An Alaska Fishing Industry Perspective on the Development, Implementation and Enforcement of Coral Protection measures in the Aleutian Islands

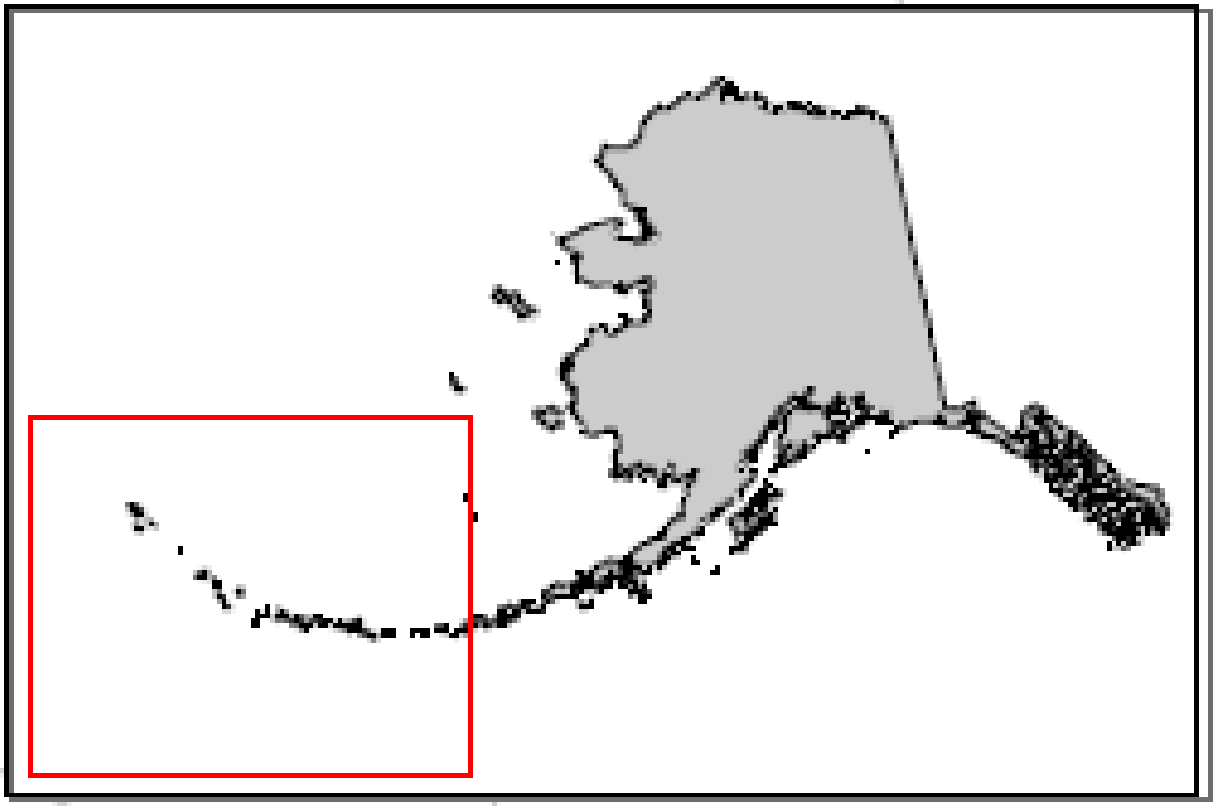
John Gauvin

Fishery Science Projects Director

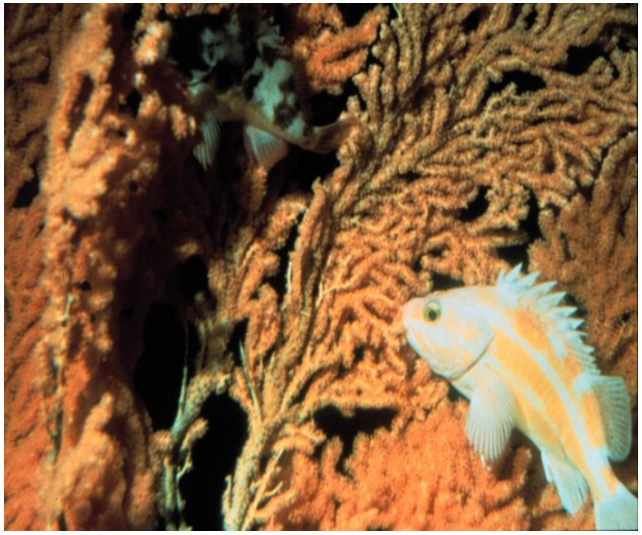
Best Use Cooperative

Seattle WA

The Aleutian Archipelago spans >600 miles of sparse, exposed islands, narrow shelf and dramatic slope bathymetry with……



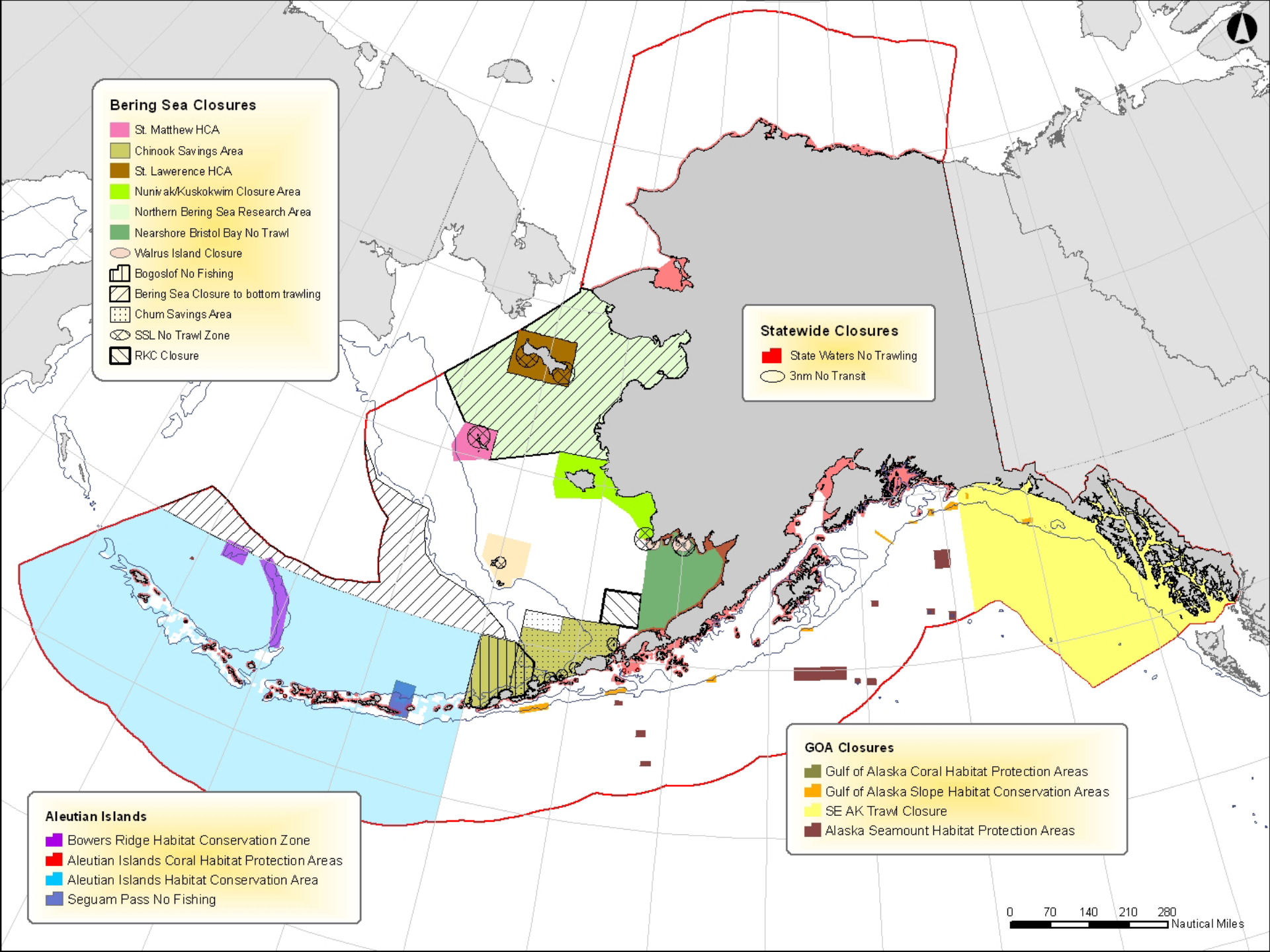
…areas of abundant cold-water corals. The Aleutians have been fished for rockfish, Atka mackerel, and cod for >50 years (foreign, JV, domestic). Fish stocks are healthy, corals still abundant.



The Aleutian Islands trawl fisheries are comprised of large vessels. Only large vessels are feasible given the three day steam required to access the fishing grounds. Nearly all boats are catcher processors.

In 2004, video transect surveys and other research identified extensive coral habitat areas and the issue of potential effects of fishing on these areas was raised.

North Pacific fisheries are already managed with complex habitat conservation measures…….


Bering Sea Closures
St. Matthew HCA
Chinook Savings Area
St. Lawerence HCA
Nunivak/Kuskokwim Closure Area
Northern Bering Sea Research Area
Nearshore Bristol Bay No Trawl
Walrus Island Closure
Bogoslof No Fishing
Bering Sea Closure to bottom trawling
Chum Savings Area
SSL No Trawl Zone
RKC Closure
Statewide Closures
State Waters No Trawling
3nm No Transit
Aleutian Islands
Bowers Ridge Habitat Conservation Zone
Aleutian Islands Coral Habitat Protection Areas
Aleutian Islands Habitat Conservation Area
Seguam Pass No Fishing
GOA Closures
Gulf of Alaska Coral Habitat Protection Areas
Gulf of Alaska Slope Habitat Conservation Areas
SE AK Trawl Closure
Alaska Seamount Habitat Protection Areas
0 70 140 210 280
Nautical Miles

Partial List of Bering Sea, Aleutian Island and Gulf of Alaska trawl closures

SITE_NAME	ESTABLISH_	Area_nm2
Zone 1 (512) Closure to Trawl Gear	1986	
Kodiak Island, Trawls Other Than Pelagic Trawls - Type I Closures	1987	1,000
Pribilof Island Area Habitat Conservation Zone	1995	7,000
Red King Crab Savings Area	1995	4,000
Nearshore Bristol Bay Trawl Closure	1997	19,000
Southeast Alaska Trawl Closure	1998	52,600
Sitka Pinnacles Marine Reserve	2000	3
SSL No Transit/No Trawl Areas	2001	11,900
Cook Inlet	2002	7,000
Gulf of Alaska Slope Habitat Conservation Areas	2006	2,086
Gulf of Alaska Coral Habitat Protection Area	2006	14
Bowers Ridge Habitat Conservation Zone	2006	5,286
Alaska Seamount Habitat Protected Area	2006	5,329
Aleutian Islands Habitat Conservation Area	2006	277,100
Aleutian Islands Coral Habitat Protection Area	2006	110
Bering Sea Habitat Conservation Area	2008	47,100
St. Matthews Island Habitat Conservation Area	2008	4,100
St. Lawerence Island Habitat Conservation Area	2008	8,400
Nunivak Island, Etolin Strait, and Kuskokwim Bay Habitat Conservation Area	2008	9,800
Northern Bering Sea Research Area	2008	65,000

526,828

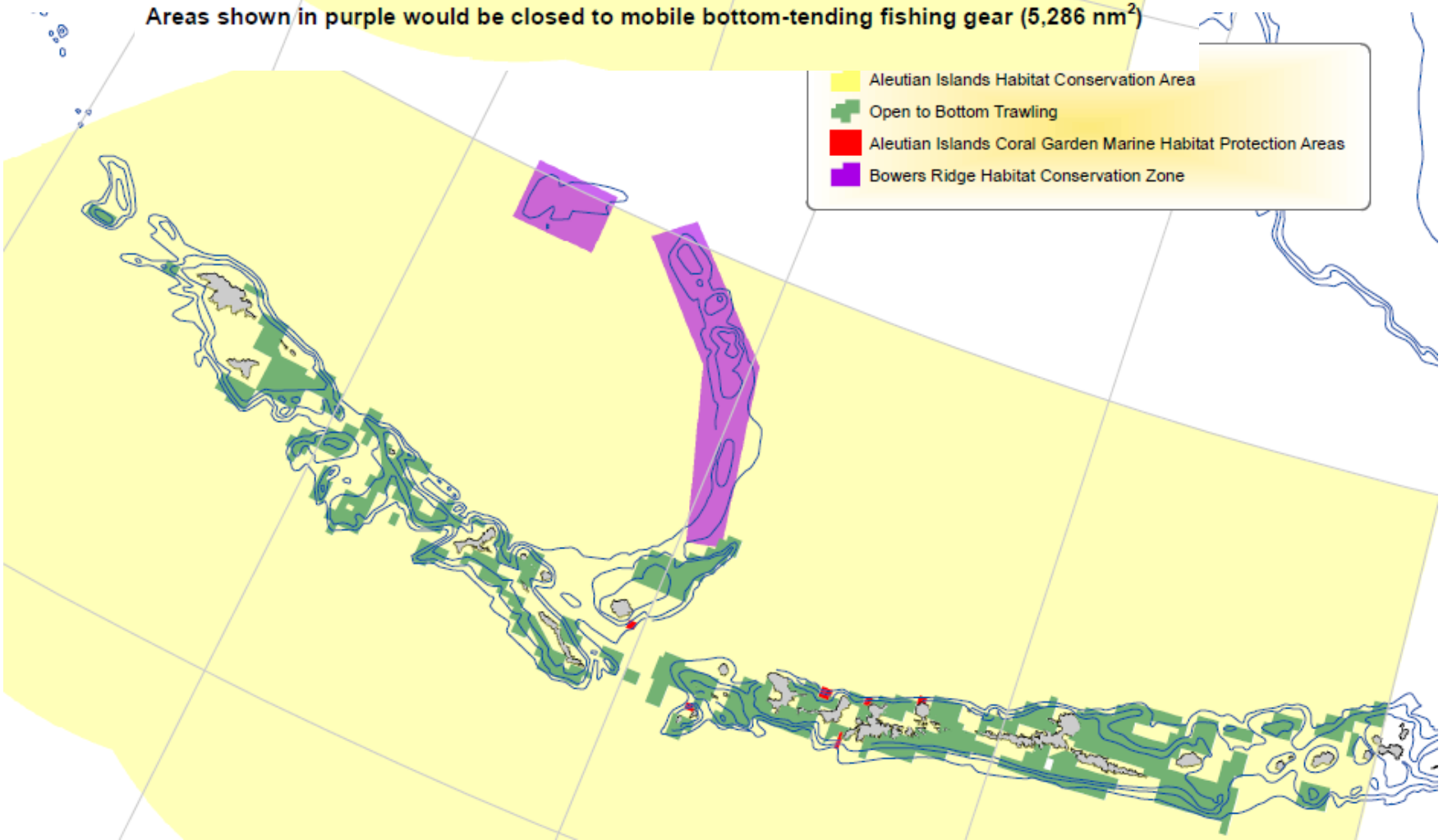
Coral protection objectives motivated the NPFMC to consider a “freeze the footprint” measure for the Aleutian trawl fisheries. This lead to the open area approach (AIHCA)

Areas shown in yellow would be closed to bottom trawling (279,114 nm^2)

Areas shown in green would remain open to bottom trawling (12,423 nm^2)

Areas shown in red would be closed to all bottom-tending fishing gear (110 nm^2)

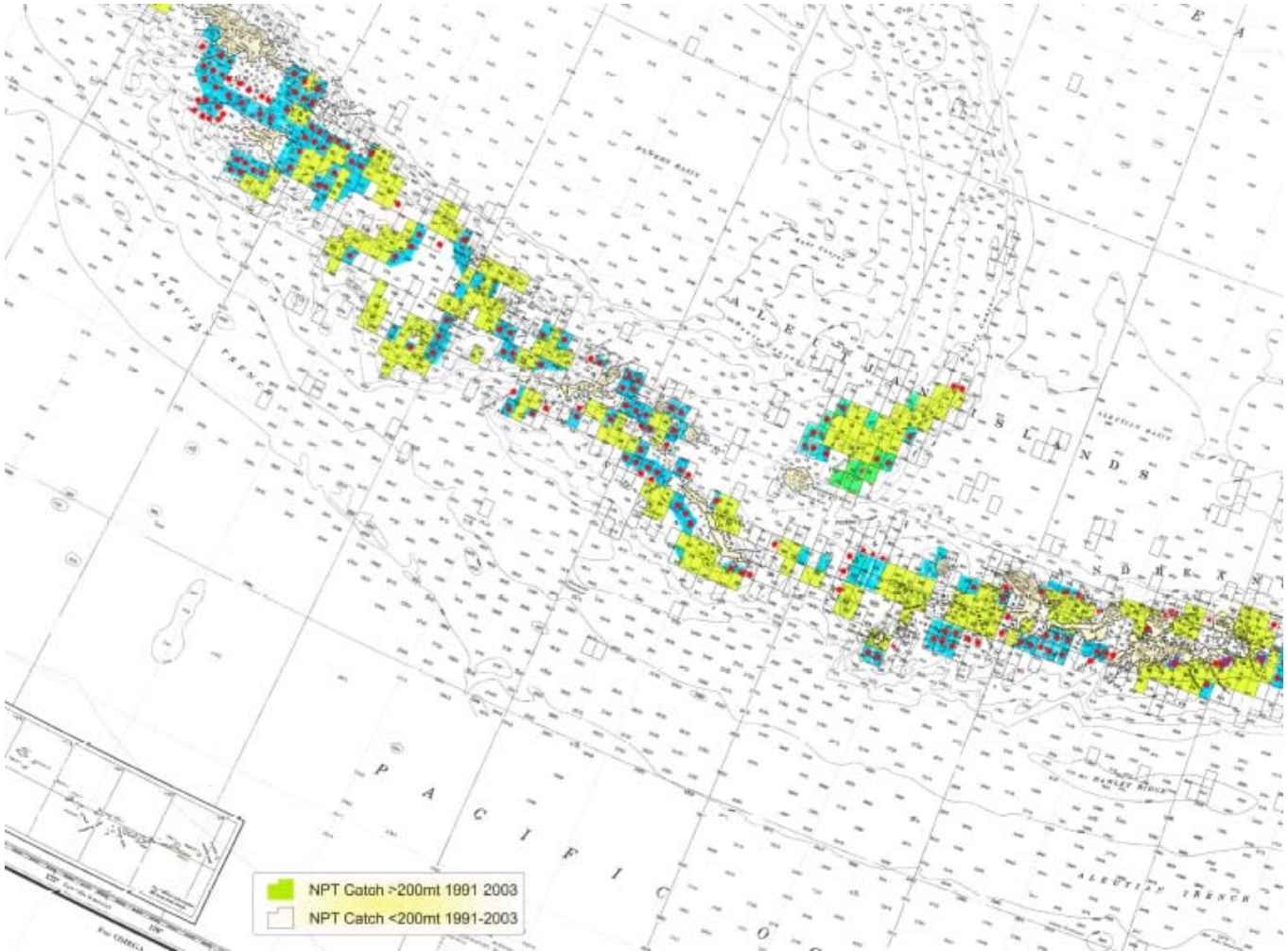
Areas shown in purple would be closed to mobile bottom-tending fishing gear (5,286 nm^2)



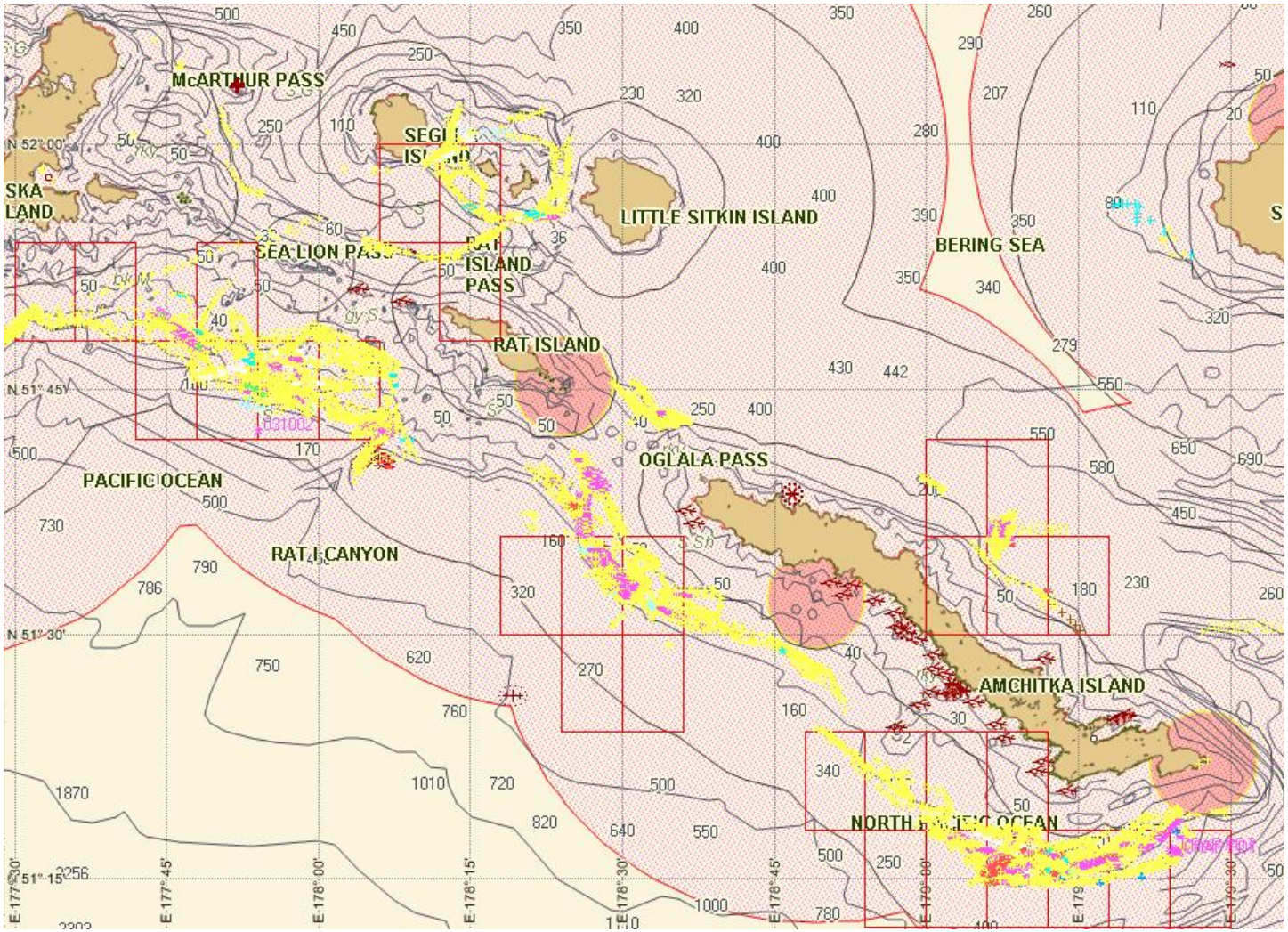
Fathoming the spatial extent of Aleutian Islands coral habitat protections

- 2005 measures 279,000 square nautical miles of the Aleutian Islands to bottom trawling.
- This is approximately 95% of the total Aleutian Islands management area
- Roughly 65% of the fishable depths closed to trawling by this action
- 5,286 square nautical miles are closed to all bottom contact mobile gear fishing
- 110 square nautical miles are closed to all bottom contact gears.

The AIHCA is one of the most spatially complex management measures ever implemented. Development of AIHCA included use of NMFS catch data, plotter information, extensive public process and debate

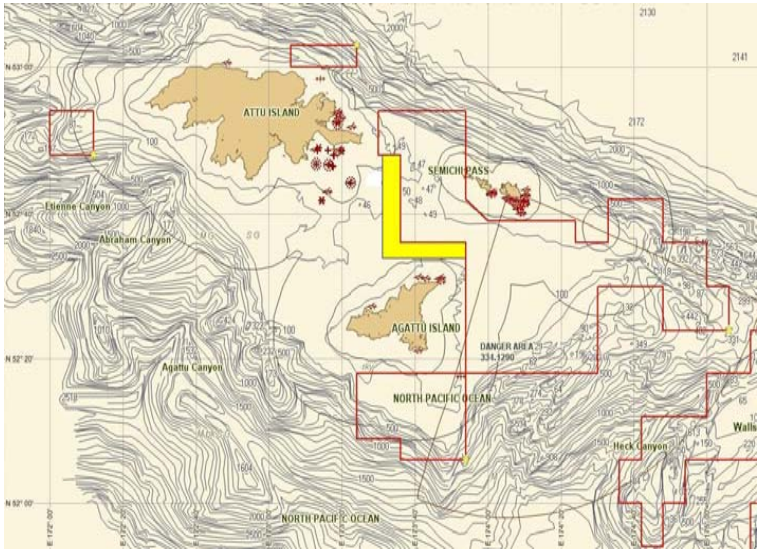


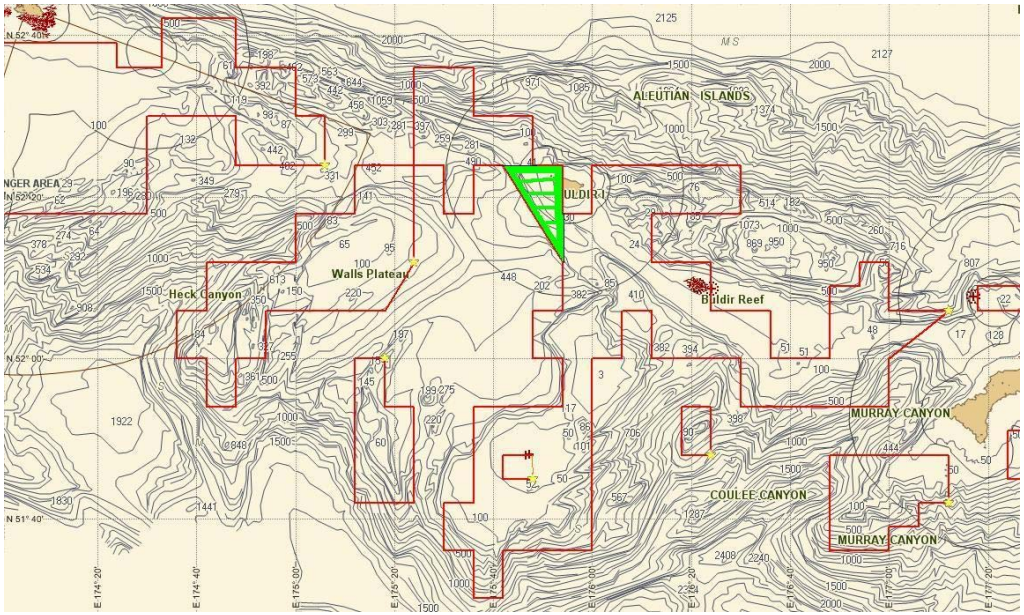
Problems encountered with the use of NMFS catch data applied to spatial blocks



Modification step during first year of AIHCA

Added after review of catch and plotter records verified





Removed from open area (identified by fishermen as coral area in early HAPC proposal)

Official Monitoring and Enforcement of AIHCA

- **For trawl fisheries, two NMFS-trained fishery observers on vessels at all times (same for all Amendment 80 vessels, vessel pays direct costs of coverage)**
- **Approved VMS unit (ARGOS) required, unit must be operational and in operation whenever fishing**
- **Electronic catch and set and retrieval position reporting to NMFS via ATLAS (electronic catch and effort reporting via satellite communications)**

Fishing Cooperative role in accounting and monitoring regulations

- **What do I mean by a fishing cooperative?**
- **Amendment 80 for Groundfish FMP allows formation of fishing cooperatives**
- **Cooperatives are mechanism to pool catch shares of member vessels, must administers individual allocations and trades- NMFS oversees this process and audits records**
- **Cooperatives cannot exceed cumulative catch allocations of member vessels**

Fishing Cooperative role in accounting and monitoring regulations

- **“Joint and several” liability implicit under the legal entity of a fishing cooperative applies to catch allocations and <u>all regulations including closed area restrictions</u>**
- **Coop contracts, penalty schedule enforced via civil contract enforcement as part of coop agreement**
- **Therefore, cooperatives oversee activities of member vessels including monitoring vessel catches and fishing locations**

Fishing Cooperative role in accounting and monitoring regulations

- **Under Coop contracts, member vessels required to a suitable GPS plotter programs with embedded "open area" delineations and notification software reflecting area regulations when fishing in Aleutian Islands**
- **Thus far, no BUC member vessel has had an infraction on AIHCA areas**
- **One case, a potential violation of the AIHCA boundaries for a non-Coop vessel is currently in process. The vessel in question participates in the "limited access" part of Amendment 80 sector**

AIHCA Case in enforcement process

- **Case is reportedly reasonably "black and white" for reasons other than determination of the vessel's position**
- **Therefore case is not expected to generate discussion on issues of spatial tolerances, buffers, limitations of current NMFS approved VMS system**
- **Industry remains concerned about limitations of current VMS system (records vessel position every 20 minutes, sends data via satellite once every 12 to 24 hours)**

Our experience with the development and implementation of AIHCA contains several lessons

- **Industry buy-in obtained by "good public process" over the course of AIHCA development**
- **Highly spatially complex "open area" is workable if carefully constructed. AIHCA is example.**
- **Higher level of spatial specificity was possible and agreeable to industry potentially problematic for enforcement (non-linear shapes). Circles from points are used in N.P.**
- **Enforceability not the only reason NPFMC eventually used rectangular blocks and regular shapes**

Our experience with the development and implementation of AIHCA contains several lessons

- **Limitations of available monitoring tools needs to be considered in the development of spatially complex measures. Everyone has a stake in making this work.**
- **With Coop management and private contracts built around J.S.Liability, alternative monitoring tools may be available.**
- **These “private sector” approaches may provide innovative and possibly effective means of monitoring. May also be more feasible for industry.**