



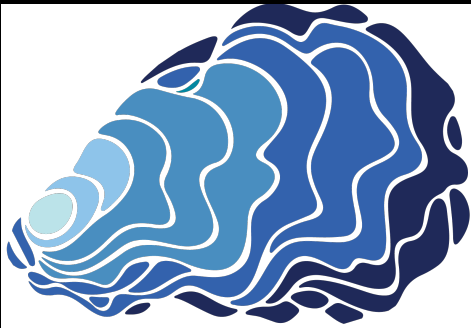
Digitization TCN: ESB: Mobilizing Millions of Marine Mollusks of the Eastern Seaboard

Project Start Date: 15 September 2020

Project period: 4 years

Project leads: Rüdiger Bieler & Petra Sierwald





Eastern Seaboard

Mobilizing Millions of Marine Mollusks

- Focus on U.S. East Coast (partnering north and south as possible)

- Coastline of 18 States

- From shore to edge of EEZ (200 nm)

- Collaboration captures 85% of all ESB mollusks holdings in U.S. collections (InvertEBase surveys & publications)

- Expand via PENs





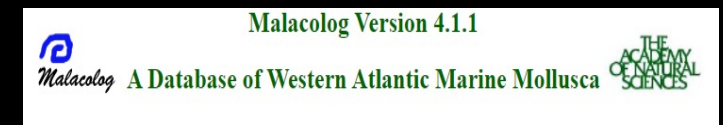
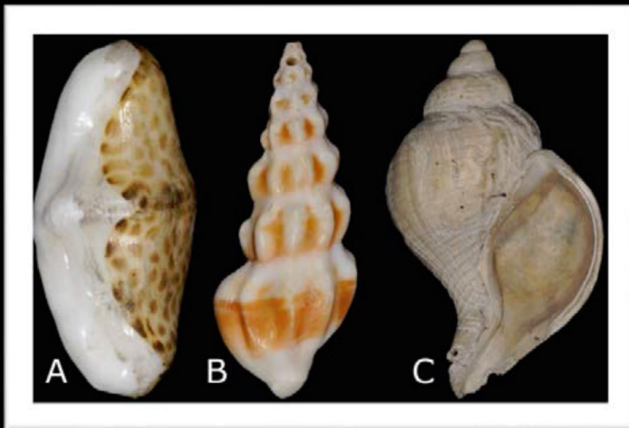
Scope (1)

- 16 institutions + Smithsonian
- 3,000 species, including numerous economically important taxa
- Mobilization of 4.5 million specimens
 - 1.1 million: de novo data entry
 - 3.4 million: improved data quality & access
- Georeferencing
 - Complete via CoGe
 - Add bathymetric data, benthic habitat, and marine conservation areas to GeoLocate



Scope (2)

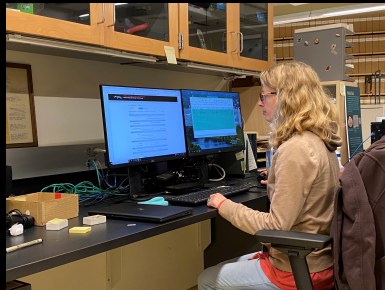
- Trait data linkages
 - Live vs. dead (address Darwin Core issues)
 - Epibiont data
 - Metadata from field books and expedition logs
- Temporal data (build agent authority files across institutions)
- Specimen images (types and verified exemplars)
- Further development of InvertEBase
- Integration of Malacolog
- Development of MolluscaBase



Year 1: Collections, COVID, and (virtual) Connections

Major challenge: Staff recruitment and in-person student training

MCZ



UF

Major development: Increased virtual communication and partnering

- Development of Working Groups (e.g., live/dead; Specify users)
- Organization of training sessions (e.g., georeferencing, imaging)
- Shared Slack channels with sister TCNs (e.g., Expeditions WG)
- Coordinated steering committees with sister TCNs
- Joint development of InvertEBase portal (e.g., DigIn TCN, SI Panama project)
- Coordination with TDWG group (e.g., “vitality” for DarwinCore standards)
- Preparing for Course-based Undergraduate Research Experiences (CUREs)
- Finding parallel solutions for our many different databases

Malacology 115217 5
Plecopecten magellanicus
 (Gmelin, 1791)
 Acanthodoris Bufoia Auctorum Phoronacea Pectinacea Pectinacea Pectinacea Pectinacea Plecopecten Plecopecten

MCZ ESB record in MCZbase

Atlantic Ocean Atlantic, Northwest United States, Maine: Hancock, Mount Desert
 (no verbatim date data) (1750-01-01 - 2000-10-00)
 See other occurrence data for this record on iDigBio

MCZ Desert Island Blue Hill Bay
 (no verbatim date data) (1750-01-01 - 2000-10-00)
 See other occurrence data for this record on iDigBio

Identifiers
 Malacology accession number: 641

Part Details

Part Name	Condition	Disposition	#	Container Name	Remarks
shell (SP)	unchanged	in collection	1	The Museum of Comparative Zoology	

Associated Grant: Mobilizing Millions of Marine Mollusks of the Eastern Seaboard (ESB)
 Inaug. No. MCZ 2011-04-08

Entered By: Mural Rebeck on 1980-01-07
 Last Edited By: Mural Rebeck on 2021-05-30

Accession
 138274

Media

Collecting Event Remarks
 End of date collected range set to latest date of data entry for a cataloged item in this collecting event

Collector
 Benjamin Walworth Arnold

Included in these Collections
 Mobilizing Millions of Marine Mollusks of the Eastern Seaboard (ESB)

MCZ ESB goals:

- Catalog 7,500 lots
- Clean 18,000 localities for ca. 75,000 records
- Image 1400 primary types

Search results for "ESB" & MCZ

iDigBio Home Portal Home Search Records Learning Center Data Research Collaboration Feedback

Search Records Help Reset

izing Millions of Marine Mollusks of the Eastern Seaboard (ESB)

Must have media Must have map point

Filters Mapping Sorting Download

Add a field Clear

Institution Code MCZ

Present Missing

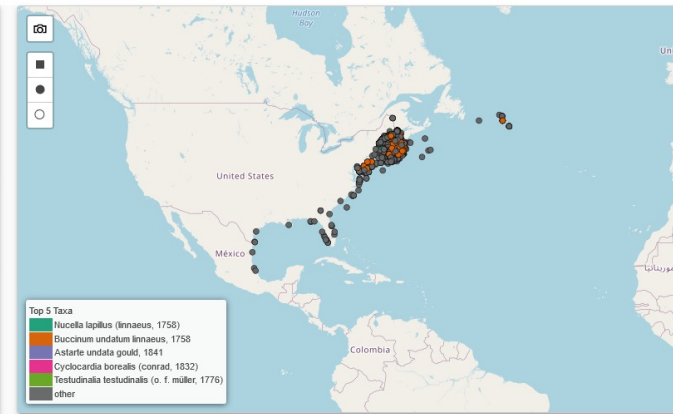
Phylum Mollusca

Present Missing

Kingdom dwc:kingdom

Present Missing

Scroll To Bottom



record flagged as ESB by "Named Group"

link brings user to view ESB information page

Mobilizing Millions of Marine Mollusks of the Eastern Seaboard (ESB)

Digitization TCN: Collaborative Research: Award #2001536
 Principal Investigator: Benjamin Walworth Arnold
 Start Date: September 15, 2020 End Date: August 31, 2024 (Estimated)

Project Summary
 The Eastern Seaboard of the United States (ESB, U.S. Exclusive Economic Zone), stretches from the Canadian border on the Atlantic along nearly 6,000 miles of eastern coastline, around the Florida Peninsula, and along the Gulf of Mexico to the south end of the Texas coast, including 10 U.S. states. The ESB region is densely populated with 4% of the U.S. population and is home to 20% of the U.S. GDP. Habitat loss, pollution, overfishing, and climate change threaten commercially and ecologically important marine biomes along the ESB. This project will create occurrence data with high geographic resolution for over 1,000 species of mollusks that first habit along the ESB, including mussels, snails, limpets, and gastropods. From these geographically and taxonomically important species, over 4.5 million individual specimens will be made available through public online data portals. While the geographic range for many species of mollusks are well known, the extent of their distribution within the eastern seaboard has largely gone unexplored. Addressing this knowledge gap is critical to understanding the distribution of mollusks. Because natural history collections have specimens collected from the mid-1800s to present, these occurrence records can help track distributional changes over time and lead to better fisheries and conservation management.

Over a hundred million mollusk specimens have been documented in natural history collections across from America and the Caribbean. Despite the depth and breadth of these collections is exceptionally well known compared to other invertebrate taxa. Mollusks are among the best sampled group of animals, with some species having over 200 digitized record available in natural history collections making them extremely well suited for environmental and biogeographical studies. This project will create occurrence data with high geographic resolution for over 1,000 species of mollusks that first habit along the ESB, including mussels, snails, limpets, and gastropods. From these geographically and taxonomically important species, over 4.5 million individual specimens will be made available through public online data portals. While the geographic range for many species of mollusks are well known, the extent of their distribution within the eastern seaboard has largely gone unexplored. Addressing this knowledge gap is critical to understanding the distribution of mollusks. Because natural history collections have specimens collected from the mid-1800s to present, these occurrence records can help track distributional changes over time and lead to better fisheries and conservation management.

Partners including iDigBio, ODS, and the iNaturalist Science Portal.

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Specimen Records (7329)

GUID	Scientific Name	Date Collected	Higher Designation	Locality	Other Catalog Numbers	Taxonomy
MCZ:MAV:985	<i>Nucella deccoreolata</i>	[no verbatim date]	Atlantic Ocean: Atlantic, Northwest: Gulf of	Gulf of Maine	other number=3486	Animalia Mollusca Gastropoda Caenogastropoda
MCZ:MAV:985	<i>Nucella deccoreolata</i>	[no verbatim date]	Atlantic Ocean: Atlantic, Northwest: Gulf of	Gulf of Maine	other number=3486	Animalia Mollusca Gastropoda Caenogastropoda
MCZ:MAV:1034	<i>Nucella lapillus</i>	[no verbatim date]	Atlantic Ocean: Atlantic, Northwest: United	Kittery, Piscataqua River	other number=2929	Animalia Mollusca Gastropoda Caenogastropoda
MCZ:MAV:1034	<i>Nucella lapillus</i>	[no verbatim date]	Atlantic Ocean: Atlantic, Northwest: United	Kittery, Piscataqua River	other number=2929	Animalia Mollusca Gastropoda Caenogastropoda
MCZ:MAV:1030	<i>Nucella lapillus</i>	[no verbatim date]	Atlantic Ocean: Atlantic, Northwest: United	New Castle	other number=2931	Animalia Mollusca Gastropoda Caenogastropoda

Go to page: 1 Show rows: 5 - 1-5 of 10900

Family	Scientific Name	Date Collected	Country	Institu
Acanthodoridae	<i>Acanthodoris pilosa</i> (Abildgaard [in Müller]....	1970-08-19	United States	MCZ
Epitonidae	<i>Acirsa borealis</i> (Lyeell, 1841)	1862-01-01/1862-12-31	United States	MCZ
Epitonidae	<i>Acirsa borealis</i> (Lyeell, 1841)	1891-08-01/1891-08-31	United States	MCZ

Twitter

Instagram

Facebook

Twitter profile for Eastern Seaboard Mollusks (@EMollusks). The profile includes a navigation menu on the left with options like Home, Explore, Notifications, Messages, Bookmarks, Lists, Profile, and More. The main content area shows the profile header with the logo and bio, followed by a tweet from Eastern Seaboard Mollusks about the 'Global Invertebrate Survey Save the date GIGA IV Virtual 2021.' There is also a 'Promoted Tweet' from 'The Wall Street Journal'.

Instagram profile for eastern_seaboard_mollusks. The profile features a blue and white logo and a bio that reads 'Eastern Seaboard Mollusks Multi-institutional project. Funded by: @nsfgo @eastern_seaboard_mollusks www.facebook.com'. It shows 9 posts and 153 followers. Two featured posts are visible: 'Observations' and 'Quick Tips'. Below the featured posts is a grid of images, including a close-up of a mollusk shell and a tray of shells.

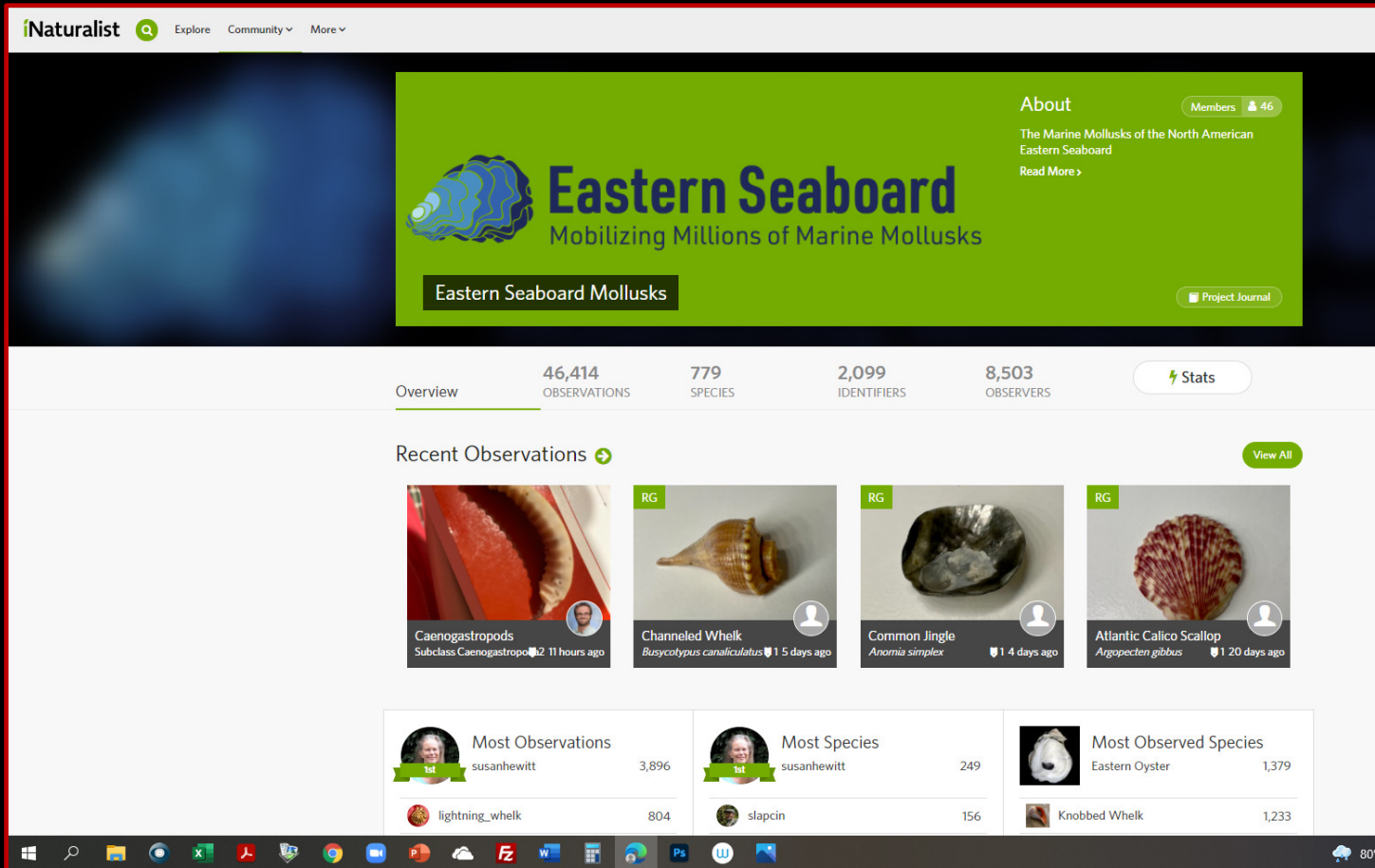
Facebook group page for Eastern Seaboard Mollusks. The page features a blue and white logo and the text 'Eastern Seaboard Mobilizing Millions of Marine Mollusks'. It indicates it is a public group with 254 members. The 'About' section states: 'This Facebook group is dedicated to promoting and discussing mollusks of the Eastern Seaboard of the United States. It is based on 'Mobilizing Millions of Marine Mollusks'. The group is public and visible. A post by José Henrique Leal is visible, showing a photo of a tray of shells. Another post by The Academy of Natural Sciences is also visible, mentioning '#MolluskMonday' and 'Wedge Shells (Donax) from the beaches of the US Eastern Seaboard.'

@EMollusks

@eastern_seaboard_mollusks

<https://www.facebook.com/groups/easternseaboardmollusks>

iNaturalist



iNaturalist Explore Community More

Eastern Seaboard

Mobilizing Millions of Marine Mollusks







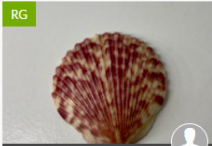

About Members 46







The Marine Mollusks of the North American Eastern Seaboard
[Read More](#)

[Project Journal](#)

Overview **46,414** OBSERVATIONS **779** SPECIES **2,099** IDENTIFIERS **8,503** OBSERVERS [Stats](#)

Recent Observations [View All](#)

Image	Species	Observer	Time
	Caenogastropods Subclass Caenogastropoda		12 11 hours ago
	Channeled Whelk <i>Busycotypus canaliculatus</i>		1 5 days ago
	Common Jingle <i>Anomia simplex</i>		1 4 days ago
	Atlantic Calico Scallop <i>Argopecten gibbus</i>		1 20 days ago

Category	User	Count
Most Observations	 susanhewitt	3,896
	 lightning_whelk	804
Most Species	 susanhewitt	249
	 slapcin	156
Most Observed Species	 Eastern Oyster	1,379
	 Knobbed Whelk	1,233

<https://www.inaturalist.org/projects/eastern-seaboard-mollusks>





Eastern Seaboard

Mobilizing Millions of Marine Mollusks