OTN Data/Tools Access

Lenore Bajona

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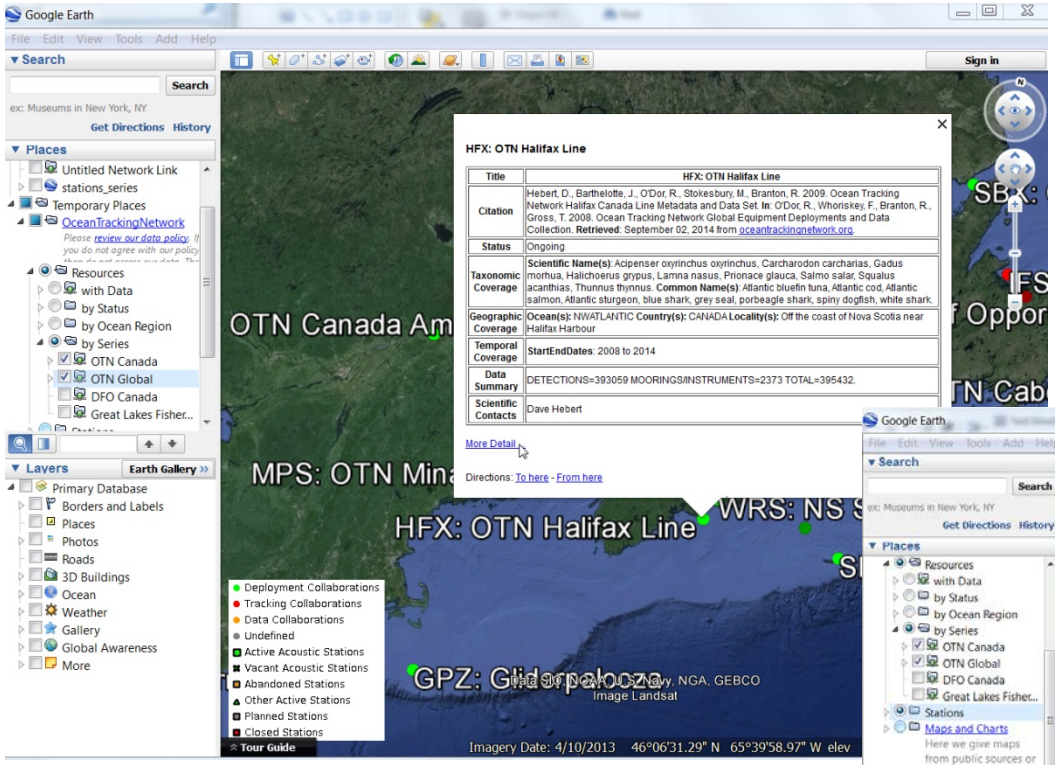
Website: http://members.oceantrack.org

OTN Google Earth KMZ

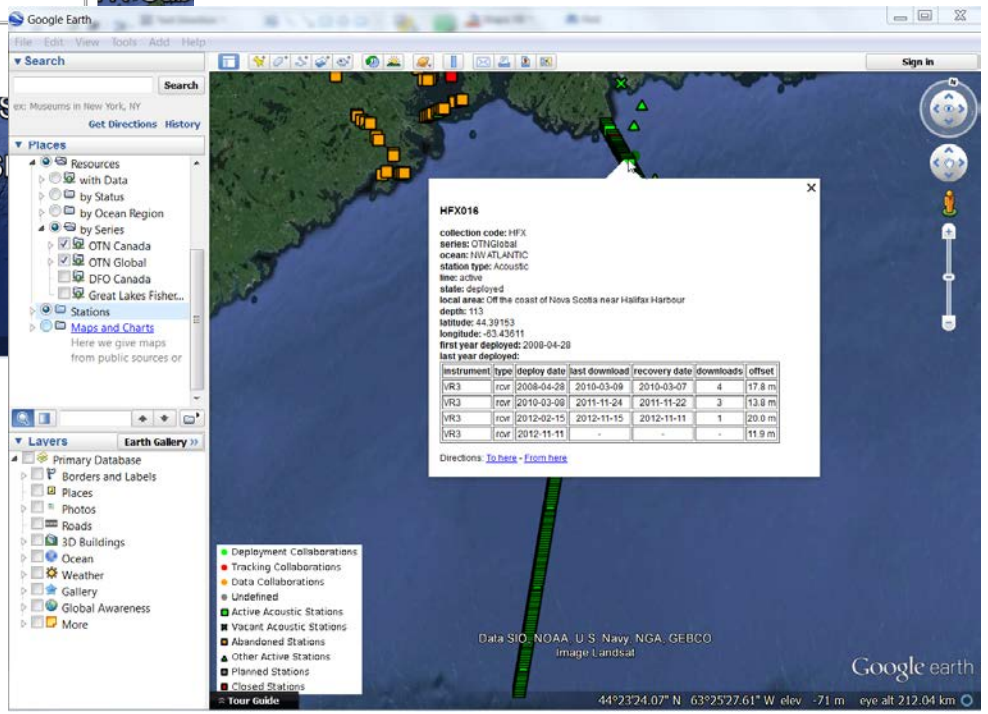
Selected OTN Canada and OTN Global

OTN Google Earth KMZ

Project/Collection Metadata



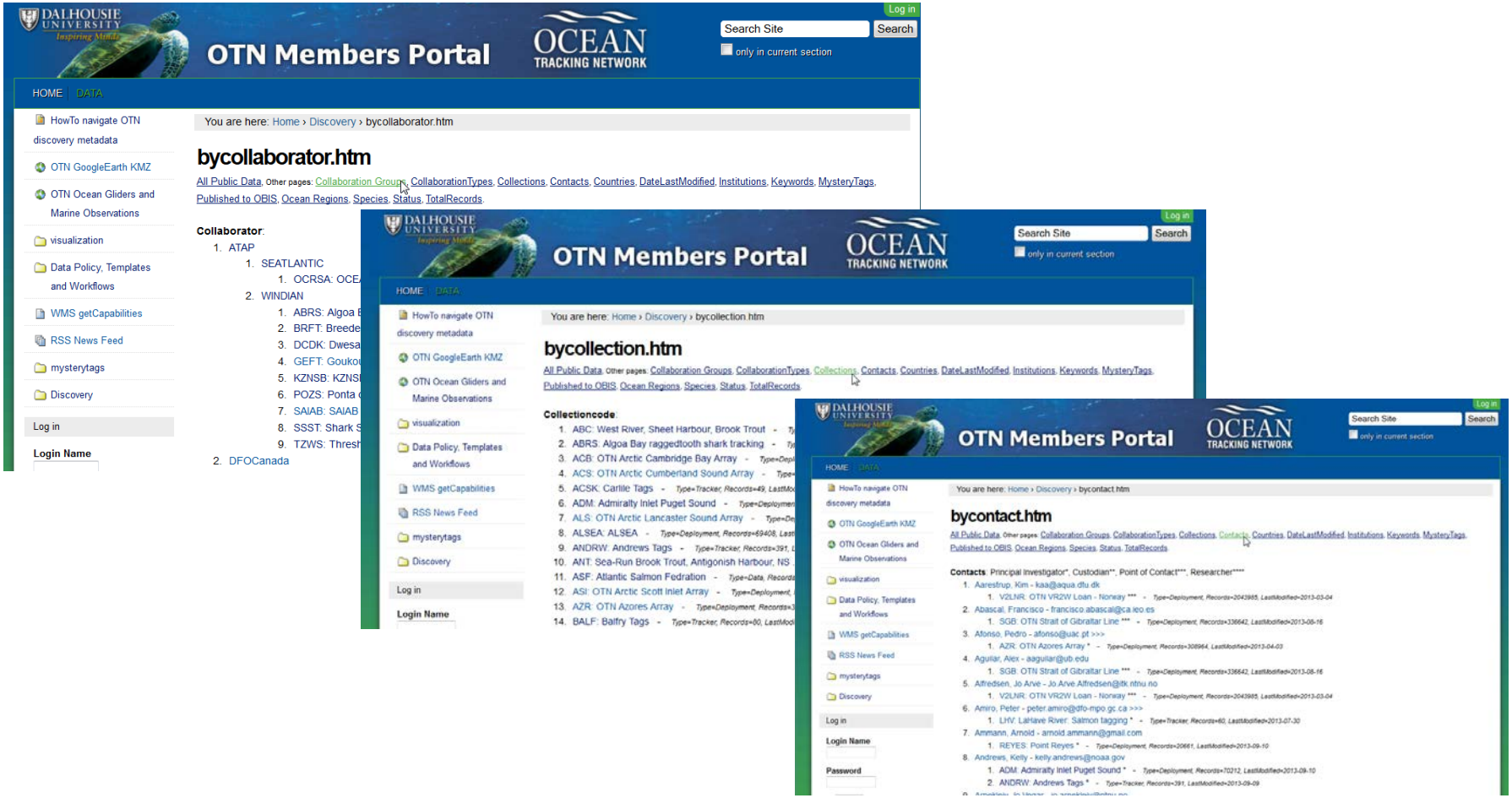
Station Metadata



Clicking More Details … will link back to selected Project HTML metadata page on Members site.

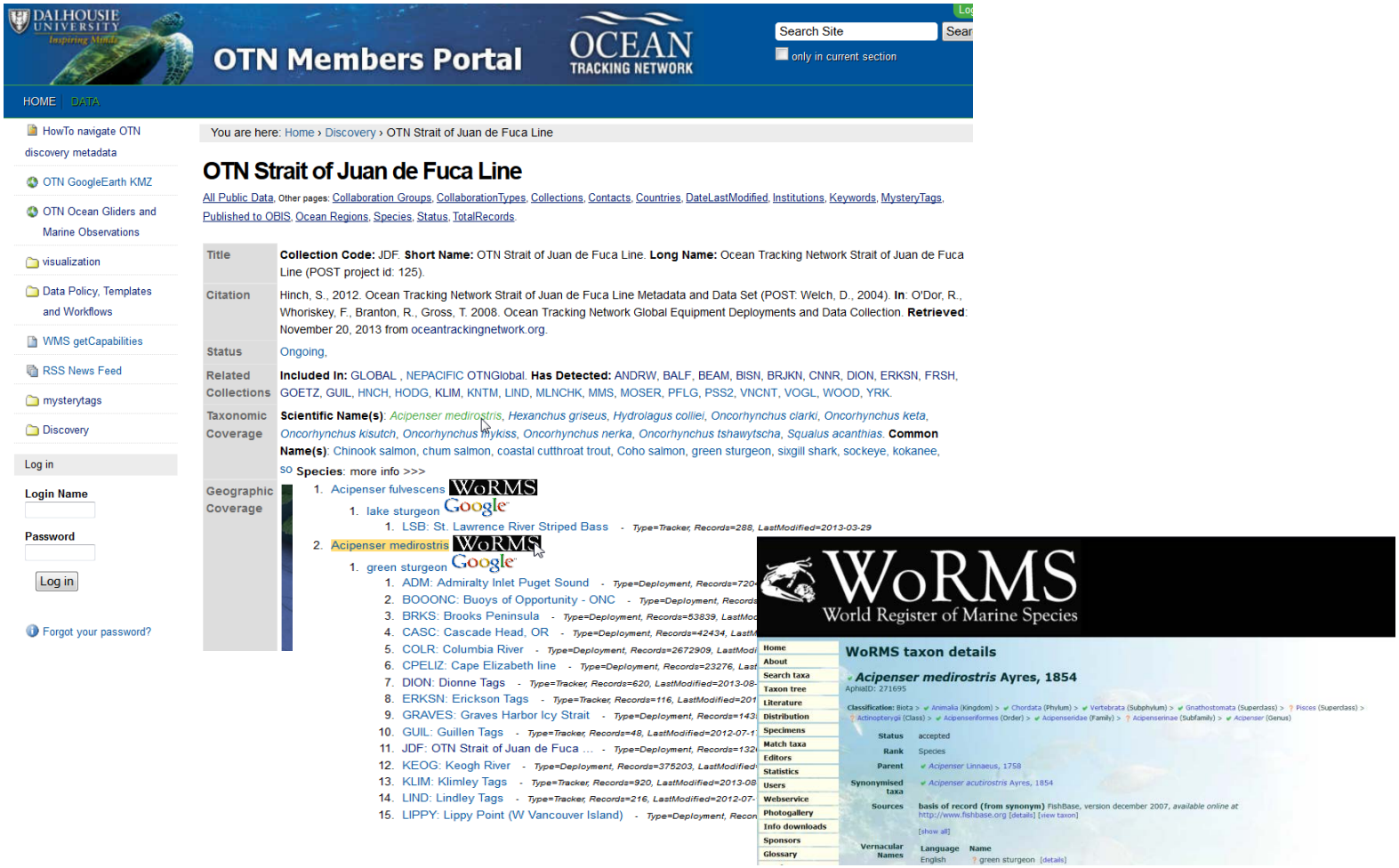
Public Links

Other pages: for example Collaboration Groups, Collections, Contacts



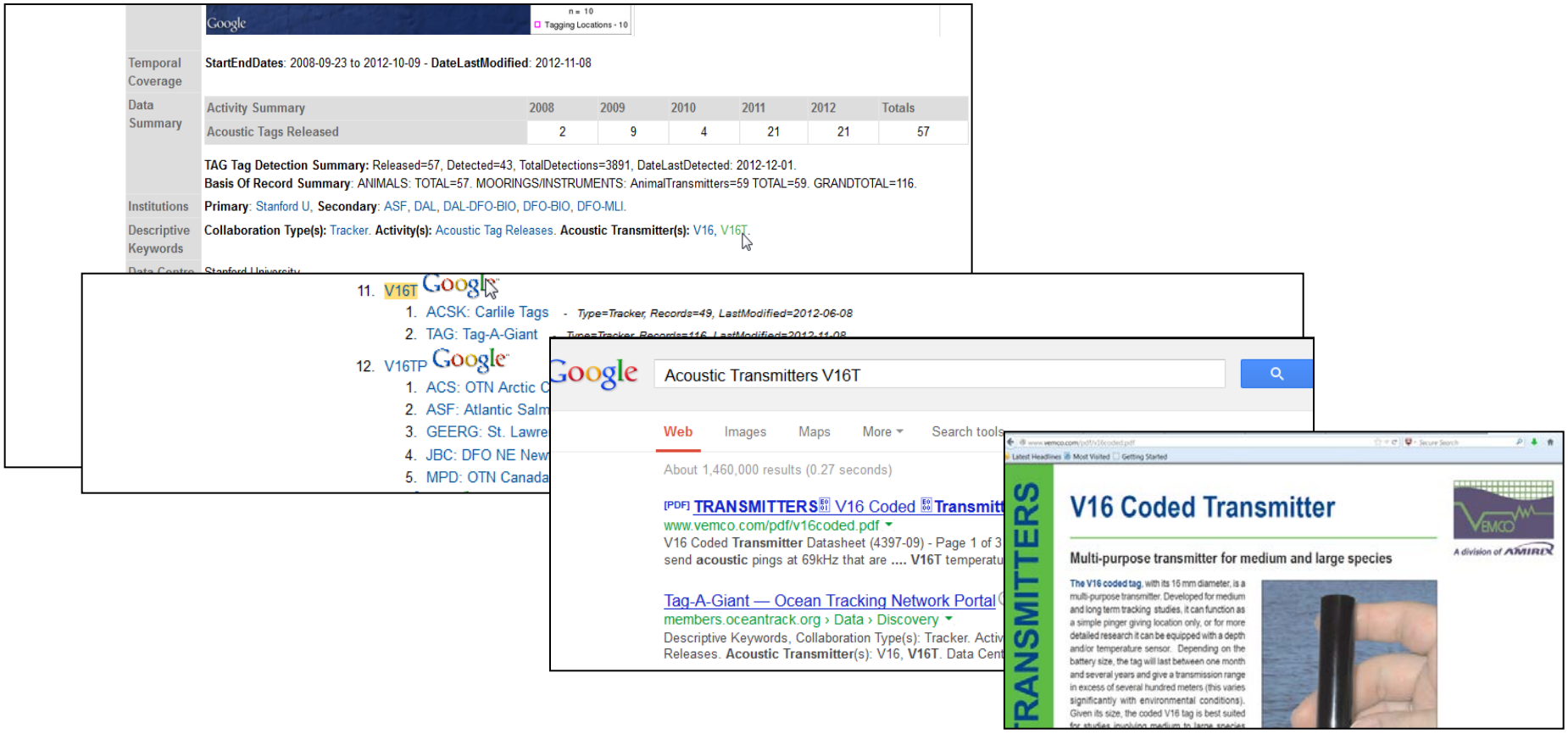
Public Links

Embedded Links, for example from Collection page to Species list and then to WoRMS.



Public Links

Embedded Links, for example from Keywords/Instrument Types to Instrument list, to Google and then to Manufacturer.



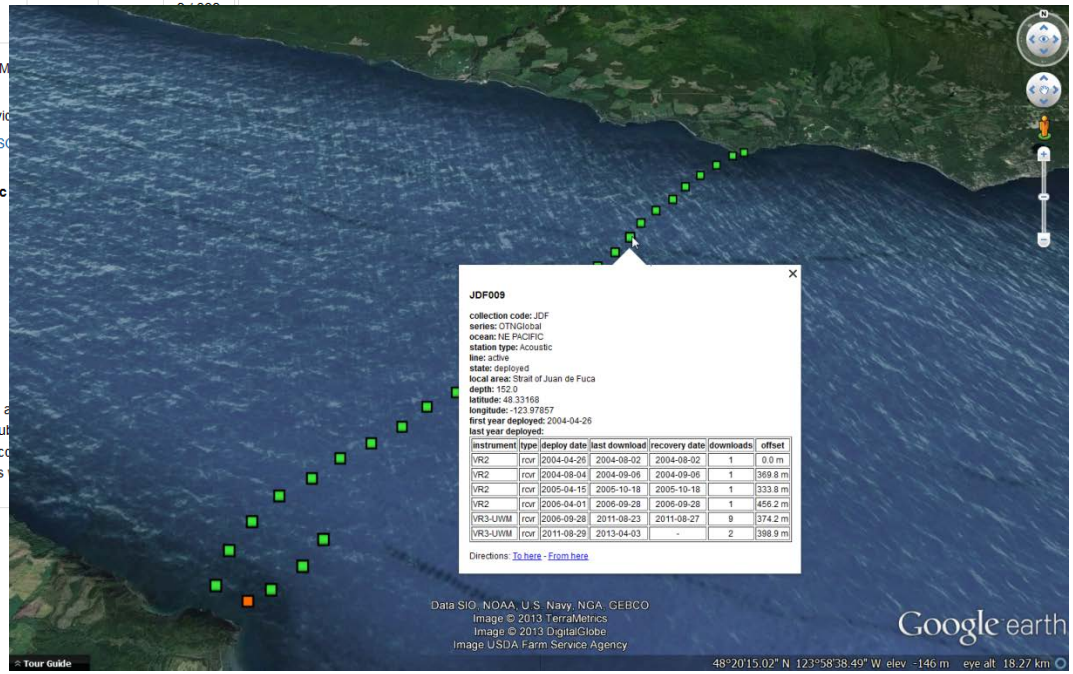
Get Public Data – Project Metadata Page

Related URLs –KML Stations w/metadata

Temporal Coverage	**StartEndDates**: 2004-04-26 to 2013-04-04 - **DateLastModified**: 2013-09-10
Data Summary	

Activity Summary	2004-2007	2008	2009	2010	2011	2012	2013	Totals
Moorings - With Detections / Total Deployed	104 / 115	29 / 30	30 / 30	30 / 30	30 / 30	30 / 30	29 / 30	282 / 295
Qualified Acoustic Tags - Detected / Number of Detections	219 / 15097	58 / 12619	53 / 6100	21 / 8881	22 / 6280	42 / 22188	12 / 16491	427 / 87656
Mystery Tags - Detected / Number of Detections	175 / 17978	15 / 92	13 / 302	18 / 1542	25 / 1641	105 / 14598	19 / 783	370 / 36936
Unmatched Sensor Tags - Detected / Number of Detections	16 / 1422	10 / 85	8 / 39	11 / 47	13 / 73	31 / 1579	8 / 46	97 / 3291
Ambiguous tags - Detected / Number of Detections	8 / 264	1 / 45						

	Basis Of Record Summary: DETECTIONS: Animal=87656 Unqualified=40726 TOTAL=128382. M Offloads=437 Stations=31 Receivers=188 TOTAL=656. GRANDTOTAL=129038.
Abstract	OTNGlobal take over of line maintenance June 2012. Previous opertator: Kintama Research Servic
Institutions	**Primary**: OTN, **Secondary**: BC-FLNRO, DFO, DFO-PBS, KRS, NIT, NOAA-NWFSC, NOAA-SWFS UCDavis, USACE, USFWS, UWash, WDFW.
Descriptive Keywords	**Collaboration Type(s):** Deployment. **Activity(s):** Receiver Deployments, Station Plans. **Acoustic** . **Sensor Data:** depth.
Data Centre	Kintama Research Services
Scientific Contacts	**Principal Investigator(s):** Hinch, Scott
Related URLs (May require login)	**Visit Data Repository Folder:** /data/repository/jdf. **Get Detection Extracts:** /data/repository/jdf/detection-extracts. **Get Public Data: Stations** - kml *(n=31)*, **Deployments** - csv *(n=188)*. **Mystery Tags:** /data/mysterytags/NEPacific_mysterytags.csv.
Access and Usage Contraints	**General OTN terms:** By accessing or using OTN Data you agree to: a) give proper attribution to a using the preformed citations contained in this report and in the data records, b) inform OTN of put applications using the data, c) acknowledge that neither the OTN nor the provider is liable for inacc responsibility for investigating and understanding the limitations of the data, e) report all problems otndc@dal.ca. For full policy, see: Full OTN Data Policy Statement.



Get Public Data – Project Metadata Page

Related URLs – CSV Deployments, providing station deployment, offload, recovery history

Descriptive Keywords	**Collaboration Type(s):** Deployment. **Activity(s):** Receiver Deployments, Station Plans. **Acoustic Receiver(s):** VR2, VR3, VR3-UWM . **Sensor Data:** depth.
Data Centre	Kintama Research Services
Scientific Contacts	**Principal Investigator(s):** Hinch, Scott
Related URLs (May require login)	**Visit Data Repository Folder:** /data/repository/jdf. **Get Detection Extracts:** /data/repository/jdf/detection-extracts. **Get Public Data: Stations** - kml *(n=31)*, **Deployments** - csv *(n=188)*. **Mystery Tags:** /data/mysterytags/NEPacific_mysterytags.csv.

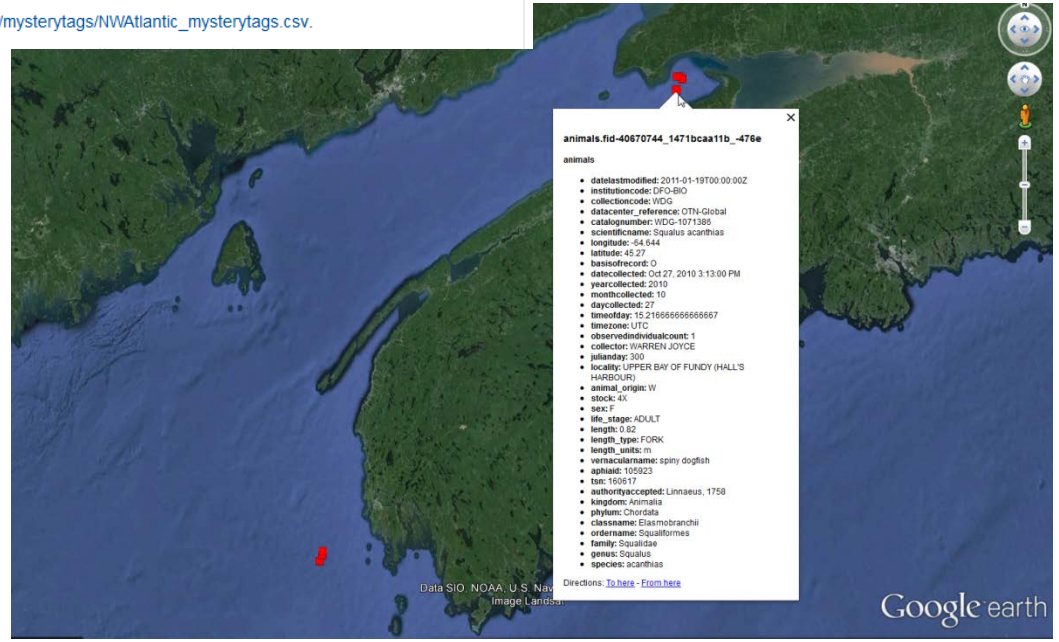
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	collection	seriescode	ocean	station_na	station_ty	station_lat	stn_long	stationstat	locality	model	instrument	deploy_date	last_download	recovery_date	downloads
2	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR2	rcvr	2004-04-26	-	lost	-
3	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR2	rcvr	2004-08-04	-	lost	-
4	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR2	rcvr	2005-04-15	2005-10-19	2005-10-19	1
5	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR2	rcvr	2006 04 01	2006 09 30	2006 09 30	1
6	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR3-UWM	rcvr	2006-09-30	2011-08-23	2011-08-24	9
7	JDF	OTNGloba	NE PACIFI	JDF001	Acoustic	48.37382	-123.921	active	Strait of Ju	VR3-UWM	rcvr	2011-08-25	2013-04-03	-	2
8	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR2	rcvr	2004 04 26	-	lost	-
9	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR2	rcvr	2004-08-04	-	lost	-
10	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR2	rcvr	2005-04-15	-	lost	-
11	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR2	rcvr	2006 04 01	2006 09 28	2006 09 28	1
12	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR3-UWM	rcvr	2006-09-29	2011-08-23	2011-08-24	9
13	JDF	OTNGloba	NE PACIFI	JDF002	Acoustic	48.3721	-123.927	active	Strait of Ju	VR3-UWM	rcvr	2011-08-25	2013-04-03	-	2
14	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR2	rcvr	2004 04 26	2004 05 31	lost/found: 2004 05 31	1
15	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR2	rcvr	2004-08-04	2005-10-19	2005-10-19	1
16	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR2	rcvr	2005-04-15	2005-10-18	2005-10-18	1
17	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR2	rcvr	2006 04 01	2006 09 29	2006 09 29	1
18	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR3-UWM	rcvr	2006-09-29	2011-08-23	2011-08-24	9
19	JDF	OTNGloba	NE PACIFI	JDF003	Acoustic	48.36703	-123.935	active	Strait of Ju	VR3-UWM	rcvr	2011-08-25	2013-04-03	-	2
20	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR2	rcvr	2004-04-26	-	lost	-
21	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR2	rcvr	2004-08-04	2004-09-05	2004-09-05	1
22	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR2	rcvr	2005-04-15	2005-10-19	2005-10-19	1
23	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR2	rcvr	2006-04-01	2006-09-26	2006-09-26	1
24	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR3-UWM	rcvr	2006-09-27	2011-08-23	2011-08-25	9
25	JDF	OTNGloba	NE PACIFI	JDF004	Acoustic	48.36168	-123.944	active	Strait of Ju	VR3-UWM	rcvr	2011-08-25	2013-04-03	-	2

Get Public Data – Project Metadata Page

Newest product – Animals - KML

Currently only PI OBIS approved animal releases.

Descriptive Keywords	**Collaboration Type(s):** Tracker. **Activity(s):** Acoustic Tag Releases. **Acoustic Transmitter(s):** V16P. **Sensor Data:** depth.
Data Centre	Fisheries and Oceans Canada, Bedford Institute of Oceanography
Scientific Contacts	**Principal Investigator(s):** Campana, Steve **Researcher(s):** Joyce, Warren
Related URLs (May require login)	**Project Website:** http://www.marinebiodiversity.ca/shark/english/index.htm. **OBIS Link:** http://iobis.org/mapper/?resource_id=2308. **Visit Data Repository Folder:** /data/repository/wdg. **Get Detection Extracts:** /data/repository/wdg/detection-extracts. **Get Public Data: Animal -** kml , csv *(n=13)*. **Mystery Tags:** /data/mysterytags/NWAtlantic_mysterytags.csv.



KML - Using IOOS/OTN developed AAT Standard

Get Public Data – Project Metadata Page

Newest product – Animals - CSV

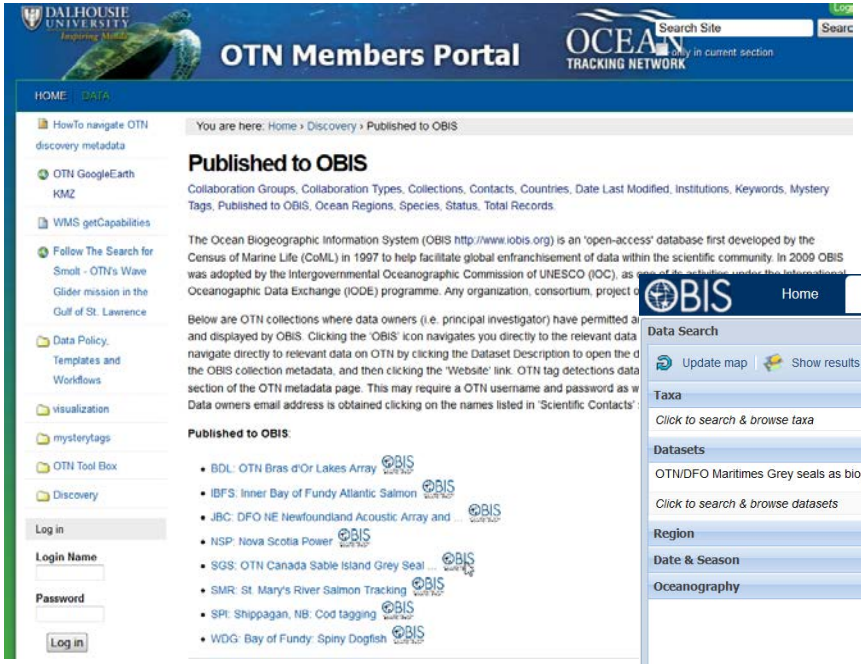
Currently only PI OBIS approved animal releases.

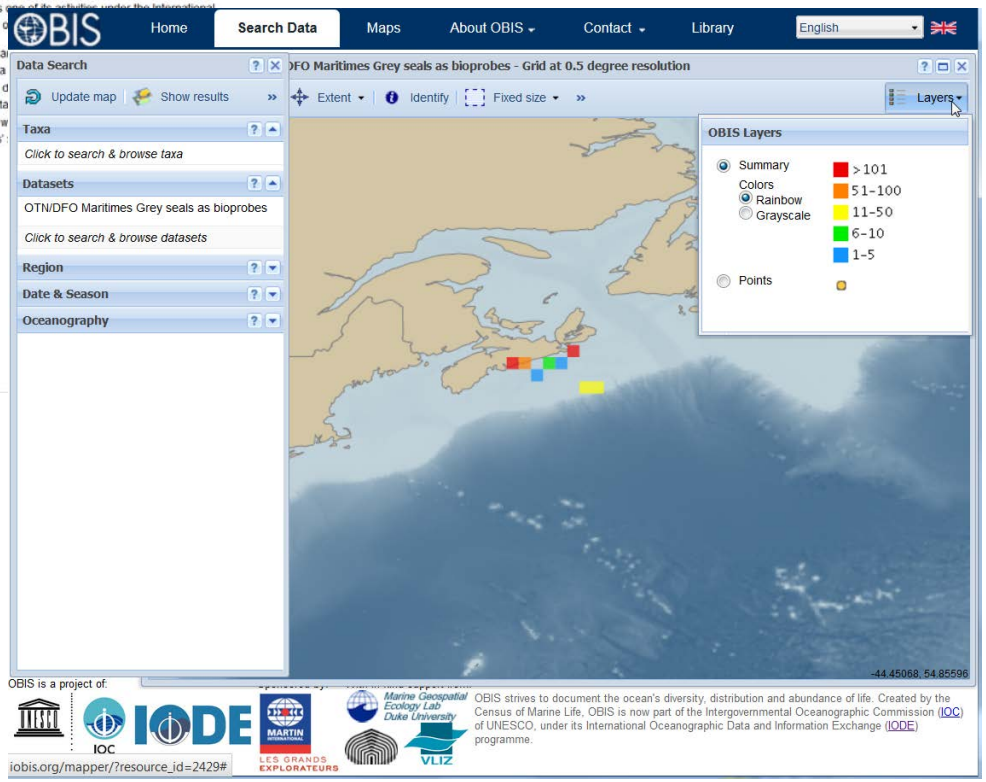
Descriptive Keywords	**Collaboration Type(s):** Tracker. **Activity(s):** Acoustic Tag Releases. **Acoustic Transmitter(s):** V16P. **Sensor Data:** depth.
Data Centre	Fisheries and Oceans Canada, Bedford Institute of Oceanography
Scientific Contacts	**Principal Investigator(s):** Campana, Steve **Researcher(s):** Joyce, Warren
Related URLs (May require login)	**Project Website:** http://www.marinebiodiversity.ca/shark/english/index.htm. **OBIS Link:** http://iobis.org/mapper/?resource_id=2308. **Visit Data Repository Folder:** /data/repository/wdg. **Get Detection Extracts:** /data/repository/wdg/detection-extracts. **Get Public Data: Animal -** kml , csv *(n=13)*. **Mystery Tags:** /data/mysterytags/NWAtlantic_mysterytags.csv.

	A	C	D	E	F	G	H	I	J	K	L	M	N	P	S	U	V	
1	FID	institution	collection	datacente	catalognur	scientificname	longitude	latitude	basisofrec	datecollec	yearcollec	monthcoll	daycollect	timezone	collector	locality	animal_ori	sto
2	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.379	43.636	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X
3	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.366	43.658	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X
4	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.625	45.316	O	2010-10-2	2010	10	27	UTC	WARREN J	UPPER BAY O	W	4X
5	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.643	45.316	O	2010-10-2	2010	10	27	UTC	WARREN J	UPPER BAY O	W	4X
6	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.616	45.307	O	2009-09-2	2009	9	27	UTC	WARREN J	HALLS HARBO	W	4X
7	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.616	45.307	O	2009-09-2	2009	9	27	UTC	WARREN J	HALLS HARBO	W	4X
8	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.644	45.27	O	2010-10-2	2010	10	27	UTC	WARREN J	UPPER BAY O	W	4X
9	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.614	45.307	O	2009-09-2	2009	9	27	UTC	WARREN J	HALLS HARBO	W	4X
10	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.366	43.658	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X
11	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-64.614	45.307	O	2009-09-2	2009	9	27	UTC	WARREN J	HALLS HARBO	W	4X
12	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.364	43.672	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X
13	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.366	43.658	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X
14	animals.fic	DFO-BIO	WDG	OTN-Globa	WDG-1071	Squalus acanthias	-66.379	43.636	O	2009-08-1	2009	8	19	UTC	WARREN J	WEDGEPORT	W	4X

CSV - Using IOOS/OTN developed
AAT Standard

Published to OBIS

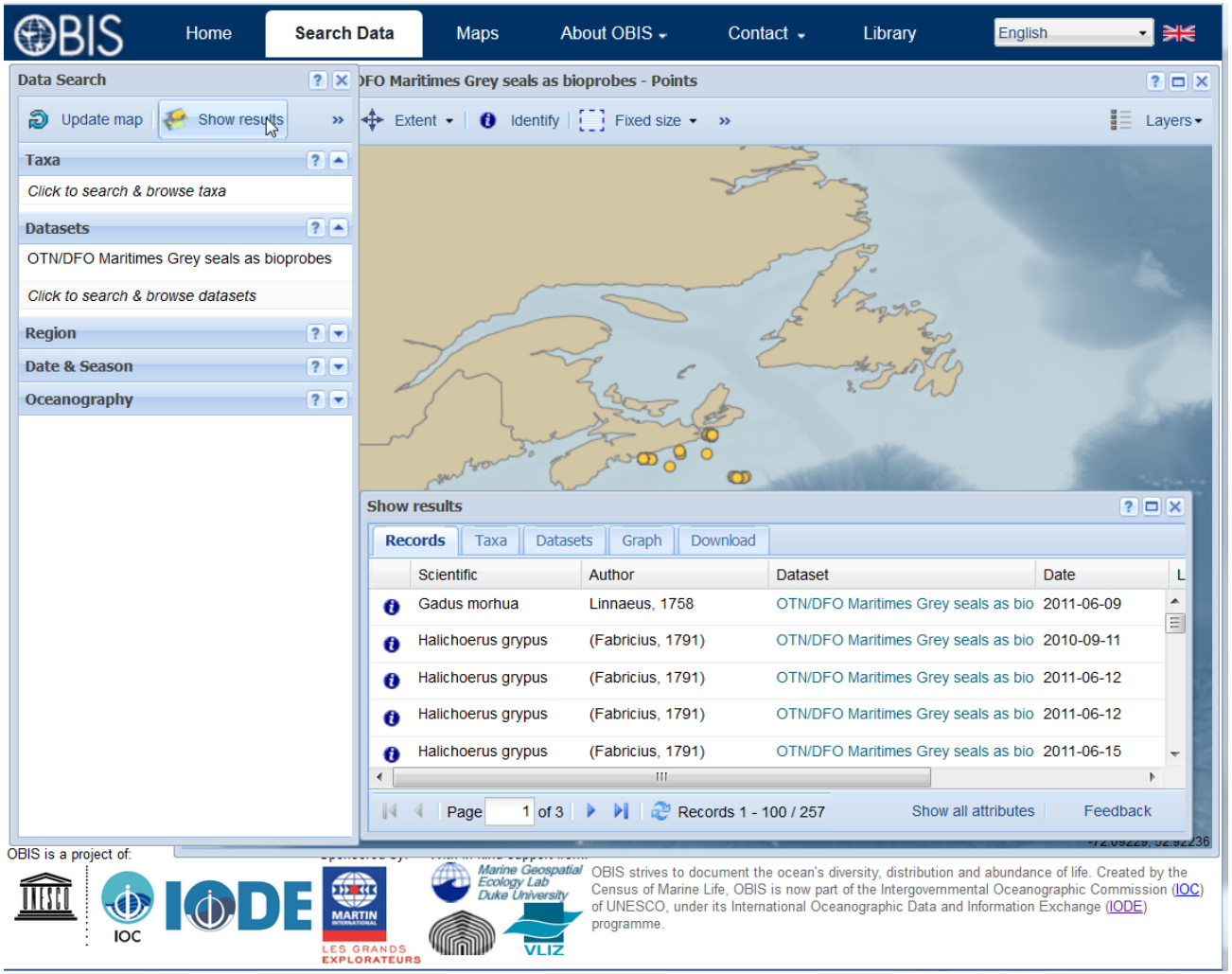




Click Layers drop-down for legend

Published to OBIS

Selected Points from Layers drop-down and clicked Show results displaying individual records (can also be downloaded).



Mystery Tags – Project Metadata Page

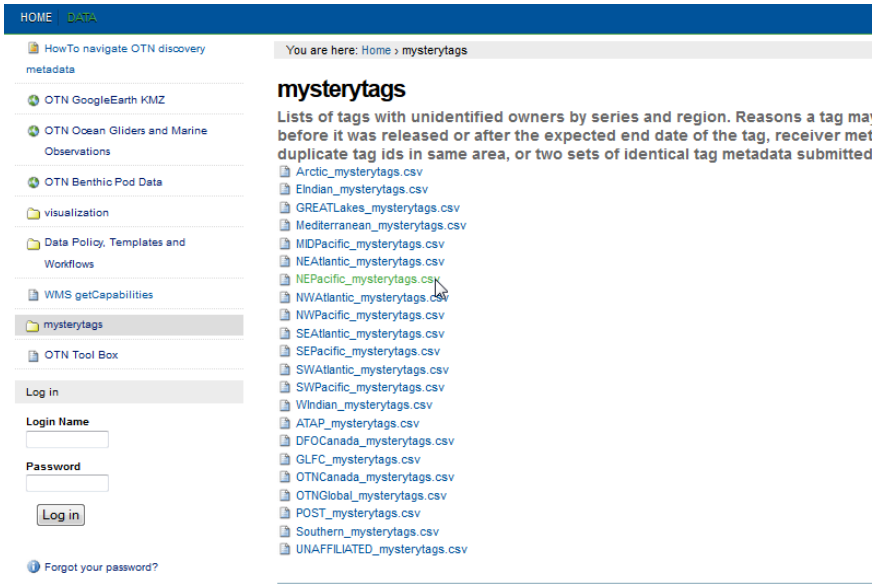
Related URLs – CSV Mystery Tags

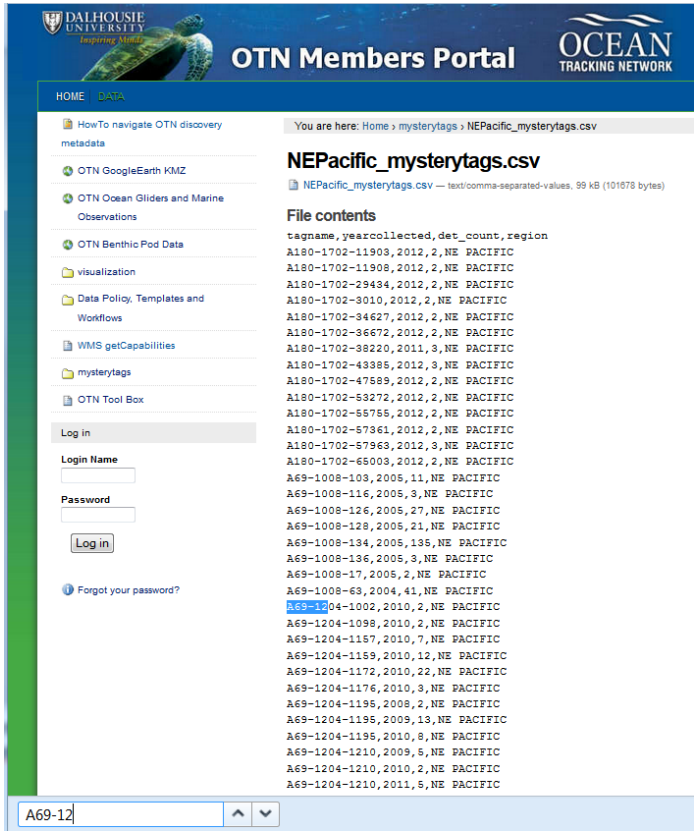
Descriptive Keywords	**Collaboration Type(s):** Deployment. **Activity(s):** Receiver Deployments, Station Plans. **Acoustic Receiver(s):** VR2, . **Sensor Data:** depth.
Data Centre	Kintama Research Services
Scientific Contacts	**Principal Investigator(s):** Hinch, Scott
Related URLs (May require login)	**Visit Data Repository Folder:** /data/repository/jdf. **Get Detection Extracts:** /data/repository/jdf/detection-extracts. **Get Public Data: Stations** - kml *(n=31)*, **Deployments** - csv *(n=188)*. **Mystery Tags:** /data/mysterytags/NEPacific_mysterytags.csv.
Access and Usage Contraints	**General OTN terms:** By accessing or using OTN Data you agree to: a) give proper attribution to all Data Providers a using the preformed citations contained in this report and in the data records, b) inform OTN of publications, products applications using the data, c) acknowledge that neither the OTN nor the provider is liable for inaccuracies in the data responsibility for investigating and understanding the limitations of the data, e) report all problems with respect to data otndc@dal.ca. For full policy, see: Full OTN Data Policy Statement.

	A	B	C	D
1	tagname	yearcollec	det_count	region
2	A180-1702-11903	2012	2	NE PACIFIC
3	A180-1702-11908	2012	2	NE PACIFIC
4	A180-1702-29434	2012	2	NE PACIFIC
5	A180-1702-3010	2012	2	NE PACIFIC
6	A180-1702-34627	2012	2	NE PACIFIC
7	A180-1702-36672	2012	2	NE PACIFIC
8	A180-1702-38220	2011	3	NE PACIFIC
9	A180-1702-43385	2012	3	NE PACIFIC
10	A180-1702-47589	2012	2	NE PACIFIC
11	A180-1702-53272	2012	2	NE PACIFIC
12	A180-1702-55755	2012	2	NE PACIFIC
13	A180-1702-57361	2012	2	NE PACIFIC
14	A180-1702-57963	2012	3	NE PACIFIC
15	A180-1702-65003	2012	2	NE PACIFIC
16	A69-1008-103	2005	11	NE PACIFIC
17	A69-1008-116	2005	3	NE PACIFIC
18	A69-1008-126	2005	27	NE PACIFIC
19	A69-1008-128	2005	21	NE PACIFIC
20	A69-1008-134	2005	135	NE PACIFIC
21	A69-1008-136	2005	3	NE PACIFIC
22	A69-1008-17	2005	2	NE PACIFIC
23	A69-1008-63	2004	41	NE PACIFIC
24	A69-1204-1002	2010	2	NE PACIFIC
25	A69-1204-1098	2010	2	NE PACIFIC
26	A69-1204-1157	2010	7	NE PACIFIC
27	A69-1204-1159	2010	12	NE PACIFIC
28	A69-1204-1172	2010	22	NE PACIFIC
29	A69-1204-1176	2010	3	NE PACIFIC

Mystery Tags by Ocean Region or Series (detected by).

Mystery Tags Single Page

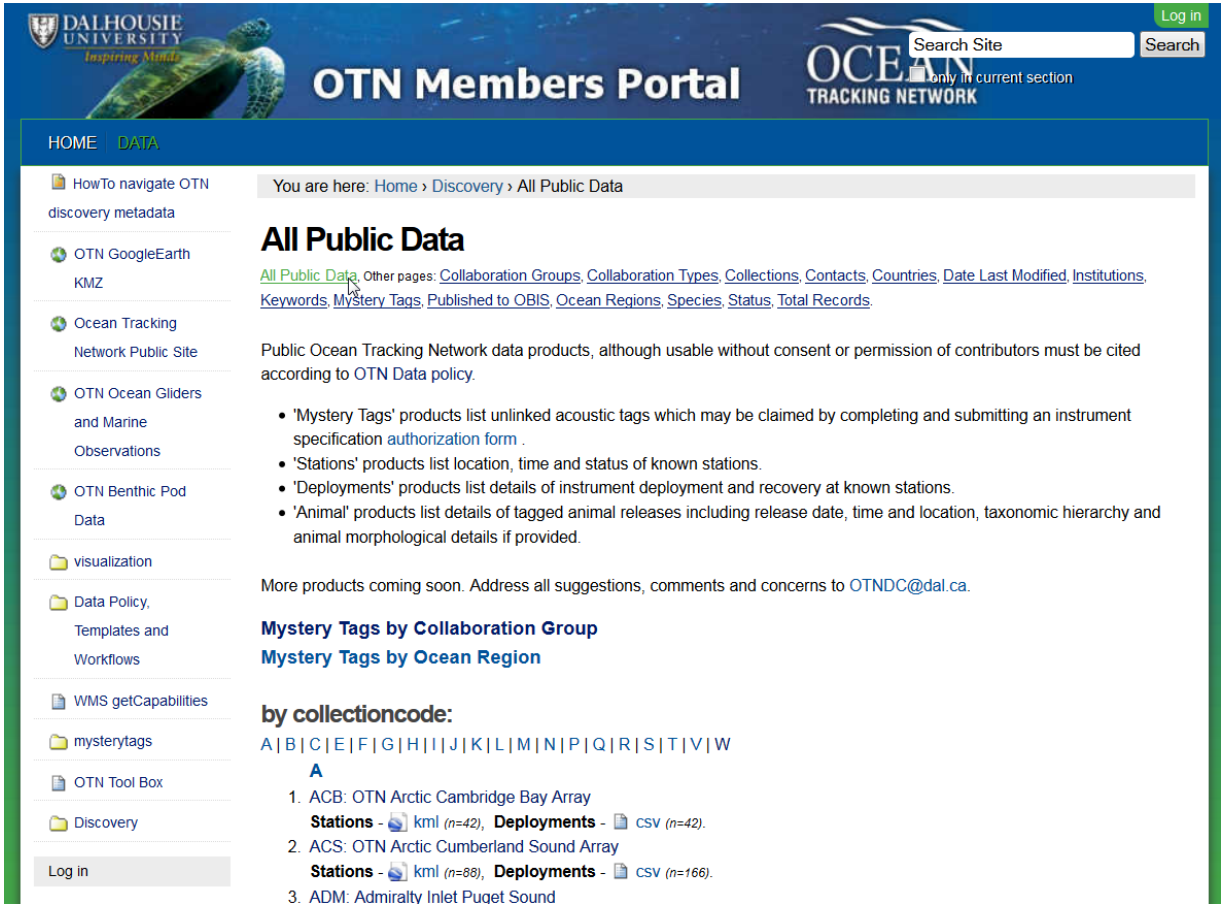




Search by selecting mystertags folder (left navigation), select area of interest, File -> Find and using provided text box (in this case lower left bottom browser window) enter tagname of to be searched.

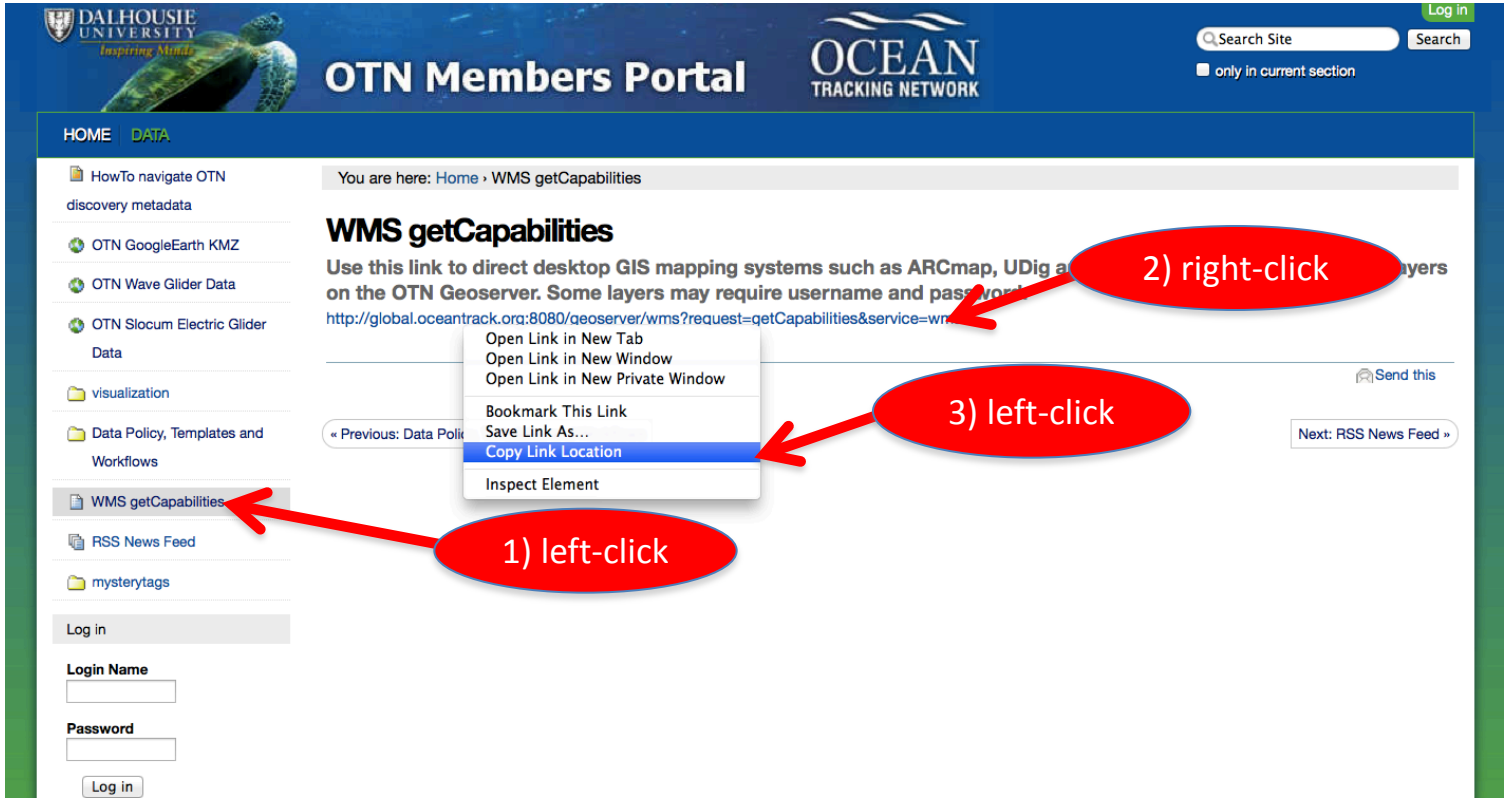
All Public Data

All Public Data Links on a single by collectioncode page.



WMS getCapabilities

Copy WMS string for use with GIS desktop mapping software/tools.

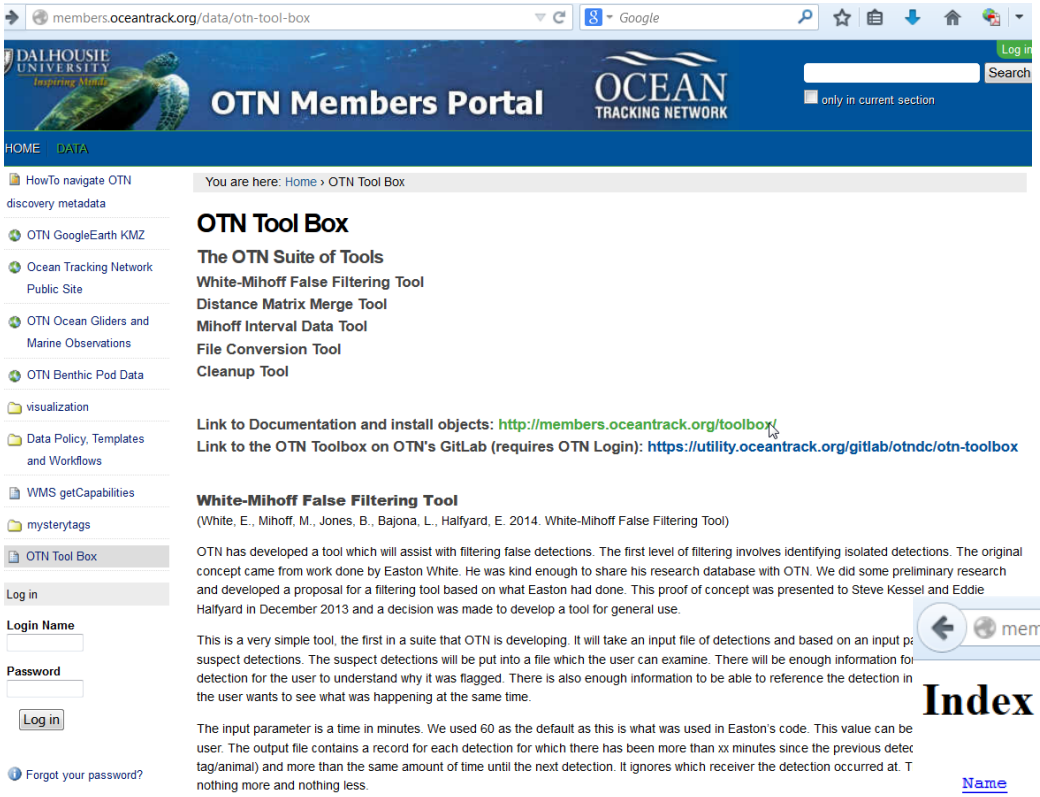


http://global.oceantrack.org:8080/geoserver/wms?request=getCapabilities&service=wms

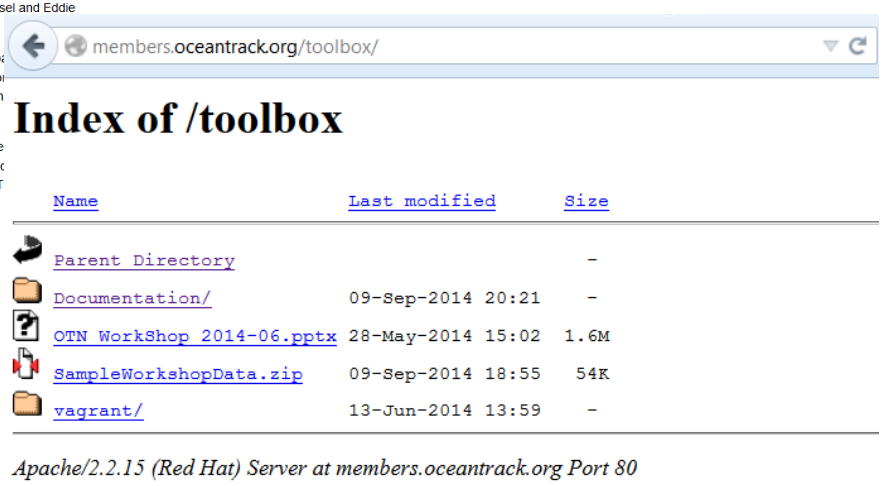
OTN Public Geoserver Layers were used for all the Public Products (Google Earth KMZ, KMLs, CSVs).

OTN Tool Box

http://members.oceantrack.org/data/otn-tool-box



From Member's site, left-navigation OTN Tool Box



Click link to documentation and install objects

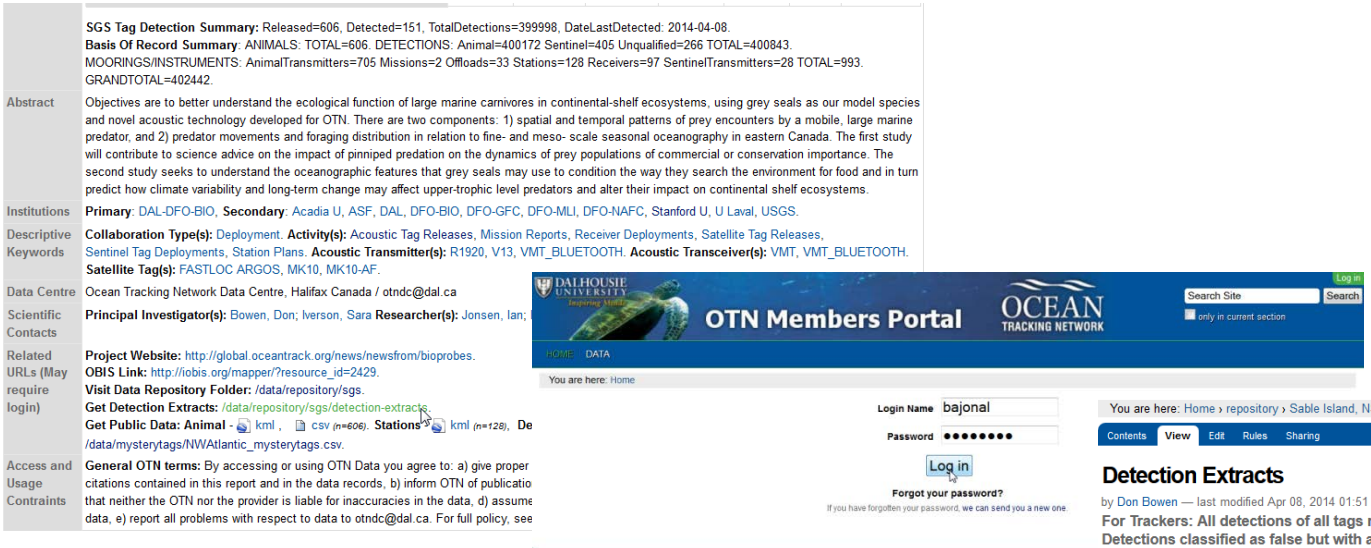
Marta will be providing demo next.

OTNDC has created YouTube videos for installing and will also using the OTN Tool Box in the near future.

Restricted Data Downloads

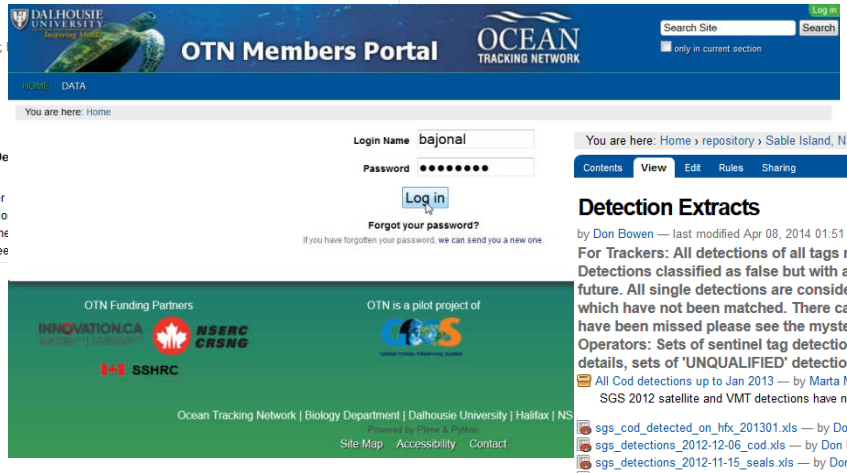
Requires Login and permission

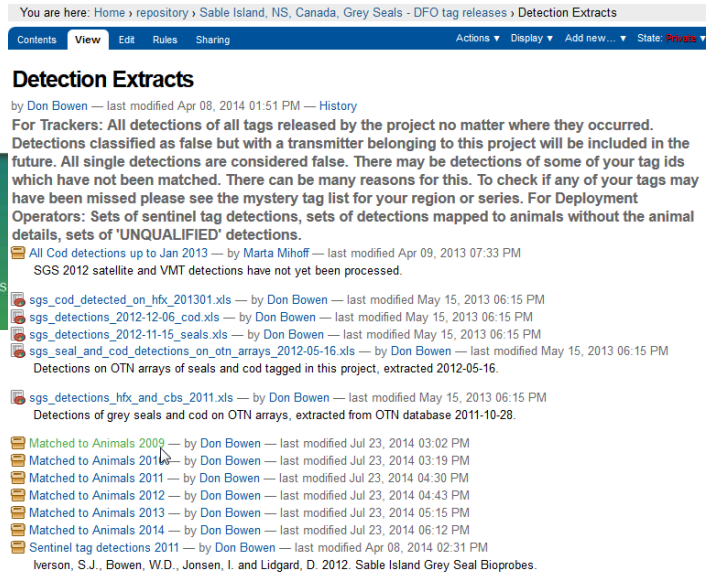
From Metadata page, Get Detection Extracts



SGS Tag Detection Summary: Released=606, Detected=151, TotalDetections=399998, DateLastDetected: 2014-04-08.
Basis Of Record Summary: ANIMALS: TOTAL=606. DETECTIONS: Animal=400172 Sentinel=405 Unqualified=266 TOTAL=400843. MOORINGS/INSTRUMENTS: AnimalTransmitters=705 Missions=2 Offloads=33 Stations=128 Receivers=97 SentinelTransmitters=28 TOTAL=993. GRANDTOTAL=402442.

Abstract	Objectives are to better understand the ecological function of large marine carnivores in continental-shelf ecosystems, using grey seals as our model species and novel acoustic technology developed for OTN. There are two components: 1) spatial and temporal patterns of prey encounters by a mobile, large marine predator, and 2) predator movements and foraging distribution in relation to fine- and meso- scale seasonal oceanography in eastern Canada. The first study will contribute to science advice on the impact of pinniped predation on the dynamics of prey populations of commercial or conservation importance. The second study seeks to understand the oceanographic features that grey seals may use to condition the way they search the environment for food and in turn predict how climate variability and long-term change may affect upper-trophic level predators and alter their impact on continental shelf ecosystems.
Institutions	**Primary**: DAL-DFO-BIO, **Secondary**: Acadia U, ASF, DAL, DFO-BIO, DFO-GFC, DFO-MLI, DFO-NAFC, Stanford U, U Laval, USGS.
Descriptive Keywords	**Collaboration Type(s):** Deployment. **Activity(s):** Acoustic Tag Releases, Mission Reports, Receiver Deployments, Satellite Tag Releases, Sentinel Tag Deployments, Station Plans. **Acoustic Transmitter(s):** R1920, V13, VMT_BLUETOOTH. **Acoustic Transceiver(s):** VMT, VMT_BLUETOOTH. **Satellite Tag(s):** FASTLOC ARGOS, MK10, MK10-AF.
Data Centre	Ocean Tracking Network Data Centre, Halifax Canada / otndc@dal.ca
Scientific Contacts	**Principal Investigator(s):** Bowen, Don; Iverson, Sara **Researcher(s):** Jonsen, Ian;
Related URLs (May require login)	**Project Website:** http://global.oceantrack.org/news/newsfrom/bioprobes. **OBIS Link:** http://iobis.org/mapper/?resource_id=2429. **Visit Data Repository Folder:** /data/repository/sgs. **Get Detection Extracts:** /data/repository/sgs/detection-extracts. **Get Public Data: Animal** - kml , csv (n=606). **Stations** kml (n=128), **De** /data/mysterytags/NWAtlantic_mysterytags.csv.
Access and Usage Contraints	**General OTN terms:** By accessing or using OTN Data you agree to: a) give proper citations contained in this report and in the data records, b) inform OTN of publicatio that neither the OTN nor the provider is liable for inaccuracies in the data, d) assume data, e) report all problems with respect to data to otndc@dal.ca. For full policy, see



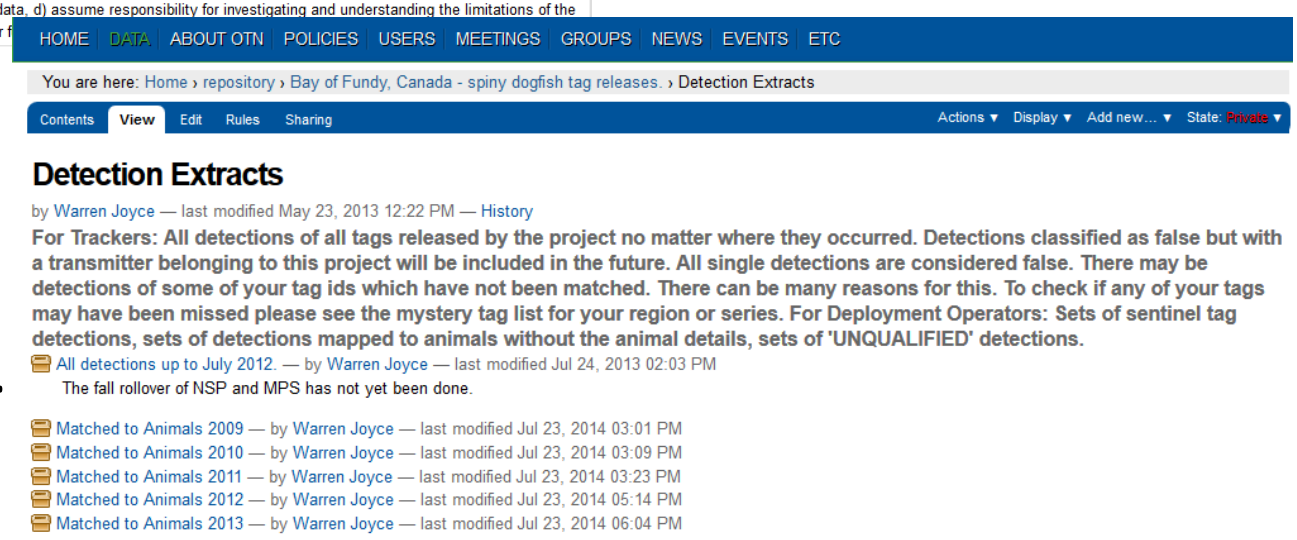


Matched to Animals YYYY includes both internal and external deployment operator detections.

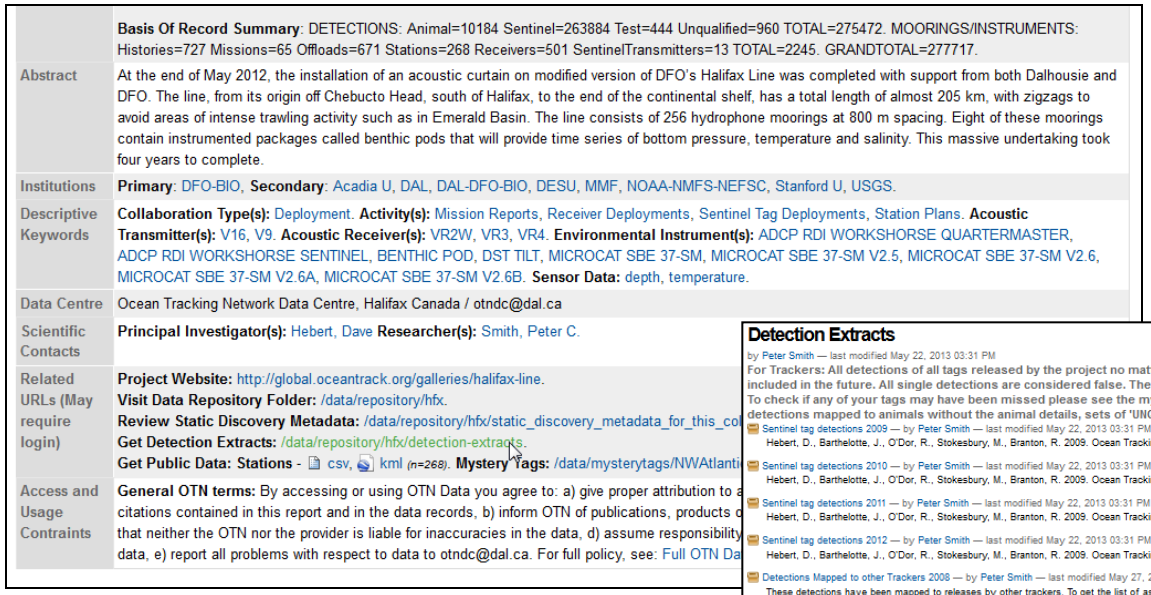
Tracker Detections

Data Summary	Activity Summary	2009	2010	Totals
	Acoustic Tags Released	10	3	13
	WDG Tag Detection Summary: Released=13, Detected=13, TotalDetections=18360, DateLastDetected: 2012-12-30. **Basis Of Record Summary**: ANIMALS: TOTAL=13. MOORINGS/INSTRUMENTS: AnimalTransmitters=26 TOTAL=26. GRANDTOTAL=39.			
Abstract	To determine if mature female dogfish remain in Canadian waters or if they cross over the US/Canadian border to American waters. The results would have an effect on the joint management of the dogfish fishery between Canada and the US and help determine the contribution spawning females have to the NW Atlantic metapopulation of dogfish. The data would help with future management of the fishery as well as future discussions with the US.			
Institutions	**Primary**: DFO-BIO, **Secondary**: Acadia U, NOAA-NMFS-NEFSC.			
Descriptive Keywords	**Collaboration Type(s):** Tracker. **Activity(s):** Acoustic Tag Releases. **Acoustic Transmitter(s):** V16P. **Sensor Data:** depth.			
Data Centre	Fisheries and Oceans Canada, Bedford Institute of Oceanography			
Scientific Contacts	**Principal Investigator(s):** Campana, Steve **Researcher(s):** Joyce, Warren			
Related URLs (May require login)	**Project Website:** http://www.marinebiodiversity.ca/shark/english/index.htm. **OBIS Link:** http://iobis.org/mapper/?resource_id=2308. **Visit Data Repository Folder:** /data/repository/wdg. **Get Detection Extracts:** /data/repository/wdg/detection-extracts. **Get Public Data: Animal** - kml , csv *(n=13)*. **Mystery Tags:** /data/mysterytags/NWAtlantic_mysterytags.csv.			
Access and Usage Contraints	**General OTN terms:** By accessing or using OTN Data you agree to: a) give proper attribution to all Data Providers and to OTN by using the preformed citations contained in this report and in the data records, b) inform OTN of publications, products or commercial applications using the data, c) acknowledge that neither the OTN nor the provider is liable for inaccuracies in the data, d) assume responsibility for investigating and understanding the limitations of the data, e) report all problems with respect to data to otndc@dal.ca. For f			

Mapped to Animals includes detections from ALL receivers in OTN Data Warehouse.



Line Operator Detections



	Basis Of Record Summary: DETECTIONS: Animal=10184 Sentinel=263884 Test=444 Unqualified=960 TOTAL=275472. MOORINGS/INSTRUMENTS: Histories=727 Missions=65 Offloads=671 Stations=268 Receivers=501 SentinelTransmitters=13 TOTAL=2245. GRANDTOTAL=277717.
Abstract	At the end of May 2012, the installation of an acoustic curtain on modified version of DFO's Halifax Line was completed with support from both Dalhousie and DFO. The line, from its origin off Chebucto Head, south of Halifax, to the end of the continental shelf, has a total length of almost 205 km, with zigzags to avoid areas of intense trawling activity such as in Emerald Basin. The line consists of 256 hydrophone moorings at 800 m spacing. Eight of these moorings contain instrumented packages called benthic pods that will provide time series of bottom pressure, temperature and salinity. This massive undertaking took four years to complete.
Institutions	**Primary**: DFO-BIO, **Secondary**: Acadia U, DAL, DAL-DFO-BIO, DESU, MMF, NOAA-NMFS-NEFSC, Stanford U, USGS.
Descriptive Keywords	**Collaboration Type(s):** Deployment. **Activity(s):** Mission Reports, Receiver Deployments, Sentinel Tag Deployments, Station Plans. **Acoustic Transmitter(s):** V16, V9. **Acoustic Receiver(s):** VR2W, VR3, VR4. **Environmental Instrument(s):** ADCP RDI WORKSHORSE QUARTERMASTER, ADCP RDI WORKSHORSE SENTINEL, BENTHIC POD, DST TILT, MICROCAT SBE 37-SM, MICROCAT SBE 37-SM V2.5, MICROCAT SBE 37-SM V2.6, MICROCAT SBE 37-SM V2.6A, MICROCAT SBE 37-SM V2.6B. **Sensor Data:** depth, temperature.
Data Centre	Ocean Tracking Network Data Centre, Halifax Canada / otndc@dal.ca
Scientific Contacts	**Principal Investigator(s):** Hebert, Dave **Researcher(s):** Smith, Peter C.
Related URLs (May require login)	**Project Website:** http://global.oceantrack.org/galleries/halifax-line. **Visit Data Repository Folder:** /data/repository/hfx. **Review Static Discovery Metadata:** /data/repository/hfx/static_discovery_metadata_for_this_co **Get Detection Extracts:** /data/repository/hfx/detection-extracts. **Get Public Data: Stations** - csv, kml *(n=268)*. **Mystery Tags:** /data/mysterytags/NWAtlanti
Access and Usage Contraints	**General OTN terms:** By accessing or using OTN Data you agree to: a) give proper attribution to a citations contained in this report and in the data records, b) inform OTN of publications, products c that neither the OTN nor the provider is liable for inaccuracies in the data, d) assume responsibility data, e) report all problems with respect to data to otndc@dal.ca. For full policy, see: Full OTN Da

Detection Extracts

by Peter Smith — last modified May 22, 2013 03:31 PM

For Trackers: All detections of all tags released by the project no matter where they occurred. Detections classified as false but with a transmitter belonging to this project will be included in the future. All single detections are considered false. There may be detections of some of your tag ids which have not been matched. There can be many reasons for this. To check if any of your tags may have been missed please see the mystery tag list for your region or series. For Deployment Operators: Sets of sentinel tag detections, sets of detections mapped to animals without the animal details, sets of "UNQUALIFIED" detections.

Sentinel tag detections 2009 — by Peter Smith — last modified May 22, 2013 03:31 PM
Hebert, D., Barthelotte, J., O'Dor, R., Stokesbury, M., Branton, R. 2009. Ocean Tracking Network Halifax Canada Line Metadata and Data Set.

Sentinel tag detections 2010 — by Peter Smith — last modified May 22, 2013 03:31 PM
Hebert, D., Barthelotte, J., O'Dor, R., Stokesbury, M., Branton, R. 2009. Ocean Tracking Network Halifax Canada Line Metadata and Data Set.

Sentinel tag detections 2011 — by Peter Smith — last modified May 22, 2013 03:31 PM
Hebert, D., Barthelotte, J., O'Dor, R., Stokesbury, M., Branton, R. 2009. Ocean Tracking Network Halifax Canada Line Metadata and Data Set.

Sentinel tag detections 2012 — by Peter Smith — last modified May 22, 2013 03:31 PM
Hebert, D., Barthelotte, J., O'Dor, R., Stokesbury, M., Branton, R. 2009. Ocean Tracking Network Halifax Canada Line Metadata and Data Set.

Detections Mapped to other Trackers 2008 — by Peter Smith — last modified May 27, 2013 11:58 AM
These detections have been mapped to releases by other trackers. To get the list of associated trackers see your discovery metadata page by clicking on your collectioncode at: http://members.oceantrack.org/data/discovery/bycollection.htm

Detections Mapped to other Trackers 2009 — by Peter Smith — last modified May 27, 2013 11:58 AM
These detections have been mapped to releases by other trackers. To get the list of associated trackers see your discovery metadata page by clicking on your collectioncode at: http://members.oceantrack.org/data/discovery/bycollection.htm

Detections Mapped to other Trackers 2010 — by Peter Smith — last modified May 27, 2013 11:58 AM
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Detections Mapped to other Trackers 2011 — by Peter Smith — last modified May 27, 2013 11:59 AM
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Detections Mapped to other Trackers 2012 — by Peter Smith — last modified May 27, 2013 11:59 AM
These detections have been mapped to releases by other trackers. To get the list of associated trackers see your discovery metadata page by clicking on your collectioncode at: http://members.oceantrack.org/data/discovery/bycollection.htm

False Detections 2008 — by Peter Smith — last modified May 27, 2013 11:58 AM
Detections which are considered FALSE. Reason is given in column RELATEDCATALOGITEM. List may not be complete.

False Detections 2009 — by Peter Smith — last modified May 27, 2013 11:58 AM
Detections which are considered FALSE. Reason is given in column RELATEDCATALOGITEM. List may not be complete.

False Detections 2010 — by Peter Smith — last modified May 27, 2013 11:58 AM
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False Detections 2011 — by Peter Smith — last modified May 27, 2013 11:58 AM
Detections which are considered FALSE. Reason is given in column RELATEDCATALOGITEM. List may not be complete.

False Detections 2012 — by Peter Smith — last modified May 27, 2013 11:59 AM
Detections which are considered FALSE. Reason is given in column RELATEDCATALOGITEM. List may not be complete.

Unqualifed Detections 2009 — by Peter Smith — last modified May 27, 2013 12:02 PM
These are detections for which we do not know the owner. There may be several reasons for this. One: It is a test or sentinel tag and we have not been informed. Two: It is an ambiguous tag which means we have more than one set of tag metadata which the detection could belong to. Three: We have not received any release metadata for the tag. Four: It is an old style sensor tag and we have not been able to determine the associated pinger id, or even if there should be one, because we do not have the vendor tag specifications.

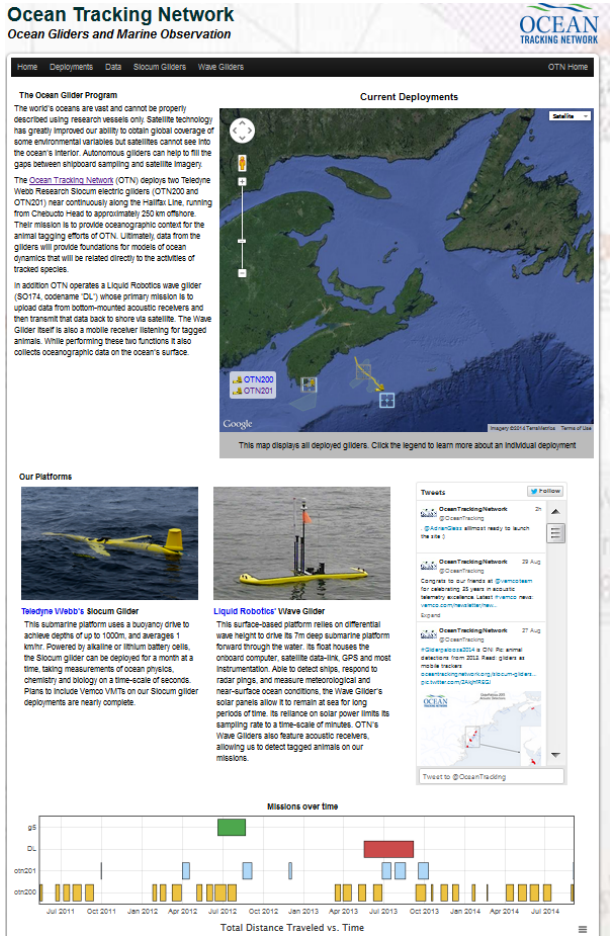
Unqualifed Detections 2010 — by Peter Smith — last modified May 27, 2013 12:02 PM
These are detections for which we do not know the owner. There may be several reasons for this. One: It is a test or sentinel tag and we have not been informed. Two: It is an ambiguous tag which means we have more than one set of tag metadata which the detection could belong to. Three: We have not received any release metadata for the tag. Four: It is an old style sensor tag and we have not been able to determine the associated pinger id, or even if there should be one, because we do not have the vendor tag specifications.

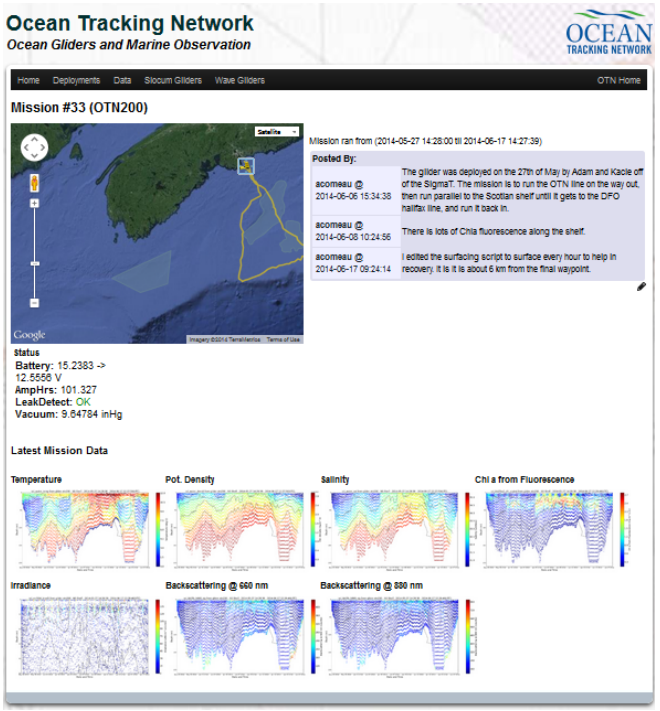
Unqualifed Detections 2011 — by Peter Smith — last modified May 27, 2013 12:03 PM
These are detections for which we do not know the owner. There may be several reasons for this. One: It is a test or sentinel tag and we have not been informed. Two: It is an ambiguous tag which means we have more than one set of

Includes Sentinel detections, Animal Detections without link to animals, and Unqualified detections

Though no longer marking/extracting False detections, have not completed previous content cleanup

Glider Tracks and Data Visualization





Click on a mission from Missions over time graph

Benthic Pod Data – Glider Site

- HowTo navigate OTN discovery metadata
- OTN GoogleEarth KMZ
- Ocean Tracking Network Public Site
- OTN Ocean Gliders and Marine Observations
- OTN Benthic Pod Data
- visualization
- Data Policy, Templates and Workflows
- WMS getCapabilities
- mysterytags
- OTN Tool Box

Ocean Tracking Network

Ocean Gliders and Marine Observation

OCEAN TRACKING NETWORK

Home | Deployments | Data | Slocum Gliders | Wave Gliders | OTN Home

Bottom Pod Data

The Ocean Tracking Network (OTN) deploys sensors on a series of benthic pods (BP) on the Scotian Shelf. These pods were designed in collaboration with Satlantic to monitor and report key oceanographic parameters to provide environmental context to animal movements and validation data to sophisticated biogeochemical and physical ocean models. Data stored on the pods can be recovered via acoustic modem from either surface vessels or autonomous vehicles.

Mounted on the BPs are:

- Satlantic STOR-X data/power manager (http://satlantic.com/stor-x)
- Digiquartz Paroscientific pressure sensor (http://www.paroscientific.com/depthsensc
- VEMCO VR4 acoustic receiver (http://vemco.com/products/vr4-uwmr)
- Sea-Bird 37SIP Microcat (http://www.seabird.com/products/spec_sheets/37sipdata.h
- Aanderaa dissolved oxygen sensor (3830 & 4330; http://www.aanderaa.com/producti
- Satlantic 15V, 102Ah alkaline battery pack (http://satlantic.com/sites/default/files/docu

The Paroscientific Digiquartz pressure sensor is housed inside the STOR-X, the Aand Sea-Bird SBE 37-SIP Microcat is connected by cable to the STOR-X. As configured the

The STOR-X controls the sampling of the oceanographic instrumentation. The sensors requested sampling data from the three connected sensors (C:\Data*.RAW) and also hourly record in a file called PROCESS.DAT (also found at C:\DATA).

The OTN Benthic Pods are deployed with a stable bottom mount so that the data from frame.

Download unprocessed data

Station	Pod ID	Offload Date	Download Link
HFX008	081		PROCESS-POD0081A.dat
HFX008b	095		PROCESS-POD0095a.dat
HFX008	090		PROCESS-POD0090a.dat
HFX028	099		PROCESS-POD0099a.dat
HFX048	089		PROCESS-POD0089a.dat
HFX069	092		PROCESS-POD0092a.dat
HFX097	094		PROCESS-POD0094a.dat
HFX126	116		PROCESS-POD0116A.dat
HFX153	118		PROCESS-POD0118A.dat
HFX180	095		BENTHIC_POD_95_20130528_1-POD0095a.dat
HFX212	096		PROCESS-POD0096a.dat
HFX245	091		PROCESS-POD0091a.dat

Once the data are collected they are sent to the Bedford Institute of Oceanography (BIO processing.

Input Data

The Dalhousie OTN program sends files to BIO as a zip archive. Contained in the archive are Excel files with a deployment log sheet for each instrument, files with instrument metadata, and a deployment and recovery mission report. There is also one data file (extension ".dat") for each instrument deployed. The filename format is generally "PROCESS-POD0XXXa.dat", where XXXX is the serial number of the pod. The input data file has a 5 line header. Included is the name of the Satlantic calibration file used to convert the data to physical units, and the list of parameters in the file, along with the units for each parameter.

The data are in physical units. Each processed record is an average of a number of raw data records, sampled as a burst just before the reported time. The number of raw data records in the average is reported in field 3 of the data file, referred to as "SIZE".

Processing Steps

The Excel files containing the deployment information are opened in Excel and converted into "pdf" documents for submission to the Ocean Data and Information Services (ODIS) data shop.

The relevant information in the log sheets is identified for use in the processing script used to convert the information into DFO's ODF data format. This includes the mooring position, mooring depth, station name, deployment and recovery time, sensor model numbers and serial numbers, mission name and chief scientist name.

A Matlab script, named convert_NNNN_to_ODF.m, is used to read the data and output a single "ODF" file. The user is prompted for the input file name. Before running the script, the instrument and deployment information identified above is entered into the relevant section of code. In addition to creating the ODF file, a number of other functions are performed, as listed below

- Conductivity in mmho/cm is converted to conductivity ratio, by dividing by 4.2914
- Pressure is corrected for atmospheric pressure, by subtracting 1 ATM (10.1325 dbar).
- Salinity is recomputed, compensated for temperature and pressure. This is done by function "sw_salt", in the Matlab Seawater toolbox.
- Oxygen in micromolar/L is compensated for salinity, temperature and pressure by function "o2comp.m". This function was written by Roger Pettipas (DFO) and was derived from Aanderaa Data Instruments, "Compensation of Oxygen M "Oxygen Optode Calculations-2.xls".
- Oxygen in micromolar/L is converted to ml/l by multiplying by 0.022391.
- Oxygen saturation value is recalculated with the corrected salinity using function
- Oxygen percent saturation is recomputed with the corrected oxygen value and th
- The "status" flag value2 for each data record is applied. This is a decimal numb data, a non- zero flag indicates that one or more sensors did not record. Applyin Satlantic input file).
- Time is converted from the format YYYYDDD (YYYY=year, DDD=day number) plu
- The Satlantic 5 line header is written to a text file, with the same name as the inp the quality controlled data back to a text file for OTN.

The ODF Output fields are:

SYTM_01 (ODF time format)
TEMP_01 (Temperature)
CRAT_01 (Conductivity Ratio)
PSAL_01 (Practical Salinity, UNESCO 1983)
SIGT_01 (Sigma-T, kg/m3)
PRES_01 (Sea Pressure, Dbar)
DOXY_01 (Dissolved oxygen, in ml/l)
OSAT_01 (Oxygen saturation, in percent)
VOLT_01 (Sensor voltage, as in PROCESS.dat file)
QQQQ_01 (Satlantic data status flag, as in PROCESS.dat file)
CNTR_01 (Record counter, as in PROCESS.dat file)
CNTR_02 (Instrument serial number, as in PROCESS.dat file)
CNTR_03 (Number of samples in data average, as in PROCESS.dat file)

Download QCed data

Station	Pod ID	Offload Date	Download Link
HFX245	POD0091A	2013-05-23	PROCESS_POD0091A_HFX245_2013-
HFX180	POD0095A	2013-10-10	PROCESS_POD0095A_HFX180_2013-
HFX212	POD0096A	2013-05-23	PROCESS_POD0096A_HFX212_2013-
SBXPODLB	POD0114A	2013	PROCESS_POD0114A_SBXPODLB_2013
SBXPODNL	POD0115A	2013	PROCESS_POD0115A_SBXPODNL_2013
HFX126	POD0116A	2013-05-30	PROCESS_POD0116A_HFX126_2013-
HFX153	POD0118A	2013-05-23	PROCESS_POD0118A_HFX153_2013-

Quality Control

Once the ODF file is created, the pre and post deployment records are removed using a text editor. The start and end data times should agree reasonably well with the times recorded in the deployment and recovery mission reports. Otherwise, it may be necessary to contact OTN for clarification or to report an error. The ODF file is regenerated by using a Matlab "read_odf" command, followed by a "write_odf" command, to refresh the start and end times, number of records, etc.

A time series plot of the data is generated. If any spikes or suspicious data are found, they are removed, and their values set to null.

Whenever possible, values are compared with deployments of nearby CTDs or other Microcat instruments, to ensure they are reasonable. The DFO AZMP program spring and fall surveys usually have nearby CTD casts.

Data Output and Archiving

Once the data have been edited and the accuracy checked, an ascii file is generated from the ODF file, for submission to OTN. This is done by Matlab script "OTN_flatfile.m". The user is prompted for the ODF file, and also for the "_QCRP.dat" file created by the ODF creation script. This ascii file is similar in format to the original "PROCESS.dat" file, with oxygen in micromolar/L, and conductivity in mmho/cm. Missing data values are set to the string "NaN".

A final ODF file is submitted to the ODIS data shop for archiving, along with the mission reports, instrument logs and instrument metadata. Before sending the ODF file, parameter fields containing the instrument serial number (CNTR_02), record counter (CNTR_01), number of samples (CNTR_03), and status flag (QQQQ_01) may be removed. They were retained for re-generation of the flat file for OTN, and may not be needed for archiving.

References

1. Solubility and salinity compensation calculation based on Garcia and Gordon. 1992. *Oxygen solubility in seawater: Better fitting equations* Limnology and Oceanography: 37(6):1307-1312.
2. Pressure compensation based on Hiroshi Uchida, Takeshi Kawano, Ikuo Kaneko and Masao Fukasawa. *In-Situ calibration of optode-based oxygen sensors*. Journal of Atmospheric and Oceanic Technology December 2008.
   For other calculations refer to AADI Operating Manual TD218 and TD269
3. Satlantic, *Benthic Pod Interface Control Document* SAT-DN-04437, Revision L, 2011-11-20, Section 4.4.2.2, Pages 24-25

Thank you / Questions?