

An Illustration of Discoverability

GoM Ocean Data Partnership Meeting
Portland, ME
7 December 2004

Lou Van Guelpen
Atlantic Reference Centre
Huntsman Marine Science Centre
St. Andrews, NB

GoM Ocean Data Partnership

- Purpose -
Disparate datasets available online
- Presentation -
ARC experience to illustrate dataset discoverability online

ARC (background):

1. Research museum of Canadian Atlantic marine organisms
 - 133,878 catalogued and computerized lots
2. Archive of marine biodiversity data
3. Online provider of marine biodiversity information

Requirements of an online provider of marine biodiversity information:

1. Data must be of high quality
2. Data format must be standardized
3. Data must be discoverable online

1. Data must be of high quality

- Important for end user
- Quality control
 - Difficult when \$ tight

2. Data format must be standardized

a) Database fields and cells

- OBIS Schema (or Darwin Core 2.0)
 - Required for DiGIR

b) Species names - authoritative

- ITIS, FishBase, Catalog of Life
- ARC - NARMS (based on above)
- used for ARC & DFO datasets

- Problem – differing classifications and synonymous species names

NARMS

North Atlantic species information for investigations into ecosystem comparison, historical ecology, and processes affecting biodiversity

This Page is : 

When **completed**, the NARMS site will:

- be a portal to authoritative lists of marine species in the northern North Atlantic Ocean
- allow simultaneous searching of north-western and north-eastern North Atlantic species lists
- return windows for NW and NE North Atlantic with requested species names (valid or synonyms) and classification

This **temporary** NARMS site has two components:

1. [North-western North Atlantic Ocean species](#), from Davis Strait to Cape Hatteras - Atlantic Reference Centre species list
2. [North-eastern North Atlantic Ocean species](#), including the Mediterranean - European Register of Marine Species

Contact Us : arc@mar.dfo-mpo.gc.ca

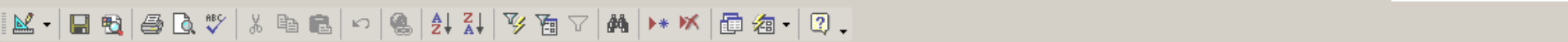
[Content Description](#)



west : Database (Access 2000 file format)

west : Table

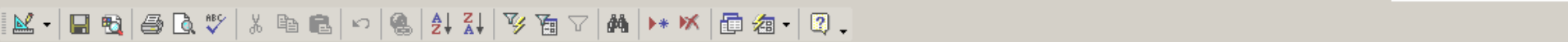
	Scientific Name	Scientific Name Author	Phylum	Class	Order	Family	Synonyms	Common name	ITIS T
	Bregmaceros atlanticus	Goode & Bean, 1886	Chordata	Actinopterygii	Gadiformes	Bregmacerotida		antenna codlet	16469
	Bregmaceros cantori	Milliken & Houde, 1984	Chordata	Actinopterygii	Gadiformes	Bregmacerotida			16469
	Bregmaceros macclellandii	Thompson, 1840	Chordata	Actinopterygii	Gadiformes	Bregmacerotida	Bregmaceros atripinnis (Ti	spotted codlet	62302
	Bregmaceros sp.		Chordata	Actinopterygii	Gadiformes	Bregmacerotida			16469
	Arctogadus glacialis	(Peters, 1872)	Chordata	Actinopterygii	Gadiformes	Gadidae			16470
	Boreogadus saida	(Lepechin, 1774)	Chordata	Actinopterygii	Gadiformes	Gadidae		Arctic cod	16470
	Gadus morhua	Linnaeus, 1758	Chordata	Actinopterygii	Gadiformes	Gadidae	Gadus morhua morhua	Atlantic Cod	16471
	Gadus ogac	Richardson, 1836	Chordata	Actinopterygii	Gadiformes	Gadidae	Gadus morhua maris-albi	Greenland cod	16471
	Gadus sp.		Chordata	Actinopterygii	Gadiformes	Gadidae			16471
	Melanogrammus aeglefinus	(Linnaeus, 1758)	Chordata	Actinopterygii	Gadiformes	Gadidae		Haddock	16474
	Microgadus tomcod	(Walbaum, 1792)	Chordata	Actinopterygii	Gadiformes	Gadidae		Atlantic Tomcod	16472
	Micromesistius poutassou	(Risso, 1827)	Chordata	Actinopterygii	Gadiformes	Gadidae		blue whiting	16477
	Pollachius virens	(Linnaeus, 1758)	Chordata	Actinopterygii	Gadiformes	Gadidae		Pollock	16472
	Trisopterus esmarkii	(Nilsson, 1855)	Chordata	Actinopterygii	Gadiformes	Gadidae		Norway pout	16475
	Brosme brosme	(Ascanius, 1772)	Chordata	Actinopterygii	Gadiformes	Lotidae		Cusk	16474
	Enchelyopus cimbrius	(Linnaeus, 1766)	Chordata	Actinopterygii	Gadiformes	Lotidae	Rhinonemus cimbrius (Lin	Fourbeard Rockling	16474
	Gaidropsarus argentatus	(Reinhardt, 1838)	Chordata	Actinopterygii	Gadiformes	Lotidae	Onogadus argentatus (Rei	silver rockling	16476
	Gaidropsarus ensis	(Reinhardt, 1838)	Chordata	Actinopterygii	Gadiformes	Lotidae		threebeard rockling	16476
	Gaidropsarus sp.		Chordata	Actinopterygii	Gadiformes	Lotidae			16476
	Molva dypterygia	(Pennant, 1784)	Chordata	Actinopterygii	Gadiformes	Lotidae		blue ling	16476
	Molva molva	(Linnaeus, 1758)	Chordata	Actinopterygii	Gadiformes	Lotidae		European ling	16476
	Bathygadus favosus	Goode & Bean, 1886	Chordata	Actinopterygii	Gadiformes	Macrouridae			16535
	Chalinura brevibarbis	(Goode & Bean, 1896)	Chordata	Actinopterygii	Gadiformes	Macrouridae		not av	
	Caelorinchus caelorhincus ca	(Goode, 1880)	Chordata	Actinopterygii	Gadiformes	Macrouridae	Caelorinchus carminatus (Longnose grenadie	62319
	Caelorinchus caribbaeus	(Goode & Bean, 1885)	Chordata	Actinopterygii	Gadiformes	Macrouridae	Coelorhynchus caribbaeus	Blackfin grenadier	16536
	Caelorinchus occa	(Goode & Bean, 1885)	Chordata	Actinopterygii	Gadiformes	Macrouridae	Coelorhynchus occa (Goo	Swordsnout grenac	16536
	Coryphaenoides alateralis	Marshall & Iwamoto, 1973	Chordata	Actinopterygii	Gadiformes	Macrouridae			16534
	Coryphaenoides armatus	(Hector, 1875)	Chordata	Actinopterygii	Gadiformes	Macrouridae	Nematonurus armatus (He	abyssal grenadier	16535
	Coryphaenoides brevibarbis	(Goode & Bean, 1896)	Chordata	Actinopterygii	Gadiformes	Macrouridae			62286
	Coryphaenoides carapinus	(Goode & Bean, 1883)	Chordata	Actinopterygii	Gadiformes	Macrouridae	Lionurus carapinus (Good	carapine grenadier	62286
▶	Coryphaenoides guentheri	(Vaillant, 1888)	Chordata	Actinopterygii	Gadiformes	Macrouridae		Gunther's grenadie	16535
	Coryphaenoides leptolepis	Günther, 1877	Chordata	Actinopterygii	Gadiformes	Macrouridae			62286
	Coryphaenoides rupestris	Gunnerus, 1765	Chordata	Actinopterygii	Gadiformes	Macrouridae		rock grenadier	16535
	Gadomus dispar	(Vaillant, 1888)	Chordata	Actinopterygii	Gadiformes	Macrouridae		longbeard grenadie	16538
	Hymenocephalus italicus	Giglioli, 1884	Chordata	Actinopterygii	Gadiformes	Macrouridae	Hymenocephalus caverno	Glasshead grenadi	16540



west : Database (Access 2000 file format)

west : Table

ITIS Taxonomic	ITIS Reviewed	ITIS Included S	Range (Geogra	Concentrations	Occurrence in	Conservation St	Catalog Number
164696	Yes	Yes	Western Atlanti	Continuous fron		Not Listed	
164699	Yes	Yes	Cape Hatteras t	Not Obtained			
623020	No	Yes	found off the Sa			Not Listed	
164695	Yes	Yes		Off the Scotian		Not Listed	
164704	Yes	Yes	Arctic and Nort	continuous thro		Not Listed	
164706	Yes	Yes	North Atlantic:	continuous thro		Not Listed	
164712	Yes	Yes	Ungava Bay to	Continuous fron		Vulnerable; not	
164717	Yes	Yes	Arctic and Nort	Hudson Bay		Not Listed	
164710	Yes	Yes				Not Listed	
164744	Yes	Yes	Strait of Belle Is	Gulf of Maine ar		Not Listed	
164720	Yes	Yes	southern Labrac	Bay of Fundy a		Not Listed	
164774	Yes	Yes	Northwest Atlar			Not Listed	
164727	Yes	Yes	southwest Gree	Bay of Fundy, C		Not Listed	
164756	Yes	Yes	60.1°N 56.9°W			Not Listed	
164740	Yes	Yes	Newfoundland t	Gulf of Maine ar		Not Listed	
164748	Yes	Yes	Newfoundland t	Continuous fron		Not Listed	
164768	Yes	Yes	Northern Atlanti	Continuous fron		Not Listed	
164769	Yes	Yes	Northwest Atlar	Grand Banks		Not Listed	
164764	Yes	Yes				Not Listed	
164761	Yes	Yes	Northwest Atlar			Not Listed	
164760	Yes	Yes	Atlantic: Barent			Not Listed	
165355	Yes	Yes	Caribbean to Be	Not Obtained			
not available	No	Yes	Western Atlanti			Not Listed	
623199	Yes	Yes	Western Atlanti			Not Listed	
165364	Yes	Yes	Brazil to Alvin C	Not Obtained			
165368	Yes	Yes	Welker Canyon	Not Obtained			
165346	No	Yes	From Bear Sea	Not Obtained			
165353	Yes	Yes	Worldwide; mar			Not Listed	
622865	No	Yes	Western Atlanti			Not Listed	
622866	No	Yes	Atlantic: known	Continuous fron		Not Listed	
▶ 165351	Yes	Yes	Atlantic: from th			Not Listed	
622867	No	Yes	44.1°N, 125.4°W	Off Cape Cod re		Not Listed	
165350	Yes	Yes	Western North .	Scotian shelf		Not Listed	
165385	Yes	Yes	Wilmington Car	Not Obtained			
165406	Yes	Yes	Near Hydrograp	Not Obtained			



west : Database (Access 2000 file format)

west : Table

Locality (ARC)	Habitat	Mode of Life	Dimensions	Reproduction	Diet	Predators	Importance	Notes	References
	generally oceanic	nektonic			Feeds on zooplankton		None	- from ARC NW	Froese and Pauly (eds.) 2004, GMBIS 2002
		Nektonic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
	If taxonomy is correct	nektonic			Feed on plankton		Social- Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, GMBIS 2002
							None	- from ARC NW	GMBIS 2002
	Associated with	nektonic					Social- commercial	- from ARC NW	Froese and Pauly (eds.) 2004
	Occurs in coastal	benthic		Onshore-offshore	Feeds mostly on		Social- Commercial	- from ARC NW	Froese and Pauly (eds.) 2004
	Found from the	nektonic		Spawn once per	Bottom feeders	Larger cod, squid	Social- Minor commercial	- from ARC NW	Scott and Scott 1988
	Lives close to the	benthic			Feeds on fishes		Social- Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, Scott and Scott 1988
							None	- from ARC NW	
	Found inshore to	benthic		Spawning occurs	Feeds on bottom	Cod, pollock and	Scientific- Highly valued	- from ARC NW	Scott and Messieh 1976
	Inhabit coastal	benthic		Spawns in early	Feeds on shrimp	Bluefish	Social- Minor commercial	- from ARC NW	Scott and Messieh 1976
	Found over the	nektonic			Feeds mostly on		Social- Highly Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, Scott and Scott 1988
	Inhabit coastal	benthic		Spawning occurs	Feeds on copepod	Harbour seals,	Scientific- Highly valued	- from ARC NW	Scott and Messieh 1976
	Benthopelagic to	nektonic			Feeds mostly on		Social- Highly Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, GMBIS 2002
	Found to depths	benthic		Spawns in shallow	Feeds on crustaceans	Seals, thorny sculpin	Scientific- Highly valued	- from ARC NW	Scott and Messieh 1976
	Bottom dwellers	benthic		Spawns in the	Feeds on flatfish	Cod	Minor commercial	- from ARC NW	Scott and Messieh 1976
	Occasionally found	benthic			Feeds on decapods		Social- Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, Scott and Scott 1988
	benthopelagic;	nektonic					None	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
							None	- from ARC NW	
	Occasionally found	benthic			Feeds on crustaceans		Social- Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
	Occasionally found	benthic		Spawning occurs	Feeds on lobster		Social- Highly Commercial	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
		Benthic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
	Found at depths	nektonic			Feeds on small		None	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
		nektonic			Feeds on a variety		Social- commercial	- from ARC NW	Collette and Klein-MacPhee (eds.) 2002
		Benthic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
		Benthic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
		Benthic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
	A deep-slope upper	nektonic			Feeds on a variety		None	- from ARC NW	Froese and Pauly (eds.) 2004
	depth range 150	nektonic			Feeds on small		None	- from ARC NW	Froese and Pauly (eds.) 2004
	depth range 900	nektonic			Feeds on polychaetes		None	- from ARC NW	Froese and Pauly (eds.) 2004
	depth range 83	nektonic			Feeds on small		None	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
	Found at depths	nektonic		Oviparous; plan			None	- from ARC NW	Froese and Pauly (eds.) 2004, Welshman, et al. 2003
	Found at depths	nektonic		External fertiliza	Feeds mainly on		None	- from ARC NW	Welshman, et al. 2003, Scott and Scott 1988
		Benthic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004
		Nektonic						- from ARC NW	Moore et al., 2003, ITIS, Froese and Pauly (eds.) 2004

3. Data must be discoverable

a. Through searchable online catalog systems

- Metadata
 - Description of dataset
 - Keywords

b. Through portals (e.g. OBIS)

- Should refer user to metadata

c. Through data crawling search services (e.g. Google)

- User still needs metadata

ARC museum database:

Discoverability through metadata registration with GeoConnections

- GeoConnections – online catalog for the discovery and access of geospatial data for Canada
- Accessed through GeoConnections Discovery Portal

Metadata Standard for GeoConnections:

Federal Geographics Data Committee (FGDC)
Content Standard for Digital Geospatial
Metadata

Version FGDC-STD-001-1998

Welcome... This online **catalogue** enables the discovery and access of **geospatial data** for **Canada**

Find Geospatial Data...

The GeoConnections Discovery Portal is your gateway to millions of geospatial data products. Browse metadata records or search by subject, coverage or product type to find, evaluate, visualize and access the geospatial data you need.

Search entire catalogue

Browse popular datasets:

- [Satellite imagery](#) [Topographic data](#) [Aerial photography](#)

Find Organizations...
Canadian geomatics organizations offering data and services

Find Services...
Services and resources offered by Canadian geomatics organizations

Application Developers
Web Services, application programming interface (API) guide, training resources, free tools

Data Suppliers
Add or update your metadata content on the GeoConnections Discovery Portal

Quick Links

[GeoBase](#) - free geospatial base data for Canada

[GeoGratis](#) - free geospatial data of Canada

[The Atlas of Canada](#) - maps and related information about Canada

[Quicklook Swath Browser](#) - browse recent satellite image acquisitions

[Global Landsat 7 Data Catalogue](#)

[North American Landsat 7 Archive](#)

What's New

release 3.3.6
updated: 10/28/2004 10:17
[Acknowledgements](#)
[Copyrights and Disclaimers](#)

GeoConnections Discovery Portal  Canadian Geospatial Data Infrastructure

Home GeoConnections Overview Help/FAQ Feedback Français

Your Discovery Portal Content


Logged in as Lou Van Guelpen

Select an entry type

Data Products Services Organizations

Atlantic Reference Centre Museum of Canadian Atlantic Organisms - Invertebrates and Fishes Data (English version)

The information you provide here will assist users in identifying your collections of products as they browse or search the Discovery Portal Directory. You may update this information at any time in the future using the Discovery Portal interface. Note, if your browser is not JavaScript enabled you will not be able to complete this form.

[Help](#) is available on how to use this form. The  symbol will link you to the relevant help information for each field.


Product collections and services may have organizations associated with them as originator, custodian and/or distributors.

[Add/Edit Associations](#)

A product collection may have an associated search service.

[Add/Edit Search Service](#)

[Preview](#) | [Save](#) | [Publish](#) | [Delete](#) | [Logo/icon](#) | [Save As](#) | [Cancel](#)

 [Mandatory Information](#) | [Identification Information](#) | [Data Quality Information](#) | [Spatial Data Organization Information](#) | [Entity and Attribute Information](#) | [Distribution Information](#) | [Metadata Reference Information](#) | [Spatial Reference Information](#)


Mandatory Information


Descriptive Name of the Product Collection :

Acronym :

Country Of Origin :

Essential FGDC CSDGM / ISO 19115 (Metadata) fields

 Citation Title :

 Originator :

Descriptive Name of the Product Collection :
Acronym :
Country Of Origin :

Essential FGDC CSDGM / ISO 19115 (Metadata) fields

? Citation Title :

? Originator :

? Time Period of Content :

Beginning Date : 1910

Beginning Time (HHMMSS) :

Or, the beginning date is unknown

Ending Date : 2003

Ending Time (HHMMSS) :

Or, the present date is always the end date

Or, the end date is unknown

? Online Linkage :

(Access link) <http://gmbis.marinebiodiversity.ca/aconw95/aconscripits/ARCSpecimenMap4.html>
(Access link) <http://www.huntsmanmarine.ca/>

? Geospatial Data Presentation Form (Product type) :

Product Type :



Online Linkage -- 8.10

the name of an online computer resource that contains the data set. Entries should follow the Uniform Resource Locator convention of the Internet.

Type: text

Domain: free text

Draw on a Map
Look up a Postal Code
Find Place by Name

00
West -69 [] -24 East
40
South

? Theme Keywords :

Select keywords from recognized GCMD list :

GCMD keywords

AND/OR...

Specify your own, non-standardized keywords :

[] Enter

- Earth Science > Biosphere > Animal Taxonomy > Anemones
- Earth Science > Biosphere > Animal Taxonomy > Arthropods
- Earth Science > Biosphere > Animal Taxonomy > Crustaceans
- Earth Science > Biosphere > Animal Taxonomy > Echinoderms
- Earth Science > Biosphere > Animal Taxonomy > Fish

Remove

? Place Keywords :

Select places from recognized GCMD list :

GCMD keywords

Canada

AND/OR...

Specify your own, non-standardized places :

[] Enter

- Bodies Of Water > Oceans > Atlantic Ocean
- Bodies Of Water > Oceans > North Atlantic Ocean
- Global Regions > Mid-latitude
- Global Regions > North America
- Global Regions > Northern Hemisphere

Remove

? Fees : Free or [] (enter an amount or a range)

? Network Resource Name : []

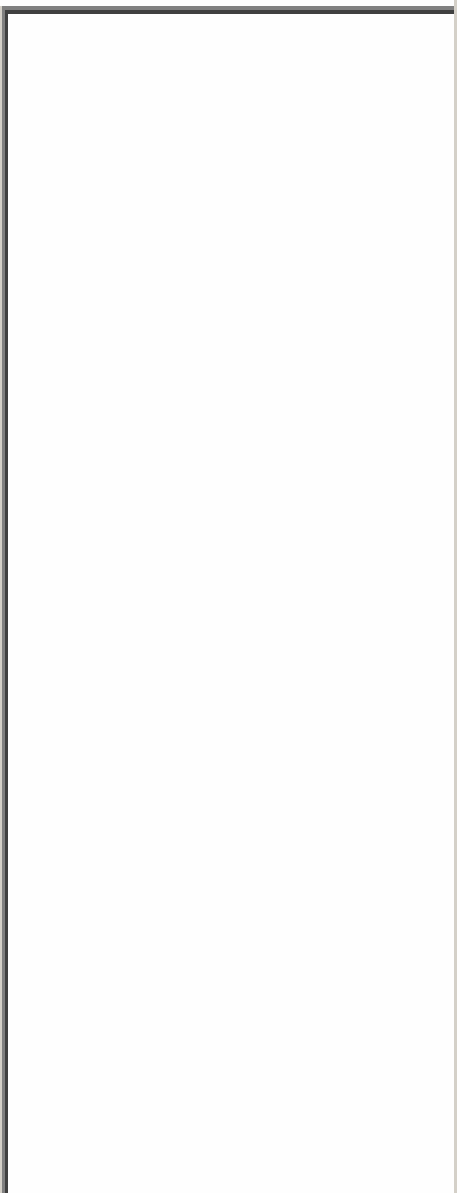
? Contact Information :

Primary

- [Agriculture](#)
- [Atmosphere](#)
- [Biosphere](#)
- [Climate Indicators](#)
- [Cryosphere](#)
- [Human Dimensions](#)
- [Hydrosphere](#)
- [Land Surface](#)
- [Oceans](#)
- [Paleoclimate](#)
- [Solid Earth](#)
- [Spectral/Engineering](#)
- [Sun-Earth Interactions](#)
- [Chronostratigraphic Unit](#)

- [Aquatic Sciences](#)
- [Bathymetry/Seafloor Topography](#)
- [Coastal Processes](#)
- [Marine Biology](#)
- [Marine Environment Monitoring](#)
- [Marine Geophysics](#)
- [Marine Sediments](#)
- [Marine Volcanism](#)
- [Ocean Acoustics](#)
- [Ocean Chemistry](#)
- [Ocean Circulation](#)
- [Ocean Heat Budget](#)
- [Ocean Optics](#)
- [Ocean Pressure](#)
- [Ocean Temperature](#)
- [Ocean Waves](#)
- [Ocean Winds](#)

- [Fish](#)
- [Marine Birds](#)
- [Marine Habitat](#)
- [Marine Invertebrates](#)
- [Marine Mammals](#)
- [Marine Microbiota](#)
- [Marine Plants](#)
- [Marine Reptiles](#)



Primary

Contact Person :	Lou Van Guelpen
Contact Organization :	Atlantic Reference Centre
Address Type :	mailing and physical
Address :	Huntsman Marine Science C
City :	St. Andrews
Province or State :	New Brunswick
Postal Code/ZIP Code :	E5B 2L7
Country :	Canada
Contact's Telephone Number (+cc-aaa-nnnnn) :	+01-506-529-1203
Contact Facsimile Telephone Number (+cc-aaa-nnnnn) :	+01-506-529-1212
Contact Electronic Mail Address :	arc@mar.dfo-mpo.gc.ca

Distributor (optional) [Copy From Primary](#)

Contact Person :	Lou Van Guelpen
Contact Organization :	Atlantic Reference Centre
Address Type :	mailing and physical
Address :	Huntsman Marine Science C
City :	St. Andrews
Province or State :	New Brunswick
Postal Code/ZIP Code :	E5B 2L7
Country :	Canada
Contact's Telephone Number (+cc-aaa-nnnnn) :	+01-506-529-1203
Contact Facsimile Telephone Number (+cc-aaa-nnnnn) :	+01-506-529-1212
Contact Electronic Mail Address :	arc@mar.dfo-mpo.gc.ca

custodian and/or distributors.

A product collection may have an associated search service. [Add/Edit Search Service](#)

[Preview](#) | [Save](#) | [Publish](#) | [Delete](#) | [Logo/icon](#) | [Save As](#) | [Cancel](#)

[Mandatory Information](#) | **Identification Information** | [Data Quality Information](#) | [Spatial Data Organization Information](#) | [Entity and Attribute Information](#) | [Distribution Information](#) | [Metadata Reference Information](#) | [Spatial Reference Information](#)

Identification Information

Citation :

Citation Information :

Originator : Atlantic Reference Centre Museum of Canada

Publication Date : March 2004

Or, the publication date is unknown

Publication Time (HHMMSS) :

Title : Atlantic Reference Centre Museum of Canada

Edition :

Geospatial Data Presentation Form (Product type) : [Select Product Type\(s\)](#)

Product Type :

- Atlas
- Digital
- Map
- Tabular Digital Data

[Remove](#)

Series Information :

Series Name :

Issue Identification :

Publication Information :

Publication Place : Dartmouth, Nova Scotia, Canada

Description :

? Abstract : [Clean Up Text](#)

This is the Atlantic Reference Centre museum database for Canadian Atlantic marine organisms. Specimens represent invertebrates from sponges to tunicates, and fishes. The ichthyoplankton collection is the most extensive, with complete holdings from many scientific broad-scale surveys. Geographic coverage is the Arctic to Cape Cod and the coast to the slope water. Temporally, most specimens were collected from the 1960s to the present.

? Purpose : [Clean Up Text](#)

The dataset was developed as the museum management system and electronic catalogue of specimen and collecting information. An added benefit is the value for biogeographic investigations.

? Supplemental Information :

? Time Period of Content : [Range of Dates/Times](#)

Beginning Date : 1910

Beginning Time (HHMMSS) :

Or, the beginning date is unknown

Ending Date : 2003

Preview Save Publish Delete Logo/icon Save As Cancel

Mandatory Information Identification **Data Quality Information** Spatial Data Organization Entity and Attribute Information Distribution Information Metadata Reference Information Spatial Reference Information

Data Quality Information

? **Attribute Accuracy :**
 ? **Attribute Accuracy Report :** specimen identifications accurate; data reas

? **Logical Consistency Report :** Spatial data are in geocoordinate format. No

? **Completeness Report :** All georeferenced records in the museum d

? **Positional Accuracy :**
 ? **Horizontal Positional Accuracy :**
 ? **Horizontal Positional Accuracy Report :** Georeference coordinates were originally re
 ? **Vertical Positional Accuracy :**
 ? **Vertical Positional Accuracy Report :** Depths were measured in various ways, de

? **Lineage :**
 ? **Source Information :**
 ? **Source Citation :**
 ? **Source Information :**
 ? **Originator:** Atlantic Reference Centre
 ? **Publication Date :** March [] [] 2003
 Or, the publication date is unknown
 ? **Publication Time (HHMMSS) :** [] [] []
 ? **Title :** ARC Museum Digital Catalogue
 ? **Edition :** 1
 ? **Geospatial Data Presentation Form (Product type) :** [Select Product Type\(s\)](#)
Product Type :

The information you provide here will assist users in identifying your collections of products as they browse or search the Discovery Portal Directory. You may update this information at any time in the future using the Discovery Portal interface. Note, if your browser is not JavaScript enabled you will not be able to complete this form.

[Help](#) is available on how to use this form. The ? symbol will link you to the relevant help information for each field.

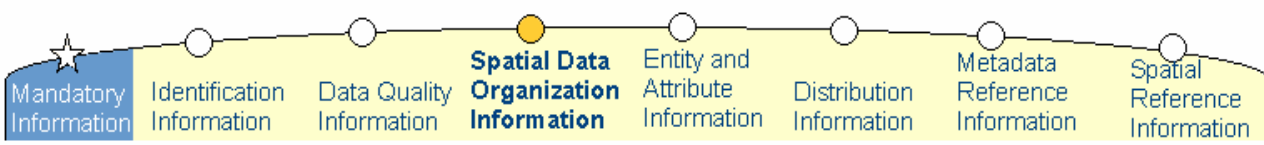
Product collections and services may have organizations associated with them as originator, custodian and/or distributors.

[Add/Edit Associations](#)

A product collection may have an associated search service.

[Add/Edit Search Service](#)

[Preview](#) | [Save](#) | **Publish** | [Delete](#) | [Logo/icon](#) | [Save As](#) | [Cancel](#)



Spatial Data Organization Information

? **Indirect Spatial Reference :**

? **Direct Spatial Reference Method :** [Clean Up Text](#)

? **Raster Object Information :**
? **Raster Object Type :**
? **Row Count :**
? **Column Count :**
? **Vertical Count :**

[Preview](#) | [Save](#) | **Publish** | [Delete](#) | [Logo/icon](#) | [Save As](#) | [Cancel](#)

Entity and Attribute Information

? Detailed Description :

? Entity Type :

? Entity Type Label :

? Entity Type Definition :

? Entity Type Definition Source :

? Attribute :

? Attribute Label :

? Attribute Definition :

? Attribute Definition Source :

? Attribute Domain Values :

? Enumerated Domain :

? Enumerated Domain Value :

? Enumerated Domain Definition :

? Enumerated Domain Definition Source :

? Range Domain :

? Range Domain Minimum :

? Range Domain Maximum :

? Attribute Units of Measure :

? Codeset Domain :

? Codeset Name :

? Codeset Source :

? Unrepresentable Domain :

Distribution Information

? Distributor : [Remove distributor](#)

? Contact Information :

? Contact Person Primary :

? Contact Person :

? Contact Organization :

? Contact Organization Primary :

? Contact Person :

? Contact Organization :

? Contact Position :

? Contact Address :

? Address Type :

? Address :

- Mandatory Information
- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information**
- Spatial Reference Information

Metadata Reference Information

- ? Registration date of this entry (YYYY-MM-DD): 2004-02-25
- ? Review date of this entry (YYYY-MM-DD): 2004-12-03
- ? Future review date for this entry (YYYY-MM-DD):

[Click here to override the six month future review date](#)

? Metadata Contact :

? Contact Information :

? Contact Person Primary :

? Contact Person :

? Contact Organization :

? Contact Organization Primary :

? Contact Person :

? Contact Organization :

? Contact Position :

? Contact Address :

Contact Organization Primary :

? Contact Person :

? Contact Organization :

? Contact Position :

? Contact Address :

? Address Type : mailing and physical

? Address :

? City :

? Province or State :

? Address Type :

? Country :

? Contact's Telephone Number (+cc-aaa-nnnnn) :

? Contact TDD/TTY Telephone Number (+cc-aaa-nnnnn) :

? Contact Facsimile Telephone Number (+cc-aaa-nnnnn) :

? Contact Electronic Mail Address :

? Metadata Standard Name :

? Metadata Standard Version :

? Metadata Time Convention :

| | Publish | | | |

Spatial Reference Information

? Horizontal Coordinate System Definition : [Coordinate System Wizard](#)

? Geographic :

? Latitude Resolution :

? Longitude Resolution :

? Geographic Coordinate Units :

? Geodetic Model :

? Horizontal Datum Name :

? Ellipsoid Name :

? Semi-major Axis :

? Denominator of Flattening Ratio :

? Vertical Coordinate System Definition :

? Altitude System Definition :

? Altitude Datum Name :

? Altitude Resolution :

? Altitude Distance Units :

? Altitude Encoding Method :

? Depth System Definition :

? Depth Datum Name :

? Depth Resolution :

? Depth Distance Units :

? Depth Encoding Method :

GeoConnections Discovery Portal

Home GeoConnections Overview Help/FAQ Feedback Français



Welcome... This online **catalogue** enables the discovery and access of **geospatial data** for **Canada**

Find Geospatial Data...

The GeoConnections Discovery Portal is your gateway to millions of geospatial data products. Browse metadata records or search by subject, coverage or product type to find, evaluate, visualize and access the geospatial data you need.

Search entire catalogue

Browse popular datasets:

- [Satellite imagery](#)
- [Topographic data](#)
- [Aerial photography](#)

Find Organizations...
Canadian geomatics organizations offering data and services

Find Services...
Services and resources offered by Canadian geomatics organizations

Application Developers
[Web Services](#), application programming interface (API) guide, [training resources](#), [free tools](#)

Data Suppliers
[Add or update your metadata content on the GeoConnections Discovery Portal](#)

Quick Links

[GeoBase](#) - free geospatial base data for Canada

[GeoGratis](#) - free geospatial data of Canada

[The Atlas of Canada](#) - maps and related information about Canada

[Quicklook Swath Browser](#) - browse recent satellite image acquisitions

[Global Landsat 7 Data Catalogue](#)

[North American Landsat 7 Archive](#)

What's New

release 3.3.6
updated: 10/28/2004 10:17
[Acknowledgements](#)
[Copyrights and Disclaimers](#)



Search for Data

[Tutorial](#)

Basic Search options

[Switch to advanced](#)

Location

Canada

Subject

All subjects

...and keywords

Atlantic museum

Tips: +requires, -excludes, quote to "search for phrase"
Example: monitor +"air samples" -temperature

 Search for free data only**Search**

Alphabetical list of database names

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [Other](#)

Other Lists

[All databases searchable via the Internet](#)



Data search results

[Refine Search](#)

Search criteria: Atlantic museum

Canadian Metadata Verified Available for free

23 items found 1 2 3 4 5 6 7 8 9 10 > 37


 Check the databases
you wish to search

Data search results

[Search Databases](#)

96%	Coastal Video Surveys, Arctic and Atlantic Canada and the Queen Charlotte Islands	<input type="checkbox"/>	Description
94%	Canadian Museum of Nature Collection Information Management System		Description
93%	Coastal Monitoring Data, Arctic and Eastern Canada and Selected Lakes		Description
92%	Nova Scotia Museum of Natural History - Marine Birds, Mammals, and Fishes Data		Description
91%	Ocean Current Data from the Canadian East Coast and Eastern Arctic, 1960 to the present		Description
90%	Archaeological Sites Inventories (Nunavut) - Canadian Museum of Civilization (CMC), Canada		Description
89%	Canadian Continental Shelf Climate Database		Description
82%	Archaeological Sites Inventories (Northwest Territories) - Canadian Museum of Civilization (CMC), Canada		Description
82%	Inshore Shallow Water Temperature Time Series, Scotia-Fundy Bay, Gulf of St. Lawrence, Canada		Description
80%	Atlantic Reference Centre Museum of Canadian Atlantic Organisms - Invertebrates and Fishes Data		Description
80%	Atlantic Coastal Database Directory		Description
80%	Atlantic Canada Conservation Data Centre Georeferenced Rare Species Data - Rare Anadromous Fish, Rare Marine Birds, Rare Marine Mammals		Description

Atlantic Reference Centre Museum of Canadian Atlantic Organisms - Invertebrates and Fishes Data

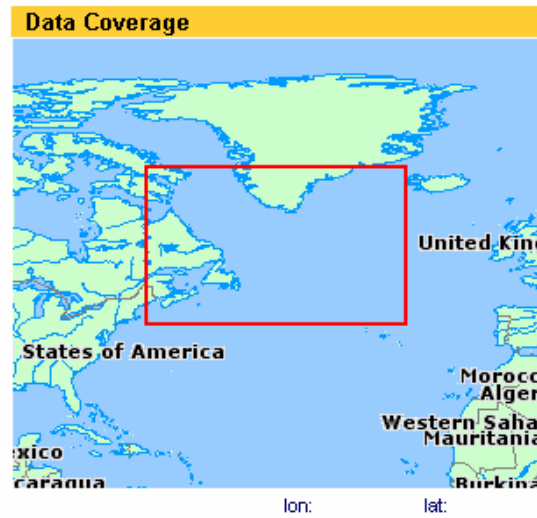
Product Summary   

Summary	
Product Types	Atlas, Digital, Map, Tabular Digital Data Free
Access Options	Access link Access link
Data Verified	Yes
Other Information	See the full description

Fields	
Language	english
Character Set	
Topic Category	oceans

Abstract
This is the Atlantic Reference Centre museum database for Canadian Atlantic marine organisms. Specimens represent invertebrates from sponges to mollusks, and fishes. The ichthyoplankton collection is the most extensive, with complete holdings from many scientific broad-scale surveys. Geographic coverage is the Arctic to Cape Cod and the coast to the slope. Temporally, most specimens were collected from the 1960s to the present.

Notes
This dataset was developed as the museum management system and electronic catalogue of specimen and collecting information. An added benefit is the value for biogeographic investigations.



Contact Information
Lou Van Guelpen
Atlantic Reference Centre
Huntsman Marine Science Centre, 1 Lower Campus Road
St. Andrews, New Brunswick, Canada
E5B 2L7
Phone number: +01-506-529-1203
Fax number: +01-506-529-1212
Email address: arc@mar.dfo-mpo.gc.ca



Huntsman Marine Science Centre: Atlantic Reference Centre Natural History Museum

" The project's goals are to develop, test and demonstrate information dissemination and visualization tools... in the Gulf of Maine region."



Data Retrieval - (please choose the data you would like to plot on the map)

Order (1 or more)
 Family (1 or more)
 Genus Species (1 or more)

ALL | ALL | ALL

Acari | Acanthogorgiidae | Abralia grimpei
 Acipenseriformes | Acanthonotozomatidae | Abralia redfieldi

Start: 1910 | End: 2002 | Group by: All | Data Categories: Automatic

Categorize by species
 Occurrence
 Number of Specimens

Show data in a formatted table tab-delimited file

Graphic Presentation - (you may ignore these options, as they have reasonable default values)

Show map
 Data Window: Gulf of Maine

Colour
 B/W

Show Locator Map

Map Projection: Mercator (simple)

Map Options (1 or more):


- Detailed depth Contours
- EEZ line
- Grid
- Grid (over land)
- LFA lines

Output format: PNG

Style: Normal

Plot type: Scaled symbols
 Data Scale: Automatic
 Aggregation: Automatic

Notes: This technical demonstration page is part of the [GMBIS](#) web site. The results are preliminary. [Help](#) with interacting with the maps is available. Best viewed with a recent version of Internet Explorer. If you have problems, or would like to provide feedback, please contact [us](#).

Data provided by:
 
 Fisheries and Oceans Canada / Pêches et Océans Canada
[Bedford Institute of Oceanography & St. Andrews Biological Station](#)


[Huntsman Marine Science Center](#)

CMB Partners in BIO GeoConnections Project 2003-04

- ARC – marine invertebrates and fish
- Canadian Museum of Nature - fish
- Atlantic Canada Conservation Data Centre – rare marine organisms
- Nova Scotia Museum – marine fish, birds, and mammals
- Marine Invertebrate Diversity Initiative – marine invertebrates

Lessons learned (so far)

1. Dataset – high quality (hard when \$ tight)
2. Dataset - open standards – OBIS Schema or Darwin Core 2.0
3. Dataset - standardized species names & taxonomy
4. Dataset – discoverable
 - Standardized metadata (FGDC)
 - In a searchable online catalog system
 - e.g. Canada's GeoConnections Discovery Portal
 - Metadata – cumbersome but survivable

Acknowledgments:

- Fisheries & Oceans Canada
- Centre for Marine Biodiversity
- Census of Marine Life
- GeoConnections
- Ocean Biogeographic Information System