

Area-Based Management of Living Marine Resources

MPA Federal Advisory Committee

November 17, 2003

San Mateo, California

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Overview

- Ecosystem Approaches to Management
- Challenges in Area-based Management
- Evaluating Effectiveness
- NOAA Fisheries MPAs
- Outlook

NOAA's Mission Goals

- **Climate**
- **Weather and water**
- **Commerce and transportation**
- **Ecosystems:** Protect, restore and manage the use of coastal and ocean resources through ecosystem-based management

Ecosystem-Based Management

- Consider science and the human dimension
- Acknowledge uncertainties
- Evaluate ecosystem components and services as part of LMR management
- Coordinate planning and development for sustainable management of LMRs

NOAA Statutory Mandates

For Ecosystem-based Management

- Magnuson-Stevens Act
- Endangered Species Act
- Marine Mammal Protection Act
- Coastal Zone Management Act
- And more . . .

Making Ecosystem Management Work

- Recognize and use mandates' complementary nature for mutual benefits
- Work together to achieve NOAA's mission of protection, restoration, and management
- Adaptive management as issues, science, experience evolve

Area-based Management Principles

- Tool used under all statutes/mandates
- Incorporate into resource management analysis
- Use in conjunction with other management tools
- Participatory process
- Incorporate evaluative function & adapt over time

Classifying MPAs

- Primary conservation goal
- Type of protection
- Timing (annual, partial)
- Permanence
- Area

Area-based Management Challenges

- Scientific basis
- Constituency views
- Monitoring, assessment & refinement
- Enforcement
- Demonstrating effectiveness

Evaluating Area-based management

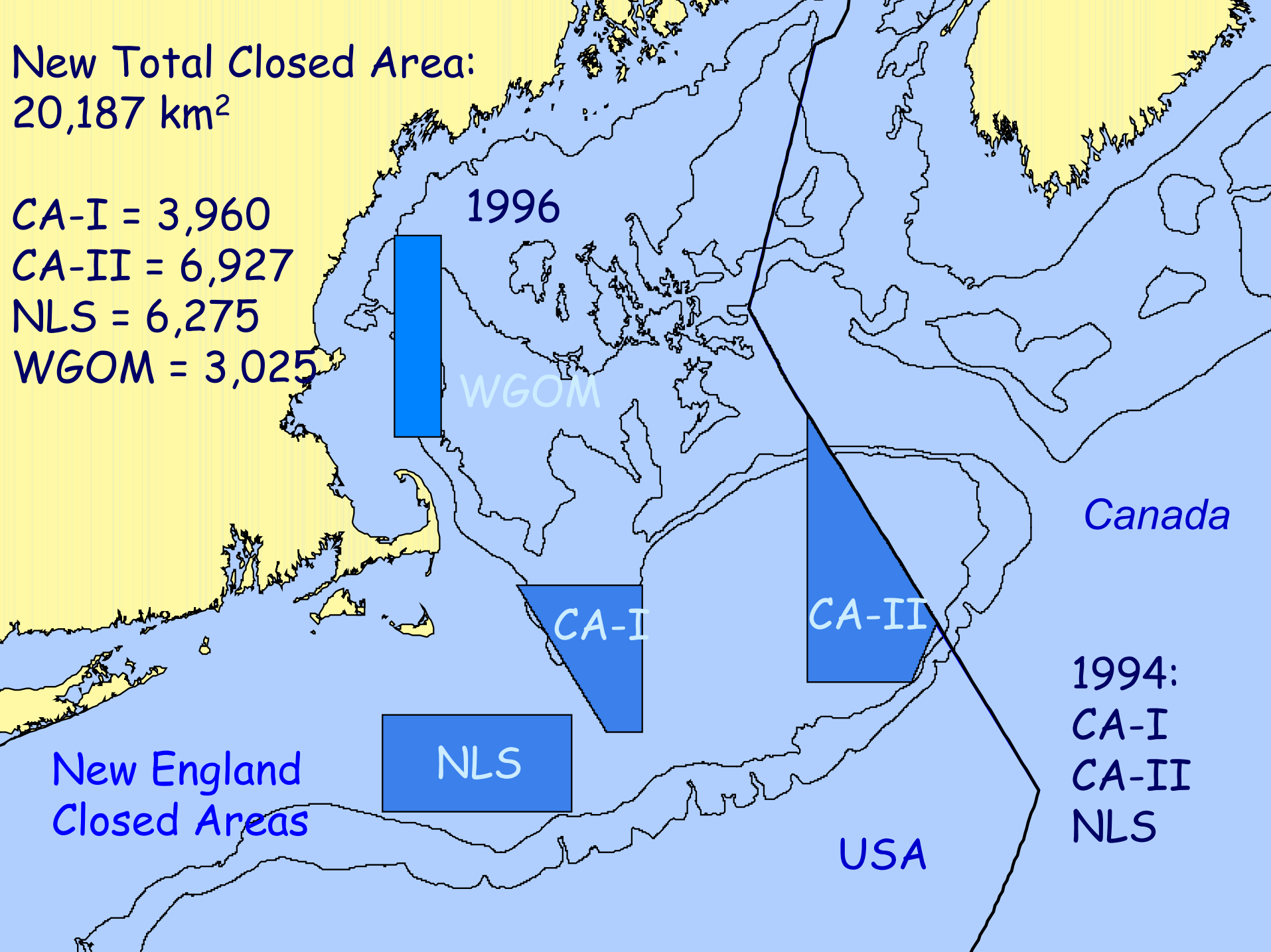
- Often multiple or overlapping actions within single or adjacent areas
- Challenge of setting measurable targets
- Monitoring performance and evaluating effectiveness is key to credible MPA activities
- Efforts underway to develop ways to better gauge the success of our efforts

NOAA Fisheries MPAs

- * Single or multiple mandates
- * Used in almost all fisheries
- * Council and Secretarial examples

New Total Closed Area:
20,187 km²

CA-I = 3,960
CA-II = 6,927
NLS = 6,275
WGOM = 3,025



1996

WGOM

CA-I

CA-II

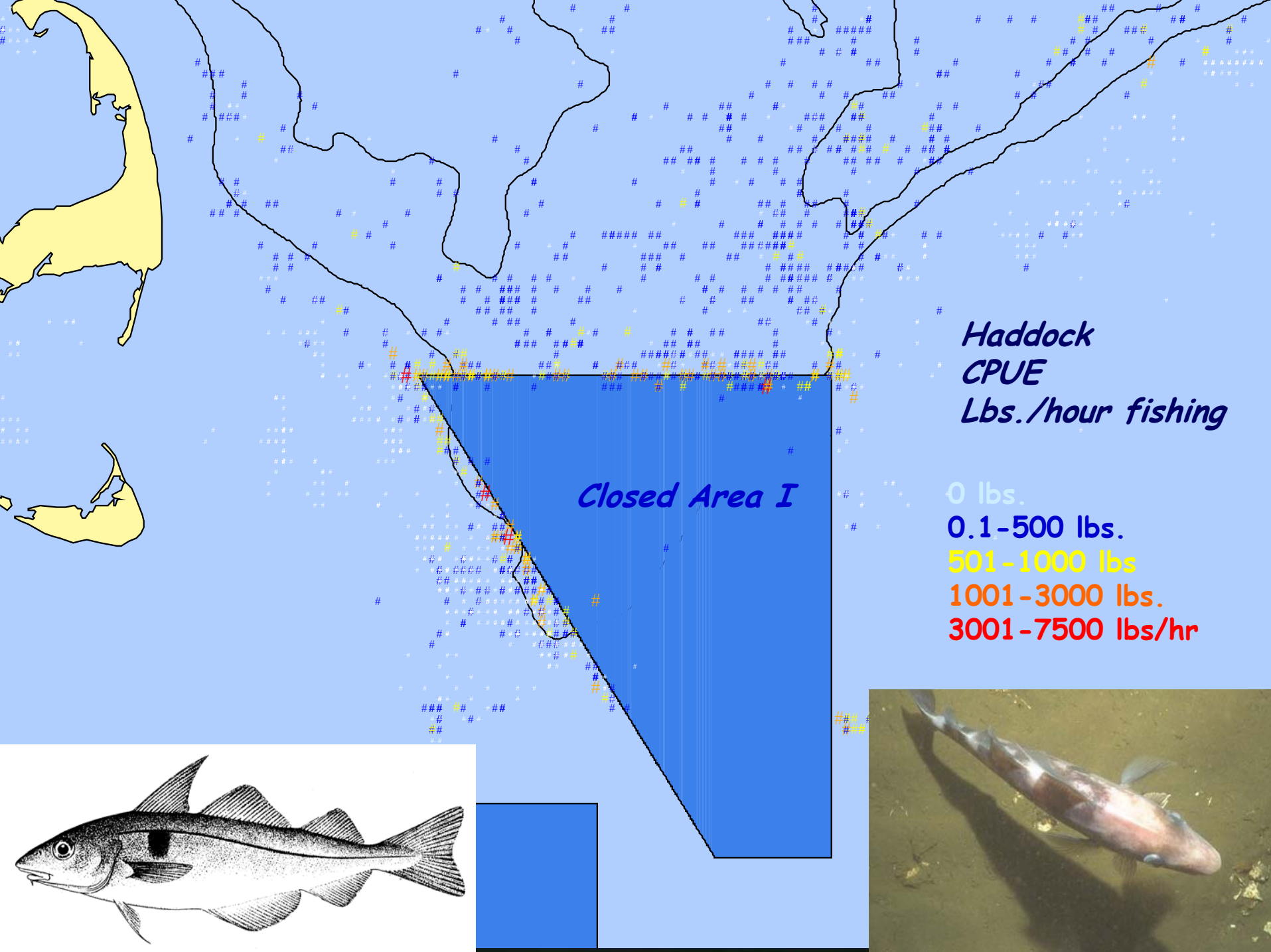
NLS

Canada

New England
Closed Areas

USA

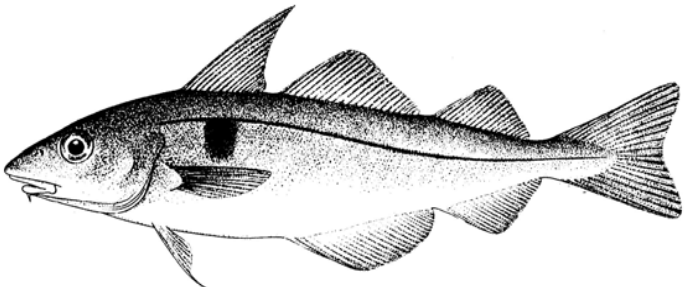
1994:
CA-I
CA-II
NLS



*Haddock
CPUE
Lbs./hour fishing*

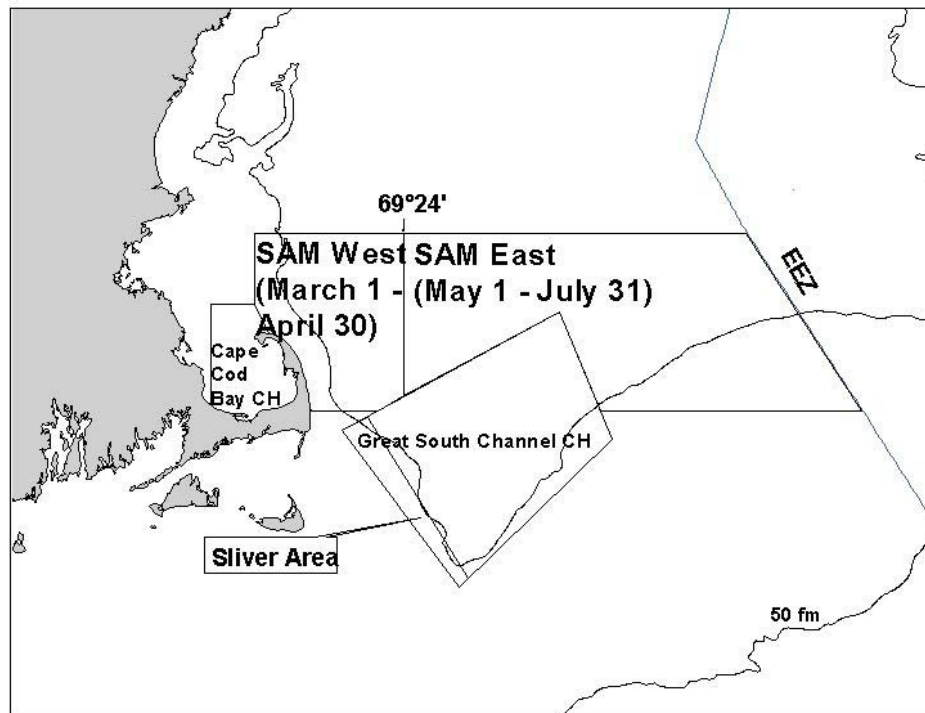
- 0 lbs.
- 0.1-500 lbs.
- 501-1000 lbs
- 1001-3000 lbs.
- 3001-7500 lbs/hr

Closed Area I



Large Whale Closures

- based on annual, predictable r.w. concentrations
- establishes two SAM areas:



Time/Area Closures for Pelagic Longliners

45° N

Northeast Distant
Closed all year
Effective July 9, 2002

Northeastern closure
Closed in June
Effective June 1, 1999

Charleston Bump
Closed Feb. 1 - April 30
Effective Mar. 1, 2001

30° N

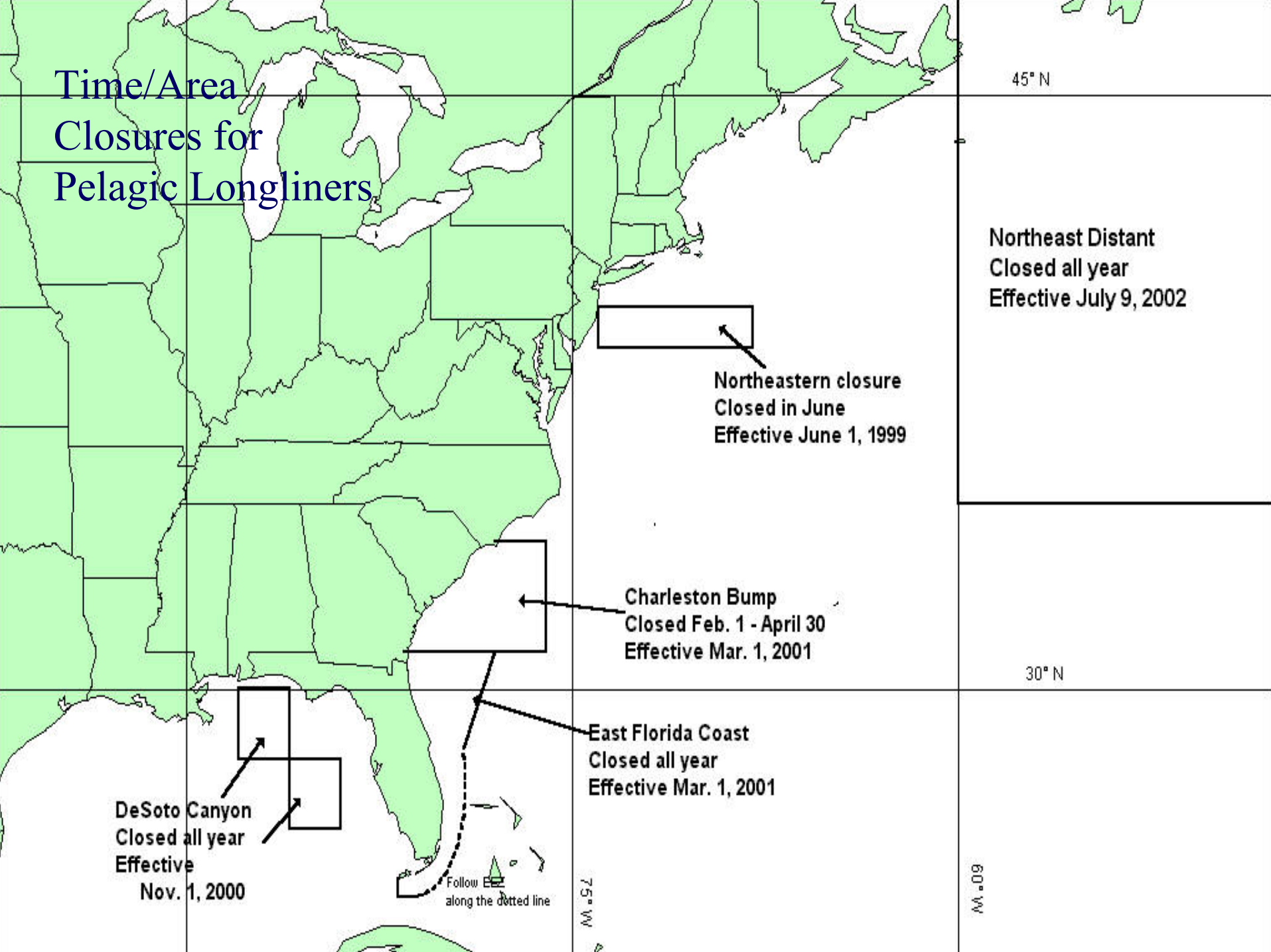
East Florida Coast
Closed all year
Effective Mar. 1, 2001

DeSoto Canyon
Closed all year
Effective
Nov. 1, 2000

Follow EEZ
along the dotted line

75° W

60° W

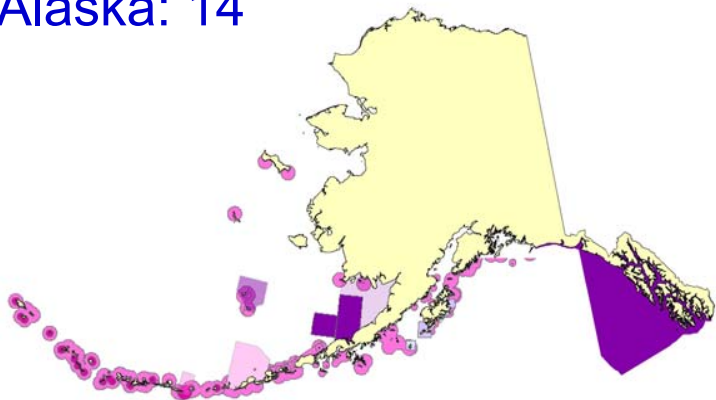


Are NOAA Fisheries MPAs Effective?

- New England groundfish stocks increasing
- New England scallops rebuilt
- Preliminary results from Atlantic/Gulf of Mexico time/area closures are positive

Example: 67 NOAA Fisheries MMAs*

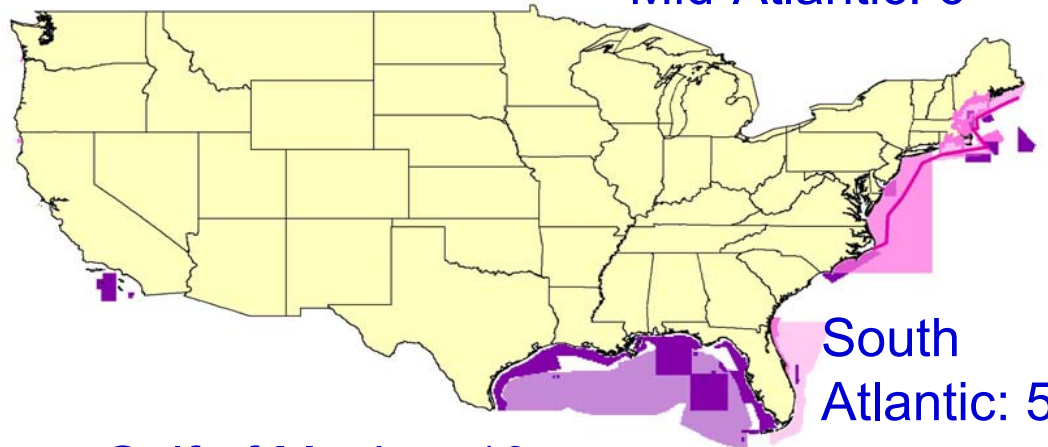
Alaska: 14



Pacific: 3



Western Pacific: 4



Northeast: 19

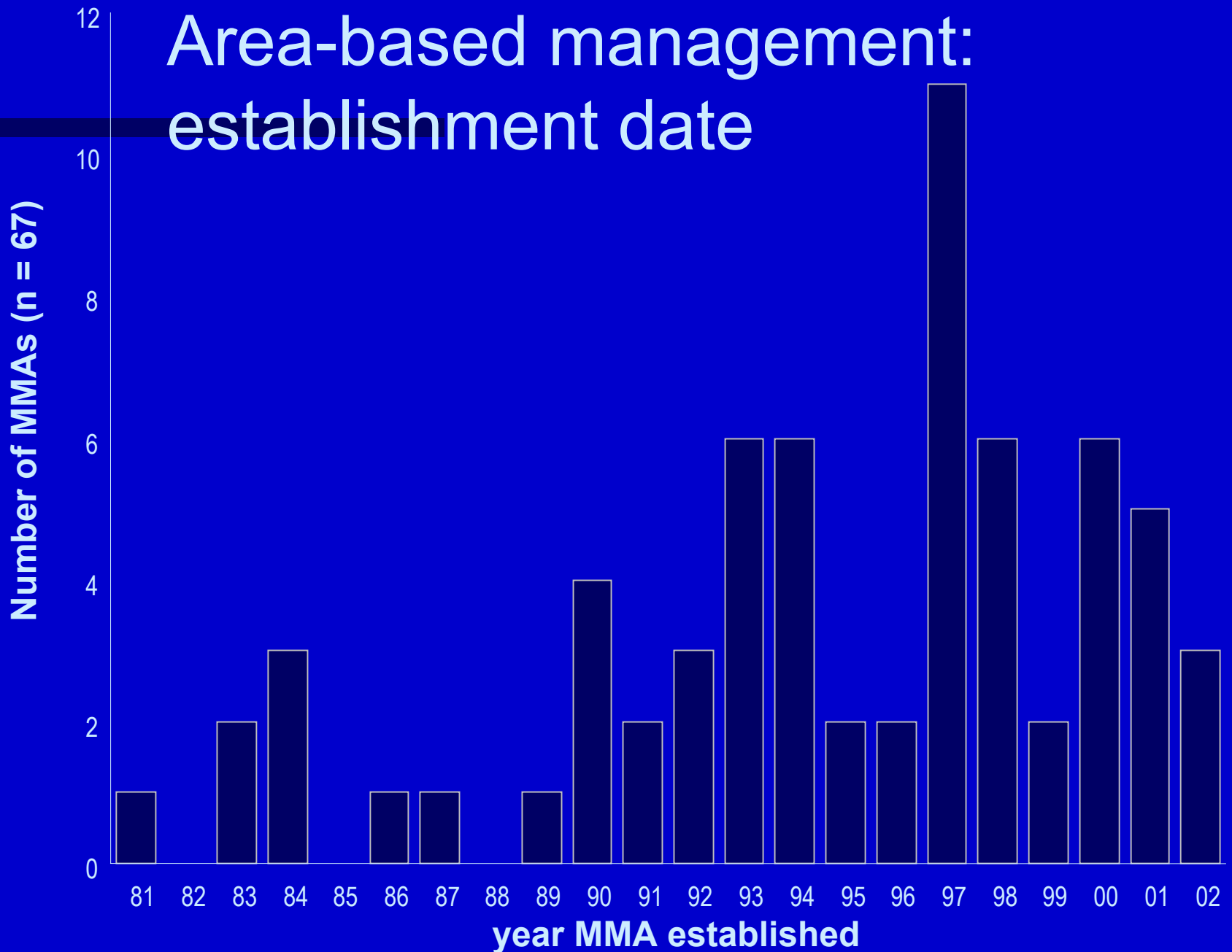
Mid-Atlantic: 6

South Atlantic: 5

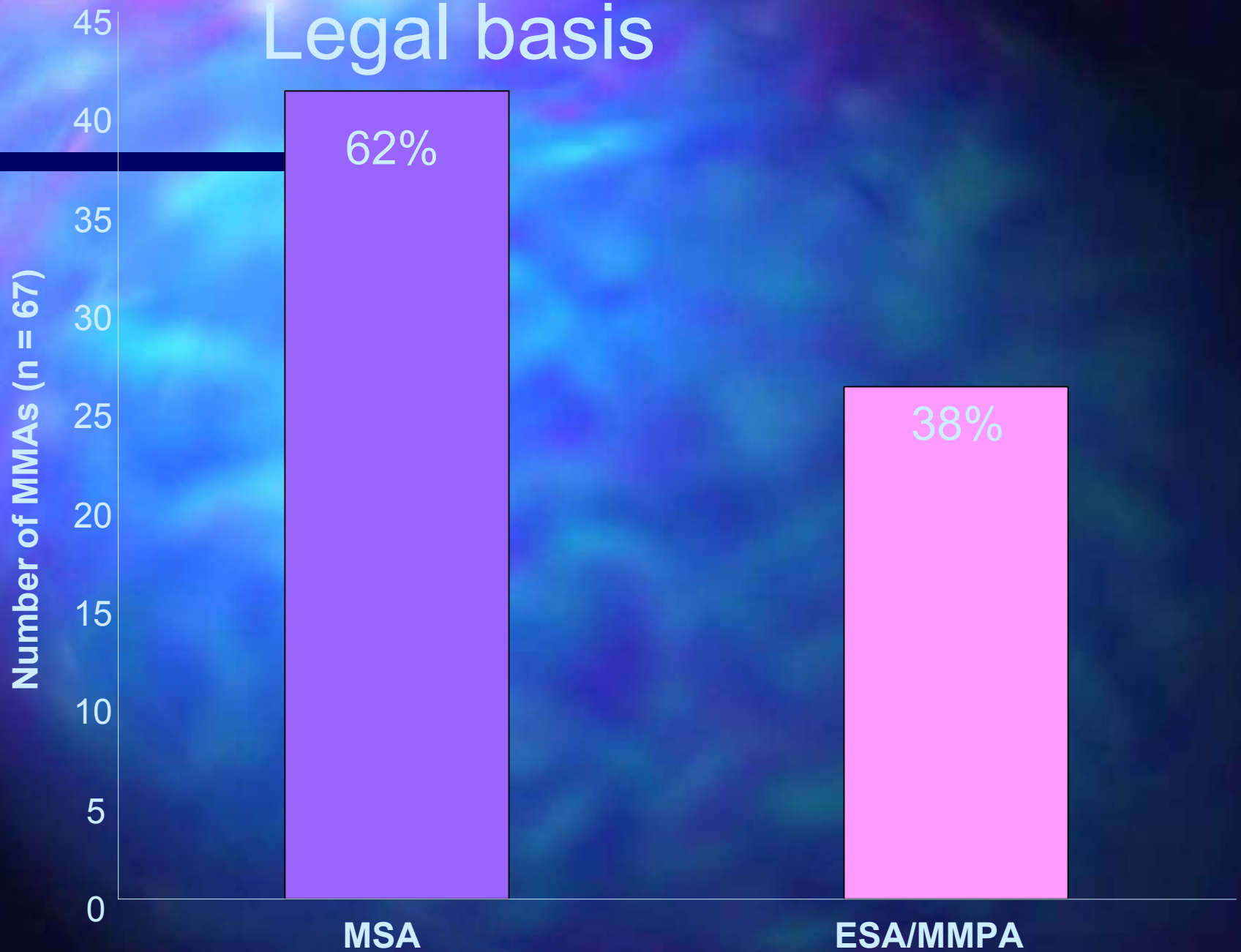
Gulf of Mexico: 10

Caribbean: 6

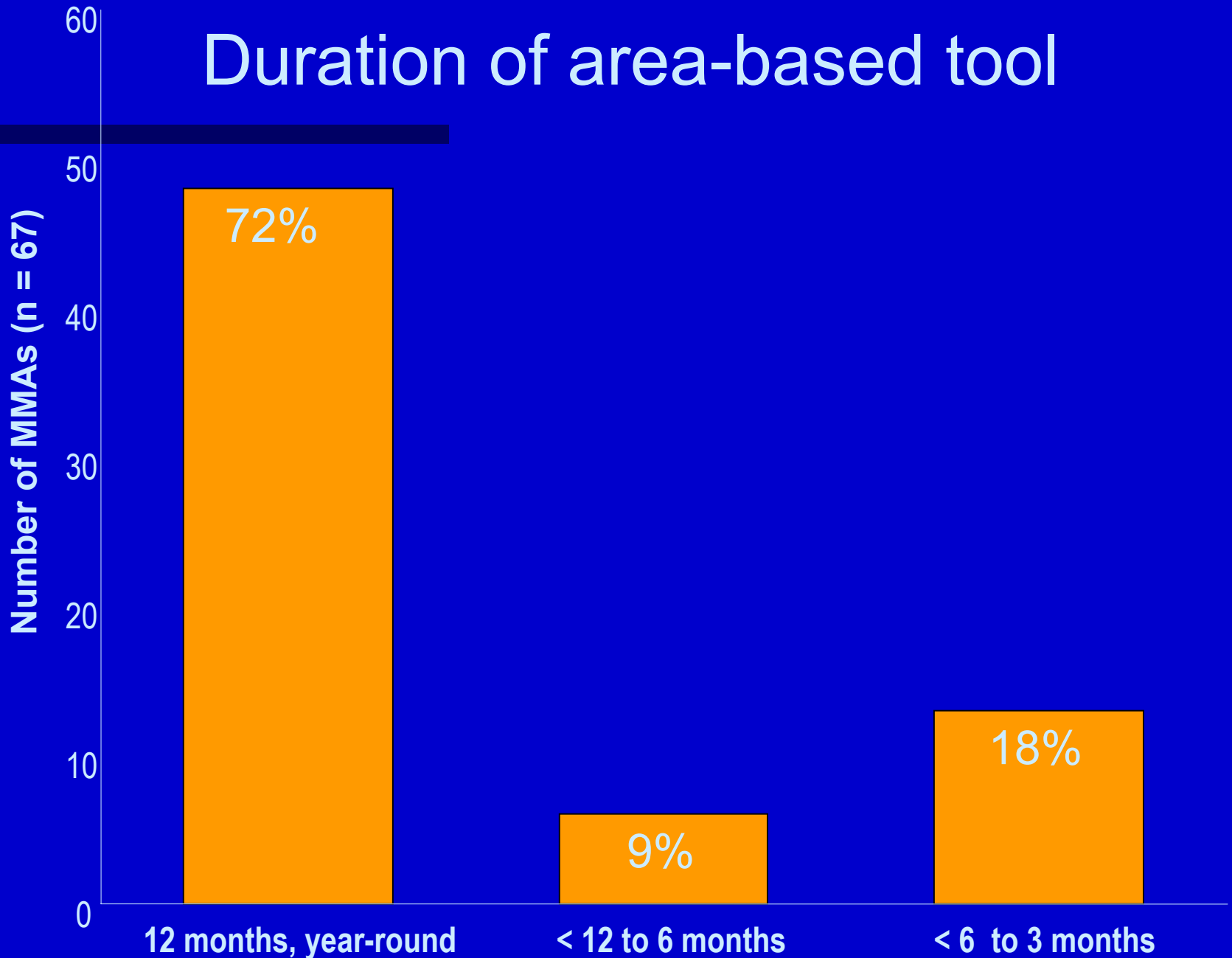
Area-based management: establishment date



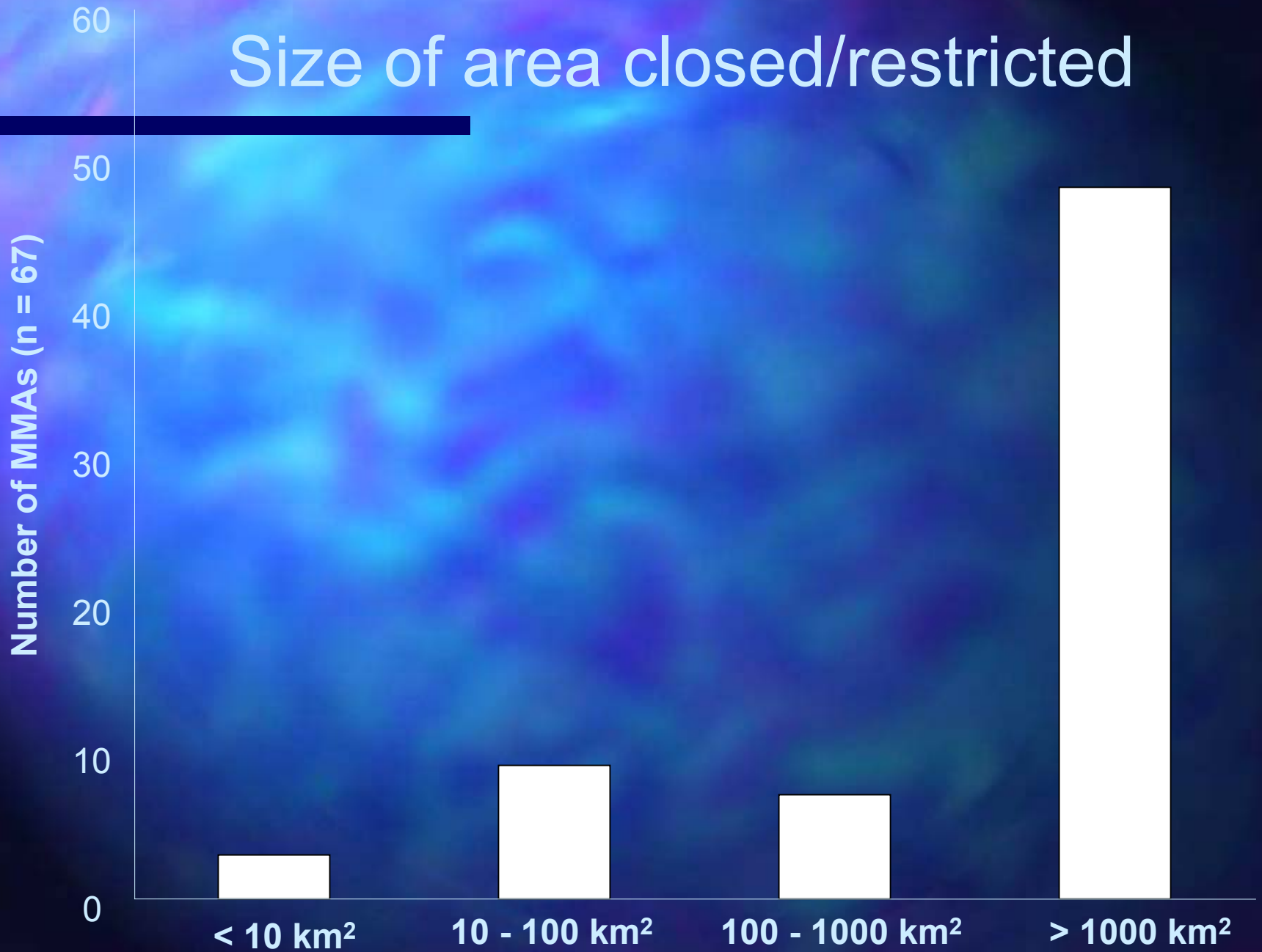
Legal basis



Duration of area-based tool



Size of area closed/restricted



Early Findings

67 NMFS MMAs are part of the national inventory

- recently established – last 10 years
- year round protections/restrictions
- large > 1000 km²
- < 0.01 of the aerial coverage are within no-take MMAs

32 NMFS MMAs within subset

- 100% goals
- 67% targets and timelines
- 100% monitoring; 50% effective programs
- (but only) 31% for MMA effects; 60% MMA effectiveness

Outlook

- Continued NOAA & Fishery Management Council area-based management efforts
- Emphasis on science-based measures & broad public processes
- Increased emphasis on ecosystem approaches