

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

Satellite Data Training Course



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ATN Data Coordinator



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ATN Background



45 Years of Animal Tracking by Argos

150,000+ animals tracked since 1978

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



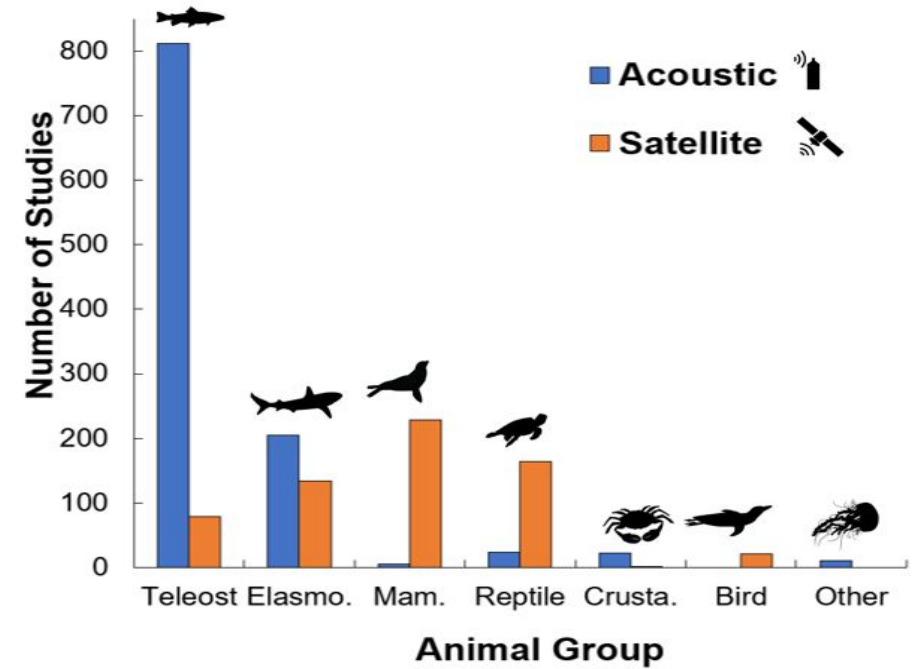
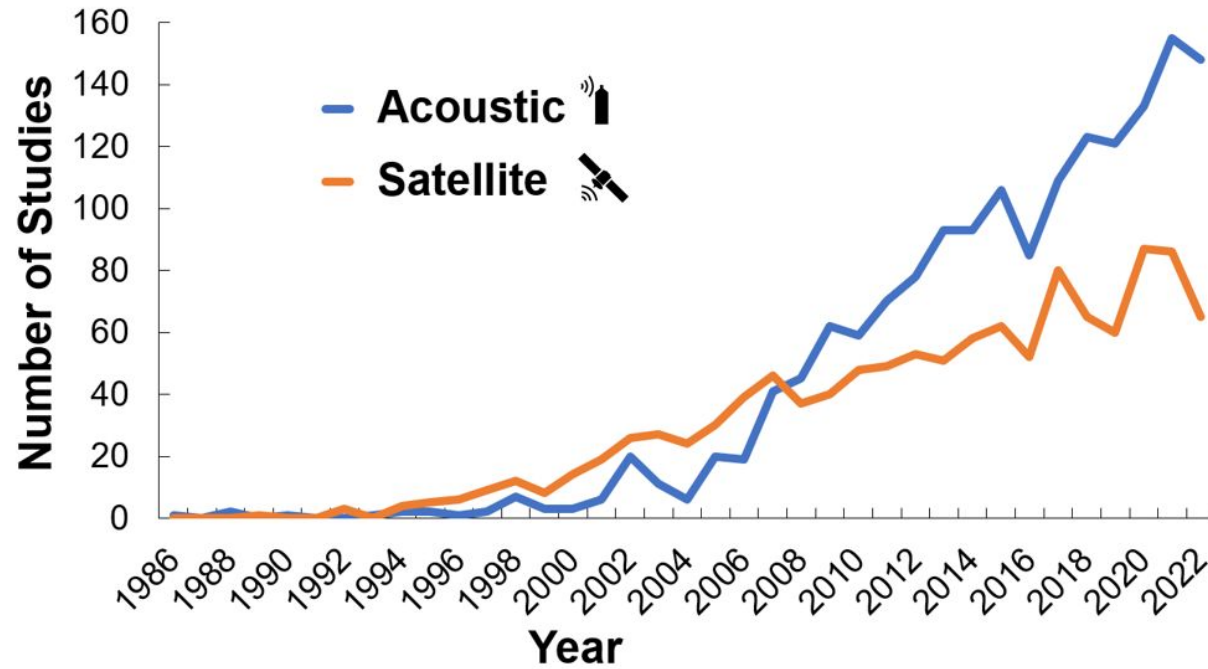
■ BIRDS

■ LAND ANIMALS

■ MARINE ANIMALS

■ FISH

ATN Background



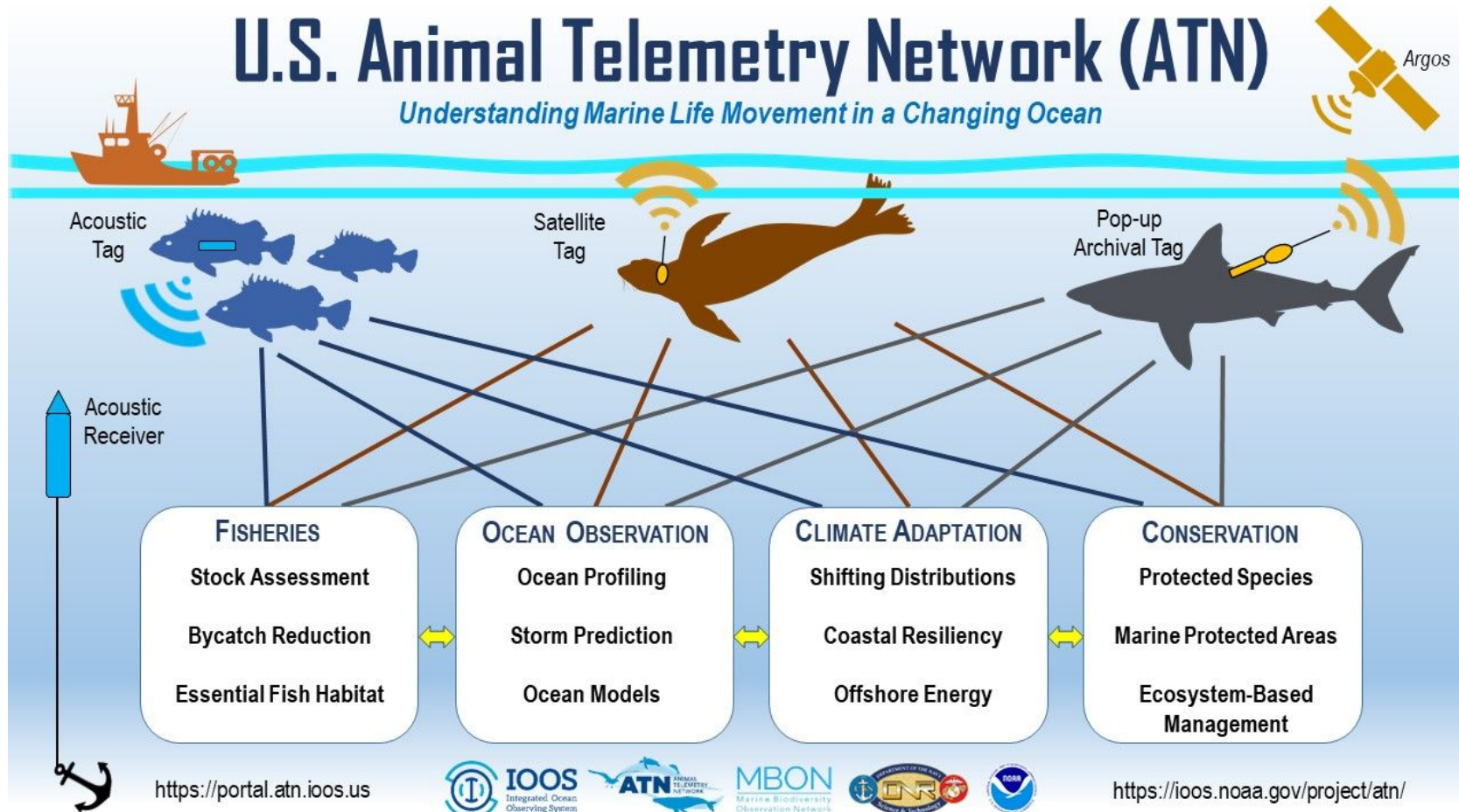
Kessel et al. (in prep), modified from Hussey et al. (2015) *Science*

- **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



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



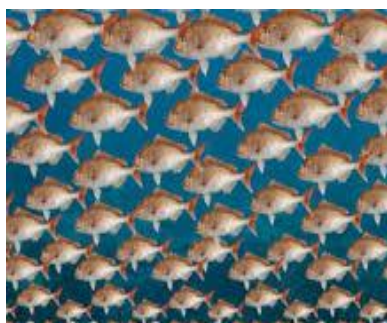
Unified Marine Life Program - "Microbes to Whales"

Hotspots

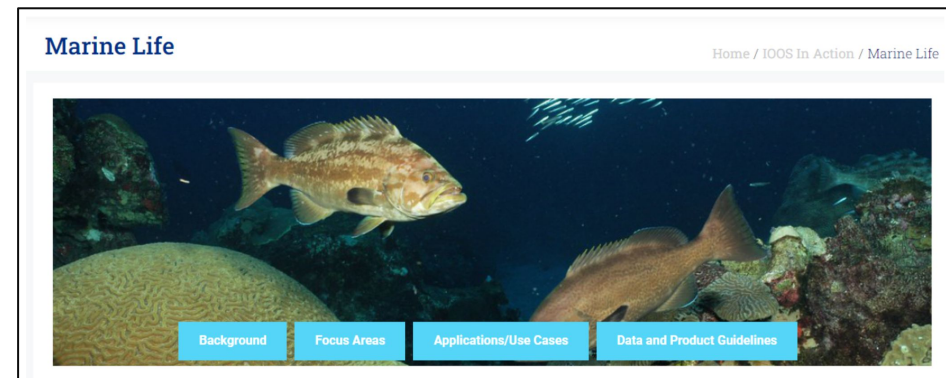


Biodiversity

Abundance



Movement



IOOS Marine Life – <https://ioos.noaa.gov/marine-life-1>

IOOS ATN – <https://ioos.noaa.gov/project/atn>

IOOS MBON – <https://marinebon.org>

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.



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

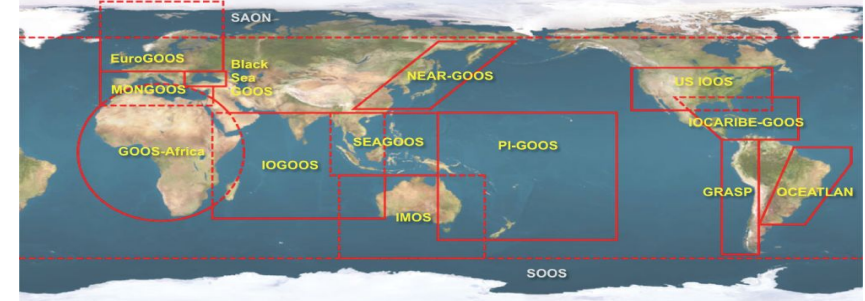
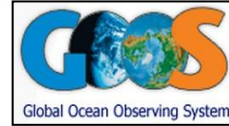


Data Access

U.S. IOOS: Program Overview

Global Component

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



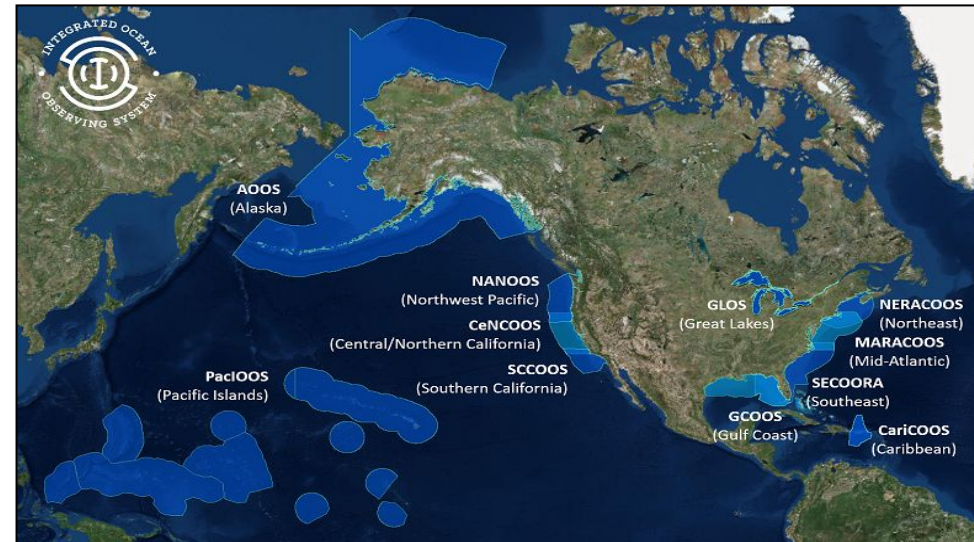
National Component

- 17 Federal agencies



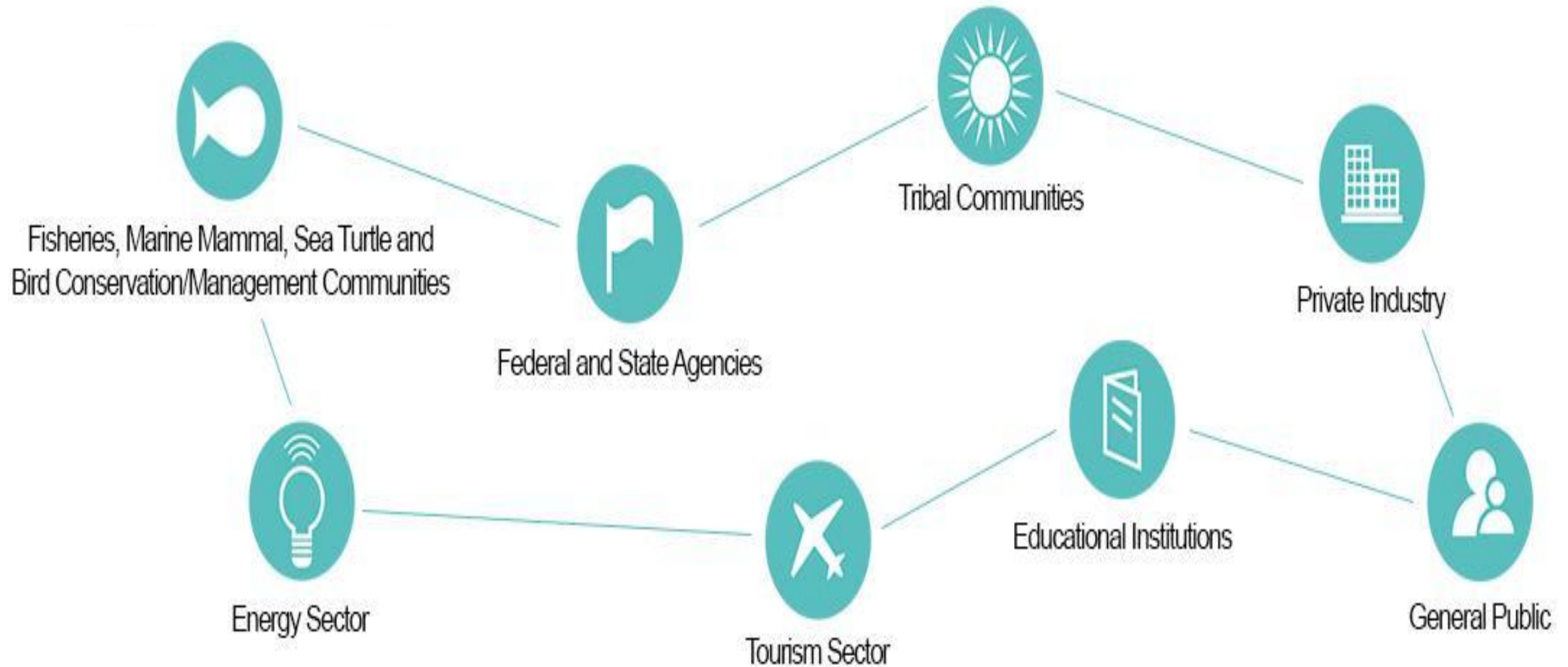
Regional Component

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



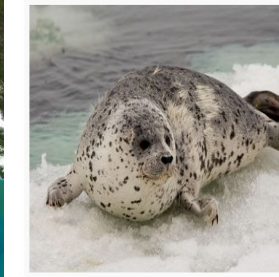
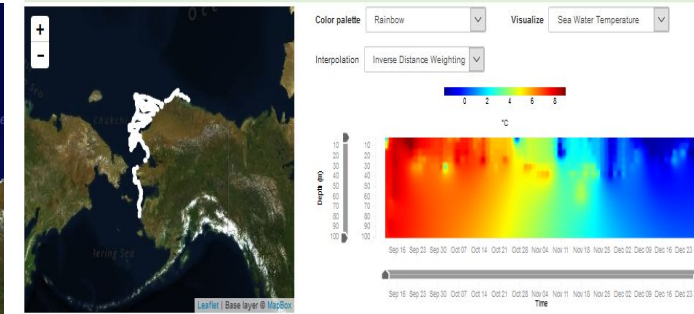
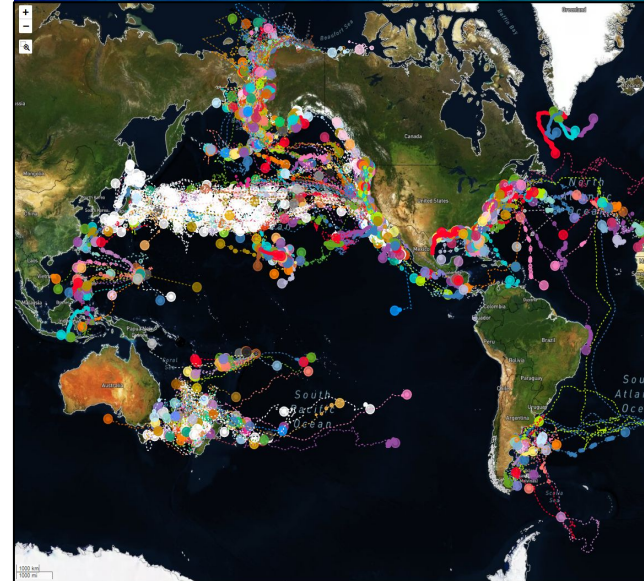
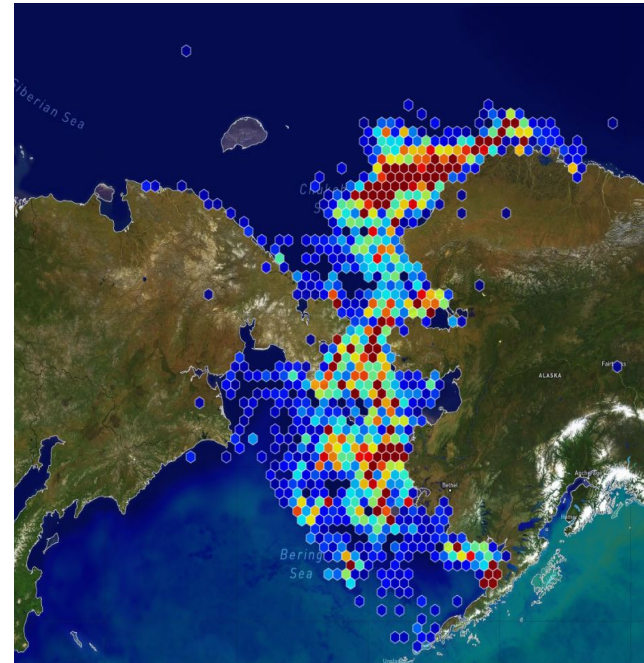
Partnership effort that leverages dispersed national investments to deliver ocean, coastal and Great Lakes data relevant to decision-makers.

Marine Life Stakeholders

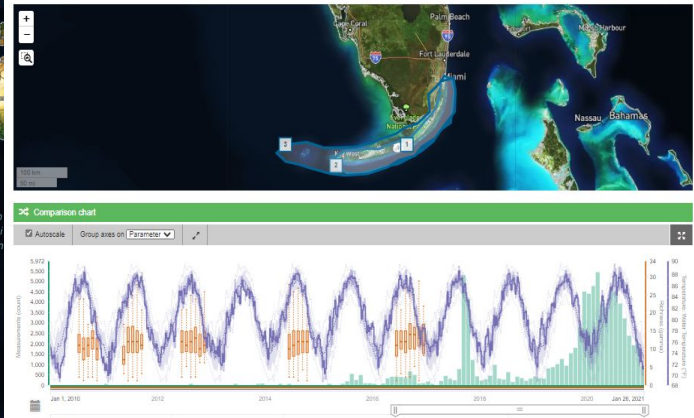
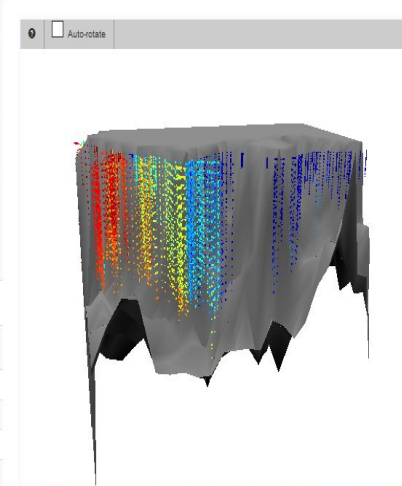


ATN Data Assembly Center (DAC)

- 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

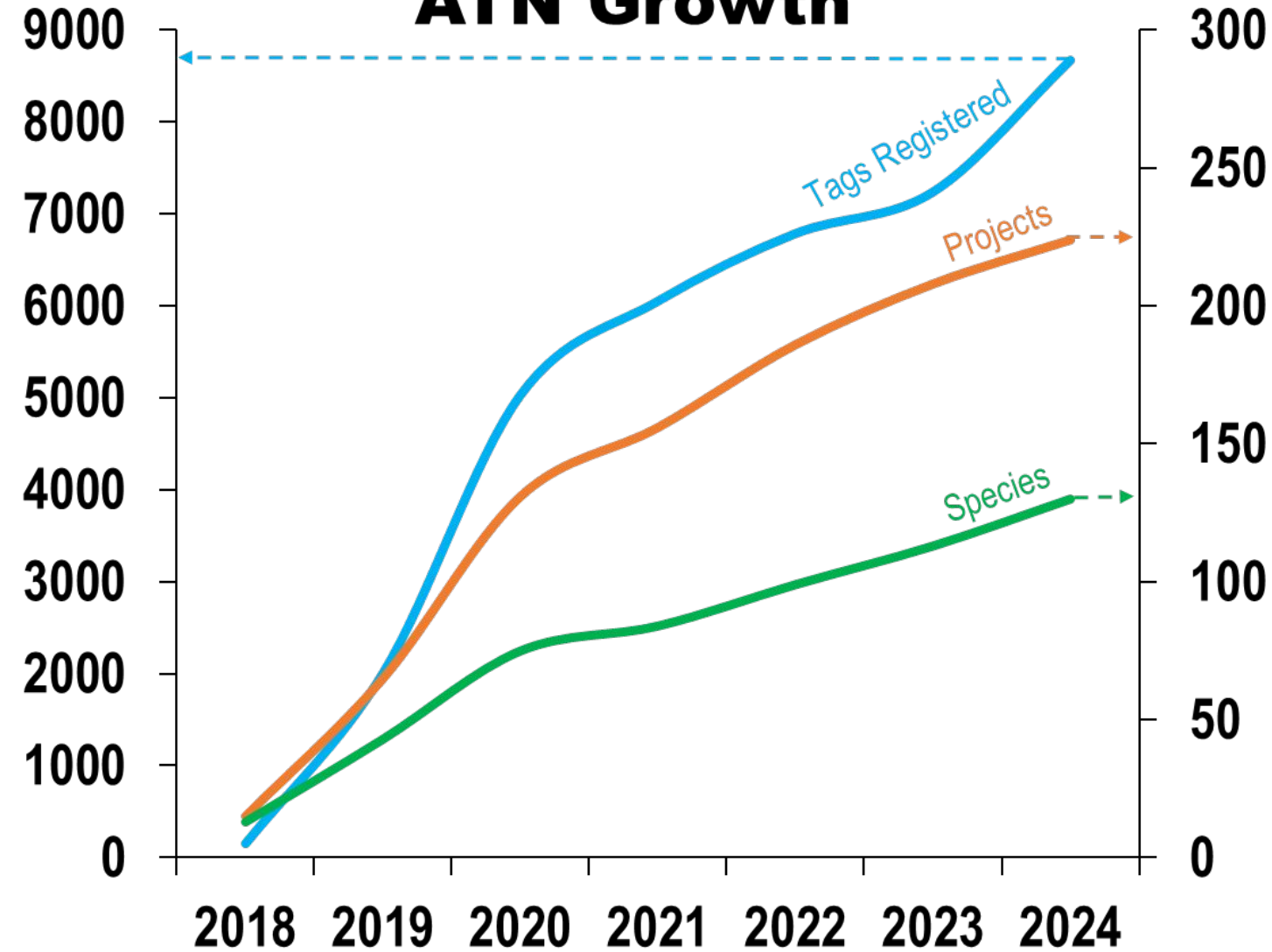


Species	Phoca largha Spotted seal
Date range	Sep 11, 2018 23:04 (PDT) - Dec 27, 2018 19:04 (PST)
Depth range	1.97950 (m) - 101.428106 (m)
Points	8,900
Principal Investigator	Lori Quallenbush
Institution	Alaska Department of Fish & Game



ATN DAC Contributing Members

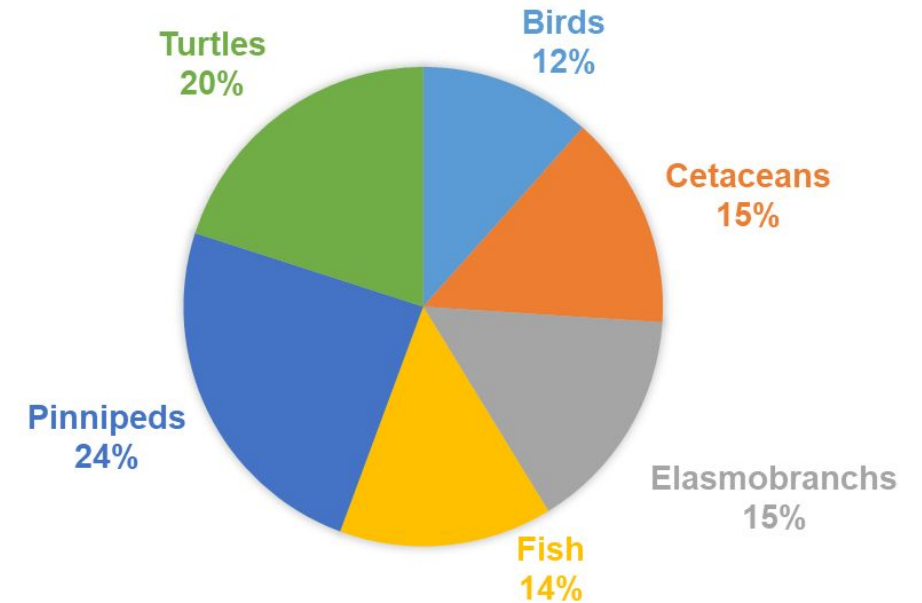
ATN Growth



REGISTERED IN DAC*

- Projects = 227
- PIs = 106
- Organizations = 77
- Species = 132
- Deployments = 8876

PROPORTION OF DEPLOYMENTS BY PLATFORM




*Primarily from Argos based satellite tags

ATN DAC Platforms

ATN DAC Registration/Project Submission

Submit project-level metadata (e.g., title, abstract, contact information) and tag deployment records (e.g., PTT ID, species, deployment dates).

Email:

Password: OR 

[Lost password?](#)

New here? You can create an account with your email or sign in with Google to create an account.



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



ATN DAC Platforms


ATN DAC Registration/Project Submission

Submit pro
deployment

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RESEARCH WORKSPACE

Request more information 

Login 

The Research Workspace is a web-based platform for collaboratively managing science projects through the entire data lifecycle. Whether you are a research scientist, data manager, or program manager you can benefit from using the Research Workspace. Coordinate information transfer, create and execute reproducible numerical workflows, generate metadata and publish finalized data products to national archives all through a single application.



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ATN DAC Platforms

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The Research Workspace is a we
research scientist, data manager
execute reproducible numerical

RESEARCH WORKSPACE

 **IOOS** | Integrated Ocean Observing System

Animal Telemetry Network

[Home](#) [Catalog](#) [Map](#) [Data views](#) [Downloads](#) [Settings](#) [Share](#) [Help](#) [Feedback](#)

Animal Telemetry Network Data Portal

 EXPLORE MAP

 PROJECTS



All Tag Deployments



Real-time Tag Deployments:
Past 30 Days



Satellite Telemetry Project
Inventory



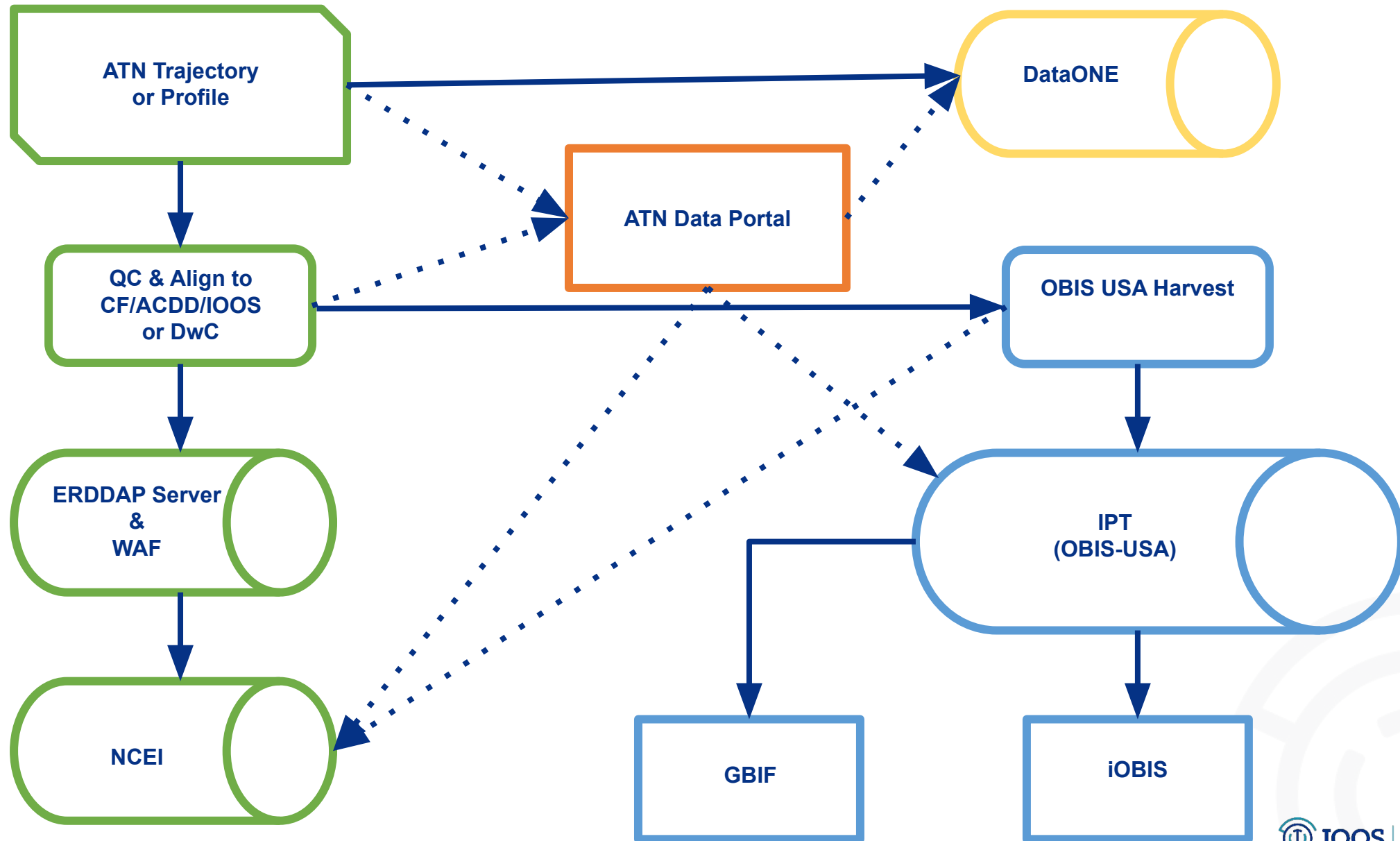
Acoustic Telemetry Asset
Inventory



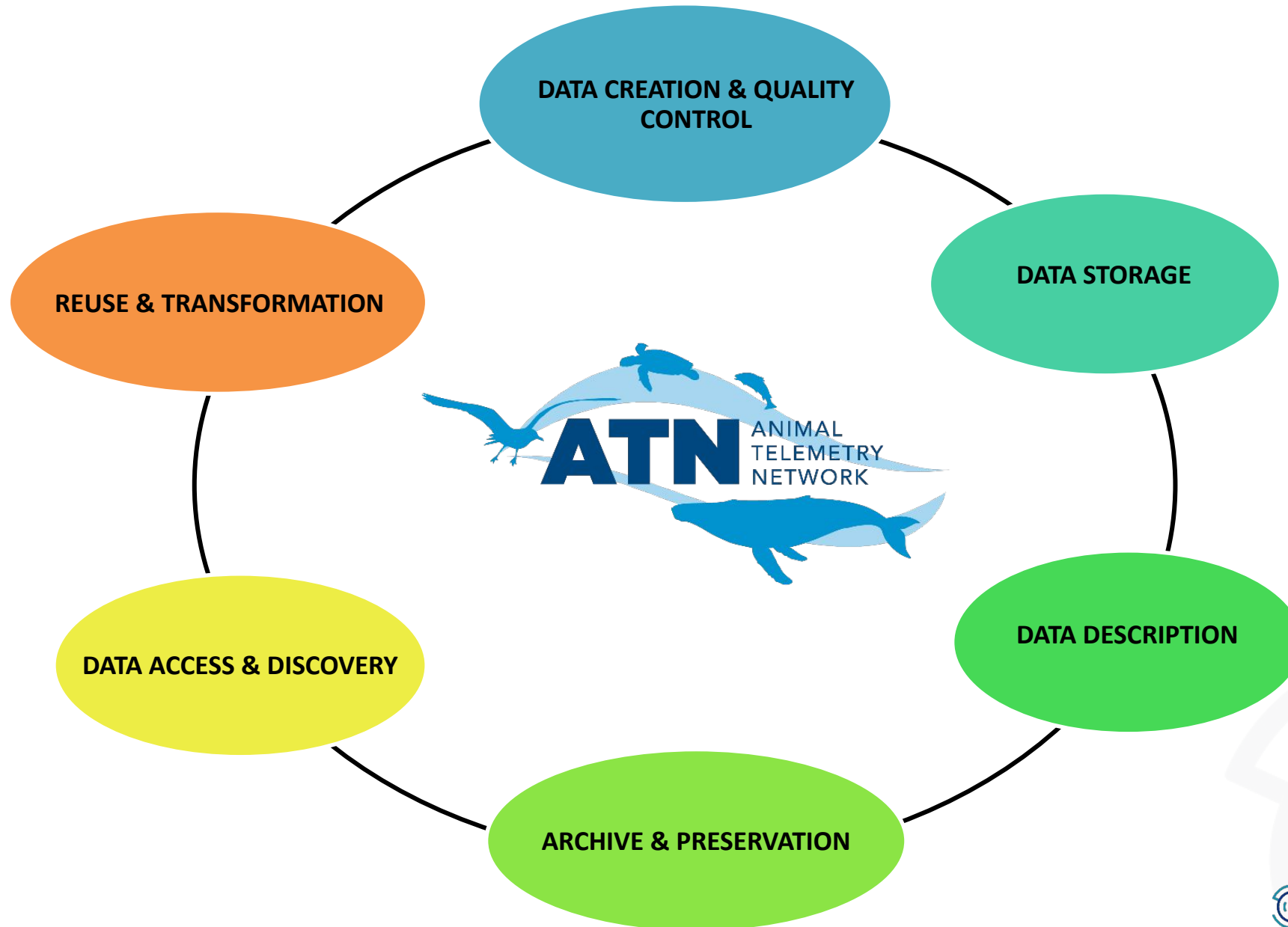
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ATN Data Portal – <https://portal.atn.ioos.us>



Archival Services



ATN Data Assembly Center (DAC)



Have Questions, Get in Touch...

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Connie.kot@noaa.gov



THANK YOU !



Photo: Dan Costa