

DALHOUSIE UNIVERSITY





Marine Environmental Research Infrastructure for Data Integration and Application Network

MEOPAR-MERIDIAN workshop | August 16 - 17, 2018

Overview: initial MERIDIAN Goals

Year 1		Year 2	Year 3				
Integrating acoustic metadata in interoperable Meridian data catalogue							
Interactive (dynamic) data visualization and analysis							
Algorithms and data structures for scalable processing of marine data							
	today						









Goal 1: Integrating acoustic metadata in interoperable Meridian data catalogue



Sustainable Metadata curation strategy









Goal 2: Interactive data visualization and analysis

Year 1	Year 2	Year 3
Connection to Google Global Fishing Watch initiative	Extension to other media (e.g. voice narrative generation). Implementation of inter- active data exploration tools	Visualize & understand Canadian ocean soundscape
Selection visualization tools for MERIDIAN	Researcher's customized notebooks tool developed	interactive visualization tools
Focus on user-centered experience - metadata forms, discovery layerExplore user types - Scientific - Citizen scientists - Other?	Different access modes for different types of users/uses - Web version (low res) - Workstation (high res)	GIS accessibility/Meridian layers
	Represent and display uncertaintanty	









Goal 3: Algorithms and data structures for scalable procession of marine data

Year 1	Year 2		Year 3			
Algorithms for streaming data	ata	Data summaries & query techniques for sensor data	Ocean scientis with big data a <u>Training for ne</u> <u>data users</u>	ts enabled analysis tools ew acoustic		
spatial data analytics		detection (esp. for AIS data)	Tools to enable for policy deve <u>Tools for non-e</u> <u>managers</u>	e ocean data lopment <u>experts e.g.</u>		
What data sets are appropriate for Meridian to develop tools for?		Lightweight algorithms for instruments	Data storage - Meridian store the future? Do Meridian baye	<u>will</u> <u>data in</u> es the data		
		Generalized training of classifiers	storage it need	<u>ls?</u> tion e.g.		







sonograms

MEOPAR

Collaborations

- Plotly
- Hacky hour
- Oceans 2.0
- IntraMeridian crosswalking
- Become a thematic node of CIOOS
- Librarians
- Industry
- FRDR
- DFO, Environment Canada, Transport Canada
- Ocean Navigator

Workshops

- This year
 - Spec sheet for soundscape atlas
 - Reach out to other cross-disciplinary big data/machine learning experts
- Next year
 - Data classification workshop sometime next year









Other needs? Other projects?







