA*	*NA*	*NA*	*NA*	*NA*
2000	*NA*	*NA*	*NA*	*NA*	*NA*
2001	*NA*	*NA*	*NA*	*NA*	*NA*
2002	*NA*	*NA*	*NA*	*NA*	*NA*
2003	0.7%	1.5%	-0.1%	-85.9%	0.3%
2004	0.0%	-2.6%	1.6%	-4.5%	0.4%
2005	-0.3%	-5.7%	1.7%	-45.4%	0.1%
2006	0.3%	-1.7%	1.4%	-22.3%	0.4%
2007	-1.1%	0.9%	1.1%	-33.7%	0.2%
2008	-1.9%	1.6%	1.0%	14.6%	0.2%

EOD Comparison ATKA MACKEREL

	Bering Sea and Aleutian Islands				
Year	RCA 1 (543)	RCA 2 & 3 (542)	RCA 4 & 5 (541)	RCA 6 (BS)	RCA 1-6 (BSAI Total)
1995	21.5%	-5.6%	-6.0%	28.9%	0.1%
1996	-0.9%	-2.5%	4.4%	149.4%	1.1%
1997	2.9%	-9.9%	6.9%	177.4%	0.5%
1998	1.6%	-32.4%	12.9%	29.8%	-8.0%
1999	0.1%	-35.9%	0.6%	0.4%	-14.1%
2000	8.6%	-19.6%	-2.1%	-9.7%	-8.0%
2001	-3.9%	-16.3%	-12.7%	-18.4%	-11.7%
2002	-1.8%	0.6%	-4.4%	-44.9%	-1.4%
2003	6.7%	7.2%	16.3%	7.4%	8.0%
2004	-6.0%	0.4%	4.4%	-8.7%	-2.5%
2005	-3.1%	2.3%	-5.7%	-0.5%	0.0%
2006	2.2%	-1.4%	2.2%	-1.1%	-0.3%
2007	3.3%	-3.3%	2.0%	0.1%	-0.3%
2008	0.1%	0.0%	-0.1%	12.3%	0.1%

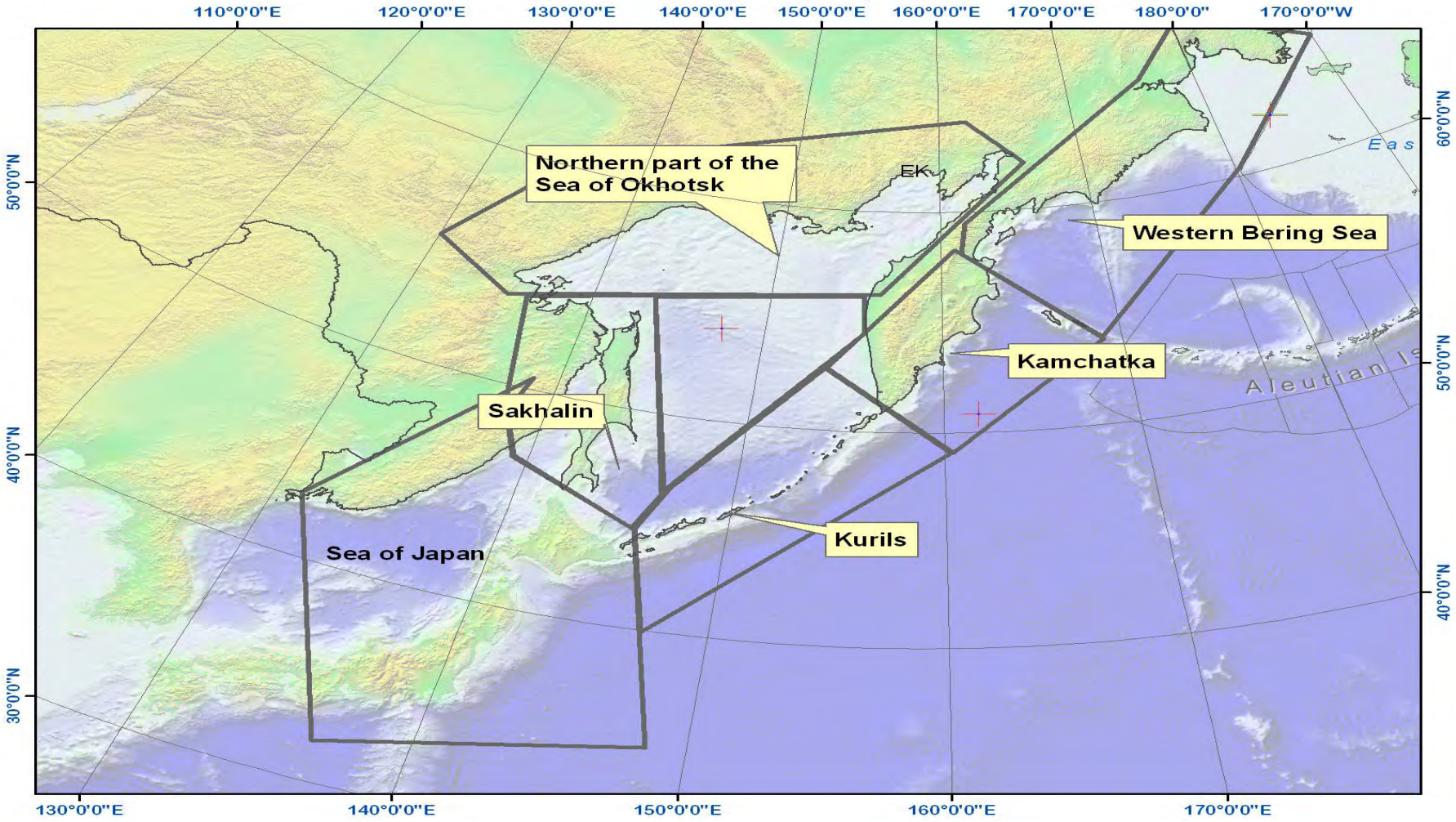
CIA Comparison ATKA MACKEREL

	Bering Sea and Aleutian Islands				
Year	RCA 1 (543)	RCA 2 & 3 (542)	RCA 4 & 5 (541)	RCA 6 (BS)	RCA 1-6 (BSAI Total)
1995	*NA*	*NA*	*NA*	*NA*	*NA*
1996	*NA*	*NA*	*NA*	*NA*	*NA*
1997	*NA*	*NA*	*NA*	*NA*	*NA*
1998	*NA*	*NA*	*NA*	*NA*	*NA*
1999	*NA*	*NA*	*NA*	*NA*	*NA*
2000	*NA*	*NA*	*NA*	*NA*	*NA*
2001	*NA*	*NA*	*NA*	*NA*	*NA*
2002	*NA*	*NA*	*NA*	*NA*	*NA*
2003	0.0%	0.2%	-0.8%	-2.2%	-0.2%
2004	0.0%	0.0%	0.0%	-1.0%	-0.1%
2005	-1.2%	0.7%	0.0%	-1.3%	-0.1%
2006	-0.1%	0.0%	0.0%	0.2%	0.0%
2007	0.1%	0.0%	0.0%	0.2%	0.0%
2008	-1.4%	1.0%	0.0%	0.1%	0.0%

APPENDIX VI

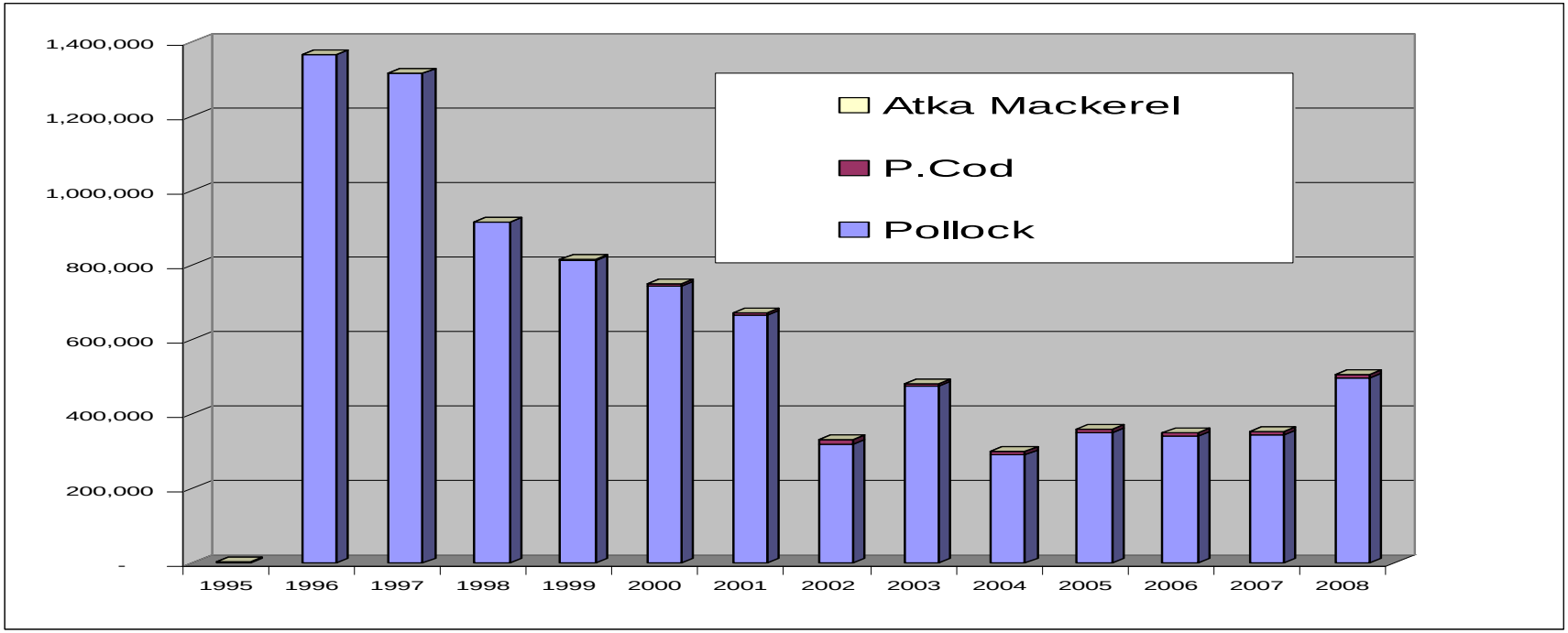
RUSSIAN FISHERIES CATCH DATA

Appendix VI: Russian Catch Data for Pollock, Atka Mackerel, and Pacific Code by Area



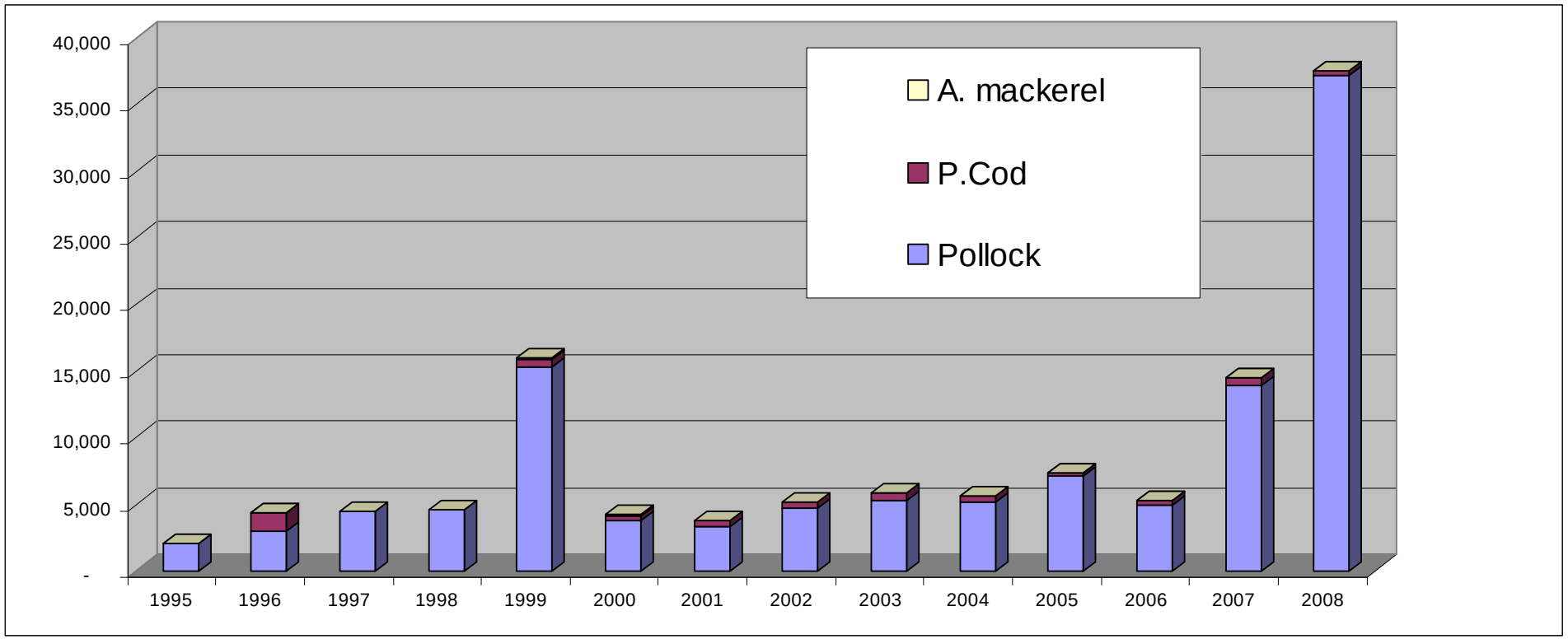
Russia: Northern Part of Sea of Okhotsk

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pollock	`	1,363,870	1,314,503	915,223	812,874	743,541	664,346	319,114	474,545	292,338	350,738	341,734	344,594	498,406
P.Cod	4,592		1,489	677	1,996	7,273	8,500	12,225	6,544	8,087	10,366	9,997	9,453	9,355
Atka Mackerel	-	-	10	-	3	26	51	3	0	2	52	30	0	-



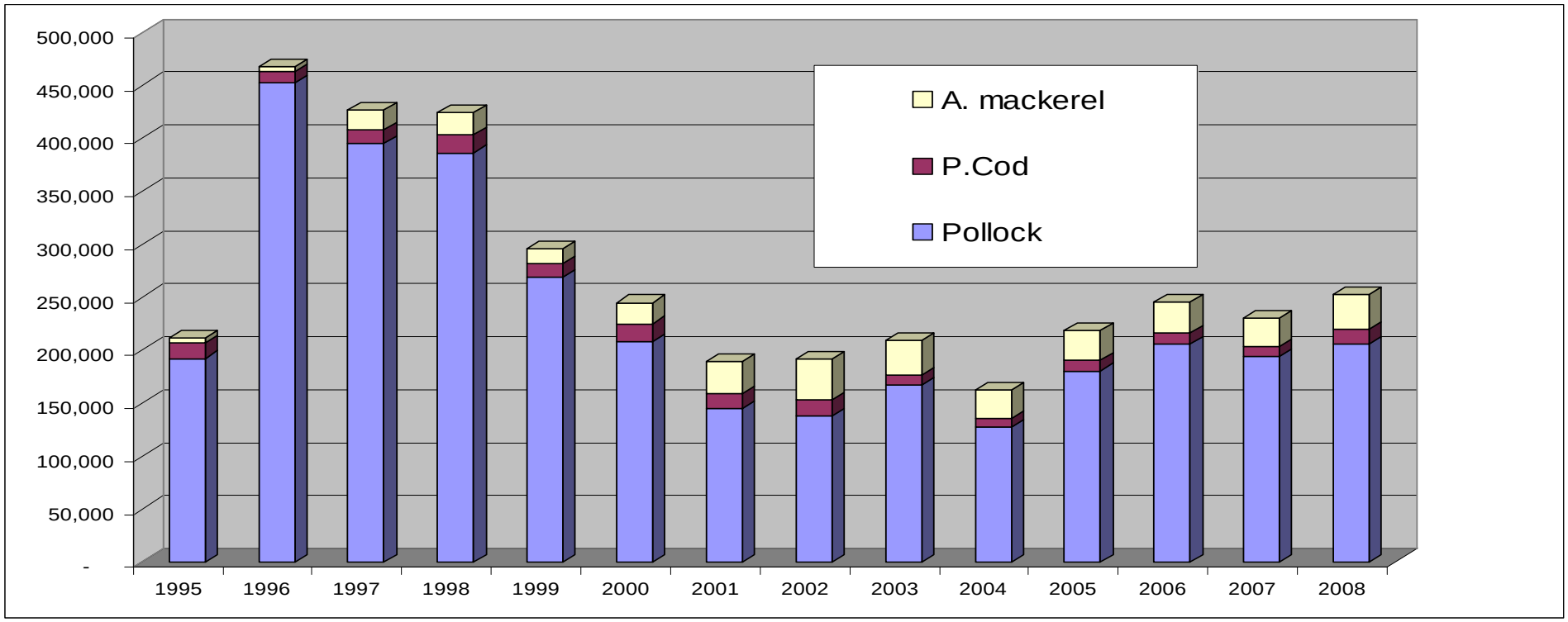
Russia: Sakhalin

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pollock	1,966	2,953	4,452	4,503	15,280	3,725	3,270	4,726	5,286	5,110	7,059	4,869	13,943	37,178
P.Cod		1,318			617	318	472	391	573	474	232	360	487	299
A. mackerel	-	-	8	2	72	197	53	48	15	-	-	-	-	-



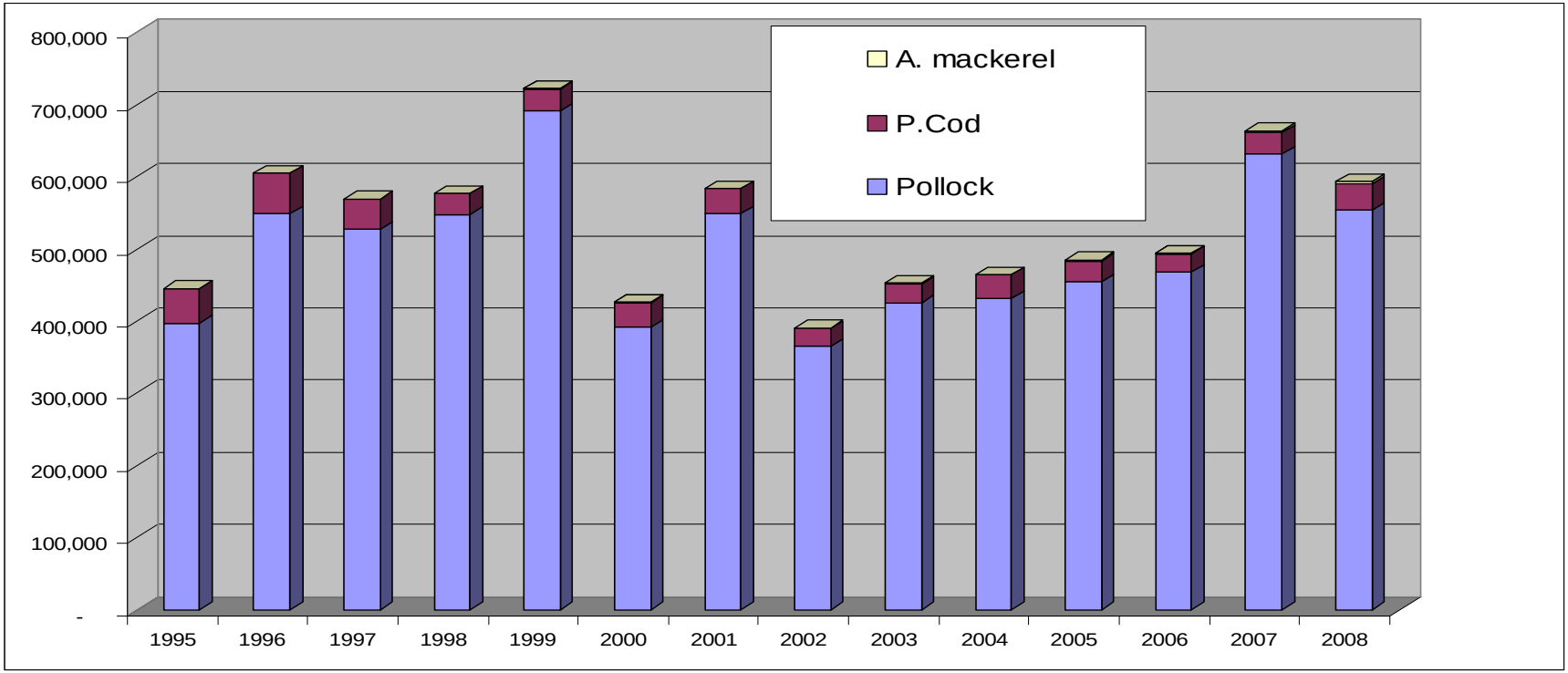
Russia: Kuril Islands

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pollock	192,131	452,767	395,142	386,372	268,980	207,760	145,100	137,631	167,322	127,297	180,296	205,547	193,568	206,012
P.Cod	14,374	10,360	13,060	16,606	12,216	17,193	13,695	15,225	8,807	7,964	10,408	10,687	9,310	13,750
A. mackerel	5,216	4,334	18,547	20,858	14,763	19,888	30,812	38,290	33,014	27,040	27,680	28,747	27,175	32,700



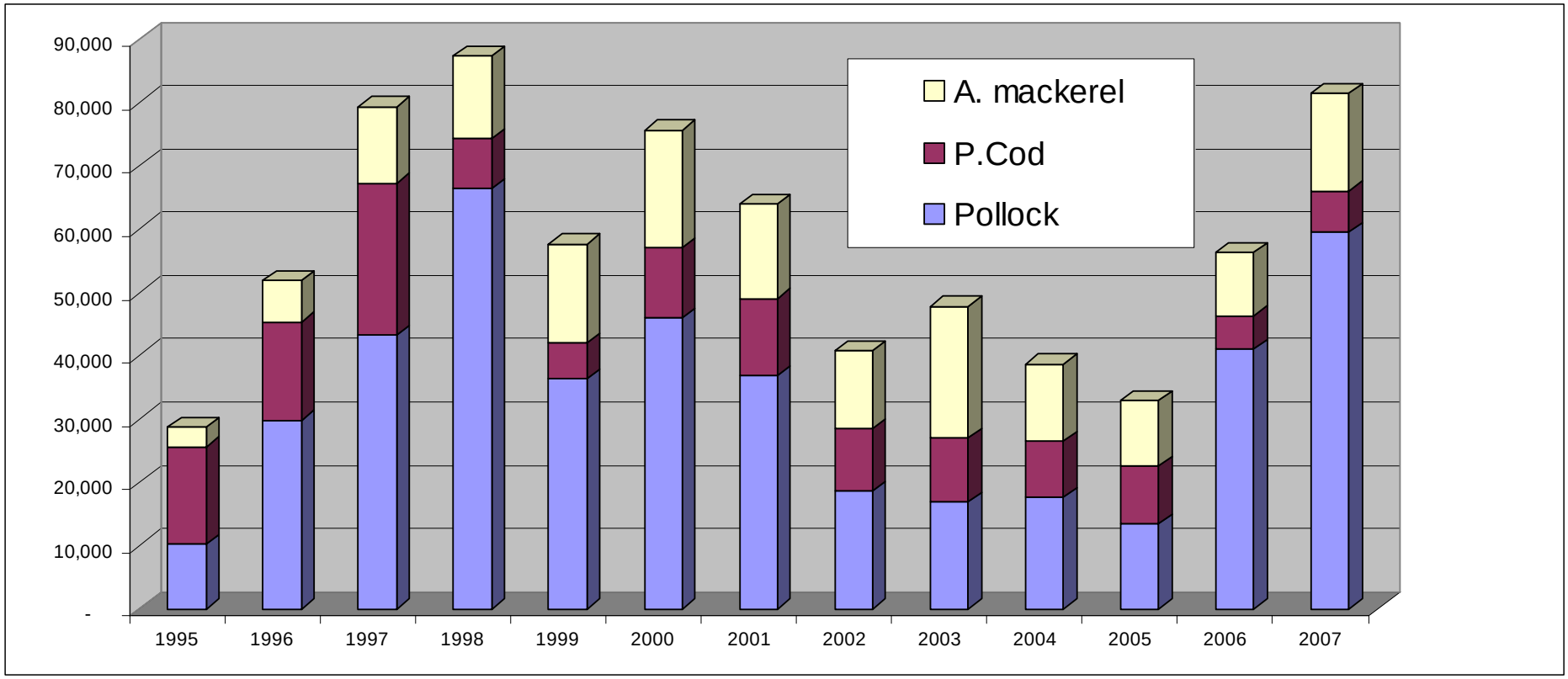
Russia: Western Bering Sea

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pollock	397,521	549,446	527,358	548,138	691,656	392,140	548,896	365,436	425,837	431,587	455,059	467,396	631,286	554,233
P.Cod	47,797	55,726	42,078	28,805	30,421	33,269	34,507	24,445	25,783	33,142	28,518	26,258	30,710	36,047
A. mackerel	164	303	445	545	444	953	496	774	1,229	297	1,371	1,038	1,759	2,991



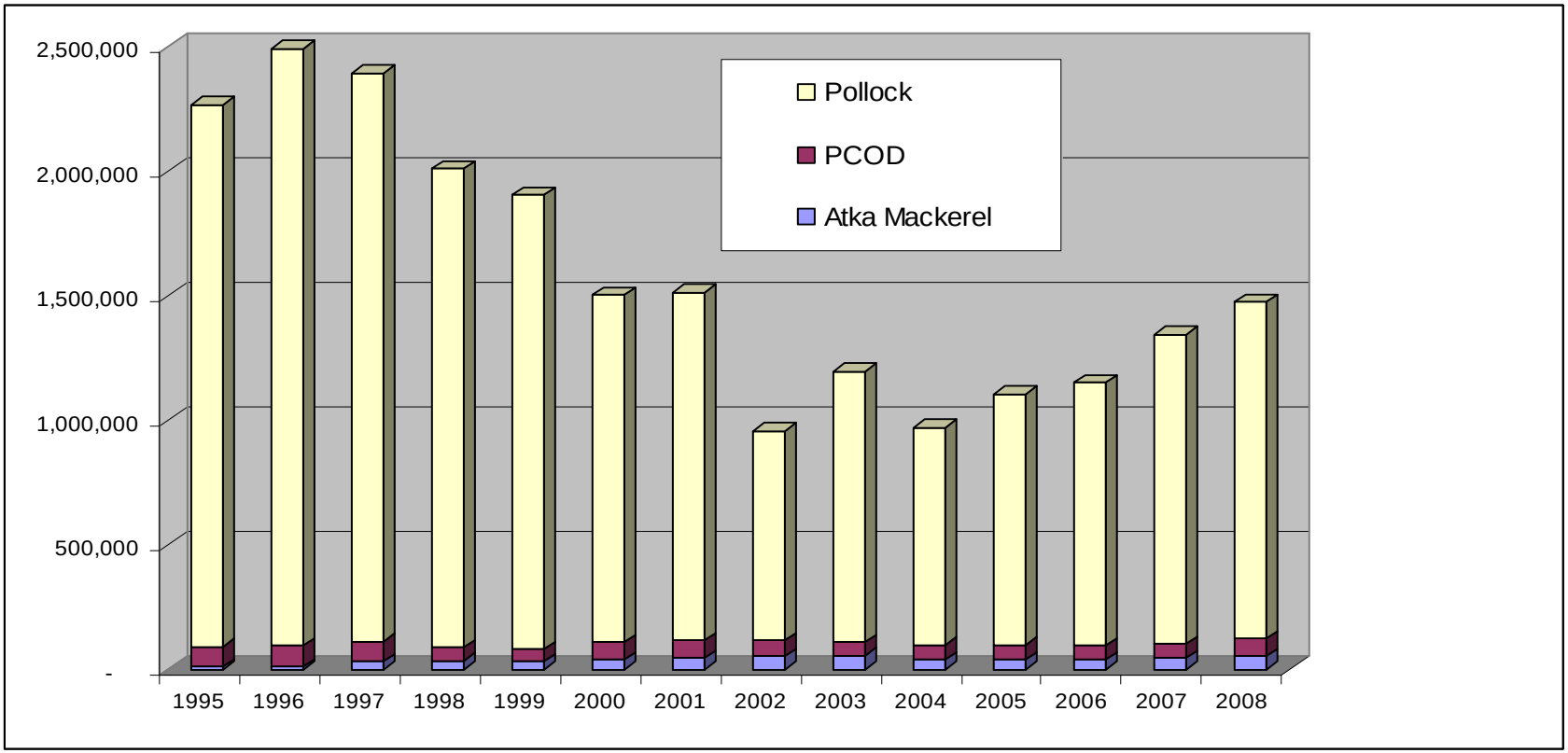
Russia: Eastern Kamchatka

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pollock	10,184	29,868	43,236	66,367	36,310	45,930	36,951	18,562	16,846	17,676	13,397	41,058	59,463	58,901
P.Cod	15,474	15,533	24,034	7,999	5,816	11,230	12,086	9,896	10,120	8,897	9,258	5,331	6,604	9,983
A. mackerel	3,111	6,536	12,144	13,037	15,552	18,490	14,917	12,278	20,866	12,172	10,264	9,933	15,420	16,161



Russia: Total from All Areas

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
A. Mack	8,491	11,173	31,154	34,442	30,834	39,554	46,329	51,394	55,124	39,510	39,367	39,747	44,354	51,853
P.Cod	82237	82937	80661	54087	51066	69283	69260.2	62181.7	51827.21	58562.83	58783.4	52632.94	56563.46	69434.48
Pollock	2179121	2398904	2284691	1920603	1825100	1393096	1398565	845468.2	1089836	874007.3	1006549	1060604	1242854	1354730
	2271844	2495010	2398503	2011130	1908999	1503933	1516155	961045.6	1198791	974084.5	1106705	1154990	1345779	1478026



APPENDIX VII

AUGUST 2, 2010 DRAFT BIOP RPA AND THE COUNCIL'S AUGUST 2010 RPA

On August 2, 2010 NMFS released a draft Biological Opinion (Biop) on the effects of the groundfish fisheries off Alaska on species listed under the Endangered Species Act (ESA) including Steller sea lions (SSL) and their designated critical habitat. The draft Biop concluded that the groundfish fisheries, as currently authorized, were likely to jeopardize the continued existence of the western distinct population segment (DPS) of SSLs and aversely modify its designated critical habitat. The draft Biop contained an RPA designed to remove the likelihood that the fisheries would jeopardize the western DPS or adversely modify their critical habitat. NMFS accepted public comment on the draft Biop from August 2 through September 3, 2010. The North Pacific Fishery Management Council convened a special meeting in mid-August and submitted an alternate RPA to the one in the draft Biop for NMFS's consideration. NMFS analyzed the Council's RPA against the performance standards in Chapter 8 of the August 2, 2010 draft Biop. In aggregate, the Council's RPA did not meet the performance standards in the draft Biop. NMFS revised the draft Biop RPA to allow for some modifications to the RPA while maintaining adherence to the performance standards in the draft Biop. This Appendix contains the August 2, 2010 draft Biop RPA and the Council's August 20, 2010 proposed RPA.

August 2, 2010 Draft Biological Opinion Reasonable and Prudent Alternative (RPA)

RPA for Area 543

Pacific cod fishery

1. Close the directed fishery and prohibit retention of P. Cod in Area 543.

Atka mackerel fishery

1. Close the directed fishery and prohibit retention of Atka mackerel in Area 543.

RPA for Area 542

Groundfish fishery

1. Close waters from 0-3 nm around Kanaga Island/Ship Rock to directed fishing for groundfish by federally permitted vessels.

Pacific cod fishery

1. Close the 0-10 nm zone of critical habitat to directed P. cod fishing by federally permitted vessels using fixed gear year round. Close the 10-20 nm zone of critical habitat to directed fishing for P. cod by federally permitted vessels using fixed gear January 1 through June 10.
2. Close the 0-20 nm zone of critical habitat year-round to directed fishing for P. Cod by federally permitted vessels using trawl gear.
3. Prohibit P. cod fishing November 1 through December 31 in Area 542.

Atka mackerel fishery

1. Close the 0-20 nm zone of critical habitat to directed fishing for Atka mackerel by federally permitted vessels year round.
2. Set Atka mackerel TAC for Area 542 to no more than 47% of ABC.
3. Eliminate the HLA platoon system for Atka mackerel harvest.
4. Change the Atka mackerel seasons to January 20 through June 10 for the A season and June 10-November 1 for the B season.

RPA for Area 541

Pacific cod fishery

1. Close the 0-10 nm zone of critical habitat to directed fishing for P. cod by federally permitted vessels year-round.
2. Close the 10-20 nm zone of critical habitat to directed fishing for P. cod using fixed gear by federally permitted vessels January 1 through June 10.
3. Close the 10-20 nm zone of critical habitat to directed fishing by for P. cod using trawl gear by federally permitted vessels June 10 through November 1.
4. Prohibit P. cod fishing November 1 through December 31 in Area 541.

Atka mackerel fishery

1. The available data do not indicate a need to further modify fishery management measures to conserve Atka mackerel forage availability within this fishery management area. However, the elimination of the platoon management system provides an opportunity to further disperse the Atka mackerel seasons to January 20 through June 10 for the A season and June 10 through November 1 for the B season.

August 20, 2010 North Pacific Fishery Management Council motion
Steller Sea Lion Biological Opinion and EA/RIR

The Council recommends that NMFS consider the following as a Reasonable and Prudent Alternative (RPA).

RPA Alternative 4: SSL protection with sustainable fisheries and communities.

Unless otherwise stated, the existing protection measures in 50 CFR 679 remain in place.

Atka mackerel

Remove existing 'platoon' system in areas 542 and 543

Area 543:

- No fishing inside critical habitat
- Fishing outside critical habitat east of 174 degrees – 30 minutes East longitude
- TAC not to exceed 65% of ABC
- A season Jan 20 to June 10, B season June 10 to Nov 1
- No more than 50% of TAC harvested in A or B season
- No rollover between A and B seasons

Area 542:

- No fishing inside critical habitat from 178 degrees – 0 minutes East longitude to 180 degrees – 0 minutes longitude.
- TAC not to exceed 65% of ABC
- Catch inside critical habitat (outside Trawl Exclusion Zones) not to exceed 50% of TAC
- A season Jan 20 to June 10, B season June 10 to Nov 1
- No more than 50% of TAC harvested in A or B season
- No rollover between A and B seasons

Area 541:

- Status quo, except A season January 20 to June 10, B season June 10 to November 1

Pacific cod trawl

Area 543:

- No cod trawling in critical habitat east of 174 degrees 30 minutes East longitude
- Cod trawling in critical habitat west of 174 degrees 30 minutes from 10 nm and out from February 15 to March 15
- Cod trawl harvest limited to no more than 2.5% of BS/AI ABC

Area 541 and Area 542 east of 178 degrees West Longitude:

- Trawl cod fishery is A Season only (January 20 to June 10)
- Trawl cod fishery inside critical habitat is only east of 178 degrees W to 541 management border
- No inside critical habitat cod fishing west of 178 degrees W to 177 degrees E
- Increase haulout closures to 10 nm for cod trawl between 170 degrees W to 174 W
- Status quo West of 174 W to 178 W

Pacific cod fixed gear

No additional restrictions on vessels under 60' using fixed gear

Area 543:

- Prohibit directed fishery for Pacific cod.

Areas 542

- Cod fishery is limited to B season only (June 10 to November 1)
- Critical habitat open outside 3 4 nm from rookeries and haulouts

Area 541/Bering Sea:

- No new 541 restrictions on fixed gear cod fishing

The Council strongly encourages NMFS to develop a research plan which considers the SSC recommendations to address data and information gaps regarding the decline of Steller sea lions in Area 543 and the slow Steller sea lion recovery in Areas 542 and 541, and to immediately initiate budget and funding discussions within the agency to support the research plan.

The Council notes SSC concerns and recommendations for the analysis including:

- stating as fact some conclusions that still have a great deal of uncertainty about them such as
- past conservation methods having a "positive impact on reducing the impacts of the fishery
- exploitation strategy on Steller sea lions";
- assumptions underlying the BiOp analysis including biomass projection methodology, biomass
- apportionment, and nutritional stress as the causal factor for low natality ;
- the global scale of the RPA relative to the current information base and conservation goal; and
- questions raised in the editorial comments of the SSC

and therefore recommends an independent review of the BiOp.

The Council recommends the agency include a 2-year sunset provision in their rule making. Further, the Council notes the SSC's concerns and recommendations regarding the EA/RIR, and requests strengthening and expanding the document.