



**NOAA
FISHERIES**

50 ENDANGERED SPECIES ACT ANNIVERSARY



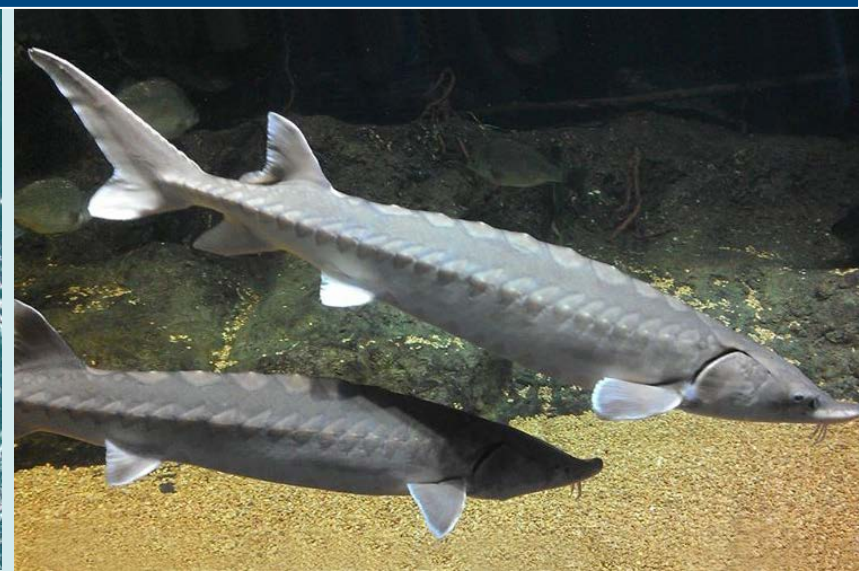
ESA at 50: Past, Present, and Future

Dori Dick, PhD
Climate Specialist
Office of Protected Resources

MAFAC
November 2023



Saving species from extinction for 50 years





What is the Endangered Species Act?

A powerful legal framework to conserve and recover endangered and threatened species and their habitats both domestically and abroad



NMFS protects **160+**
species under ESA



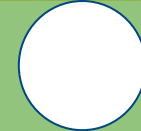
Millions of acres of
critical habitat protected



Fewer than 1% of
species have been lost
after listing



Brief History of the ESA



1900

Passage of the Lacey Act, catalyzed by decline of passenger pigeons

1962

Rachel Carson published *Silent Spring*

1966

President Johnson signed the Endangered Species Preservation Act & established first list of endangered species

1972

President Nixon signed the Marine Mammal Protection Act (MMPA) into law with bipartisan support

1973

80 countries signed CITES & President Nixon signed the ESA into law with bipartisan support



History of the ESA



“Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.”

– President Richard Nixon, 1973

Endangered Species Act Purpose

- Purpose – “...to provide a means whereby the **ecosystems** upon which endangered species and threatened species depend may be **conserved**”
- Policy – “...**all** Federal departments and agencies shall **conserve** endangered and threatened species and shall **utilize their authorities** in furtherance of the purposes of this Act.”



NOAA's Goals in Implementing the ESA

- Conserve threatened and endangered species and their habitats
- Reduce threats so species recover to the point at which they no longer need the protections of the ESA
- Evaluate and authorize necessary activities that may affect listed species



Major ESA Responsibilities

Listing and Critical Habitat

Determine whether a species meets the definition of endangered or threatened and designate critical habitat.

Recovery

Develop and implement recovery plans to recover species so that they are no longer at risk of extinction.

Species Recovery Grants

Provide grants to states to recover species through formal conservation partnerships.

Interagency Consultation

Analyze Federal actions that may affect a listed species or its critical habitat.

ESA Take Permits

Issue permits for take of listed species by non-Federal entities.



Categories of Species Listed Under the ESA

- Whales
- Dolphins and porpoises
- Seals and sea lions
- Sea turtles
- Fish and sharks
- Corals and invertebrates



Milestones



1994. First marine species delisted: Eastern North Pacific stock of gray whales



2013. Eastern distinct population segment (DPS) of Steller sea lions delisted



2016. Global status of humpback whales revised and 9 DPSs were determined to not be T or E



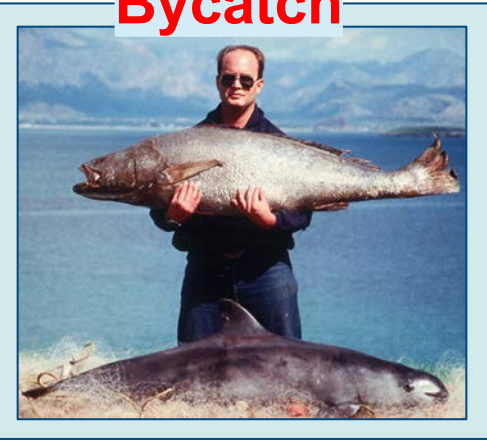
1952 → 2008

Caribbean monk seal: Only marine species declared extinct (legally in 2008) after last seen in 1952 (21 years before ESA was enacted)





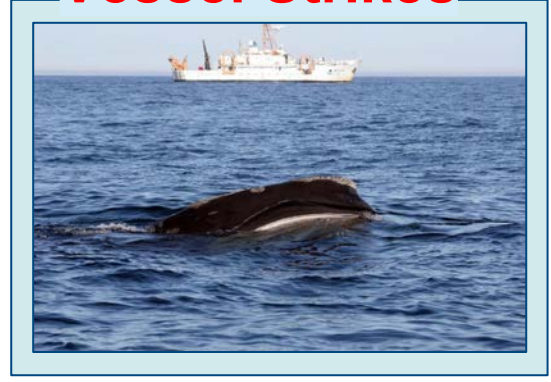
Bycatch



Climate Change



Vessel Strikes



Overutilization



Why are species at risk?

Pollution



Entanglements



**Habitat Loss/Degradation/
Loss of Access**



Some ESA Challenges



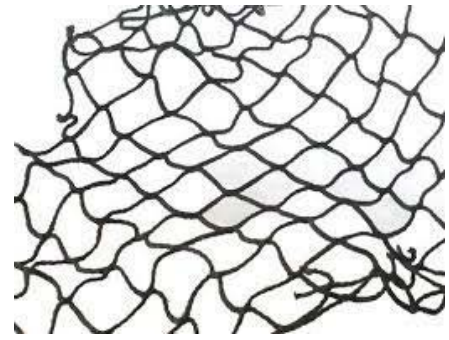
Time



Funding



**Legal
Challenges**



**Habitat
Disturbance**




**Maintaining
Public
Support &
Cultivating
Champions**



**Climate
Change**

Gulf of Maine
Atlantic Salmon (Protected)
Salmo salar



Also Known As
Sea run salmon, Kelts, Black salmon

Sacramento River Winter-Run
Chinook Salmon (Protected)
Oncorhynchus tshawytscha




Central California Coast
Coho Salmon (Protected)
Oncorhynchus kisutch



Cook Inlet
Beluga Whale
Delphinapterus leucas




Southern Resident
Killer Whale
Orcinus orca




Also Known As
Orca


North Atlantic Right Whale
Eubalaena glacialis




Hawaiian Monk Seal
Neomonachus schauinslandi



Pacific
Leatherback Turtle
Dermochelys coriacea



White Abalone
Haliotis sorenseni



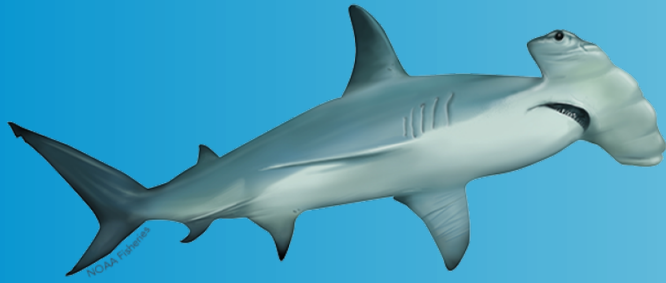
In the Spotlight...

- NOAA Fisheries launched the "Species in the Spotlight" initiative in 2015
- Brings greater attention and resources to save 9 highly at-risk species

50TH
ANNIVERSARY

ENDANGERED SPECIES ACT

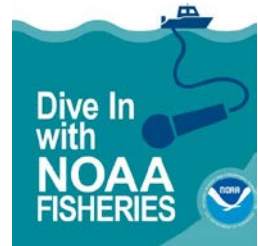
... and Out of the Shadows



Engaging the Public & Decision Makers

Highlighting science & management via:

- Web stories, podcasts, videos, story maps, etc.
- Collaborating with partners & local communities
- Reaching out to national & regional media
- Events (e.g., species days, field visits, awards)
- Various webinars
- Internal newsletter

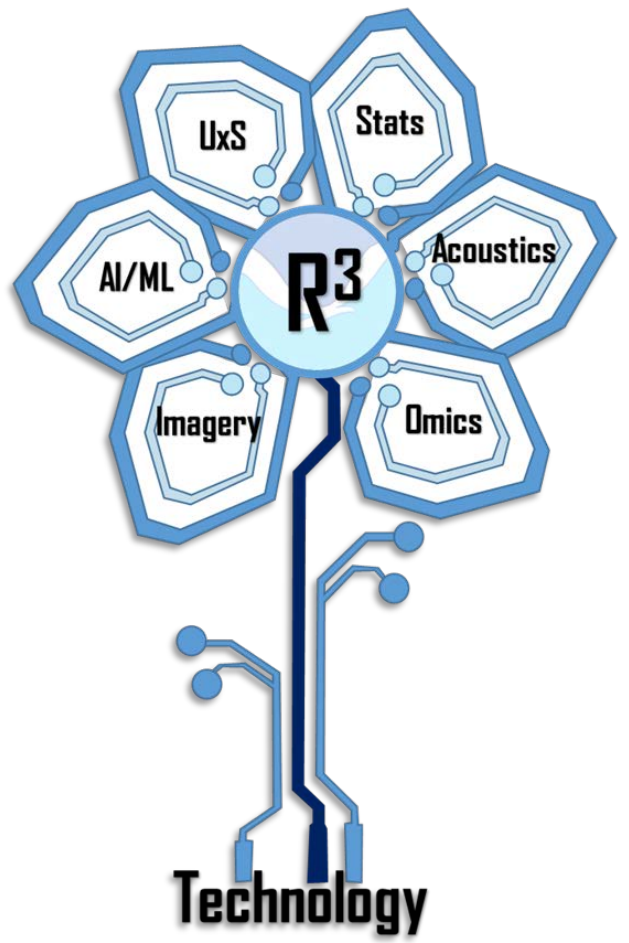


50th Anniversary Events

- North Atlantic Right Whale Day
- Sea turtle field work including seeing the “urban green turtles”
- Sturgeon field research
- Sea turtle nesting at Archie Carr NWR
- Belugas Count! 2023
- Rice’s whale exhibit and symposium
- Right whale calving festival



Innovative Solutions



ASTER³

- Advanced **S**ampling and **T**echnology for **E**xtinguishment **R**isk **R**eduction & **R**ecovery

→ Program that promotes collaboration, innovation, efficiency and **transformational advancements**

→ Includes:

- AI and machine learning
- Uncrewed systems
- Advanced statistical methods
- Acoustics monitoring/quieting
- Advanced sampling and 'Omics
- Imagery

Partnerships

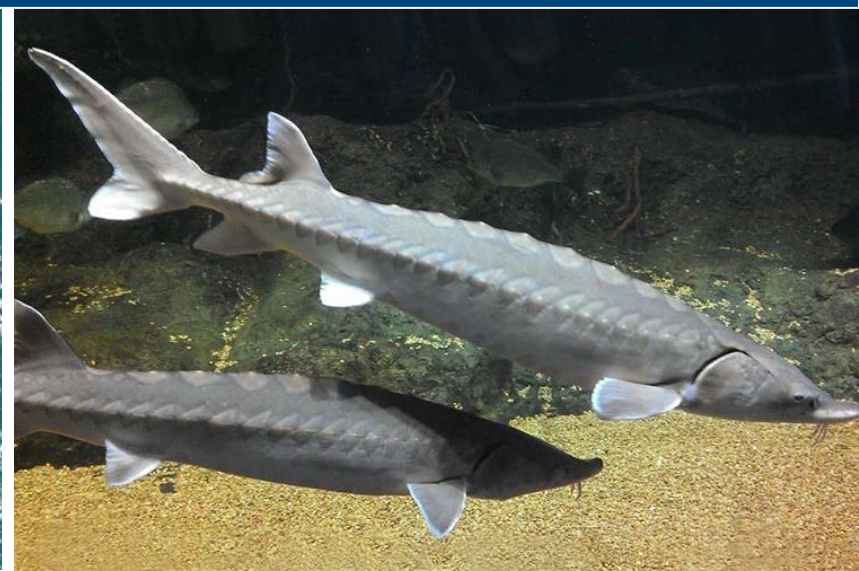


**New England
Aquarium**

Working collaboratively with domestic & international partners is key to ensuring successful protection of our species and their habitats

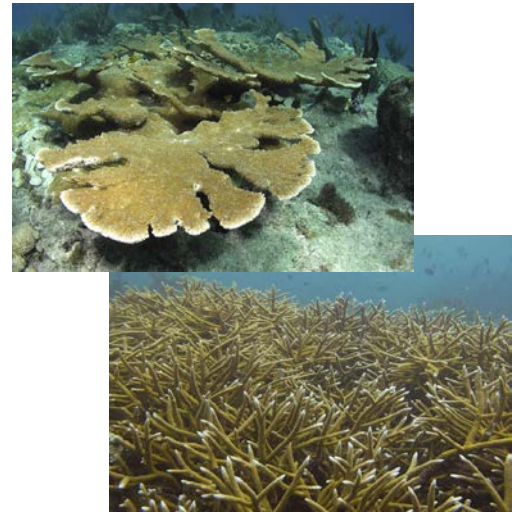


ESA and Climate Change



ESA and Climate Change

2006. Elkhorn and Staghorn Corals listed as threatened under the ESA due to the threat of climate change.



2010. Spotted seal listed as threatened species



2008. Polar bear listed as threatened species



2012. Ringed and bearded seals listed as threatened



ESA and Climate Change

Climate change considerations factor into ESA assessments and decisions

- Recovery Plans
- Section 7 consultations – Must account for climate change when assessing the effects of the action on a species
- Section 10 Incidental take permits - When evaluating effects of the action we use the time period corresponding to the duration of all effects of the action



Climate Change-related Challenges for ESA-listed Species

Sessile & Place Based

What is changing?

- Environmental conditions no longer sustainable for long-term populations

What is the challenge?

- Increase resilience, protect habitat, protect small populations



Mobile & Semi-aquatic

What is changing?

- Habitat loss/restricted access, env. changes, physiological impacts

What is the challenge?

- Maintain/increase survival & fecundity, increase resilience, protect/restore habitat



Mobile & Aquatic

What is changing?

- Quantity/quality/location of prey, shifting distributions, leaving protected areas

What is the challenge?

- Maintain protection for animals moving and/or crossing boundaries





Promoting Species Adaptation and Resilience

General

- Reduce greenhouse gas emissions
- Manage based on sound science
- Consider impacts of human response to climate change

Resources

- Climate-informed decision-making
- Science-people, models, technology
- Management - people, climate guidances, scenario planning, implementation of climate-smart recovery actions

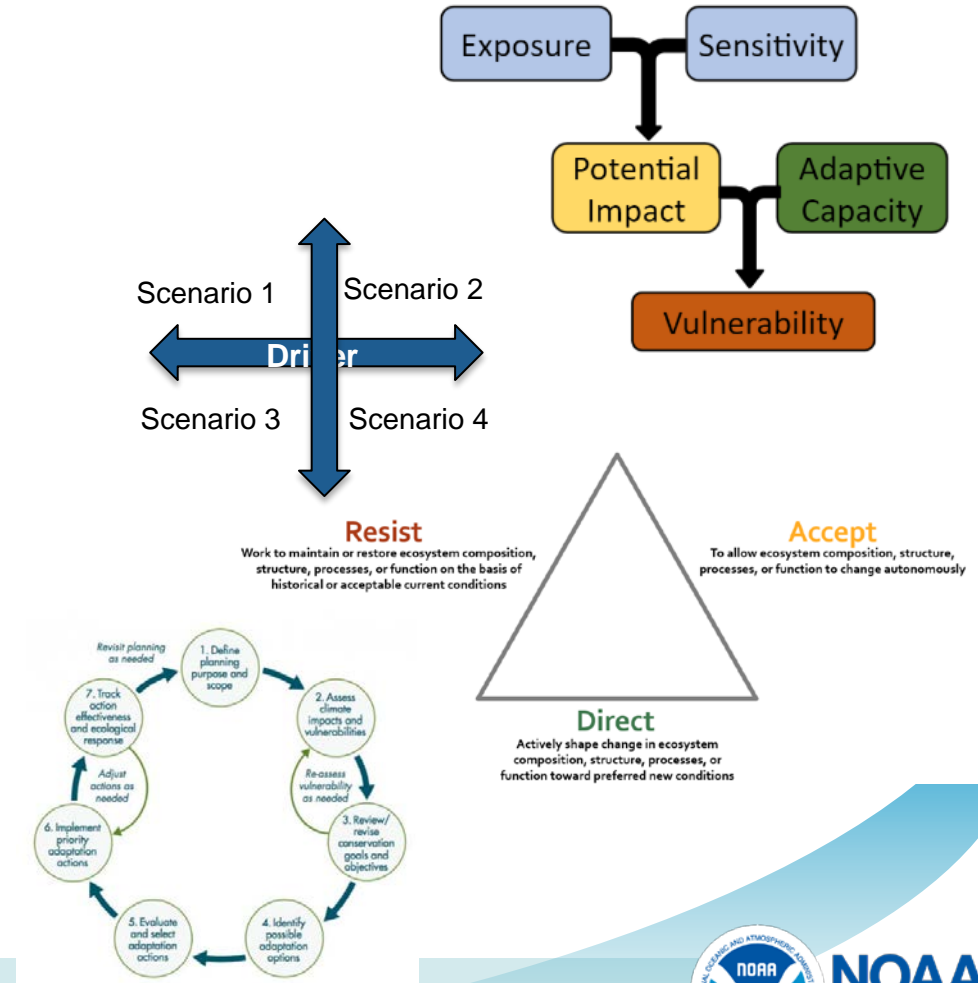
Partnerships and Coordination

- Engage and coordinate with internal, national, and international partners

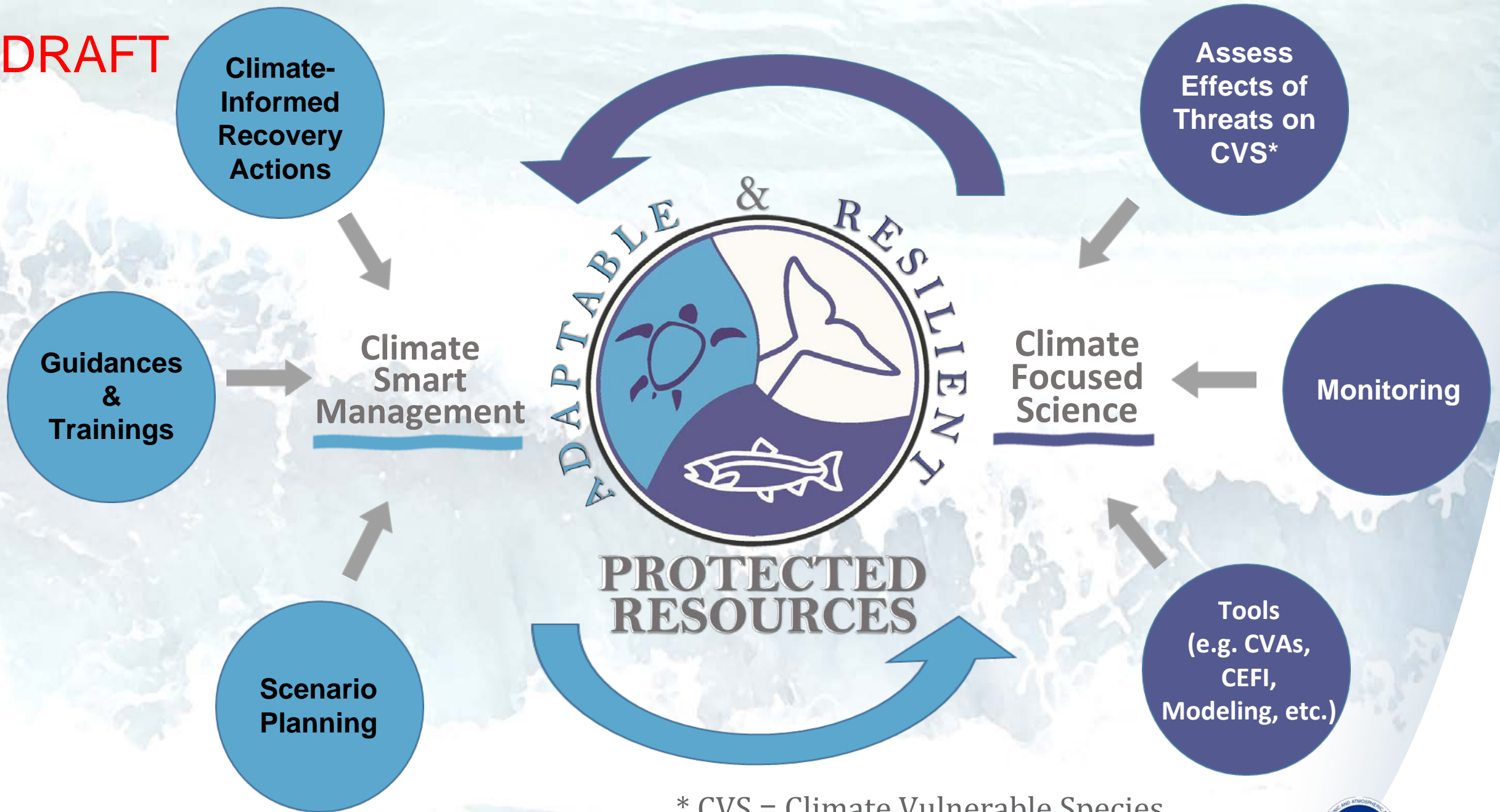


Tools to Identify, Prepare for, & Tackle Climate Challenges

- Climate-smart conservation
- Climate vulnerability assessments
- Scenario planning
- Targeted investment in climate-informed recovery actions
- Resist - Accept - Direct (RAD)
- Modeling, identifying leading indicators
- Observations and monitoring
- CEFI tools and products



DRAFT



* CVS = Climate Vulnerable Species



Future of ESA



Thriving and resilient species and habitats that help maintain biodiversity for the next 50 years and well beyond...

50TH
ANNIVERSARY

ENDANGERED SPECIES ACT

Thank You!



#ESA50
#EndangeredSpecies
#SpotlightSpecies



**Visit our Web Page
Scan Here!**



**NOAA
FISHERIES**