

# CIOOS CANADIAN INTEGRATED **OCEAN OBSERVING SYSTEM**

# **CIOOS Update**

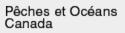
Ray Brunsting, Tula Foundation / Hakai Institute Scott Bruce, CIOOS Atlantic / Marine Institute

Fisheries and Oceans

June 14, 2022











## **Founded Through Collaboration**



## CIOOS - 2022 and beyond

### Cycle 1

August 2018 - March 2019 national and regional systems launched to the public

#### Cycle 3

March 2022 - ...
More partnerships,
more FAIR data,
more tools/products/apps,
analysis and prediction



### Cycle 2

August 2019 - March 2022 Expansion of data catalogue, visualization and data tools, targeted engagement



## **Our Vision**

\*\*As Canada's nucleus for ocean observing, CIOOS makes connections for a sustainable ocean future. \*\*



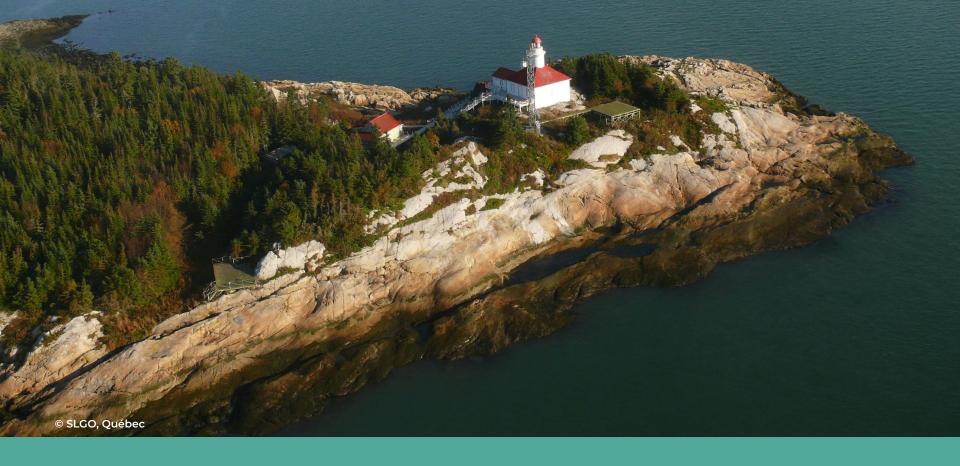
### **Our Mission**

To foster partnerships and grow a powerful online platform that generates information, knowledge, and place-based solutions to advance our understanding of the ocean. 29



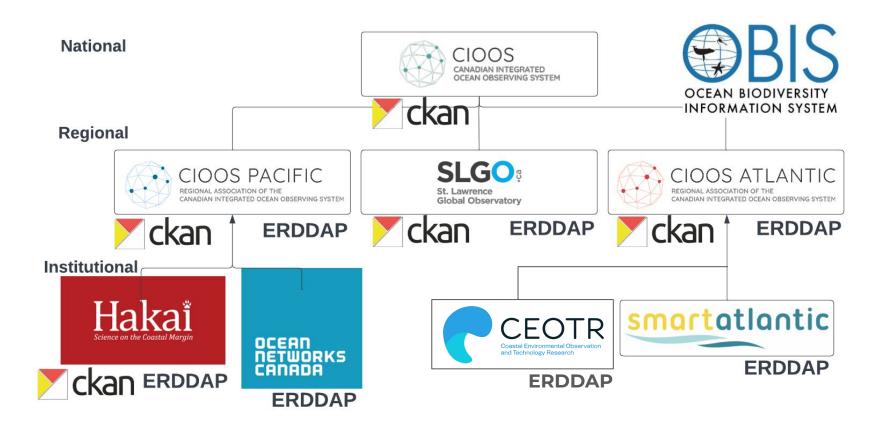
### CIOOS Governance Structure





# **Technical Highlights**

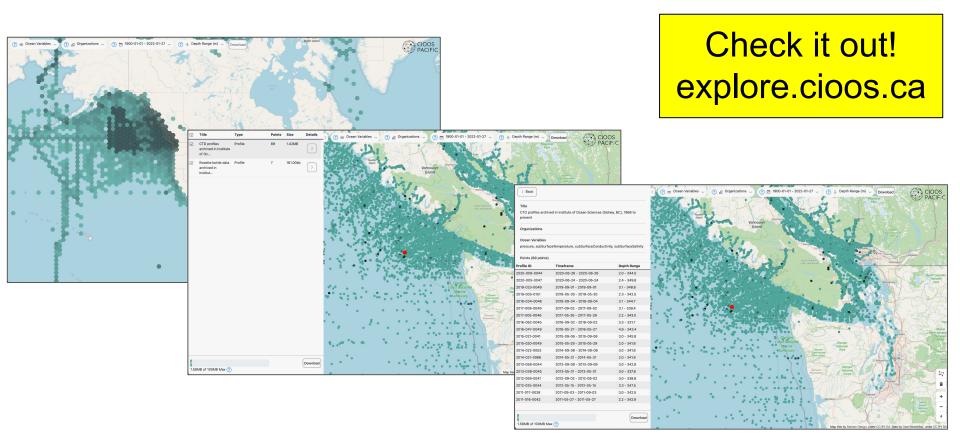
#### CIOOS Structure

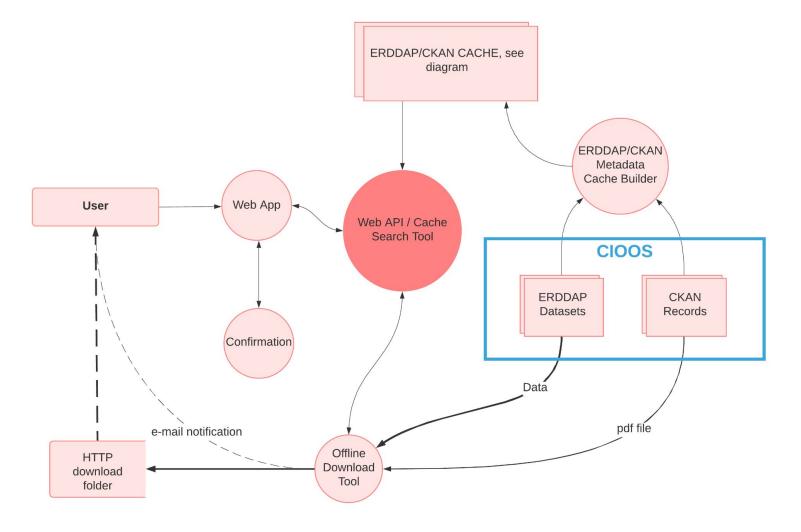


# Collaborative Development / Sprints

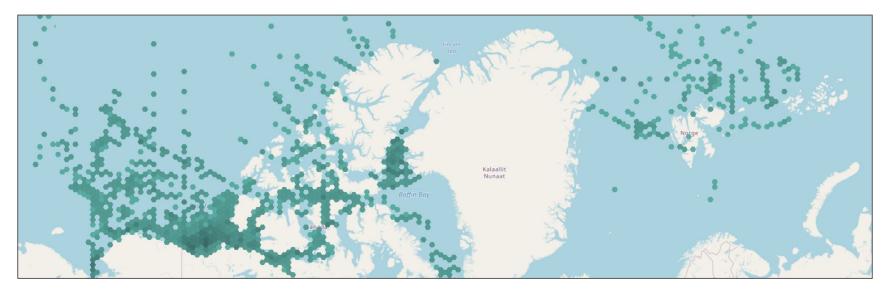
- CIOOS Sprints
  - Revamped common theme for CIOOS websites
  - Explored path to use CIOOS as an onramp to the GTS through MEDS
  - Migrating to CKAN 2.9.x / Python 3
  - Biological data, CIOOS metadata form can generate EML for OBIS
  - Polar Data hackathons, many Artic organizations using ERDDAP and other OPeNDAP implementations
- IOOS sprints
  - CIOOS participation in IOOS code sprint, very positive, productive and informative experience
- We want more with IOOS!

# **CIOOS** Data Explorer



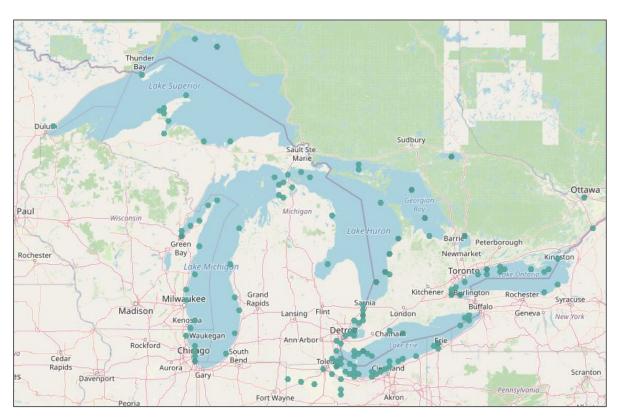


## **Arctic Data in CIOOS**



- Already includes ocean data collected by DFO, ONC, etc. going back to the 1950's
- Variables available include Temperature, Salinity, Nutrients, Currents
- Ongoing efforts to make additional data available from cruises, observatories, and community monitoring programs

## **GLOS Data in CIOOS**

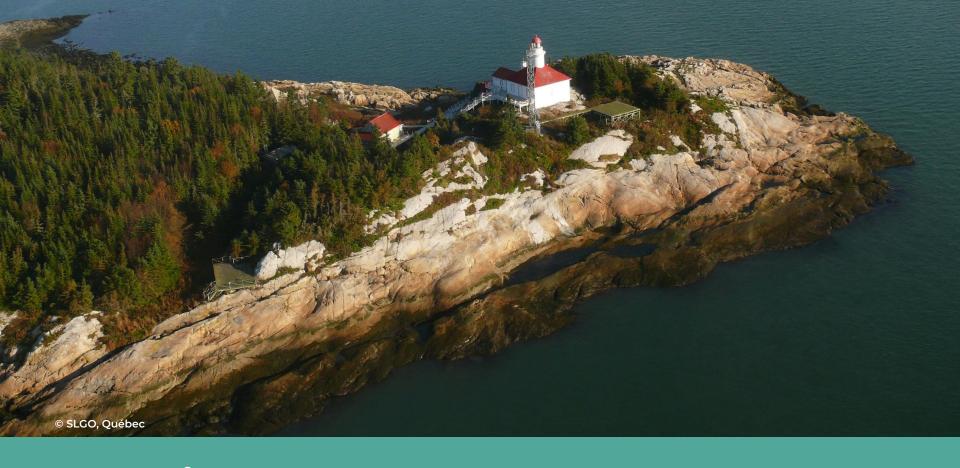








Integrating GLOS data into the CIOOS Data Explorer was easy!



# Looking Forward



### **Key Areas of Focus - CIOOS**

- Strengthening partnerships for improved ocean observations and service delivery.
- Improving the discoverability, accessibility and interoperability of Canadian Oceanographic Data.
- Converting ocean data into information and knowledge through the development and use of tools, products and applications.
- Increasing the ability to understand current states and predict future states of Canada's three oceans by supporting and sharing modelling, hindcasting and forecasting outputs.



## **Key Areas of Focus - Technical**

- Common vocabularies, keywords, and emerging EOVs; basic data quality control; data versioning; DOIs and data citation
- Biological, modelled, and real-time data
- Sharing of less public data
- Continued technical collaboration (ie. with IOOS, IOOS RAs, others)



This project would not be possible without the financial support and the continued involvement of these organizations:



Fisheries and Oceans Canada Pêches et Océans Canada







cioos.ca | siooc.ca



info@cioos.ca



@cioos.siooc



@CIOOS\_SIOOC