European Cetacean Bycatch Campaign Comment on the BSAI Pollock Fishery Submission Date 25 October 2003

Alaskan Coastal Communities & At-Sea Processors Association

Due to the creation of the U.S. Exclusive Economic Zone, resulting from the enactment of the Magnuson Stevens Act of 1976 and amendment to the International Law of the Sea, US vessels have had exclusive access to the first 200 miles of U.S. coastal waters.

Since 1980, over $1 billion in American capital has been invested in the domestic fleet comprising of over sixty factory trawlers, regarded in their home port of Seattle as the most technically advanced fishing fleet in the world.

In Alaska, this new fleet has not been greeted with enthusiasm, as these vessels quickly dominated fishing grounds that were once the domain of small Alaskan boats.

Regulations set by the National Marine Fisheries Service (NMFS) limit the total tonnage of fish that can be harvested in any given area. A small number of factory trawlers can harvest a large share of a given limit very quickly, leaving very little for fishermen who operate small vessels. Many of the smaller boat owners and the coastal economies that depend on fishing for their livelihood, are threatened with financial ruin.

In 2000, the Alaska pollock fisheries caught over 1.2 million metric tons of pollock, which accounted for 66% of the total groundfish caught.
The BSAI fleet harvested 1,134,000 metric tons of pollock and the GOA fleet over 76,000 mt of pollock in 2000.

In 2001, the harvest was 1,317,839 mt of pollock, up from 1,020,270 in 2000, and prices increased by 10%. In addition, Alaska pollock roe production was 25,000 tons in 2001, almost 40% increase over 2000.

APA member companies account for approximately 40 percent of the annual pollock harvest. The catcher-processors operate pelagic trawl nets from vessels 300 feet in length, almost three times the length of the vessels owned by coastal fishermen.

This situation has caused conflict between Alaska fishermen, shore-side processing facilities and legislators, all of whom wish to retain jobs in small coastal communities, and the Seattle-based At-Sea Processors Association (APA) and industry investors.

The conflict was exacerbated when fisheries research indicated that reductions in crab, halibut, herring and salmon stocks, plus reductions in certain populations of Steller sea lions and other marine creatures were possibly attributable to the operations of the factory trawlers. Consequently, due to mounting fears that fish stocks were being overfished and that certain wildlife populations were at risk, access restrictions to Gulf of Alaska waters by factory trawlers were instigated.

The coastal communities were dealt a final blow when the North Pacific Fishery Management Council proposed that, beginning in 1992, a larger allocation of groundfish should go to local onshore processing plants, but was challenged by the APA. It asserted that such an allocation of resources would conflict with a free enterprise or open competition system, as it would result in diverting monies from American-owned companies to the many foreign-owned onshore processing plants.

The APA contends that the Magnuson Stevens Act of 1976 was enacted to prevent this type of situation occurring. It continues to oppose the plan in an effort to maintain the prosperity of the factory trawler industry.

However, it must be assumed that the Magnuson Stevens Act did not intend that large factory trawlers should denude the sea of fish, render populations of marine creatures unsustainable and devastate coastal communities.

Certification

In January 2001, the At-Sea Processors Association applied to the Marine Stewardship Council (MSC) for certification of the Eastern Bering Sea pollock fishery. However, subsequently it increased its request for certification to all Alaska pollock stocks, including the Bering Sea, Aleutian Islands and Gulf of Alaska.
This would seem a somewhat unorthodox approach and one would assume that MSC would have considered it unacceptable.

Given the vast expanse of ocean, the large number of vessels involved, the magnitude of the fishing effort and the severe weather conditions in the proposed area, it would seem that monitoring the APA fleet adequately would have been impossible given the time frame.

The MSC certification process for the pollock fishery must be unique in that the pollock fishery must be the only fishery to be considered as a sustainable fishery and yet, at the same time, be ruled in violation of the Endangered Species Act by a federal judge.

Management:

The Magnuson Stevens Act established the legal framework for managing the Bering Sea and Aleutian Islands (BSAI), plus the Gulf of Alaska (GOA) groundfish fisheries. In accordance with the Act, Fishery Management Plans (FMPs) were devised to manage the fisheries, and the North Pacific Fisheries Management Council was established in an advisory capacity, the Secretary of Commerce having ultimate authority over the federal fisheries.

In relation to the pollock fisheries, there is a Fishery Management Plan for the BSAI Groundfish Fishery, and a Fishery Management Plan for the GOA Groundfish Fishery. The first Environmental Impact Statements for the Fishery Management Plans were written over 2 decades ago. Since that time the BSAI FMP has been amended 71 times and the GOA FMP has been amended 62 times. Litigation was the primary reason for many of the amendments.

In over 2 decades the NMFS did not evaluated the environmental impact of the groundfish fisheries on the North Pacific ecosystem. The federal district court, however, ordered NFMS to prepare Environmental Impact Statements for the North Pacific groundfish fisheries.

In December 2002, the North Pacific Fishery Management Council recommended groundfish quotas that could yield the largest commercial catch of walleye pollock in the eastern Bering Sea since 1974. The council set a 2003 pollock Total Allowable Catch (TAC) of 1.492 million metric tons, an increase over the 2002 quota of 1.485 million tons.

For the Gulf of Alaska, the council set a TAC of 54,350 tons, a decrease of almost seven per cent from the 2002 quota of 58,250 tons. Presumably, this reduction was due to the fact that the Gulf of Alaska pollock stock is currently listed at 26% of original size.

During 1999-2001, pollock made up 73% of the average groundfish catch in the eastern Bering Sea and Aleutian Islands region (NMFS).

Factory trawlers have the ability to harvest in excess of 400 metric tons of pollock per day. The magnitude of such harvesting must raise concern in terms of the quantity of the target species and the bycatch / incidental take of other marine creatures. In fact, the amount of bycatch of pollock fisheries is greater than the intentional catch of most other fisheries.

On May 21, 2003 the Marine Fish Conservation Network released a report *Horrors of the Deep: Chilling Tales of Denial, Conflict of Interest and Mismanagement of America's Ocean Resources* in which chronicles eight representative examples of consistently poor management by federal regulators and the often disastrous problems that result.

The report details the impacts this mismanagement has had not only on fish populations, but also on the people who depend on healthy oceans for their livelihood.

Drawing one example from each management region in the country, the report chronicles how **77 tons of annual bycatch in Alaska were simply defined away**

Extracts from the Alaska Oceans Network Submission:

"Even the health of the eastern Bering Sea stock remains very much in question, despite apparently strong recruitment from the 1996 year-class in recent years."

"… the Russian Navarin pollock fishery is targeting the same stock of fish, with unknown effects on subsequent recruitment to the spawning grounds on the eastern Bering Sea shelf… Declining stocks, recruitment-driven fisheries, reliance on single year-classes, and profound uncertainties about stock structure all raise serious doubts about claims for sustainable single-species management. "

"All evidence indicates that predation on pollock by marine mammals, many seabirds, and many fishes in the North Pacific is extensive. At least fifteen species of marine mammals, thirteen species of seabirds, and ten fish species are known or believed to feed on pollock at either juvenile or adult phases of pollock's life history. NMFS has even characterized juvenile pollock as the dominant fish prey in the eastern Bering Sea. "

"In 1998 and 2000 …NMFS concluded that the pollock fisheries jeopardize the survival and recovery of the endangered western population of Steller sea lions and adversely modify sea lion critical habitat. Despite ongoing litigation under the Endangered Species Act and successive attempts to develop a mitigation plan, the fisheries continue to concentrate catches preferentially in sea lion critical habitat and are currently operating under emergency interim rules that expire in June 2002".

"The current regulations and level of pollock fishing does not provide adequate security against the risk of overfishing in a single-species context and does not address impacts to the food web in an ecosystem context..."

In the MSC Assessment it states:

"The BSAI pollock fishery is subject to multiple layers of monitoring, control and compliance assurance mechanisms. **The U.S. Coast Guard conducts surveillance and enforcement, using aircraft and vessels to monitor activities on the fishing grounds. NMFS also has an effective enforcement division, and NMFS enforcement agents often accompany the Coast Guard on its fisheries enforcement mission. At-sea enforcement includes boarding of vessels to review logbooks, vessel inspections and cargo inspections.** The Magnuson-Stevens Fishery Conservation and Management Act provides for civil and criminal penalties for violations of fisheries laws and regulations."

However, it would appear that Senators would not agree with MSC Assessment statement.

Biloxi Sun Herald: 05.05.2003

The Coast Guard came under congressional scrutiny Thursday by senators worried that non-homeland security missions like drug interdiction and **fishery enforcement** are **falling by the wayside**

"Over and above its mission to keep our ports and waterways secure, the Coast Guard is charged with missions that no other military service or federal agency could even begin to contemplate," Sen. Patty Murray, D-Wash., said at a Senate hearing.Murray cited a Coast Guard quarterly report that shows enforcement against drug trafficking has fallen 42 percent since Sept. 11, marine safety is down 43 percent and **fisheries enforcement down by a third**.Adm. Thomas Collins, the Coast Guard commandant, defended devoting much of the Coast Guard's resources to security and military missions during a year of "immense threat" posed by the Iraq war and possible terrorist attacks."If you looked at the activity of every law enforcement office across the nation, you'd see the same kind of (resources) spike," Collins told the Senate Appropriations Homeland Security subcommittee, chaired by Sen. Thad Cochran, R-Miss.Collins said the Coast Guard's fiscal 2004 budget request of $6.8 billion would allow the service to balance its military, domestic and security work. He did not give an exact breakdown of how the service would use the money. Both homeland security and non-security missions will be best fulfilled, Collins said, by improving the aging fleet of cutters and aircraft through programs like the Integrated Deepwater System, a 30-year contract awarded last year to Northrop Grumman and Lockheed Martin."We're going to close those (resource) gaps and get near pre 9/11 levels," Collins said. "Within our reach is the opportunity to create a robust security machine."Far from the committee rooms of Washington, 24-year-old Bren Singer, a boatswain's mate third class, was on duty Thursday at the Coast Guard station at Naval Station Pascagoula.Singer, a six-year veteran of the Coast Guard and an Ocean Springs native, said the terrorist attacks of Sept. 11 **had a major impact on the station's daily operations.**"Since 9/11, we've heightened our security tremendously," Singer said. "We've done a lot more security patrols of the Chevron docks and protecting the Navy base and we've been working a lot more hours."Despite concern on Capitol Hill, he doesn't think that other missions have been compromised as a result of the increased security checks. Instead, Singer said he's been able to continue non-security missions while doing random stops of vessels that come to the Gulf from as far away as Morocco."**We don't actually go on board looking for drugs or illegal fish or anything**," he said. "But if we do find something on board we take it to the next level and... search and seize."Singer hasn't noticed any significant changes to his job since the nation went off the orange, or high, security alert level on April 16."We're always going to be doing our homeland security to make sure everything is protected and everybody feels safe in the community," he said.

RE: SENATOR TED STEVENS

Anchorage Daily News (Published: October 24, 2003)

Stevens' fish rider for Adak attacked
POLLOCK: Aleut Corp., which pays his son, would have exclusive rights.
By WESLEY LOY

The Aleut Corp., a Native regional corporation trying to convert the abandoned Navy base on faraway Adak Island into a thriving new commercial fishing town, could receive exclusive rights to bottom fish worth $10 million a year or more under legislation sponsored by U.S. Sen. Ted Stevens.

The fish gift has rankled some commercial fishermen who say the legislation, which Stevens included as a rider to a pending federal budget bill, would unfairly snatch money out of their nets.

The critics also note that the Alaska senator's son, state Sen. Ben Stevens, R-Anchorage, is on the board of an Aleut Corp. subsidiary that's leading efforts to redevelop Adak.

Aside from that role, Ben Stevens also is a consultant to Adak Fisheries, a small fish-processing plant on Adak that stands to grow much larger if Adak lands the large pollock haul.

According to a legislative financial disclosure he filed in March, Ben Stevens last year received $80,000 in consulting fees from Adak Fisheries.

Ted Stevens, who chairs the powerful U.S. Senate Appropriations Committee, said giving the pollock to Adak is important for the state, for the Aleut people and for making some use of a military installation that cost taxpayers more than $3 billion.

He said his son didn't lobby him for the budget rider.

"I didn't even know Ben was on that board," Stevens said of his son's position on the board of Aleut Enterprise Corp. "I haven't dealt with him. We have dealt with Clem Tillion and a group that came in here from the Aleut Corp."

Tillion is a friend and former colleague of Ted Stevens when both served in the state Legislature. Tillion, who lives in Halibut Cove, currently is a paid consultant for Aleut Enterprise Corp., and he is a big backer of the Adak pollock rider as part of plans to build up a resident fishing fleet at Adak.

Wind-swept Adak Island is 1,200 miles southwest of Anchorage and 400 miles west of Dutch Harbor, hub of the rich Bering Sea commercial fisheries. The naval air station on Adak operationally shut down in 1997, leaving behind a huge airport, docks, a school, utilities and houses enough for a Cold War outpost that once accommodated 6,000 people.

Now only about 75 people live there permanently, though that figure can double during fishing seasons. The federal government has spent hundreds of millions of dollars ridding the island of stray explosives, fuel spills and asbestos, and the Aleut Corp. is close to formally taking
over Adak in a land exchange with the government.

Dave Jensen, chief executive for the Aleut Corp., said corporation executives approached Ted Stevens for legislation to qualify Adak as a pollock port and to give the Aleut Corp. rights to pollock available for harvest along the Aleutian chain.

Adak isn't an authorized port under current law because, as a once restricted military outpost, it had no history in the pollock industry, Jensen said.

He said the pollock is desperately needed to give Adak a viable economy and to give struggling salmon fishermen in other ports like Sand Point an income alternative.

He added that Ben Stevens has been on the Aleut Enterprise Corp. board for about five years -- not because he's the son of a senior U.S. senator but because of his expertise. For years, Stevens captained crab boats that worked Aleutian waters.

"I'm glad he's Ted Stevens' son, but his qualifications are above reproach," Jensen said.

Pollock is Alaska's money fish, yielding an annual catch worth $1 billion from the Bering Sea and Aleutian Islands. The white fish is used in fast food and to make surimi, a fish paste fashioned into imitation crab and other foods.

Currently, the Aleutian region is closed to pollock fishing as part of past plans to protect the endangered Steller sea lion. Federal regulators now say the closure isn't needed to protect the Stellers and are expected to soon reopen the Aleutians to commercial trawlers.

A harvest there is likely to be about 30,000 tons a year. The Stevens rider would cede rights to the Aleutians pollock to the Aleut Corp., which could lease the rights to commercial fishing companies for more than $300 a ton, $10 million a year.

Ben Stevens said almost everything he's ever done in business has raised suspicion that it's somehow linked to his famous father.

He said commercial fishermen from Washington, Oregon and California are complaining about the pollock rider only out of greed.

"This thing is good for Alaska. It's good for Adak. It's good for the Aleut people," he said.

But it's not good for everybody, said Brent Paine, executive director of the Seattle-based trade group United Catcher Boats.

The Adak pollock rider could deny the boats the chance to catch fish worth as much as $12 million annually at the

docks, he said. Congress could pass the rider, he added, with no public hearings or process.

"We're not being greedy. This is our livelihood. We've been depending on this fish since the 1970s."

Marine Fish Conservation Network

SENATOR STEVENS LAUNCHES ATTACK ON AMERICA'S OCEANS

Alaska Senator Ted Stevens has attached legislative language (known as a rider) to the appropriations bill funding the Department of Commerce that undermines vital legal protections for the ocean ecosystems of the U.S. North Pacific.

This legislative sneak attack on important provisions of U.S. fish conservation law has Congress directly mandating actions that should only be made within the lawful fish management process - with full opportunity for public participation. This rider sets a dangerous precedent for Congressional meddling in regional fish management, and threatens important fish habitat and ecosystem protections for all of our country's marine ecosystems.

Critical ongoing work to protect essential fish habitat and marine ecosystems will be stymied unless the Stevens Rider is removed from the bill when the Commerce Appropriations Bill is considered on the Senate Floor within the next few weeks.

DPSEIS 3.10

Recent concerns have focused on the availability of pelagic prey in the NPO ecosystems in this regard. Thus, measures of the availability of pelagic prey such as walleye pollock, Atka mackerel, Pacific herring, and forage species are an indicator of possible groundfish fishery impacts on predator-prey relationships.

Studies of pelagic forage availability show BSAI Pollock and Atka mackerel above MSST, GOA pollock at low abundance levels, and BSAI herring as stable. Biomass estimates for forage species are not available, but bycatch estimates in the groundfish fisheries are above average. Also of concern with respect to predator-prey relationships is the effect that fisheries may have on prey availability at various spatial and temporal scales. Although prey availability might be high when viewed at the global or stock level, there is potential for localized prey depletion by groundfish fisheries.

Previous analyses showed the potential of this effect for walleye pollock and Atka mackerel, and seasonal/spatial allocations of pollock and Atka mackerel catches have reduced the potential for this possible fishery impact in the present-day baseline

In “The Bering Sea Ecosystem” by the Commission on Geosciences, Environment and Resources (CGER), the Polar Research Board (PRB) & NRC, it states:

Clearly this report does not consider the management o pollock fisheries to be satisfactory

In the MSC Assessment Report it states:

“Unlike the North Sea and Barents Sea cases, in the Bering Sea, relationships between seabirds, marine mammals and their prey stocks are not well known in terms of functional responses, and so there is great difficulty in assessing likely causal relationships; evidently there is a need for experimentation and for research more clearly directed at understanding relationships between natural predators and the stocks of pollock and other forage fish.”

Surely, the recommendations in the “The Bering Sea Ecosystem” report and experimentation and research mentioned in the MSC Assessment report should be acted upon BEFORE the fishery is granted certification.

This fishery cannot be considered to be sustainable in its present form.

Decline of Steller Sea Lions

The Decline of the Steller Sea Lion in Alaskan Waters: Untangling Food Webs and Fishing Nets (2003) Ocean Studies Board (OSB), Polar Research Board (PRB) & NRC

Below is Table 6.1 Eight Major Hypotheses To Explain the Steller Sea Lion Population Decline.

Bycatch of Fish Species

The amount of bycatch of pollock fisheries is greater than the intentional catch of most other fisheries.

NMFS/AKR 2002 BERING SEA / ALEUTIAN ISLANDS FISHERIES PROHIBITED SPECIES BYCATCH
In the week ending: 12/31/02 Midwater pollock fisheries bycatch was

Herring	108 mt
Chinook Salmon	32,271
Other Salmon	77,111
B Tanner Crab Z1	1,464
B Tanner Crab Z2	860
CO Tanner Crab	1,636

DPSEIS

Bycatch of fish species is a waste in all circumstances. When threatened species are concerned it is of even greater concern.

The bycatch of herring in pelagic trawls targeting pollock has serious ramifications in that there is considerable evidence that one of the contributory factors in the decline of Steller sea lions has been **nutritional stress**.

In “The decline of Steller sea lions *Eumetopias jubatus* in Alaska: a review of the nutritional stress hypothesis” by A. W. TRITES and C. P. DONNELLY and “Pollock and the decline of Steller sea lions: testing the junk-food hypothesis” by David A.S. Rosen and Andrew W. Trites it is suggested that change in diet from herring to pollock might have contributed to the decline in Steller sea lion populations. Experiments with captive Steller sea lions have demonstrated that pollock is not as beneficial to sea lions as herring.

From 1958 – 65 herring stocks were heavily fished.
From 1966 – 73 and then 1988 to the present day, pollock stocks have been heavily fished with the accompanying herring bycatch.

This is perhaps a major factor in the decline of western populations of Steller sea lions.

The bycatch of a number of threatened salmon stocks should be of concern
The quantity of wasted salmon should be considered unacceptable.

DPSEIS 3.4

1. NPFMC and NOAA Fisheries, Alaska Region should monitor the bycatch of chinook salmon in groundfish fisheries and take necessary actions to ensure that the bycatch is minimized to possible and in any case does not exceed 40,000 chinook salmon per year in either the BSAI groundfish fisheries.

2. NPFMC and NOAA Fisheries, Alaska Region should improve estimates of the region-of-stock composition of the chinook salmon bycatch by increasing Coded Wire Tag sampling part of the mandatory salmon retention program, collecting and analyzing scale samples, employing additional stock identification techniques applicable to the problem.

3. NPFMC and NOAA Fisheries, Alaska Region should use information collected during the monitoring program to identify times and areas of high salmon abundance that could reduce salmon bycatch through regulatory action.

4. NPFMC and NOAA Fisheries, Alaska Region should encourage development of incentive designed to reduce the bycatch of salmon in the BSAI and GOA groundfish fisheries.

Sharks Shark bycatch rates are variable by region, and present-day groundfish fishery impacts **are unknown.**

This fishery cannot be considered to be sustainable in its present form. It should not be granted certification until the recommendations are implemented.

INCIDENTAL TAKE

In one section of MSC Assessment report it states:

"Permitted take levels for endangered and threatened species, or threshold levels of unacceptable take for protected and icon species are set at levels **that may still permit damaging impacts on these populations to continue, because they are not sufficiently precautionary in relation to high levels of uncertainty in the fishery or animal population dynamics**."

Yet, in another it states:

"Permitted take levels for endangered and threatened species, and threshold levels of unacceptable take of protected and icon species have been set at levels **that can be expected to keep impact well below levels that would harm population size** and are in accordance with international and/or national laws."

Clearly, these statements are at odds.

DPSEIS 3.10

Fisheries can have direct impacts on top predators such as sharks, seabirds, and marine mammals that are not part of the directed fishery but may be caught as bycatch. Groundfish fisheries, through selective targeting or bycatch, can remove prey and thus negatively affect other ecosystem components that rely on those prey.

Incidental Take Marine Mammals

In the MSC Assessment report it states:

"All pollock is harvested in the BS-AI with pelagic trawl nets pursuant to Amendment 57 to the BSAI Groundfish FMP. Compared to bottom trawls, mid-water trawl gear produces minimal effects on the environment."

In terms of seabed, destruction midwater trawl gear does have a minimal effect.
However, in terms of the incidental take of cetaceans, midwater trawls have unacceptably high levels. Numerous scientific reports have shown this to be the case – reports by ICES, ICRAM, Fertl & Leatherwood, Couperus, Morizur *et al* to name but a few.

DPSEIS 3.8

In 2002, all of the MSA groundfish fisheries (trawl, longline, and pot gear in the BSAI and GOA) were listed as Category III fisheries (67 FR 2410). Category III designates fisheries with a remote likelihood or no known serious injuries or mortalities, defined as those with take less than or equal to one percent of PBR.

However, **NMFS PRD has proposed that the BSAI groundfish trawl fishery be elevated to Category II status based on a review of Observer Program records of marine mammal incidental take from 1990-2000 (68 FR 1414).**
Owners of vessels or gear engaging in Category I or II fisheries are required to register with NMFS PRD to obtain a marine mammal authorization in order to lawfully take a marine mammal incidentally in their fishing operation (50 CFR 229.4). According to the records, total incidental take of all

fisheries is greater than 10 percent of PBR for the Alaska stocks of **western** and **central North Pacific humpback whales, resident killer whales, transient killer whales**, and the **western stock of Steller sea lions**.

Based on the incidental take of these species relative to their respective PBRs, and some other considerations in the case of humpback whales, NMFS PRD determined in their "Tier 2" analysis that the BSA groundfish trawl fishery posed a modest risk to these species.

Steller Sea Lions Steller sea lions were observed to be taken in the BSAI and GOA trawl fisheries.
PLEASE SEE SECTION - Decline of Steller Sea Lions

Fur Seals Observer Program data from 1990 to 1998 indicate that fur seals were taken incidentally only in the BSAI groundfish trawl fishery.
There is some concern that fishing effort displaced by Steller sea lion protection measures may be concentrated in areas important to fur seals. Seasonal and **temporal catch allocations of pollock** and Atka mackerel, along with SSL closures, **have spread out fishing removals in space and time, although recent results show BSAI Pollock fisheries increasing catch in Northern fur seal foraging habitat**. The proportion of the total June-October pollock catch in fur seal foraging habitat increased from an average of **40 percent** in 1995-1998 to **69 percent** in 1999-2000 (NMFS 2001xy)

In "The Bering Sea Ecosystem" by the Commission on Geosciences, Environment and Resources (CGER), the Polar Research Board (PRB) & NRC, it states:

Walrus Walrus have been reported to be taken incidentally in the Bering Sea groundfish trawl fisheries. NOAA Fisheries observer data collected from 1992 to 1996 indicate that approximately 17 animals were caught each year (USFSW 2002). **Between 1996 and 2000, 63 walrus were caught** (USFSW 2002).

Harbor Seals Observer Program data from 1990 to 1996 yield minimum estimates of harbor seals taken incidentally in groundfish gear. In the Bering Sea, 4 harbor seals are **estimated** to be killed each year in all groundfish gear combined. In the GOA, less than one harbor seal per year is **estimated** to be killed in trawls.

Spotted Seals NOAA Fisheries observers monitored incidental take in the 1990-1999 BSAI groundfish trawl, longline, and pot fisheries. Observed incidental takes in the Bering Sea trawl fishery (three seals killed in 1996) form the basis for an estimated annual mortality of one incidental take per year over the 1995-1999 period (Angliss and Lodge 2002). Some of these observations may be harbor seals rather than spotted seals, due to the difficulty in distinguishing between the two species. However, the proximity of the observations to the sea ice indicate that at least two of these observations were probably spotted seals.

Bearded Seals NOAA Fisheries observers monitored incidental take in the BSAI groundfish trawl, longline, and pot fisheries during 1990-1999. **The only fishery with observed incidental takes was the Bering Sea trawl fishery (three in 1991, four in 1994, one in 1998, and two in 1999).**

Sea Otters In 1997, the BSAI groundfish trawl fishery reported one sea otter taken (USFWS 2002). Current population trends parallel the situation for Steller sea lions and harbor seals in that

sea otter numbers have declined dramatically from the Alaska Peninsula to the Bering Sea, but have remained stable or increased in Southcentral and Southeast Alaska.

In May 2003 The Center for Biological Diversity (CBD) filed notice of its intent to sue the US Fish and Wildlife Service (USFWS) over its alleged failure to protect a struggling sea otter population off the Aleutian Islands.

Blue Whales No incidental take reported.

Fin Whales Prior to 1999, no fin whale mortalities were recorded by observers in the BSAI and GOA groundfish trawl, longline, and pot fisheries (Hill and DeMaster 1999).
However, in 1999, one fin whale was killed incidental to the **BSAI trawl fishery**, resulting in an extrapolated take of **three whales from this fishery in 1999** (Angliss *et al.* 2001). Fin whales are an endangered species due to commercial whaling prior to 1976. There are **no reliable population estimates** or trend information for the northeast Pacific stock.

Minke Whales One minke whale mortality was observed at Shelikof Strait in 1989 in a JV groundfish trawl fishery, the predecessor to the current Alaska groundfish trawl fishery (Hill and DeMaster 1999).
In September 2000, **one minke whale mortality occurred in the Bering Sea groundfish trawl fishery** (NMFS, REFM Observer Program preliminary unpublished data).

Humpback Whales NOAA Fisheries observers monitored incidental take in the 1990-1999 BSAI and GOA groundfish trawl, longline, and pot fisheries. **One humpback whale mortality was observed in the BSAI trawl fishery in 1998 and one in 1999**. Ship strikes and interactions with vessels unrelated to fishing have also accounted for humpback mortality. In the central North Pacific stock, four ship strikes were recorded between 1995 and 1999

Gray Whales No incidental take reported.

Northern Right Whales Ship strikes and entanglement in fishing gear are important sources of mortality in the Atlantic stock of northern right whales, but their rarity in the Pacific **has made it impossible to assess the susceptibility of the North Pacific stock to vessel strikes** (Angliss *et al.2001)*

Bowhead Whales There are no observer program records of bowhead whale mortality incidental to commercial fisheries in Alaska (Hill and DeMaster 1999).

However, there have been several cases of entanglements recorded (summarized in Philo *et al.*1992). These included three harvested bowheads that had scars attributed to rope entanglements, one bowhead found dead entangled in ropes similar to those used with fishing gear in the Bering Sea, and one bowhead with ropes on it that were attributed to rigging from a commercial offshore fishing pot, most likely a crab pot. There have been two other recent reports of bowheads with gear attached or marks that likely were from crab gear (J. C. George, North Slope Borough, personal communication).
Aerial photographs in at least two cases have shown ropes trailing from the mouths of bowheads (NMFS unpublished data).

Sperm Whales NOAA Fisheries has issued a BiOp that concludes the groundfish fisheries do not jeopardize the recovery or survival of endangered sperm whales

Beaked Whales NOAA Fisheries observers monitored incidental take in the 1990 to 1997 BSAI and GOA groundfish trawl, longline, and pot fisheries, and no mortalities or serious injuries of Baird's, Cuvier's, or Stejneger's beaked whales were observed (Hill and DeMaster 1999). No other interactions between commercial fisheries and beaked whales have been recorded in Alaska.

Beluga Whales NOAA Fisheries-certified observers monitored incidental take in the 1990-1998 BSAI groundfish trawl, longline, and pot fisheries. No mortality or serious injuries to belugas were observed incidental to these fisheries (Hill and DeMaster 1999). Three different commercial fisheries that could have interacted with beluga whales in Bristol Bay and the EBS were monitored by fishery observers for incidental take during 1990-99: BSAI groundfish trawl, longline, and pot fisheries. Observers did not report any mortality or serious injury of beluga whales incidental to these groundfish fisheries (Angliss *et al.* 2001).

Orca / Killer Whales NOAA Fisheries-certified observers monitored incidental take in the 1990-1999 BSAI and GOA groundfish trawl fisheries. **Incidental mortality of killer whales** occurred in the **BSAI groundfish trawl (including four observed takes and one during an unobserved trawl)**

Pacific White-Sided Dolphin Incidental take in the BSAI and GOA groundfish trawl, longline, and pot fisheries was recorded by NOAA Fisheries-certified observers from 1990 to 1998.
One dolphin was taken in that time period in the BSAI trawl fishery.

Harbor Porpoise Direct Mortality from Incidental Take in Groundfish Fisheries
The NOAA Fisheries observers monitored incidental take on the 1990–1998 BSAI and GOA groundfish trawl, longline, and pot fisheries. During this period, 21 to 31 percent of the GOA longline catch occurred within the range of the Southeast Alaska harbor porpoise stock (Angliss *et al.* 2001).
No incidental mortalities were recorded by observers, and logbook data for the GOA and Bering Sea harbor porpoise stocks.
For all three stocks, a reliable mortality estimate rate incidental to commercial fisheries was considered **unavailable because of the absence of observer placements in several fisheries.**

Dall's Porpoise Direct Mortality from Incidental Take by Groundfish Fisheries
Six different commercial fisheries operating within the range of the Alaska stock of Dall's porpoise were monitored for incidental take by NOAA Fisheries observers during 1990 to 1998.
No mortalities were observed in pot fisheries or in the GOA longline fishery.
The mean annual (total) mortality was 6.0 for the Bering Sea groundfish trawl fishery, 1.2 for the GOA groundfish trawl fishery, and 1.6 for the Bering Sea groundfish longline fishery (Angliss and Lodge 2002).

Draft Alaska Marine Mammal Stock Assessments 2003

Sperm Whales Observed **incidental** mortality in the GOA groundfish trawl fisheries 1997 – 2001 was 1 and estimated mortality was 3.

An additional source of information on the number of sperm whales killed or injured incidental to commercial fishery operations is the self-reported fisheries information required of vessel operators by the MMPA.

During the period between 1990 and 1999, fisher self-reports from all Alaska fisheries indicated no mortalities of sperm whales from interactions with commercial fishing gear.

Self-reported fisheries data are **incomplete for 1994**, **not available for 1995**, and **considered unreliable or a minimum estimate after 1996**

Therefore, based on the lack of reported mortalities, the estimated annual mortality is 0.4
An estimate of the current population size is unavailable.

Humpback Whales From 1990-2001 in Bering Sea/Aleutian Island groundfish trawl and Gulf of Alaska groundfish trawl fisheries 1 humpback whale mortality was observed in the Bering Sea/ Aleutian Islands groundfish trawl fishery in 1998 and one in 1999. Average annual mortality from the observed fisheries in Alaska was 0.4 humpbacks from this stock.

In 1994, the observer program became mandatory and observer coverage has been approximately **4-5%** since that time.

An additional source of information on the number of humpback whales killed or injured incidental to commercial fishery operations is the self-reported fisheries information required of vessel operators by the MMPA.

During the 4-year period between 1990 and 1993, there **were no fisher self-reports of humpback whale injuries or mortalities from interactions with commercial fishing gear in any Alaska fishery within the range of the Central North Pacific humpback whale stock.**

Logbook data are available **for part of 1989-94**, after which incidental mortality reporting requirements were modified. Under the new system, logbooks are no longer required; instead, fishers provide **selfreports.**

Data for the 1994-95 phase-in period is **fragmentary**.
After 1995, **the level of reporting dropped dramatically**, such that the records are considered incomplete and estimates of mortality based on them represent minimums.

Beluga Whales In the Bering Sea (and Aleutian Islands) groundfish trawl fisheries, observers did not report any mortality or serious injury of beluga whales incidental to these groundfish fisheries.

An additional source of information on the number of beluga whales killed or injured incidental to commercial fishery operations is the **self-reported** fisheries information required of vessel operators by the MMPA. During the period between 1990 and 1997, fisher self-reports did not include any mortality to beluga whales from this stock as a result of interactions with commercial fishing operations. **Self-reported fisheries data are incomplete for 1994, not available for 1995, and considered unreliable after 1995 (see Appendix 7).**

The estimated mortality is considered a **minimum due to a lack of observer programs** in fisheries likely to take beluga whales and **because logbook records (fisher self-reports required during 1990- 94) are most likely negatively biased** (Credle et al. 1994).

Orca / Killer Whales

In the BSAI groundfish trawl 1990-99 observed mortality was 5 in total and estimated mortality was 9.

An additional source of information on the number of killer whales killed or injured incidental to commercial fishery operations is the **self-reported fisheries** information required of vessel operators by the MMPA. During the period between 1990 and 1999, fisher self-reports from all Alaska fisheries indicated only one killer whale mortality, which occurred in the Bering Sea groundfish trawl fishery in 1990. **However, because logbook records (fisher self-reports required during 1990-94) are most likely negatively biased (Credle et al. 1994), these are considered to be minimum estimates. Self reported fisheries data are incomplete for 1994, not available for 1995, and considered unreliable for 1996 to the present**

The estimated minimum mortality rate incidental to U. S. commercial fisheries recently monitored is 1.4 animals

Although only small numbers of killer whales are taken in the Bering Sea fisheries, there is considerable interaction between the whales and the fisheries. However, **less has been documented regarding interactions with the trawl fishery**.

Recently several observers reported that large groups of killer whales in the Bering Sea have followed vessels for days at a time, actively consuming the processing waste (Fishery Observer Program, unpubl. data, Alaska Fisheries Science Center, National Marine Fisheries Service).
Based on currently available data, the estimated annual fishery-related mortality level (1.4) exceeds 10% of the PBR, (i.e., 0.72) and **therefore cannot be considered to be insignificant.**

Pacific White-Sided Dolphins In the Bering Sea (and Aleutian Islands) and Gulf of

Alaska groundfish trawl fisheries 1990-98 the mean annual (total) mortality was 0 in the Bering Sea groundfish trawl fishery

Harbor Porpoise Three different commercial fisheries operating within the range of the Bering Sea stock of harbor porpoise were monitored for incidental take by NMFS observers during 1990-98: Bering Sea (and Aleutian Islands) groundfish trawl, longline, and pot fisheries. The harbor porpoise mortality was observed only in the Bering Sea groundfish trawl fishery.
The mean annual (total) mortality rate resulting from observed mortalities was 1.2 (CV = 0.31).

An additional source of information on the number of harbor porpoise mortalities incidental to commercial fishery operations is the self-reported fisheries information required of vessel operators by the MMPA.

During the period from 1990 to 1998, fisher self-reports from 2 unobserved fisheries resulted in an annual mean of 0.5 mortalities from interactions with commercial fishing gear.

However, because logbook records (i.e., fisher self-reports required during 1990-94) are most likely negatively biased (Credle et al. 1994), these are considered to be minimum estimates. These totals are based on all available fisher self-reports for fisheries occurring within the range of the Bering Sea harbor porpoise stock, except the Bering Sea groundfish fisheries for which observer data were presented above.

Logbook data are available **for part of 1989-1994**, after which incidental mortality reporting requirements were modified.
Under the new system, logbooks are no longer required; instead, fishers provide self-reports.

Data for the 1994-95 phase in period **is fragmentary**.

After 1995, **the level of reporting dropped dramatically**, such that the records are considered incomplete and estimates of mortality based on them represent minimums

Dall's Porpoise The mean annual (total) mortality was 5.4 (CV = 0.18) for the Bering Sea groundfish trawl fishery and 0.3 (CV = 0.61) for the Gulf of Alaska groundfish trawl fishery.

An additional source of information on the number of Dall's porpoise killed or injured incidental to commercial fishery operations is the self-reported fisheries information required of vessel operators by the MMPA.

During the period between 1990 and 2001, fisher self-reports from 4 unobserved fisheries resulted in an estimated annual mean of 5 .6 mortalities from interactions with commercial fishing gear.

However, because logbook records are most likely negatively biased (Credle et al. 1994), **these are considered to be minimum estimates**.

Data for the 1994-95 phase-in period is **fragmentary**.

After 1995, the level of reporting dropped dramatically, such that the records are **considered incomplete and estimates of mortality based on them represent minimums.**

Population trends and status of this stock relative to OSP are currently **unknown.**

From these extracts it is clear that in some instances **population figures for some species are unavailable** and hence a lack of **PBRs**.
In other cases **observer coverage is minimal**, and **self reporting is totally inadequate.**

In addition "Under North Pacific Council requirements, vessels obtain observers directly from private observer companies. While the NMFS certifies observers that have passed training, it has no role in selecting or distributing observers to vessels. Direct contracting of observers by vessels **presents an opportunity for vessels and observer companies to select observers "satisfactory" to a vessel. In the extreme, this could result in observers benefiting the vessels by not performing all duties with due diligence."** Therefore, doubts must arise as to the validity and objectivity of observer reports.

A fishery cannot be certified as sustainable if accurate figures for the incidental mortality of cetacean species are not available.

<u>Entanglement</u>

Although some fisheries have no recorded incidental take of marine mammals, all of them probably contribute to the effects of entanglement in lost fishing gear. Evidence of entanglement comes from observations of animals trailing ropes, buoys, or nets or bearing scars from such gear. Sometimes stranded marine mammals also have evidence of entanglement but it my not be possible to ascertain whether the **entanglement caused the injury or whether the corpse picked up gear as it floated around after death. Sometimes an animal is observed to become entangled in specific fishing gear, in which case an incidental take or minor injury may be recorded for that particular fishery, but many times the contributions of individual fisheries to the overall effects of entanglement are difficult to document and quantify.**

Direct Effects through Disturbance by Fishing Vessels

The effects of disturbance caused by vessel traffic, fishing operations, engine noise, and sonar pulses on marine mammals are largely unknown. With regard to vessel traffic, many baleen and toothed whales appear tolerant, at least as suggested by their reactions at the surface. Observed behavior ranges from attraction to the vessel to course modification or maintenance of distance from the vessel.

Dall's porpoise, Pacific white-sided dolphins, and even beaked whales have been observed adjacent to vessels for extended periods of time. Conversely, harbor porpoise tend to avoid vessels. However, a small number of fatal collisions with various vessels have been recorded in California and Alaska in the past decade and others likely go **unreported or undetected** (Angliss *et al.* 2001).

Reactions to some fishing gear**, such as pelagic trawls, are poorly documented**. Given their distribution throughout the fishing grounds, at least some individuals may be expected to occasionally avoid contact with vessels or fishing gear, which would constitute a reaction to a disturbance. Assuming these instances occur, the effects are likely temporary. Sonar devices are used routinely during fishing activity as well as during vessel transit. The sounds produced by these devices may be audible to marine mammals and may thus constitute disturbance sources. Wintering humpback whales have been observed reacting to sonar pulses by moving away (Maybaum 1990, 1993), although few other cases of reaction have been documented.

"Under North Pacific Council requirements, vessels obtain observers directly from private observer companies. While the NMFS certifies observers that have passed training, it has no role in selecting or distributing observers to vessels. Direct contracting of observers by vessels presents an opportunity for vessels and observer companies to select observers "satisfactory" to a vessel. In the extreme, this could result in observers benefiting the vessels by not performing all duties with due diligence."

Therefore, doubts must arise as to the validity and objectivity of observer reports.

Incidental Take Birds

Ecosystem Considerations for 2003 - Reviewed by The Plan Teams for the Groundfish Fisheries of the Bering Sea, Aleutian Islands, and Gulf of Alaska.

Pollock appear to be an important and widespread prey for seabirds, despite their low energy density, and are likely to be the **most abundant or most available prey for seabirds during the breeding season in the BS.**

Pollock were used by seabirds throughout the BSAI and GOA, although for most seabirds they were the primary prey only in the Chukchi Sea and at the large islands of the BS. (Exceptions were the tufted puffins and murres, which used pollock in the GOA).

The cannibalism of juvenile pollock by adult pollock has been hypothesized as a regulating factor in pollock abundance. Additionally, adult pollock eat other species of small forage fish used by seabirds. Hunt and Stabeno (2002) suggested that the negative correlation between adult pollock biomass in the eastern BS and reproductive success of blacklegged kittiwakes in the Pribilofs is evidence of indirect effects of abundant adult pollock consuming and thus reducing availability of

forage fish to seabirds. This suggests that seabird productivity could be affected by fishery management decisions, and that the indirect effect of pollock harvest on seabirds could be incorporated into ecosystem-based models.

Indirect effects of groundfish fisheries might affect prey availability around seabird colonies even though they do not overlap with the seabird's breeding season. These potential effects include boat disturbance, alteration of predator-prey relations among fish species, habitat disturbance, or direct take of fish species whose juveniles are consumed by seabirds (see seabird section in Ecosystem Considerations chapter, NPFMC 2000, for review).

Competition for prey may also be involved, as suggested by the negative relationship between age-3+ pollock biomass in the eastern Bering Sea and the reproductive success of black-legged kittiwakes in the Pribilof Islands (Livingston, Low *et al.* 1999, Hunt and Stabeno 2002).
The interpretation of this relationship is that adult pollock consume the small fish (mainly, age-1 pollock and adult capelin) required by kittiwakes to successfully raise young (Hunt and Stabeno 2002). Thus, higher catch levels of some top-level species such as pollock might indirectly benefit piscivorous birds.

This scenario is complicated, however, by the effects of warm vs cold-water regimes, which can directly affect some forage species such as capelin, and indirectly drive the system by altering top-down or bottom-up regulatory processes (Hunt, Stabeno *et al.* 2002**). Additionally, the benefit of reducing the biomass of key predators such as pollock might be lost if populations of other large predatory fish increase due to reduced competition with pollock** (Hunt and Stabeno 2002).

Incidental Take in Trawls

Trawls primarily catch seabirds that dive for their prey. This probably occurs as the trawl is being retrieved rather than while it is actively fishing. A few birds may also be caught as they are attempting to scavenge fish or detritus at the surface during retrieval. The species composition of seabird incidental catch in observed trawl hauls is currently available for 1993 through 2001. The principal bird species reported in trawl hauls were northern fulmars, gulls, shearwaters, and alcids. Small numbers of other species also were caught. NMFS analysis of 1993 to 2001 observer data indicates that **trawl gear accounted for 6 to 35 percent of the total average annual seabird bycatch in the BSAI and GOA groundfish fisheries** combined, depending on the trawl sampling methodology used

Onboard observations of birds (including **Laysan albatrosses**) colliding with the trawl transducer wires (sometimes called third wire) have been made. These wires are typically deployed from the stern of **midwater trawl vessels fishing for pollock** and carry the transducer net sounder cable down to the head of the trawl net.

Any birds killed by such collisions would most likely not be recorded in the observers' sampling of the trawl haul in that it is unlikely that such dead birds would make their way into the trawl net**. NMFS is investigating the extent of use of trawl third wires in the trawl fleet and additional details of the bird/vessel interactions**. Solutions may be as simple as hanging streamers from the third wire or trawl gantry (Balogh, USFWS; N. Smith, New Zealand Ministry of Fisheries pers. comm)

Vessel Strikes

Striking of vessels by birds in flight is reported by observers, and their observations from 1993 – 2000 have recently been put in an Observer Notes Database (USFWS, Anchorage). The bird-strike data are preliminary and have not been analyzed statistically, but some quantitative summaries can be made. Of the over 2600 observation records (which include albatross sightings, vessel strikes, rare seabird observations, effectiveness of mitigation devices, etc.) there are 537 reports of birds found on the vessel, or birds striking the vessel or rigging. The records include 79 species or species groups and involve over 5,300 birds.
Of these **136 records are definitive reports of birds** striking the vessel (n = 101), the rigging (n = 19), or **specifically striking the 'third wire' on trawl gear** (n = 16). **The third wire incidents involved 79 birds**, mainly fulmars and **Laysan albatross**, with approximately 90% mortality.

The main species involved in vessel strikes were northern fulmars, Laysan albatross, storm petrels, and crested auklets, and for all vessel strikes, almost half of the birds were killed or injured. Incidents of vessel strikes were most frequent for fulmars (564 birds in 38 incidents), Laysan albatross (21 birds in 15 incidents), or petrel species (631 birds in 19 incidents), but the total number of birds involved was greatest for crested auklets (1,305 birds in 7 incidents). Another species with few events but large numbers of birds was the sooty shearwater (526 birds in 6 incidents).

Crested auklets appear to be particularly susceptible to collisions; in winter of 1977 an estimated 6,000 crested auklets were attracted to lights and collided with a fishing vessel near Kodiak Island, and in 1964 in the central Aleutians, approximately **1,100 crested auklets were attracted to deck lights on a processor and collided with structures on the vessel (Dick and Donaldson 1978)**. Many trawl vessels deploy a cable ("third wire") from the vessel to the trawl net monitoring device.
Seabird mortality resulting from interactions with the third wire has been documented, but is not directly monitored by groundfish observers. Therefore, the temporal and spatial distribution of seabird mortalities or injuries by species is **unknown**. NMFS's Alaska Fisheries Science Center is currently pursuing contractual arrangements for a study that would use video technology to evaluate the feasibility of detecting and identifying interactions of seabirds with the trawl third wire during trawl fishing operations.

Section 4.3.4 of the Alaska Groundfish Fisheries DPSEIS included several research and/or analysis needs identified by scientists currently researching seabirds in the BSAI and GOA ecosystem (NMFS, 2001a). As the information gaps are filled, the view of how seabirds are affected by fisheries may change.
Some additional research and analysis needs identified in SSC comments on the DPSEIS, in the *Draft: Bering Sea Ecosystem Research Plan* (AFSC, 1998) and by other seabird scientists are:

• Quantitative models to help evaluate the potential population-level impact of fisheries-related seabird mortality, particularly for those seabirds species that are killed in high numbers (e.g. northern fulmar), for abundant species (e.g. sooty shearwater and short-tailed shearwater, Laysan's albatross), and for less abundant species of concern (black-footed albatross).

• For many species, the potential impact of bycatch mortality needs to be assessed at the colony level. That is, are particular colonies more susceptible to bycatch impacts because of the temporal and spatial distribution of fisheries?

• Quantitative models to help evaluate the potential population-level impacts from the availability of fishery discards and offal, particularly on juvenile birds.

• Research and analysis to ascertain how much benefit seabirds of the North Pacific derive from discards and offal and to then balance that with the adverse impacts associated with the incidental

take of seabirds in fishing gear as a result of vessels attracting birds via the processing wastes and offal that are discharged.

• In varying the timing of fishing effort, there may be some effects on the value to seabirds of the discards and offal that result from the fishing activity. Discards in times when the seabirds have high energy demands or when naturally available food is hard to obtain may be more valuable to the seabirds than would be true in times of plentiful prey. A question that should be explored is whether pulsed fishing saturates the ability of the seabirds to take advantage of the waste produced.

• Compilation of pelagic (at-sea) data on distribution of seabirds in Alaska and elsewhere in the North Pacific. Such data on the pelagic distribution and abundance of seabirds is critical for addressing questions such as raised in this analysis on seabirds and could be used to assess the potential interactions between commercial fisheries and seabirds (e.g. longlines and albatrosses).

• Satellite telemetry studies on the short-tailed albatross, a rare and endangered species, to accurately identify spatial and temporal distribution patterns in the BSAI and GOA, particularly as they intersect with commercial fishing activity and the potential for interactions.

• Investigate the extent of use of trawl third wires in the trawl fleet, evaluate the extent to which seabirds interact with this third wire, and if necessary, pursue the development and/or identification of practical and effective methods and devices to reduce seabird interactions with trawl vessels equipped with trawl third wires.

• Conduct a more detailed analysis of multi-year data sets of seabird bycatch to include factors such as: spatial and temporal factors for both fishing effort and seabird distribution, vessel type, effectiveness of seabird deterrent devices.

• Develop and support a minimal program to piggyback marine bird observations on suitable monitoring platforms (e.g. ADF&G, IPHC, and NMFS longline surveys; research cruises).

• Examine the temporal and spatial scale of marine bird aggregations with respect to ephemeral and stable oceanographic features and prey aggregations.

• Use telemetry and standard ship transect methods to define (horizontally and vertically) seabird apex predator feeding areas both in the Being Sea during summer and in areas outside the Bering Sea that may be visited seasonally and to define the relationship of feeding areas to principal fishing areas. Identify and quantify food items used by seabirds in these areas of overlap.

• Expand collection and synthesis of data on seabird diet to include fall through spring months, and for all seasons, examine regional patterns of prey use and trends over time.

DPSEIS

Observer Program data on the numbers and species composition of incidental take in the combined BSAI and GOA trawl fisheries is currently available for 1997 through 2001.
During this time period, an estimated average of between **961 to 9,687 seabirds** were taken in **trawls each year**.
Based on the means of the high and low estimates for each species group, the species composition of these birds is approximately: 58 percent fulmars, 15 percent shearwaters, 8 percent unidentified seabirds, 5 percent gulls, 5 percent alcids, 5 percent other species, 2 percent unidentified tubenoses, and 2 percent Laysan albatross.
Diving species, including some alcids, are taken more frequently in trawls than they are on longlines.

In “The Bering Sea Ecosystem” by the Commission on Geosciences, Environment and Resources (CGER), the Polar Research Board (PRB) & NRC, it states:

“Under North Pacific Council requirements, vessels obtain observers directly from private observer companies. While the NMFS certifies observers that have passed training, it has no role in selecting or distributing observers to vessels. Direct contracting of observers by vessels presents an opportunity for vessels and observer companies to select observers “satisfactory” to a vessel. In the extreme, this could result in observers benefiting the vessels by not performing all duties with due diligence”

Therefore, doubts must arise as to the validity and objectivity of observer reports.

Until the additional research and analysis identified in SSC comments on the DPSEIS has been carried out, the pollock pelagic trawl fishery should not be classified as a sustainable fishery.

The pollock midwater trawl fishery does **NOT** conform to Articles 5 and 6 of the U.N. Straddling Stocks Agreement and Articles 6 and 7 of the global FAO Code of Conduct, as long term measures are **NOT** based on the best available scientific evidence, NMFS figures show that there **IS** overfishing, there has been **NO** application of the precautionary approach, an environmental impact assessment was produced only after **the federal district court ordered NFMS to prepare Environmental Impact Statements for the North Pacific groundfish fisheries,** there is **LITTL**E protection of related species in the ecosystem, there is **LITTLE** protection of biological diversity, **LITTLE** consideration of artisanal and subsistence use unless for **the benefit of those in authority**, a transparent and accessible system and information, data collection, promotion of scientific research only **AFTER CERTIFICATION**, and enforcement is **MINIMAL.**