2025 CoastWatch & ATN Training

Aug 14 & 15, 2025 Virtual
10am - 1pm (Pacific Time)

Resources

- Coastwatch Tutorials (on GitHub)
- Coastwatch Lecture series
- Animal telemetry Network

Schedule

Thursday, August 14, 2025

Time (PST)	Topic	Presenter
10:00 - 10:15	Training Overview - CoastWatch, ATN and the workshop component	Cara Wilson
10:15 - 11:30	Coastwatch satellite datasets and data portals	Cara Wilson
11:30 - 11:45	Break	
11:45 - 12:15	Using the ERDDAP data server	Cara Wilson
12:15 - 12:45	Accessing ERDDAP using scripts (R, python)	Cara Wilson
12:45 - 1:00	Day 1 wrap-up	

Friday, August 15, 2025

Time (PST)	Topic	Presenter
10:00 - 10:30	Intro to ATN and the DAC	Megan McKinzie
10:30 - 11:00	Demo of ATN data portal	Megan McKinzie
11:00 - 11:30	Accessing public ATN datasets	Megan McKinzie
11:30 - 11:45	Break	
11:45 - 12:00	Workshop, part 1: Linking CoastWatch and ATN data using scripts	Daisy Shi
12:00 - 12:45	Workshop, part 2: Hand's on time	
12:45 - 13:00	Wrap up and final discussion	All

https://coastwatch-training.github.io/CoastWatch-Workshops/courses/icft25.html

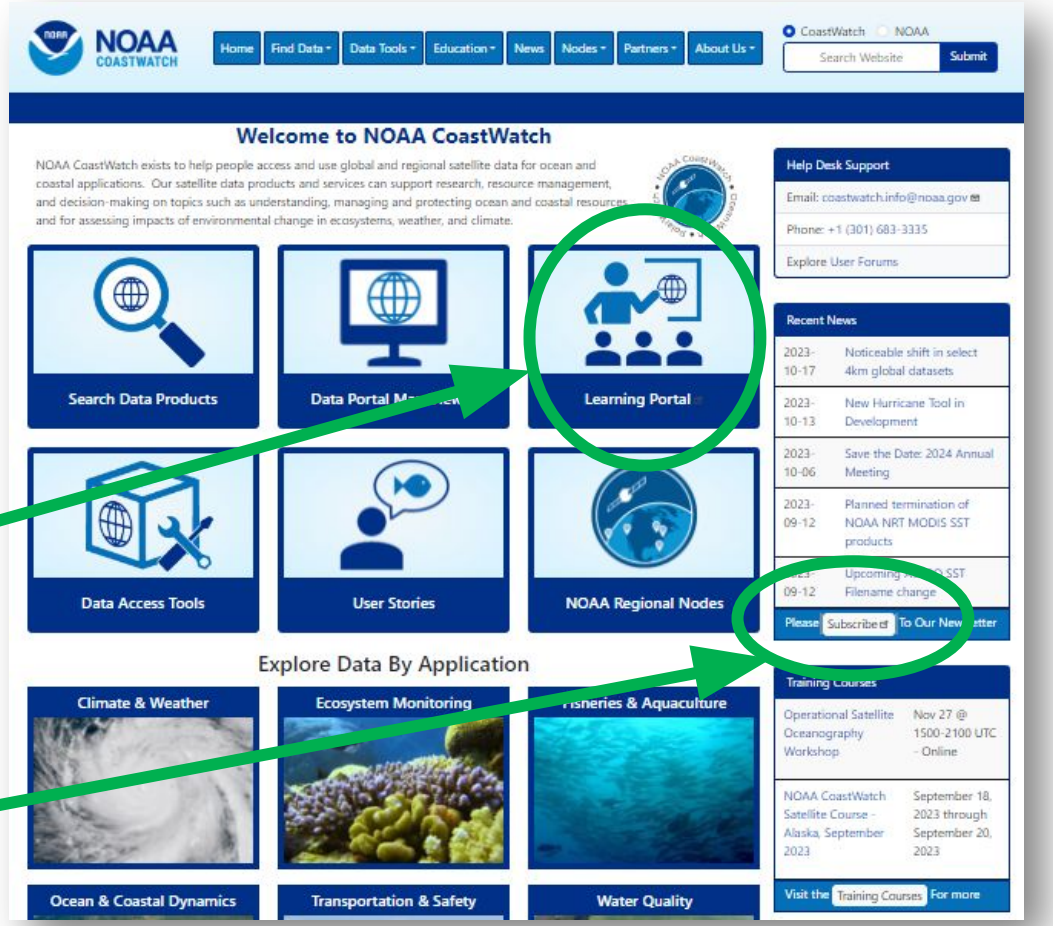
Questions?
Coastwatch.info@noaa.gov

Learning Portal has links to recorded lectures and tutorials

Subscribe to our newsletter for announcements for satellite classes:

subscribe

coastwatch.noaa.gov



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We will be using Slido to interact with participants:

Go to www.slido.com

#ATN2025

Introduction to the U.S. Animal Telemetry Network and its Data Assembly Center

Satellite Data Training Course

Dr. Megan McKinzie
ATN Data Manager

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August 15, 2025

ATN Background

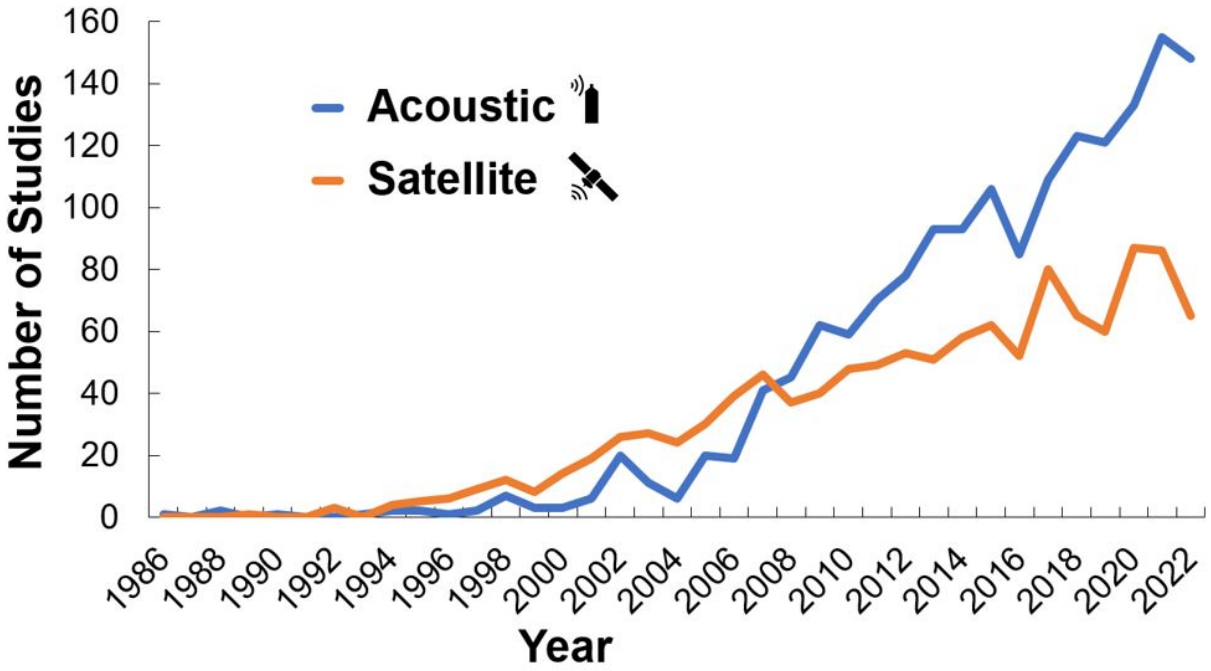
45 Years of Animal Tracking by Argos

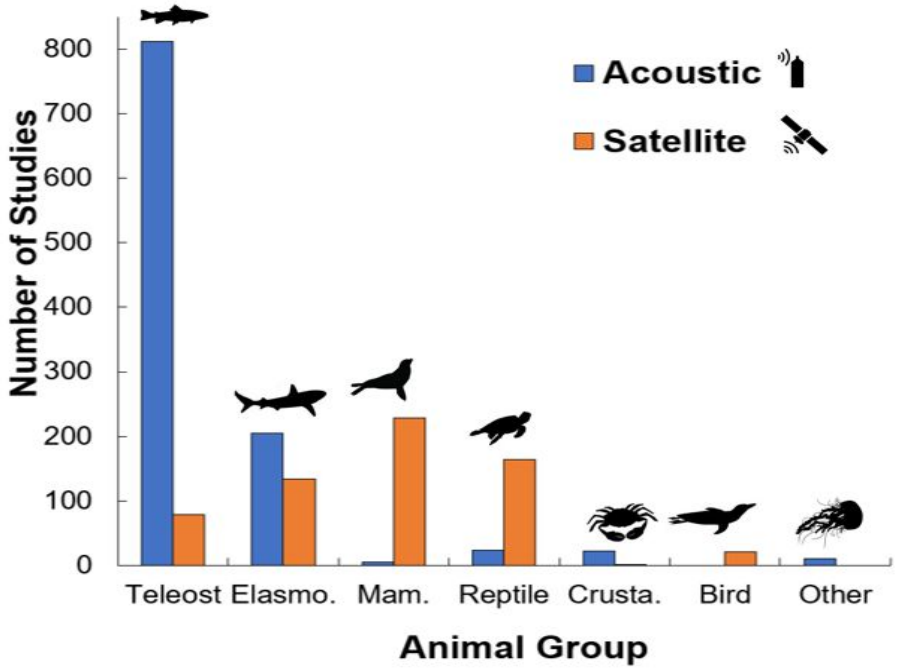
150,000+ animals tracked since 1978

https://www.noaasis.noaa.gov/POLAR/ARGOS/apps.html

BIRDS LAND ANIMALS MARINE ANIMALS FISH

ATN Background



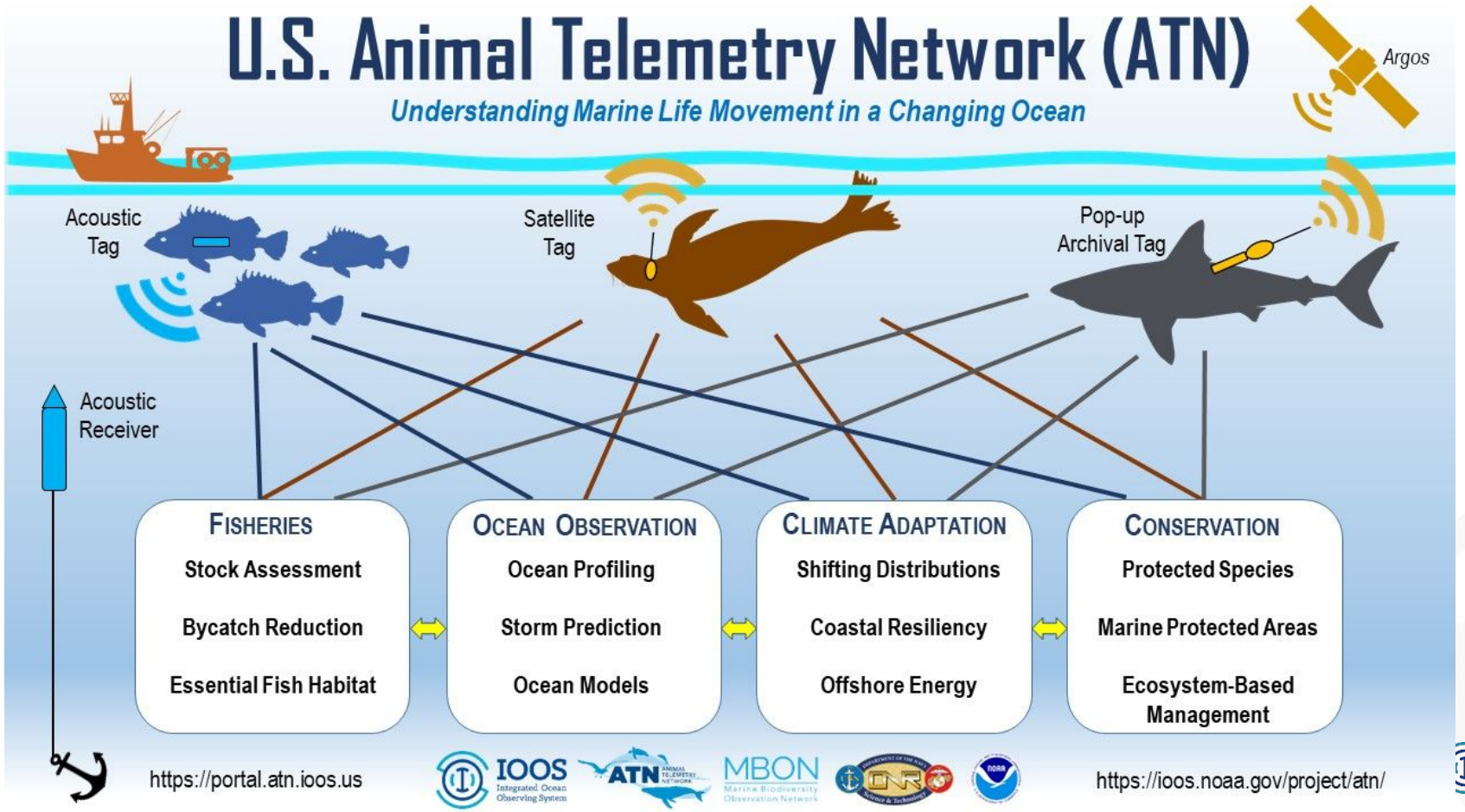


Kessel et al. (in prep), modified from Hussey et al. (2015) *Science*

- **Telemetry is a tool, but an extremely powerful and adaptable tool for marine life observation**
- **The use of telemetry is expanding rapidly worldwide**
- ***The need for data management, products, and delivery is growing commensurately***

Animal Telemetry Network (ATN)

- ATN was established with these needs in mind
- Serving the missions of multiple agencies and the broader scientific community



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ATN Vision

Provide Unity, Stability and Continuity to the U.S. Marine Animal Telemetry Network and Promote its Integration into the Nation's Ocean Observing System Capabilities

Axiom DATA SCIENCE

DEPARTMENT OF THE NAVY ONR Science & Technology

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

BOEM Bureau of Ocean Energy Management

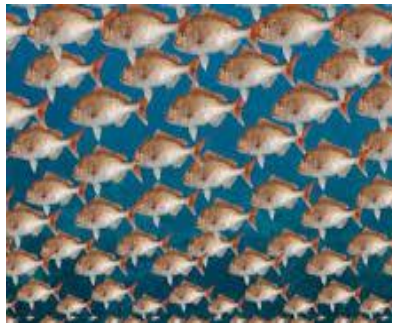
ATN ANIMAL TELEMETRY NETWORK

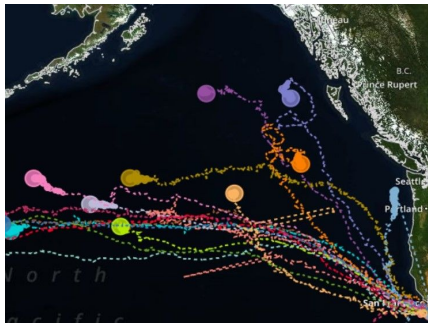
Unified Marine Life Program - "Microbes to Megafauna"

Hotspots

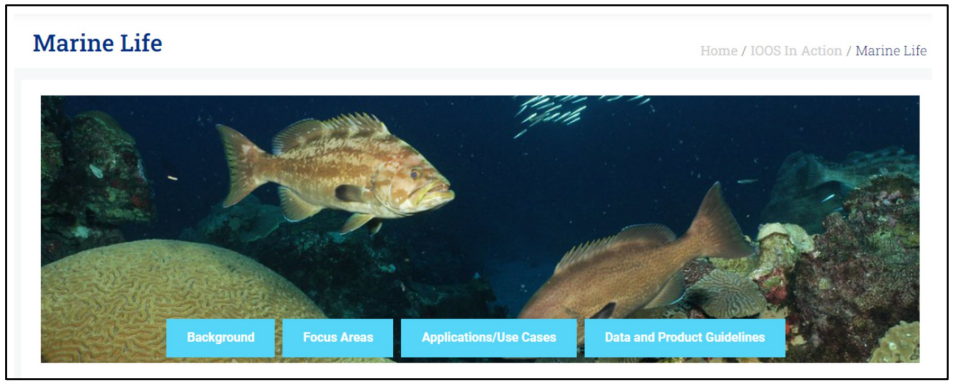
Biodiversity

Abundance





Movement



The IOOS Marine Life Program Goal: Implement long-term, sustained marine life observation and data sharing capability that builds on and expands the infrastructure, momentum and successes of existing IOOS biological observing programs, including MBON, ATN, and efforts of IOOS partners and Regional Associations.

IOOS Marine Life – https://ioos.noaa.gov/marine-life-1
IOOS ATN – https://ioos.noaa.gov/project/atn
IOOS MBON – https://marinebon.org

ATN ANIMAL TELEMETRY NETWORK + MBON Marine Biodiversity Observation Network → Marine Life 2030

Marine Life 2030 UN Decade Program endorsed (US IOOS, US MBON co-leads)

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U.S. IOOS: Program Overview

IOOS Mission: To produce, integrate, and communicate high quality ocean, coastal and Great Lakes data that meets the safety, economic, and stewardship needs of the Nation

Thousands of observing data sets gathered every day by public and private programs

Integrated, made accessible, & supported U.S. IOOS

Supporting weather forecasting, maritime safety, and public health

Observations

⇩

Models

⇩

Data Access

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U.S. IOOS: Program Overview

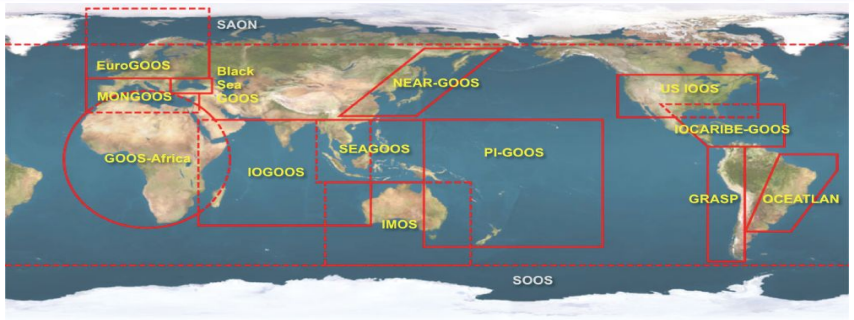
Global Component

- US contribution to Global Ocean Observing System (GOOS)
- 1 of 15 Regional Alliances of GOOS

United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

Global Ocean Observing System



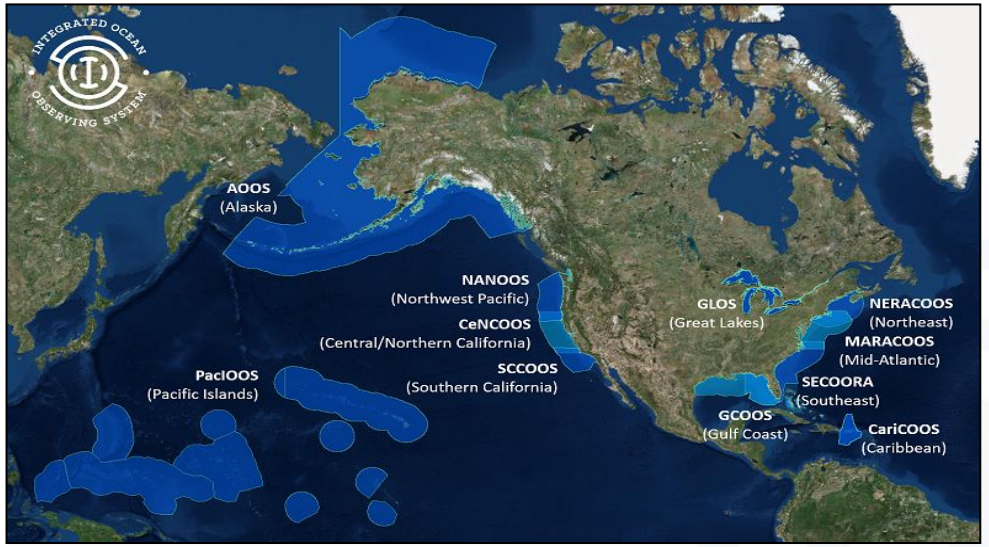
National Component

- 17 Federal agencies

NOAA NASA National Science Foundation USGS science for a changing world BOEM Bureau of Ocean Energy Management CSREES FDA

Regional Component

- 11 Regional Associations
  - Stakeholder driven
  - Academia, state/local/tribal government, private industry



Partnership effort that leverages dispersed national investments to deliver ocean, coastal and Great Lakes data relevant to decision-makers.

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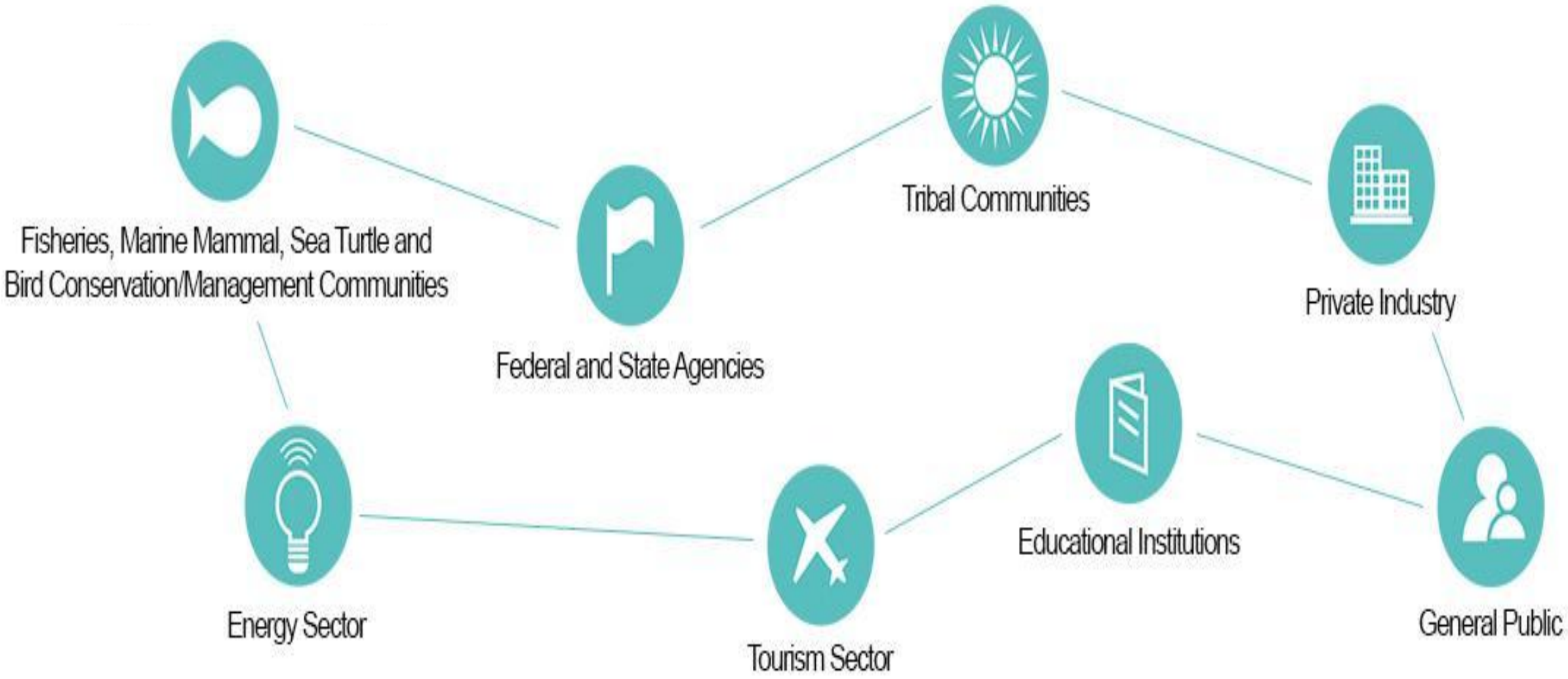
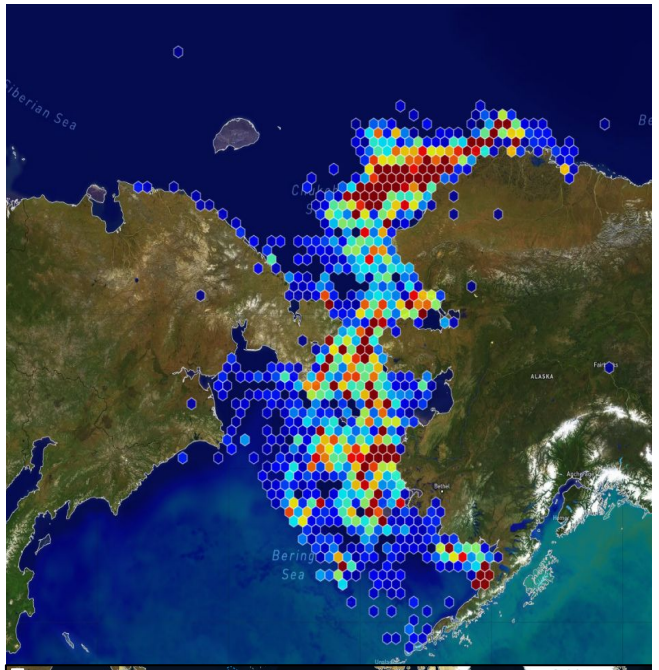
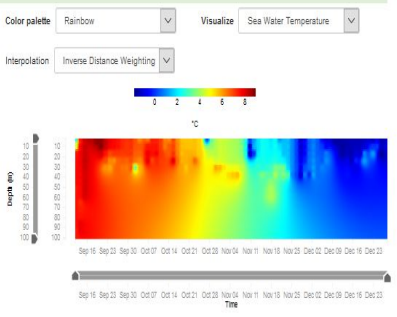
Marine Life Stakeholders



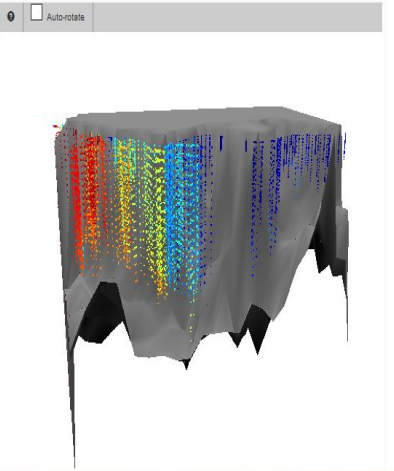
ATN Data Assembly Center (DAC)

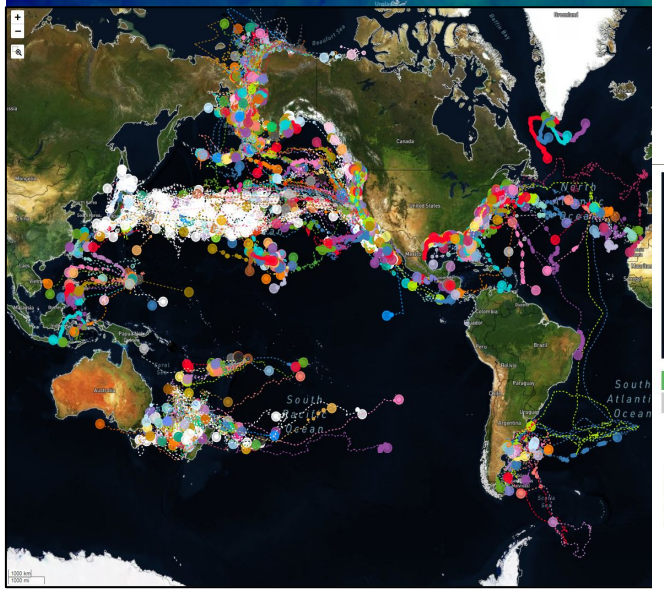
- Community resource
- Receives data from multiple sources/tag types
- Enables/promotes data availability and sharing among community partners
- Maximizes access to telemetry data
- Enhances and expands electronic tag data products
- Enables permanent archiving at NCEI, DataONE; DOI minting

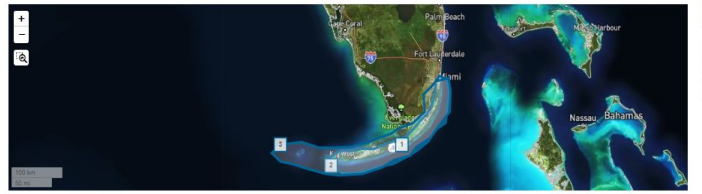


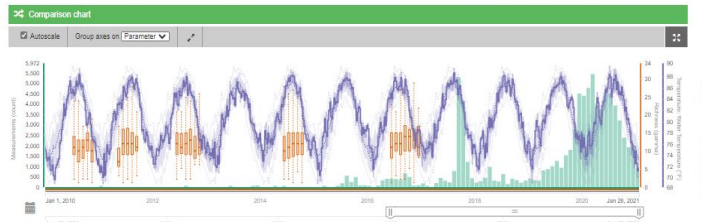


Species	*Phoca largha* Spotted seal
Date range	Sep 11, 2018 23:04 (PDT) - Dec 27, 2018 19:04 (PST)
Depth range	1.97966 (m) - 101.428106 (m)
Points	8,960
Principal Investigator	Lori Quakenbush
Institution	Alaska Department of Fish & Game

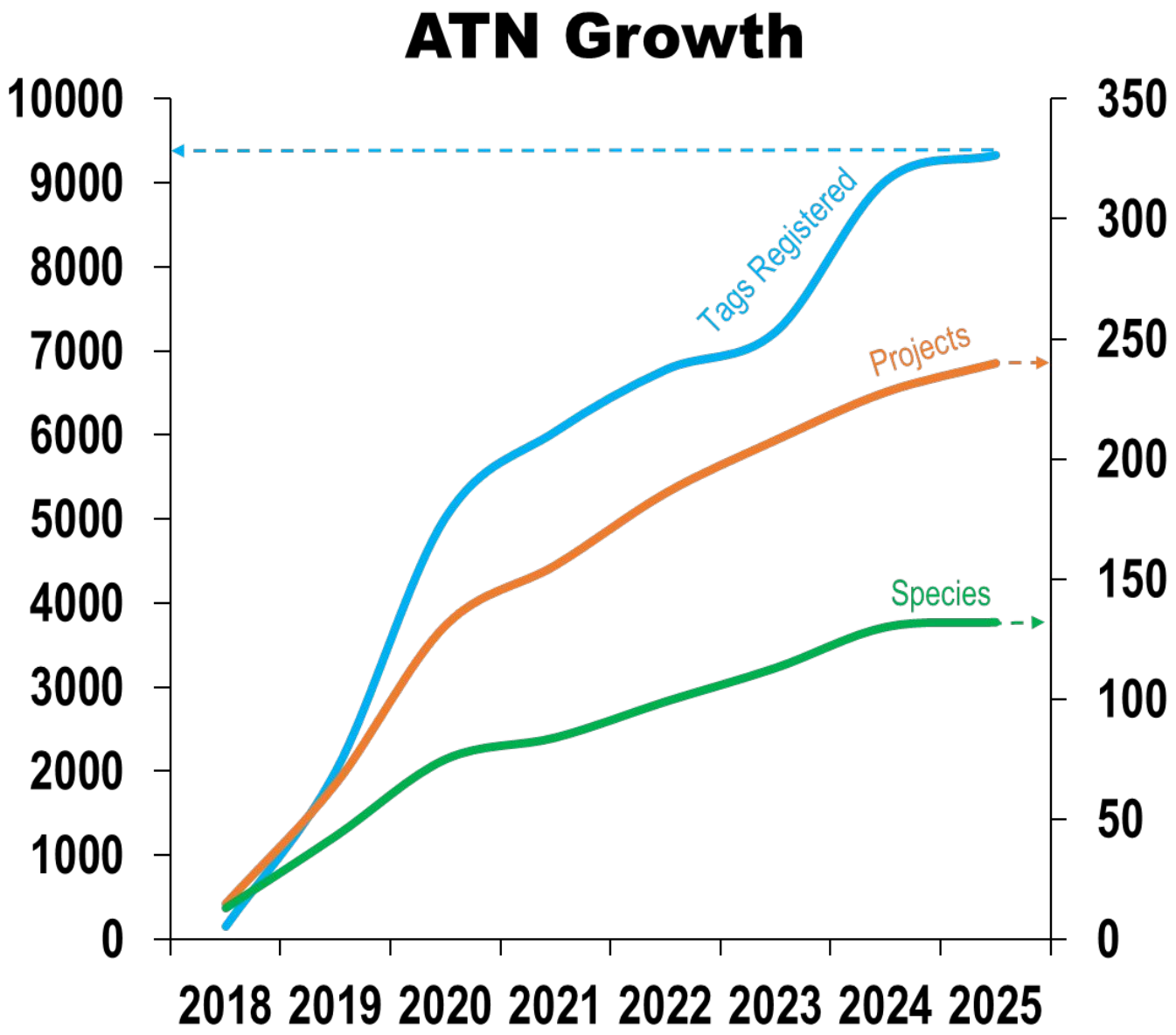








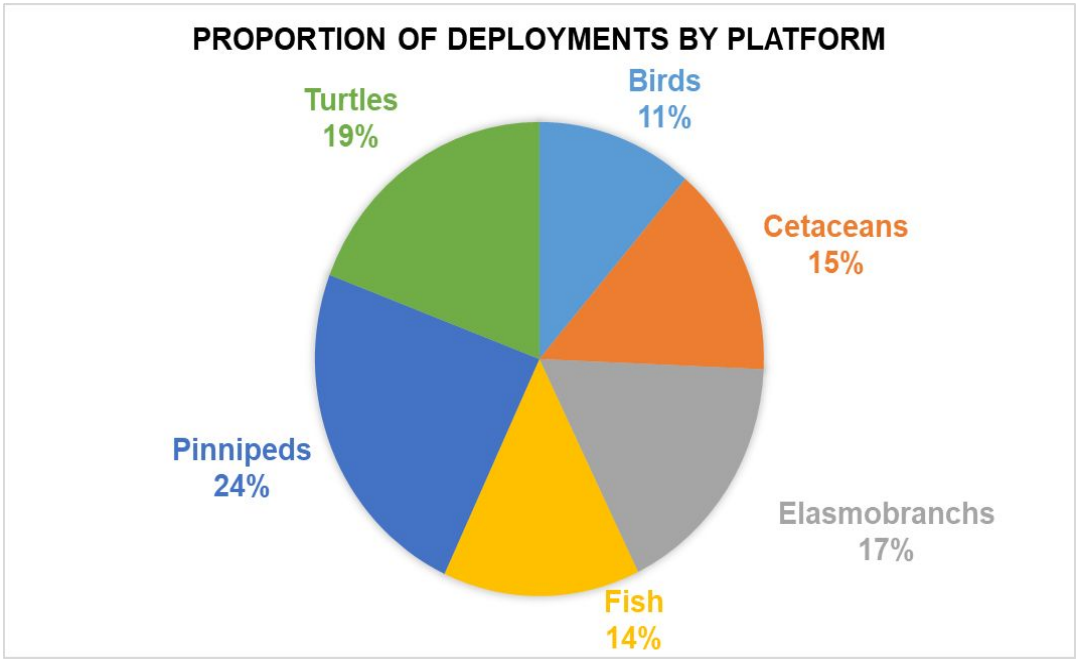
ATN DAC Contributing Members



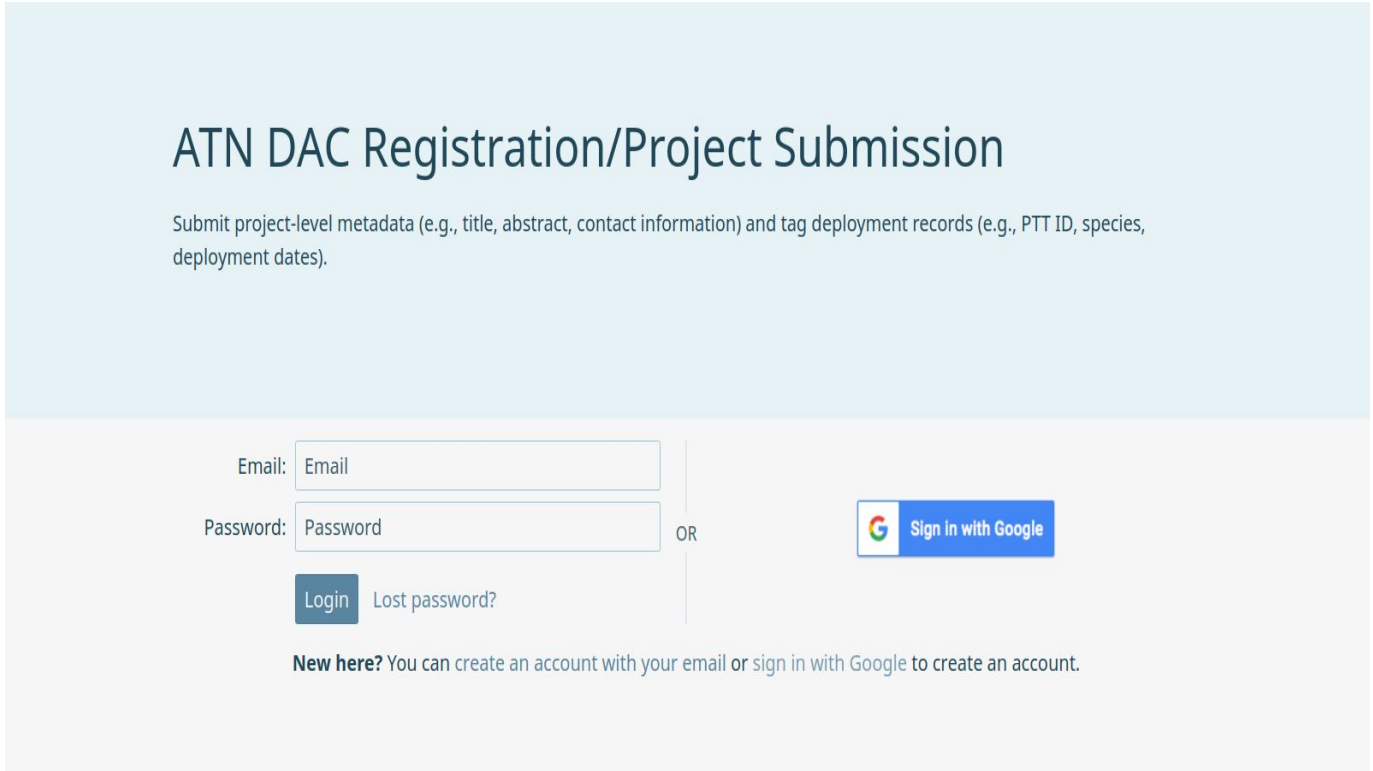
*Primarily from Argos based satellite tags

REGISTERED IN DAC*

- Projects = 240
- PIs = 114
- Organizations = 84
- Species = 132
- Deployments = 9334



ATN DAC Platforms



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ATN Registration App – https://dacregistration.atn.ioos.us
Research Workspace – https://researchworkspace.com
ATN Data Portal – https://portal.atn.ioos.us

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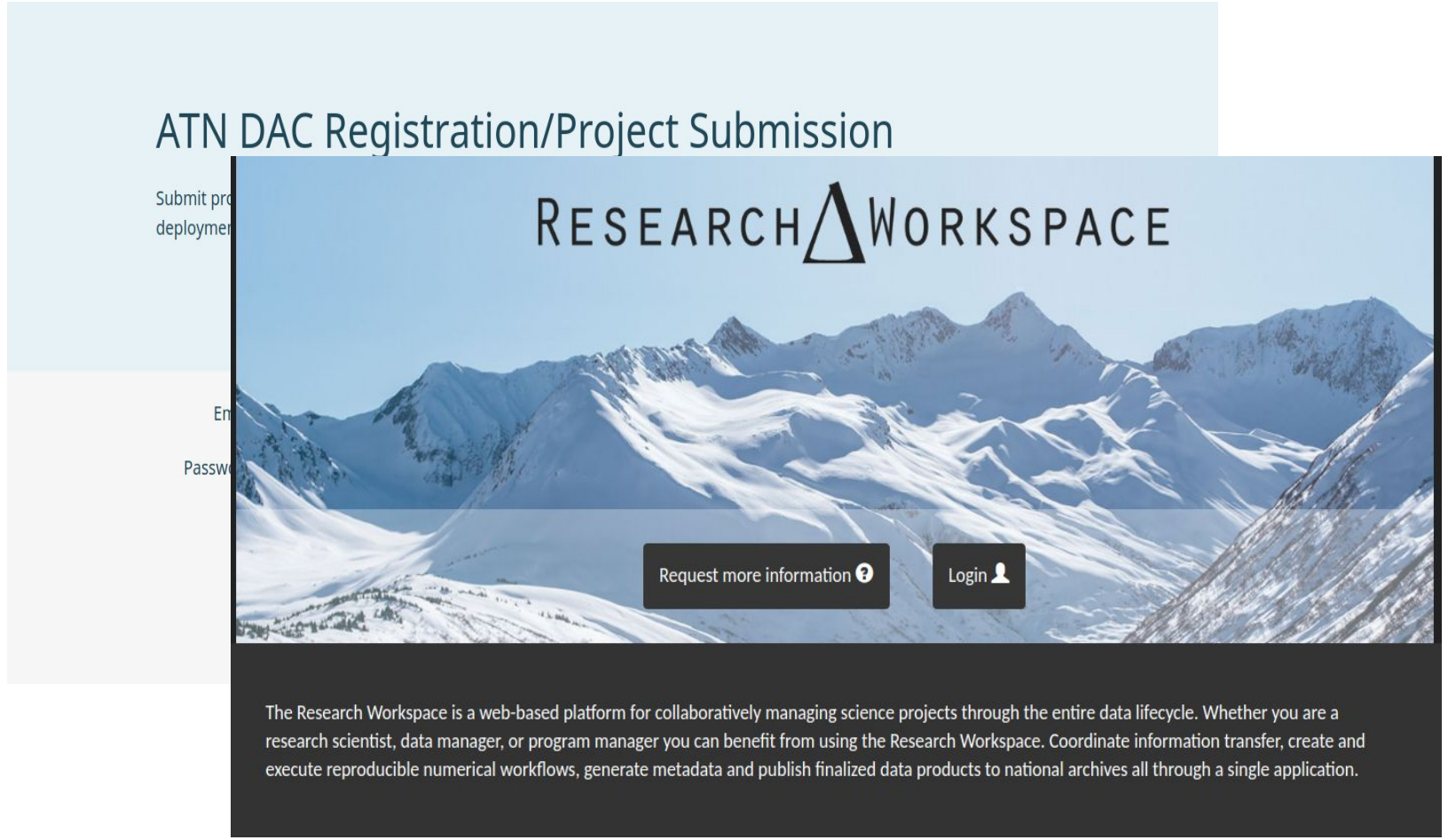
ATN DAC Platforms



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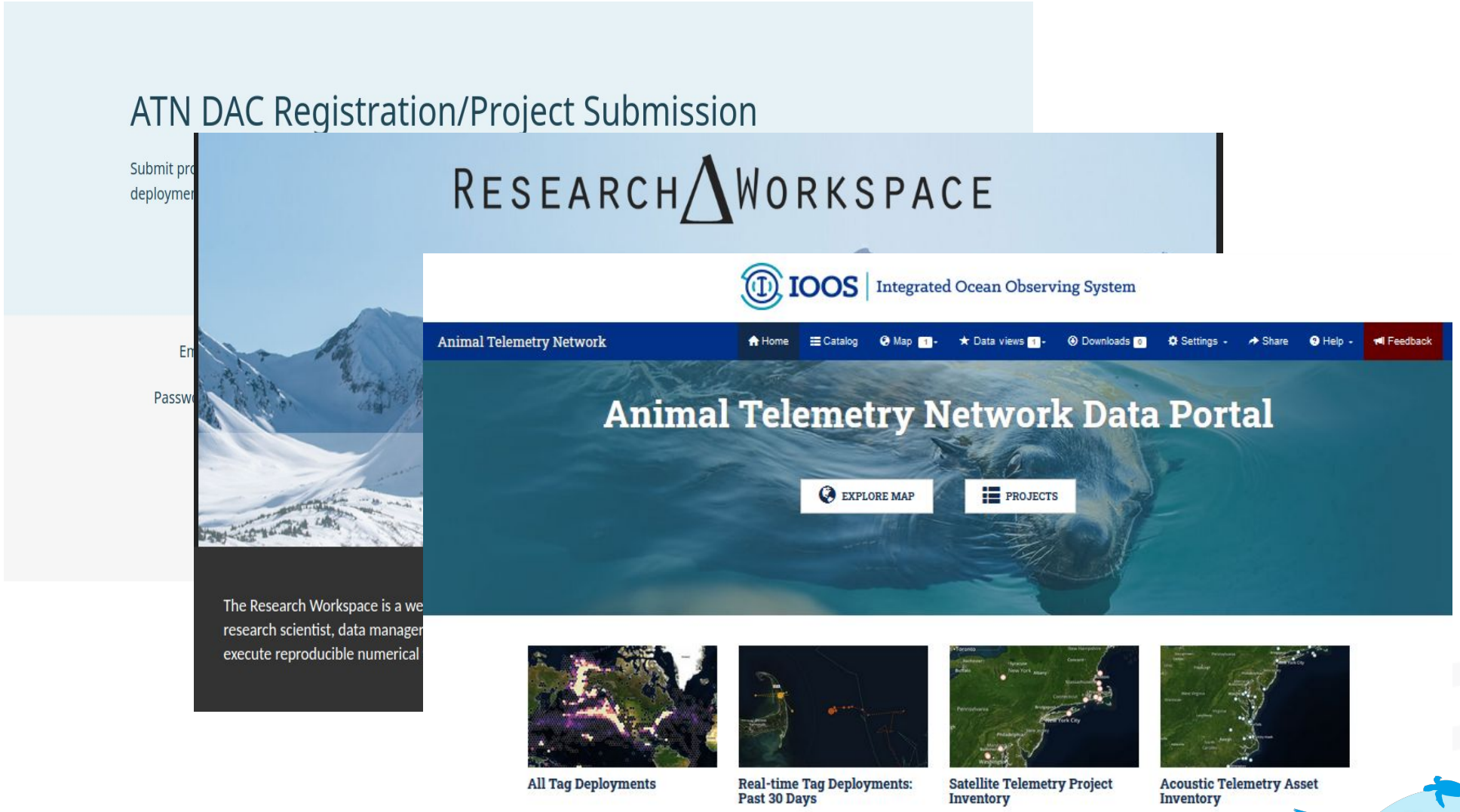

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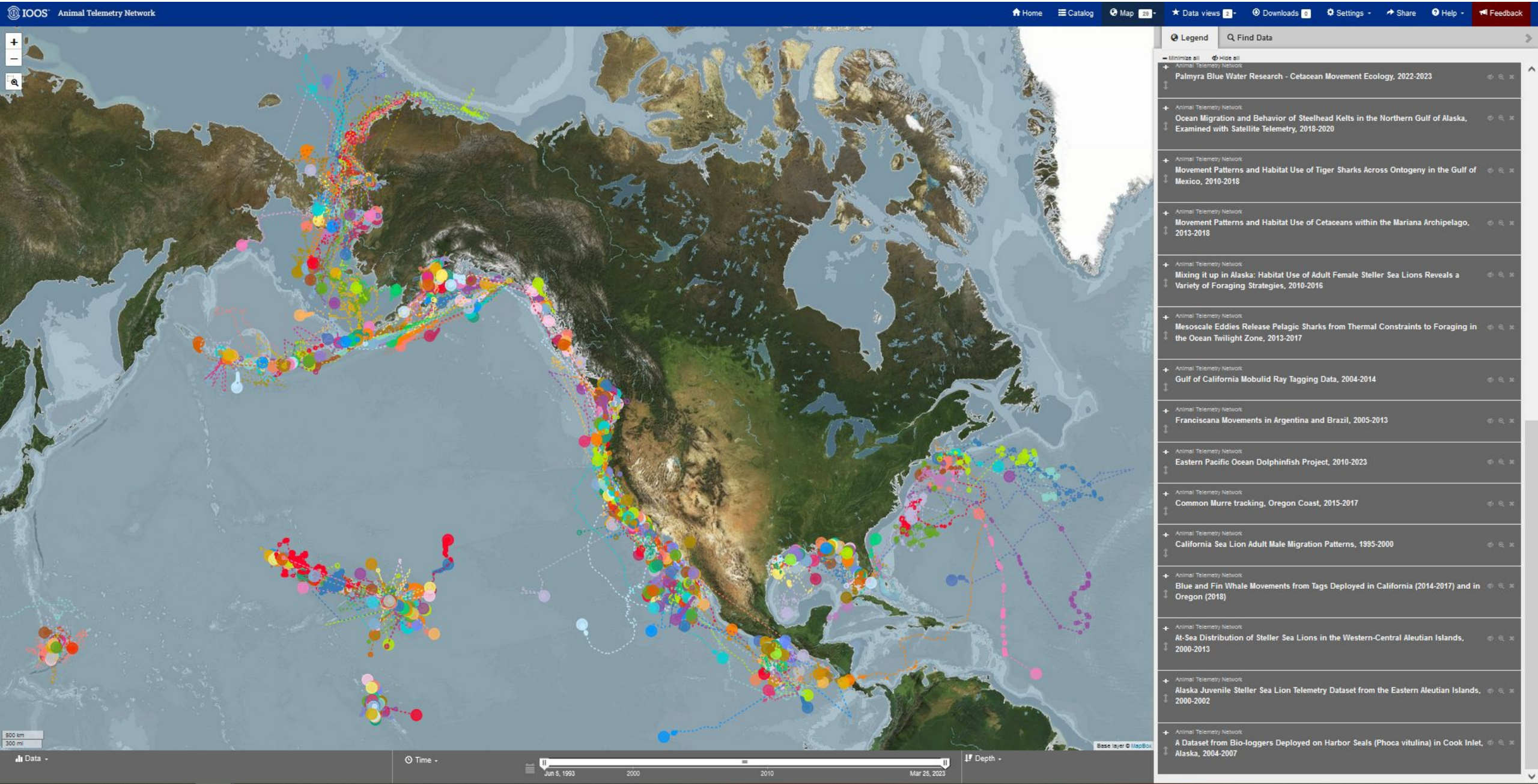
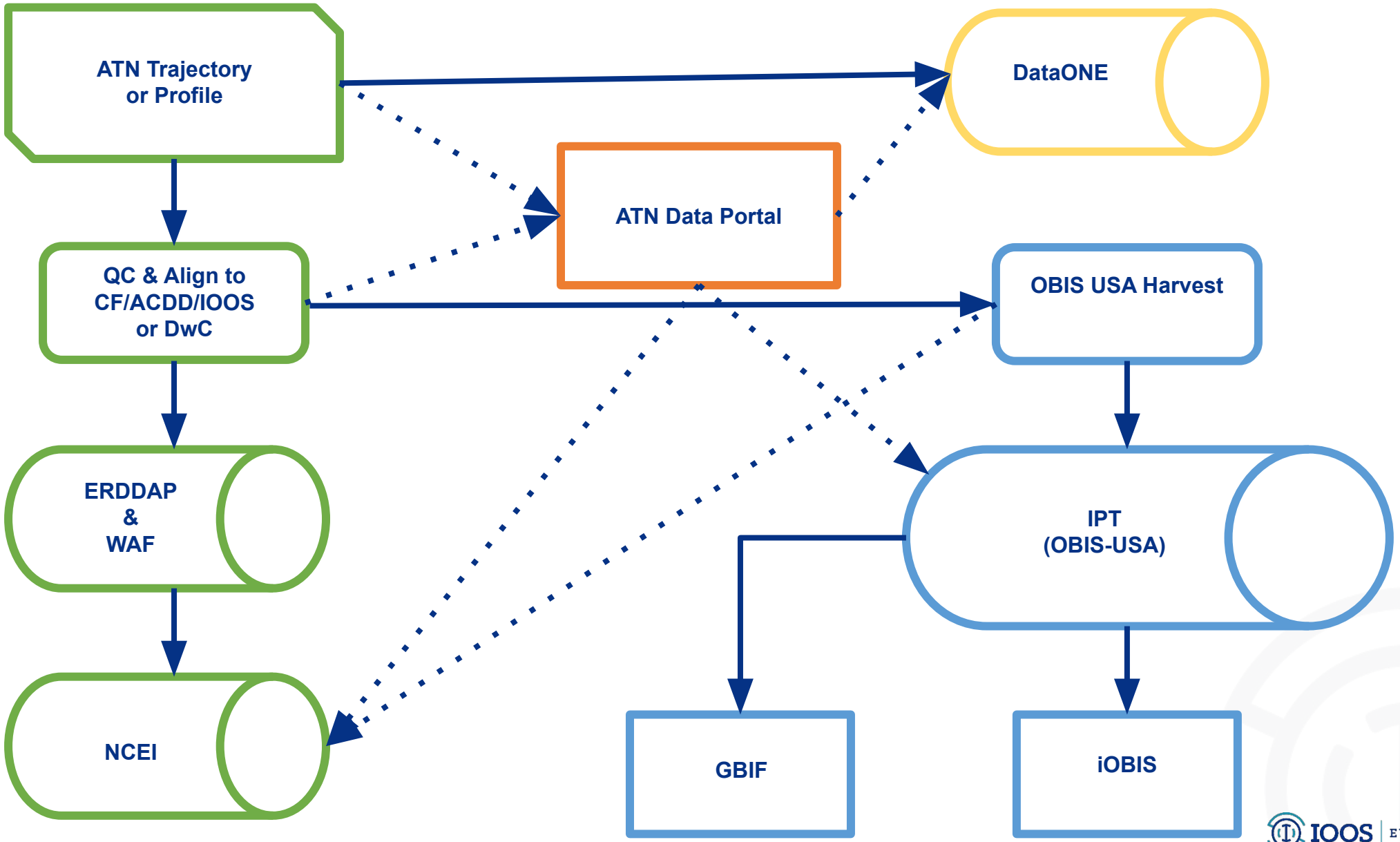
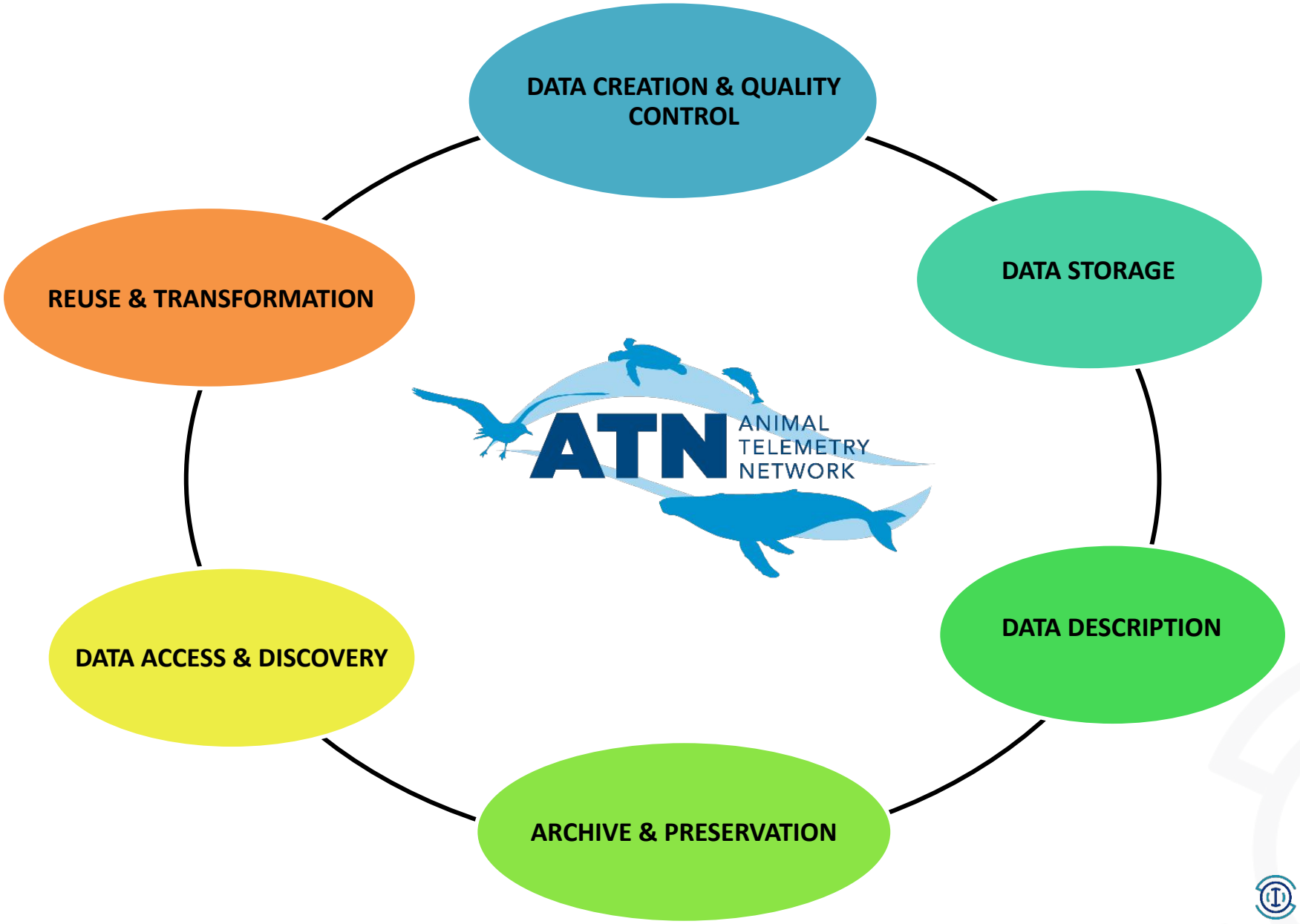
Archived Datasets



Archival Services



ATN Data Assembly Center (DAC)



Have Questions, Get in Touch…

Megan McKinzie, ATN Data Manager
mmckinzie@mbari.org

ATN Seal of Approval

ATN ANIMAL TELEMETRY NETWORK

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