SENATE—*Thursday, November 2, 2000*

(Legislative day of Friday, September 22, 2000)

The Senate met at 8:30 p.m., on the expiration of the recess, and was called to order by the President pro tempore [Mr. THURMOND].

The PRESIDENT pro tempore. Today's prayer will be offered by our guest Chaplain, Reverend Daniel P. Coughlin, Chaplain, U.S. House of Representatives, Washington, DC.

We are pleased to have you with us.

PRAYER

The guest Chaplain, Reverend Daniel P. Coughlin, offered the following prayer:

God ever faithful and lasting in love, Your word speaks wisdom to our minds and brings peace to our hearts. Be with us this evening.

Grant perseverance to the Members of the Senate as they endeavor to bring their work to completion. By Your holy inspiration, You have begun this good work in them. Through Your spirit, You continue to guide them; and by Your grace You will bring this work to fulfillment.

Our hope and our prayer is that in all things Your holy will may be accomplished and all honor, glory, and power be given to You now and forever. Amen.

PLEDGE OF ALLEGIANCE

The Honorable FRANK MURKOWSKI, a Senator from the State of Alaska, led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

RECOGNITION OF THE ACTING MAJORITY LEADER

The PRESIDENT pro tempore. The acting majority leader is recognized.

Mr. MURKOWSKI. Mr. President, I take this opportunity to welcome the President pro tempore, the senior Senator in this body, Senator THURMOND. I also thank the guest Chaplain for the prayer.

SCHEDULE

Mr. MURKOWSKI. On behalf of the leader, I wish to announce that today the Senate will immediately proceed to an adjournment resolution calling for a conditional adjournment of the Congress; that is, a 1-day continuing resolution and a consent governing the next few Senate session days.

The session is expected to last only a few minutes and obviously no votes will occur. However, Members are reminded that a rollcall vote is expected to occur the first day back, on November 14. Senators will be notified as to the exact time of the vote via the hotline system.

MAKING FURTHER CONTINUING APPROPRIATIONS FOR THE FISCAL YEAR 2001

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that the Senate now turn to the consideration of H.J. Res. 123, the continuing resolution; that the resolution be read three times and passed, and the motion to reconsider be laid upon the table, all without any intervening action or debate.

The PRESIDENT pro tempore. Without objection, it is so ordered.

The resolution (H.J. Res. 123) was read three times and passed.

PROVIDING FOR A CONDITIONAL ADJOURNMENT OR RECESS OF THE SENATE AND A CONDITIONAL ADJOURNMENT OF THE HOUSE OF REPRESENTATIVES

Mr. MURKOWSKI. Mr. President, I ask unanimous consent that a resolution I send to the desk calling for a conditional adjournment of the Congress, the concurrent resolution be agreed to, and the motion to reconsider be laid upon the table, all without any intervening action or debate.

The PRESIDENT pro tempore. Without objection, it is so ordered.

The resolution (S. Con. Res. 160) was agreed to, as follows:

S. CON. RES. 160

Resolved by the Senate (the House of Representatives concurring), That when the Senate recesses or adjourns at the close of business on Thursday, November 2, 2000, or on Monday, November 6, 2000, on a motion offered pursuant to this concurrent resolution by its Majority Leader or his designee, it stand recessed or adjourned until noon on Tuesday, November 14, 2000, or until such time on that day as may be specified by its Majority Leader or his designee in the motion to recess or adjourn, or until noon on the second day after Members are notified to reassemble pursuant to section 2 of this concurrent resolution, whichever occurs first; and that when the House adjourns on the legislative day of Thursday, November 2, 2000, Friday, November 3, 2000, Saturday, November 4, 2000, Sunday, November 5, 2000, Monday, November 6, 2000, Tuesday, November 7, 2000, Wednesday, November 8, 2000, or Thursday, November 9, 2000, on a motion offered pursuant to this concurrent resolution by its Majority Leader or his designee, it stand adjourned until 2 p.m. on Monday, November 13, 2000, or until noon on the second day after Members are notified to reassemble pursuant to section 2 of this concurrent resolution, whichever occurs first.

SEC. 2. The Majority Leader of the Senate and the Speaker of the House, acting jointly after consultation with the Minority Leader of the Senate and the Minority Leader of the House, shall notify the Members of the Senate and House, respectively, to reassemble whenever, in their opinion, the public interest shall warrant it.

ADDITIONAL STATEMENTS

STELLAR SEA LION

● Mr. STEVENS. Mr. President, after my remarks yesterday on the Steller sea lion decline, members of the press corps asked me for proof. This article provides a good summary of the research behind the sea lions' decline. I would also point out that the burden should be on the plaintiffs and the agency to prove that fishing has caused the sea lions' decline.

I ask that an article from the Pacific Fishing magazine be printed in the RECORD.

The article follows.

[From Pacific Fishing, Nov. 2000]

THE WRONG CURE?

Now that an unproven hypothesis has beached the North Pacific trawl fleet, environmental litigators have what they want. Are they honest enough to support research on whether their ''reasonable and precautionary'' solution really helps sea lions?

(By Jeb Wyman and Brad Warren)

When Judge Thomas S. Zilly banned trawling in 50,000 square miles of water designated as critical habitat for Steller sea lions, he issued a legal finding that groundfish fisheries off Alaska posed ''a reasonably certain threat of imminent harm'' to the endangered animals.

That phrase means plenty in court, but it doesn't carry much weight in the world of science, where evidence of the supposed threat from fishing has been repeatedly characterized as ''tenuous.'' Significantly, even the judges stopped short of endorsing any particular theory about what's shrinking the sea lion population. Instead, he focused on a legal principle established by prior courts' interpretations of the Endangered Species Act: If government and industry can't demolish the contention that fishing threatens the Stellers, then they must assume it does and restrain fisheries accordingly. (See ''Who Killed the Stellers?'' Pacific Fishing, October 2000, page 20.)

This converts a merely plausible threat to the Stellers into a legal mandate. Thus the three environmental groups that filed the

● This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.

lawsuit never had to prove that fishing is killing off sea lions. Nor did they need to show even that fishing is a more likely suspect than the other culprits that scientists are investigating. Those culprits include thoroughly documented changes in ocean climate and shifts in the available prey base for Stellers; they also include killer whales that have been videotaped devouring sea lions—a diet that one study calculates to account for most of the Stellers' recent rate of decline.

A WEAK HEART

In fact, the environmentalists' case is weakest at its heart. It depends upon the theory of ''localized depletion.'' This theory contends that trawl nets temporarily scoop out holes in schools of fish, or disperse them, for long enough so that Steller sea lions can't find enough food and thus are going extinct. No matter how it plays in court, in the harsh light of scientific inquiry the evidence and the logic behind this theory still are viewed as shaky, and other theories carry greater credence. For starters, the only field research to find evidence for localized depletion focused entirely on the Atka mackerel fishery, and even there the study's methodology and conclusions have been challenged by other scientists. Some scientists point to the complete absence, so far, of published field studies on whether pollock or cod fishing causes localized depletion. ''That's all basically a hypothesis,'' says Dr. Dayton Lee Alverson, a senior scientist who served on a federal panel investigating the Steller sea lion decline.

Scientists have many misgivings about the localized depletion hypothesis. For one, it appears that Stellers eat different fish than trawlers catch. Alverson points out that the Stellers' known foraging depths are much shallower than the waters where most pollock trawling occurs. Scientists also agree that the Stellers forage on smaller fish than trawlers target.

Another point of dispute is just how long any supposed ''hole'' or ''dispersal'' in schools may last. The assertion that ''depletion'' persists for long enough to strave sea lions relies on assumptions that few scientists or fishermen with any sea time can credit: that nearby fish don't swim into the gap left behind a trawl, and that fish don't migrate. (It's hard to show depletion after a fishing season when you know the fish would normally move on anyway.) If schools didn't ''in-fill,'' why would trawlers keep towing the same patch of water over and over? If migration didn't occur, why would fish seasonally pass through various fishing locations?

''CONJECTURES,'' NOT ''FACTS''

The National Marine Fisheries Service has drawn sharp criticism in the scientific community for allowing the tenuous hypothesis of localized depletion to drive fishery management. The North Pacific Fishery Management Council's Scientific and Statistical Committee, which includes scientists from universities and fisheries agencies around the country, has roundly condemned NMFS's new draft environmental assessment of cod fishery impacts on Stellers, which basically extends the depletion assumption to cod fisheries. The document relies on a ''flawed'' analysis to support that assumption, and it ''fails to clearly differentiate between conjectures and facts,'' the committee wrote in September. Calling for research to ''find out what works and what doesn't'' in protecting Stellers, the committee wrote: ''No one would object to the adoption of reasonable measures to arrest the decline if there was some assurance that they would lead to some improvement.'' But the scientists observed that the present lack of convincing evidence to balame fishing puts the council in a bind: ''If there is a connection between current fisheries and Steller sea lions and no action is taken, the council would be derelict in its responsibility to conserve resources under its domain. If other factors are responsible and the council imposes stringent measures, then the council would deprive individuals and even communities of their livelihoods with no justification.''

But the theory of localized depletion is crucial to the trawlers' foes, because it is clear that the U.S. fishery has not caused large-scale depletion of pollock stocks off Alaska. Between 1980 and 1990, when Steller numbers dwindled most rapidly, total pollock biomass in the Bearing Sea averaged 13.3 million metric tons, nearly twice the average of the previous decade. Catches averaged 1.1 million mt, representing a harvest rate between 5% and 15% of the total biomass. With 12 million tons of pollock remaining in the water, on average, how likely was it that the 40,000 or so Stellers in the endangered western population couldn't find enough pollock to eat? Between 1970 and 1980, when Alaska's western and eastern Stellers combined numbered between 200,000 and 250,000 animals, average pollock biomass was just 6.9 million tons.

So for most of the years of Steller decline, more pollock has been available for them to eat than during the previous 20 years, when the sea lion population was an order of magnitude larger. As biologists say, it's a ''negative correlation.''

What's more, attempts to link population crashes at Steller rookeries with commercial fishing have come up short. A 1989 paper by NMFS biologists Richard Merrick and Tom Laughlin found only a handful of correlations, which turned out to be both positive and negative. A 1996 study by David Sampson showed a big decline in Steller numbers at rookeries near heavy pollock winter fishing and in places where no winter catches had occurred at all. In other words, the animals did badly whether anyone fished near them or not.

Still, the theory of localized depletion remains the focus of the Steller debate. The only attempts to measure localized depletion have tried to show declining Catch Per Unit of Effort (CPUE) over time. If localized depletion is occurring, the density of fish schools will decrease as vessels soak up the fish. As total catch accumulates, every hour of trawling should produce fewer and fewer fish. Studies chasing this reasoning, however, rely on a key assumption that many scientists say just doesn't make sense: These studies assume that the schools are closed systems, with no fish entering or leaving the ''box,'' either by migration or mortality. They assume that only fishing removes fish.

REPEAT THAT, PLEASE?

Repeated efforts to prove localized depletion by demonstrating a decline in CPUE have had mixed results. Only one field study supports the notion of localized depletion: NMFS biologist Lowell Fritz's research on the Atka mackerel fishery in 1998 found a ''statistically significant'' CPUE decrease in 16 of 26 areas. Martin Smith, a graduate student at the University of California at Davis, reworked data in a March 1999 report and concluded that depletion had occurred in five of six locations. But similar studies on the pollock and cod fisheries have produced less conclusive results. Plots of daily cod catch in 1998, measured as catch per hour of towing, produce an untidy geography of dots, with peaks and valleys and plateaus. Localized depletion, as shown by declining CPUE, isn't at all clear. It takes a statistician's determined hand to massage the data into a gently sloping line.

What does that gently sloping line indicate? If fish don't move, a gently sloping line is what you'd expect: after all, fish are being pulled into boats. But as many fisherman and scientists point out, it's unreasonable to assume that fish don't move. Fishermen follow fish to stay on top of them; witness this year's pollock A season, when trawlers roved into, through, and out of the Bering Sea's Catcher Vessel Operational Area, shadowing the pollock. Allen Shimada and Daniel Kimura, who tagged 12,396 cod between 1982 and 1990 and charted their movements around the Bering Sea, amply documented the fact that cod migrate.

A central problem in studies of localized depletion is the quality of the data. None of the localized depletion studies have used data that adequately account for variations in boat and net size. More horsepower means a bigger net; a bigger net means more fish per hour of towing. The slightly lower CPUE toward the end of the 1998 cod season, for example, might only reflect the departure of big boats with big nets from the fishery. It could also reflect cod incidentally caught by boats in other fisheries, or normal seasonal movements that make cod harder to catch.

Terry Quinn, a statistician and population dynamics professor with the University of Alaska-Fairbanks and also a member of the North Pacific Fishery Management Council's Scientific and Statistical Committee, has begun a two-year stud of localized depletion data. ''There's a great deal of frustration among us scientists,'' he says. ''As the resource manager, the council has the responsibility to manage the fish population for fishermen, as well as the whole health of the ecosystem. But the evidence for a strong relationship between the fishery and the Steller sea lion is tenuous at best. It focuses attention away from other theories, such as ecosystem change, that also deserve attention. If you focus only on a single issue you might blow it.''

In this case, the single issue that environmentalists have litigated into the status of orthodoxy rests on a slender pedestal of scientific evidence. No scientific publication has accepted a paper analyzing localized depletion.

WHO SWIPED LUNCH?

In contrast, the scientific literature teems with papers describing the profound climatic regime shifts of the North Pacific. Following the regime shift in 1976–77, after roughly a 20-year ''cool'' period, the stocks of dozens of fish species experienced drastic changes. Small-mesh surveys of the Gulf of Alaska conducted by NMFS since 1953 have accrued more than 90,000 individual catch records. They record the precipitous decline of shrimp, capelin, Tanner crab, red king crab, herring, greenling, and Atka mackerel during the current ''warm'' period. While these stocks withered, others surged: pollock, sole, arrowtooth flounder, jellyfish, halibut, and others.

As fish stocks rearranged themselves, so did higher predators. The Stellers took a nose dive: an annual 24% decline between 1980 and 1990 followed that regime shift in the late 1970s. As the rich, oily prey species declined, so did the marine mammals that eat them. The Steller's pinniped cousins, harbor seals, lost 80–90% of their population in that same decade; Northern fur seals are at about 50% of their historic population.

Populations of kittiwake and murres, coastal seabirds that forage on the same fish as Stellers, also plunged.

So, was it Mother Nature that swiped the sea lions' nutritious lunch, giving them nothing but a horde of groundfish full of empty calories to eat? The ''junk food'' theory says so. This theory suggests that Stellers now eat too much low-fat pollock and cod because of their superabundance, and eat too few fat-rich species like herring, sandlance, capelin, and smelt because there aren't enough around. The premise relies on 50 years of studies on the diet of Stellers, based on stomach contents and scat analyses. But scat analyses are imperfect because the bones of forage species such as capelin don't usually endure the digestive process. In other words, if Stellers eat a lot of them, the scat might not show it.

It's also uncertain whether Steller sea lions eat opportunistically or selectively, whether they eat a different meal every dive, whether they eat different foods during different seasons. Nonetheless, a number of respected researchers are convinced that the Steller diet includes a far greater percentage of pollock since the regime shift. Among them is Andrew Trites, the head of the Marine Mammal Research Unit at the University of British Columbia and the director of a multi-university research consortium in the U.S. and Canada that has been trying to sort out what's happening to the Stellers and the ocean ecosystems where they live. Trites says the data show that Stellers in the Gulf of Alaska have steadily increased their diet of pollock, from 32% in 1976–78 to 85% by 1990–93. After the same time, consumption of fatty fishes decreased from 61% to 18%.

Besides the evidence of sea lion diet changes, nutritional stress has for years been a favorite explanation for the Stellers' decline because of other observations. Stellers are smaller than they once were, and reproductive success has dropped by about a third—classic signs of an ecosystem with reduced carrying capacity.

Still, not everyone believes in the junk-food theory. ''The junk-food theory is junk,'' says Vidar Wespestad, a biologist formerly at NMFS and now a consultant for the whiting fishery. ''The genus name for pollock is Theragra, which means 'animal food.' When the species was named at the start of the 19th century, I'm sure it was based on the fact that it was noted as a major food item of sea lions. The whole food thing is tenuous. There has never been shown to be a food problem with Steller sea lions in the wild. You don't find emaciated Stellers washing up on the beaches.''

Whether or not Stellers always ate pollock, Trites's empirical work is widely considered a solid showing that Stellers cannot live on pollock alone. In a paper published this year in the Canadian Journal of Zoology, Trites and his colleague David Rosen present results of dietary experiments with six juvenile Stellers. The sea lions received alternating diets of herring and pollock, as much as they wanted to eat, for periods of 11 to 24 days. The animals individually lost between 1.4% and 16.4% of their body weight, an average of more than half a kilogram a day, on the all-pollock diet. Trites and Rosen attribute the results to the measured lower nutritional value of pollock than herring, and the higher energy cost to digest it. Clearly it is ''much more difficult for Steller sea lions to thrive on a diet consisting primarily of pollock,'' he writes. ''Steller sea lions would have to consume an average of 56% more pollock than herring to maintain a comparable net energy intake.''

It happens that, in the Bering Sea, nature lately has set the Steller's table with a diet mainly of pollock. Other scientists have also found evidence that this may be unhealthy for Stellers. A study by NMFS biologist Richard Merrick in 1997, for instance, determined that Steller populations with the least diet diversity—those eating the highest percentage of pollock—suffered the greatest decline.

If, in fact, too much pollock is harming the Stellers, there's a peculiar irony afloat: fishing may actually help the Steller population. Adult pollock (three year and older) are cannibals, voraciously feeding on smaller juvenile pollock, which are the preferred prey of Stellers. Trawlers target adult pollock, reducing their consumption of juveniles. Year-by-year graphing of adult pollock biomass compared to juvenile biomass neatly shows the inverse relationship of adult to juvenile pollock.

Even so, don't expect Stellers to rebound just by increasing fishing effort. According to John Piatt, a researcher at the U.S. Geological Survey's Alaska Biological Research Center, large predatory groundfish currently eat 10 to 100 times more forage fish than seabirds, marine mammals, and humans combined. It may be, as Andrew Trites says, that ''the solution to restoring the numbers of Steller sea lions is probably out of human control.''

But whether it's hunger or some other cause of death, the reaper has been selective. Population studies by Anne York of NMFS's Alaska Fisheries Science Center found that adult survival was essentially stable; juveniles, however, declined 10–20%, and her work is widely cited. So what's killing the young?

WHO ATE THE STELLERS?

Maybe orca whales. Skippers have plenty of anecdotal reports of orcas attacking Stellers, but the discovery of tags from 14 Stellers in the belly of an orcas that washed ashore in 1992 in Price William Sound constitutes striking scientific evidence that Stellers sea lions, endangered or not, are on the orcas's menu. Researchers at Seward's Alaska Sea Life Center have videotaped orcas charging up the beach at Chiswell Island to snatch Stellers. Studies by Craig Matkin, a recognized authority on Alaska orcas, calculate that 125 marine mammal-eating orcas (known as ''transients'') prey on the endangered western Steller population, and between 10% and 15% of their diet consists of sea lions. According to Matkin, the orcas likely erode the Steller population each year by 3.8%. That's big chunk of NMFS's observed annual decline of 5.2% on average since 1990. Other researchers believe that orcas have been forced to find something besides Stellers to eat, now that the sea lions are scarce. Jim Estes, a researcher at UC-Davis, discovered that orcas have been preying on sea otters with such zeal that between 1993 and 1997 they devoured 76% of the sea otter population at Kuluk Bay, Adak. Unlike fishermen, orcas and ocean climate regimes don't pay much heed to federal regulations. Officials at NMFS would be uncorking a political firestorm—and possible a whole new conservation problem—if they moved to cull killer whales in order to protect Stellers. That leaves NMFS facing intense pressure to crack down on fisheries, even though there's little evidence that this will help.

LET'S TEST THE CURE

To Ken Stump, a consultant to Greenpeace who is credited as the architect of the environmentalists' case against NMFS, the circumstances look like a clear mandate. Scientific uncertainty should not mean inaction, he contends. ''I'd be the first to say that we need more research, but in the near term we aren't going to get any closer to the truth,'' he says. ''In light of the available information, there is no good justification for letting the fisheries pack it in in critical habitats. It is eminently reasonable and precautionary to reduce the impacts of these fisheries while further research continues. It's the one thing we have any control over.''

With its inconsistent and fumbling legal defense, NMFS gave Judge Zilly little choice but to agree with Stump. Someday, the result probably will be construed as a grand experiment: Let's see if fishing less helps the sea lions. Yet the trawl injunction is anything but scientific. Scientists have insisted for years that barring trawlers from designated critical habitat forecloses any chance of learning whether they really do starve out the animals. That's because the strategy fails to establish ''control'' zones where fishing is allowed inside critical habitat for comparison to similar zones where fishing is prohibited. As the council's Scientific and Statistical Committee put it in September, it would be helpful ''to open some rookeries to controlled fishing in connection with observation on the foraging of Steller sea lions in the area.'' Calling for a more ''science based'' process, the committee observed that fishery managers can have no confidence they have done their job fairly or well.

According to the committee, ''The only way out of this morass is to design a research and management plan that tests hypotheses related to the Steller sea lion decline and increases the understanding of the potential interactions between groundfish fisheries and Steller sea lions.''

Whether that can happen ultimately depends upon the courts and, perhaps, Congress. Either way, the environmental litigants in the sea lion case probably would have to sign off on such a research plan. So far that doesn't look likely.

In conversation, Stump bristles at the mention of Andrew Trites, a scientist who admits he started years ago with the assumption that fishing must be to blame for the Steller's decline but found evidence of other causes instead. In print (Pacific Fishing, October 2000, page 6), Stump rails bitterly against the view that natural causes may account for the Steller's decline. In meetings in Alaska, he publicly taunts Dickie Jacobson, the mayor of Sand Point, Alaska, who says Stump's ''eminently reasonable'' solution puts his whole community at risk and could spell ''the end of the Eastern Aleut world.''

Stump has good reason to be threatened by such possibilities. He and his allies have scored their legal triumph by exploiting a wide gap in the available science; ignorance is literally their opportunity. They're laughed off requests to help pay for the research necessary to find out what's really killing sea lions. Little wonder. Any genuine scientific test of trawl closures carries a risk for them: Having vanquished trawlers from critical habitat and successfully divided the fishing industry against itself, why should the victors want to learn whether they picked the wrong cure for sea lions?●

CLOTURE VOTE ON BANKRUPTCY REFORM

● Mr. DORGAN. Mr. President, yesterday I voted against cloture on the