THE MARINE BIOLOGICAL ASSOCIATION

Incorporated by Royal Charter

Marine Life Recording at the Marine Biological Association: Developments and plans for the future

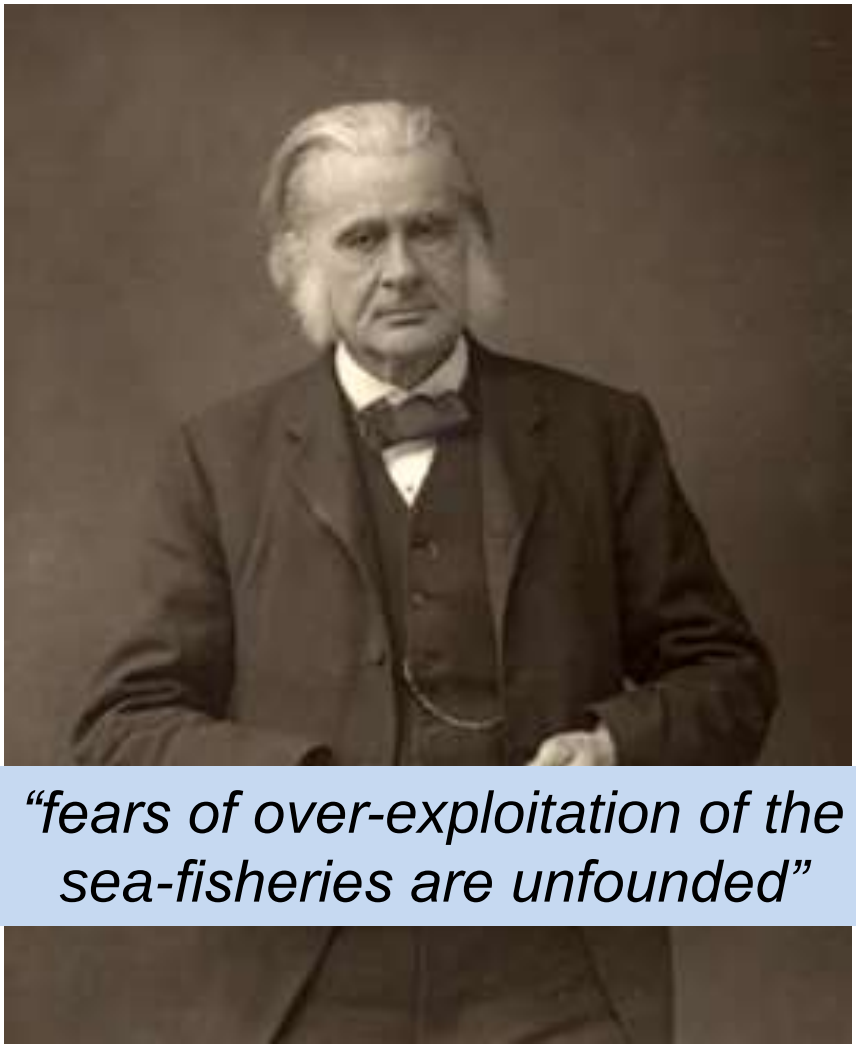
Esther Hughes
@theMBAUK @SealifeSurvey

About this talk

- Historical recording practices at the Marine Biological Association
- Recent and current marine life recording
- MBA's roles, challenges and opportunities

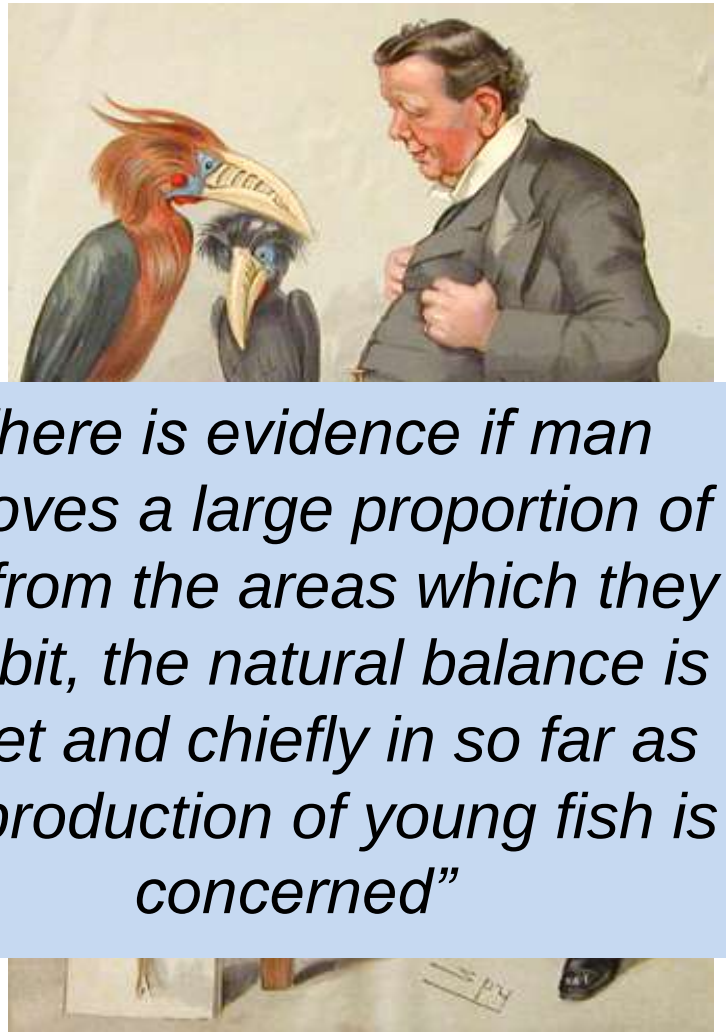
“Advancing marine science through research, communication and education since 1884”

www.mba.ac.uk



"fears of over-exploitation of the sea-fisheries are unfounded"

Thomas H. Huxley, c. 1888.
(Photo by W. & D. Downey)



"There is evidence if man removes a large proportion of fish from the areas which they inhabit, the natural balance is upset and chiefly in so far as the production of young fish is concerned"

E. Ray Lankester, 1905.
(Drawing by Leslie Ward for *Vanity Fair*)

The MBA Aquarium.

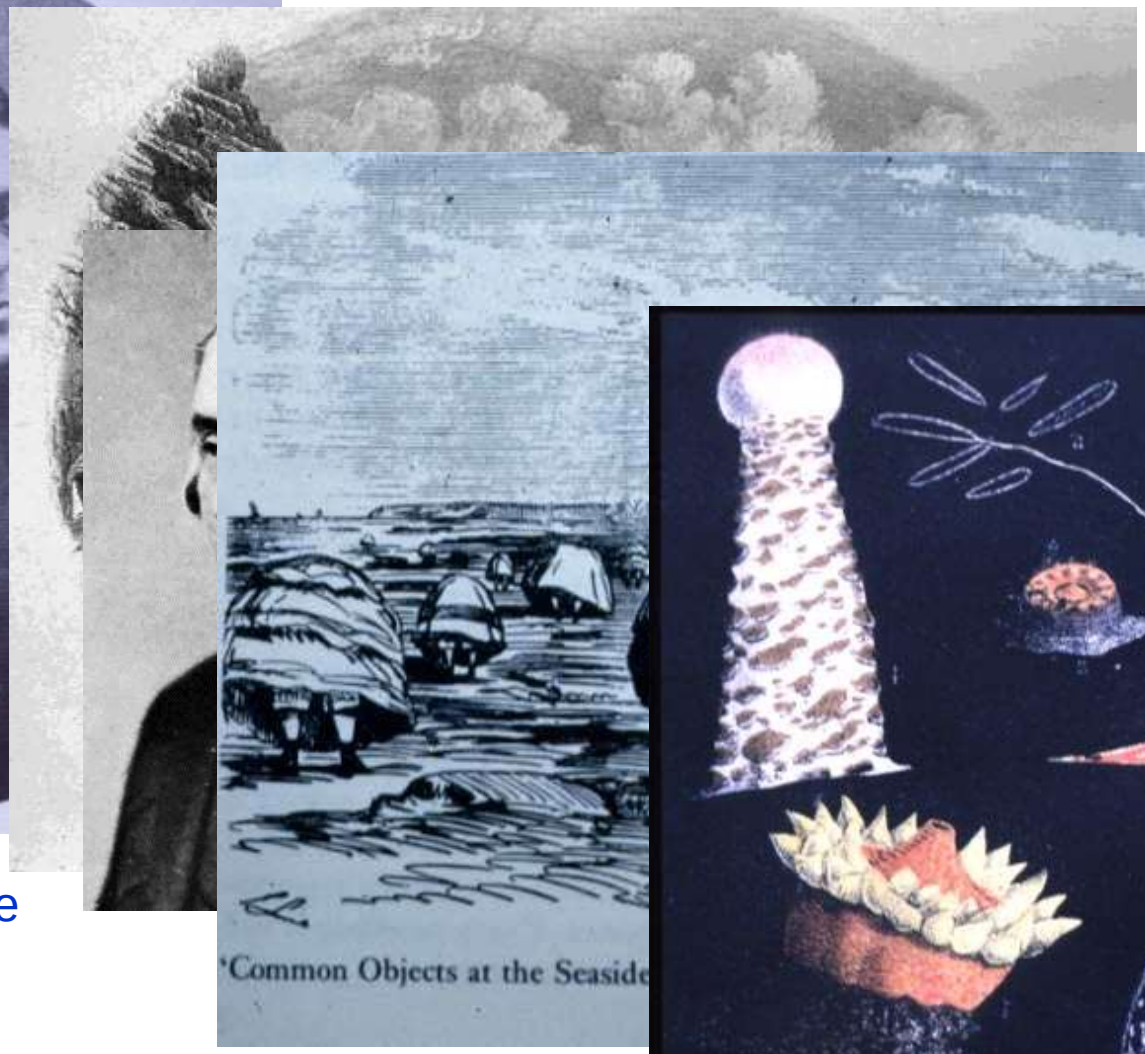
D. P. Wilson and Ebenezer Ford outside the MBA, 1930's.

Sledge Party, British National Antarctic Expedition, 1901–04.

Three King penguin heads by Dr Edward Wilson, 22 November 1901.

Carrying-on a tradition

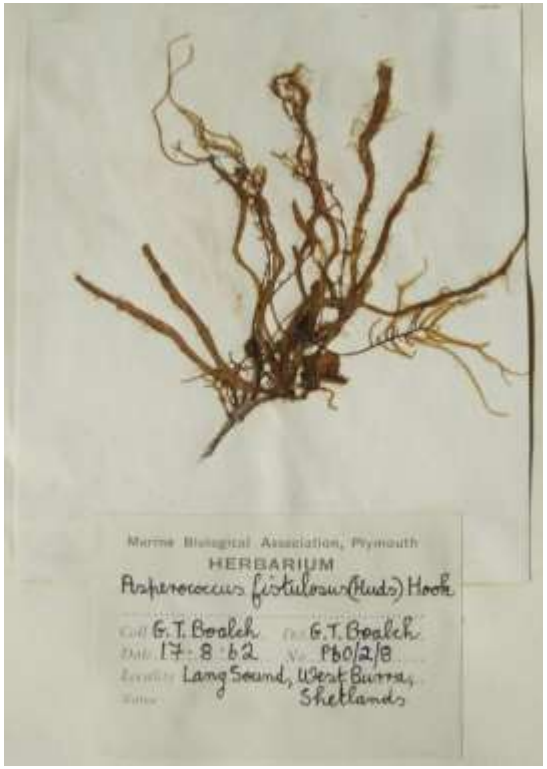
Philip Henry Gosse

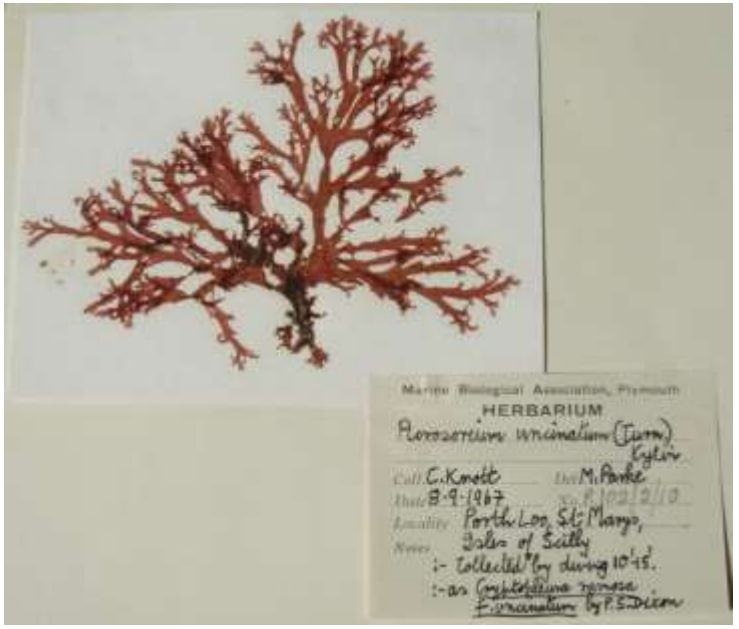


Scarlet & gold star coral

The MBA Herbarium

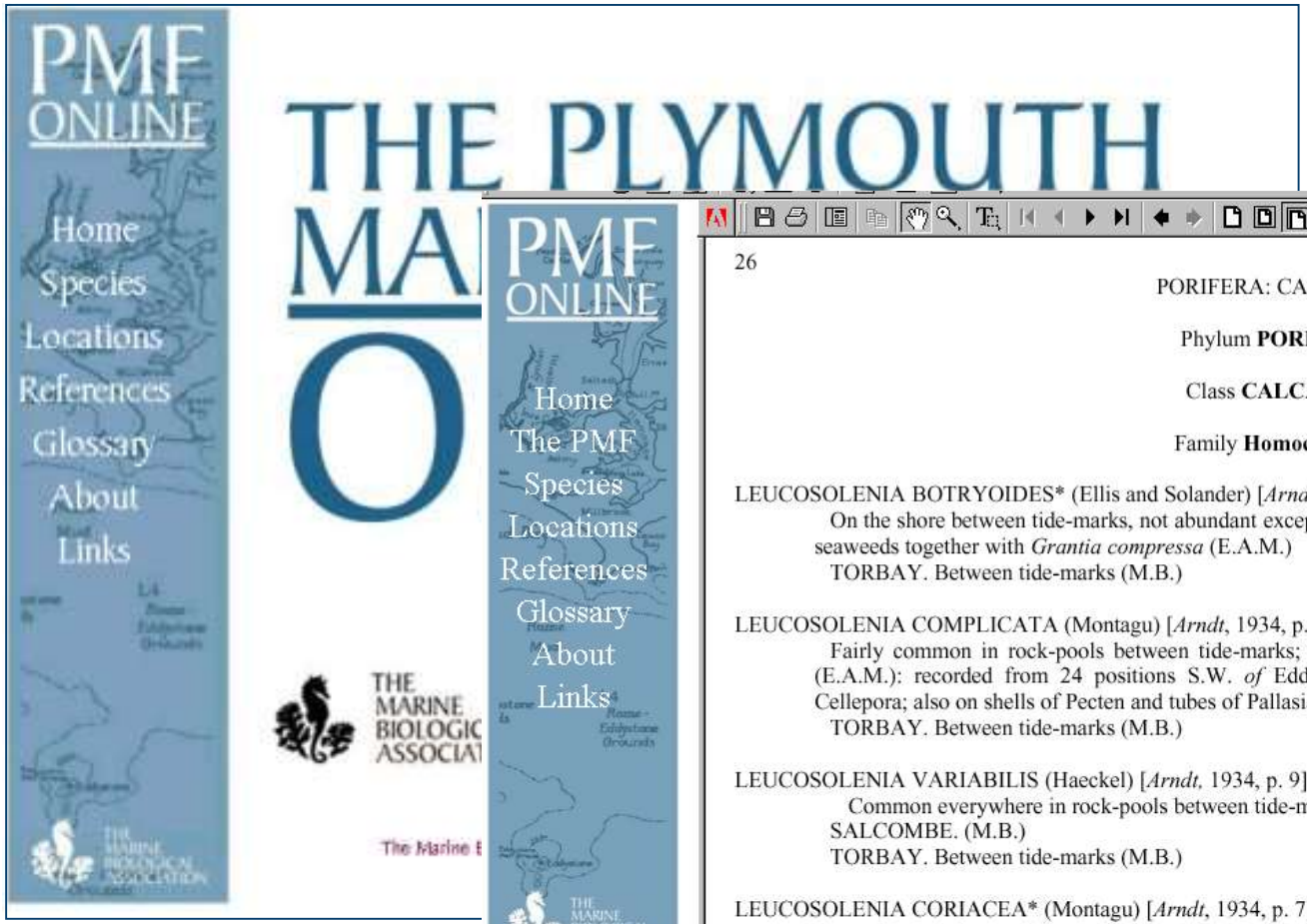
A collection of preserved specimens of algae collated since the mid-nineteenth century.

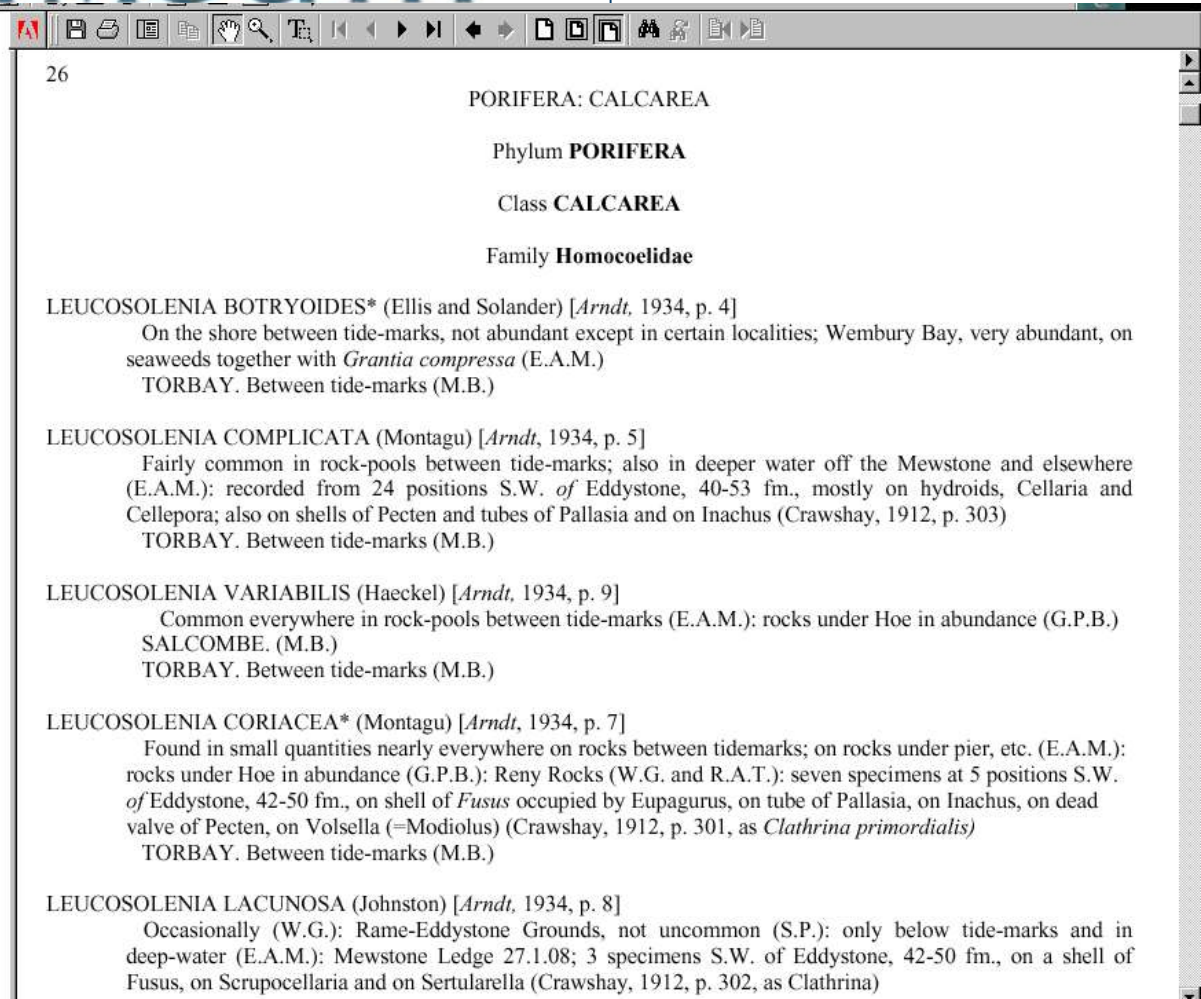




Example: **Plymouth Marine Fauna**

www.mba.ac.uk/pmf





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PORIFERA: CALCAREA

Phylum **PORIFERA**

Class **CALCAREA**

Family **Homocoelidae**

LEUCOSOLENIA BOTRYOIDES* (Ellis and Solander) [*Arndt,* 1934, p. 4]
On the shore between tide-marks, not abundant except in certain localities; Wembury Bay, very abundant, on seaweeds together with *Grantia compressa* (E.A.M.)
TORBAY. Between tide-marks (M.B.)

LEUCOSOLENIA COMPLICATA (Montagu) [*Arndt*, 1934, p. 5]
Fairly common in rock-pools between tide-marks; also in deeper water off the Mewstone and elsewhere (E.A.M.): recorded from 24 positions S.W. *of* Eddystone, 40-53 fm., mostly on hydroids, Cellaria and Cellepora; also on shells of Pecten and tubes of Pallasia and on Inachus (Crawshay, 1912, p. 303)
TORBAY. Between tide-marks (M.B.)

LEUCOSOLENIA VARIABILIS (Haeckel) [*Arndt,* 1934, p. 9]
Common everywhere in rock-pools between tide-marks (E.A.M.): rocks under Hoe in abundance (G.P.B.)
SALCOMBE. (M.B.)
TORBAY. Between tide-marks (M.B.)

LEUCOSOLENIA CORIACEA* (Montagu) [*Arndt*, 1934, p. 7]
Found in small quantities nearly everywhere on rocks between tidemarks; on rocks under pier, etc. (E.A.M.): rocks under Hoe in abundance (G.P.B.): Reny Rocks (W.G. and R.A.T.): seven specimens at 5 positions S.W. *of* Eddystone, 42-50 fm., on shell of *Fusus* occupied by Eupagurus, on tube of Pallasia, on Inachus, on dead valve of Pecten, on Volsella (=Modiolus) (Crawshay, 1912, p. 301, as *Clathrina primordialis)*
TORBAY. Between tide-marks (M.B.)

LEUCOSOLENIA LACUNOSA (Johnston) [*Arndt,* 1934, p. 8]
Occasionally (W.G.): Rame-Eddystone Grounds, not uncommon (S.P.): only below tide-marks and in deep-water (E.A.M.): Mewstone Ledge 27.1.08; 3 specimens S.W. of Eddystone, 42-50 fm., on a shell of Fusus, on Scrupocellaria and on Sertularella (Crawshay, 1912, p. 302, as Clathrina)

SPECIES: CONGER VULGARIS (Cuy.) (CONTINUED)

GROUP:

DATE	LOCALITY	DEPTH (HT.)		ABUNDANCE, SIZE, HABITAT, BREEDING, ETC.	OBSERVER
20.8.09	Rhos, Colwyn Bay.		[illegible]	One 5' 10", 40 stranded.	
4.11.07	Llandudno		[illegible]	One 23 lbs. R.W.Jones.	H.E.F.1919
13.8.50	Vaynol Shore	LWST	[illegible]	Under stone. F. serratus zone. 1 spp. ca. 18" long.	CBJ.
Sept. 1952.	Tal y Foel		[illegible]	Under a stone at low water mark.	DJC.
June-Sept. 1937-39.	Porthdafarch - Trearddur Bay. Stanley Embankment.	—	[illegible]	Sev. spp. caught on hand-lines.	CB-J.
August 1940	Valley shore Beddmanarch Bay	LWN	[illegible]	Under ledge of boulder. 1 sp. 4' long.	CBJ.
Sept - Nov 1964	Trearddur Bay		[illegible]	Frequently seen by divers	T. Carefoot

Recent times - professional surveys and surveillance

MarLIN: by 2010, an authoritative baseline of marine life distribution around Britain & Ireland to identify impacts of:

Anemonia viridis

Sargassum muticum

Great auk

Climate change

About 60 established non-native species and rising

Introduced species

Habitats and species are being lost or damaged

Human activities

Current Recording

Online recording

www.mba.ac.uk/recording

Phone: 01752 633291

Email: recording@mba.ac.uk

Sealife Survey

THE MARINE BIOLOGICAL ASSOCIATION

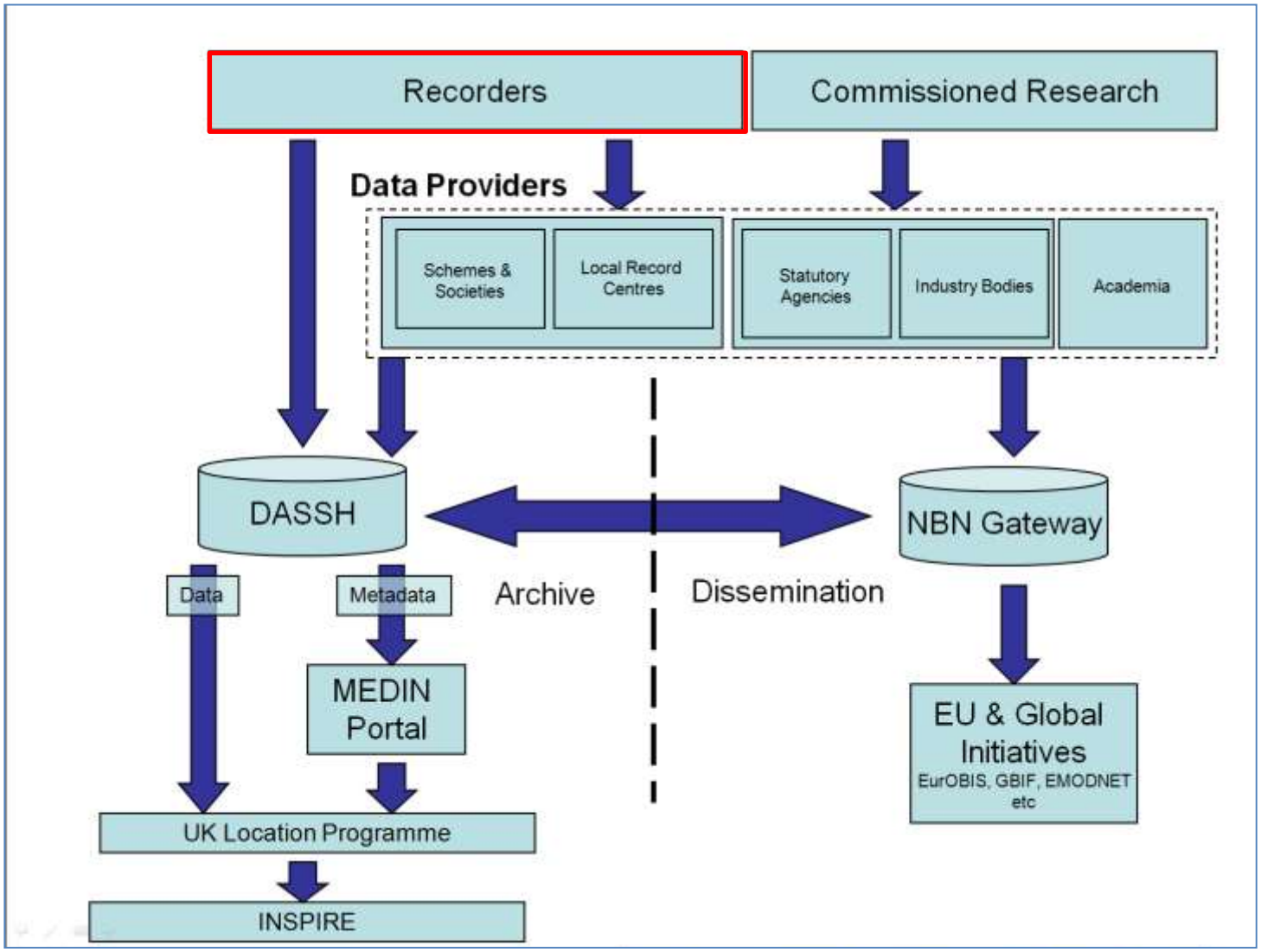
Data Standardisation

	V	W	X	Y	Z	AA	AB	AC	AD	AE
1	taxonName	aphiaID	originalName	qualifi	abu	abundanceUnits	strandi	determine	gender	developmentS
3	Actinia equina	100803	Actinia equina		P	Presence/Absence		Jack Sewell		
4	Aeolidia papillosa	138709	Aeolidia papillosa		P	Presence/Absence		Jack Sewell		
5	Ammodytes	125909	Ammodytes		P	Presence/Absence		Jack Sewell		
6	Ammothea hilgendorfi	134607	Ammothea hilgendorfi		P	Presence/Absence		Jack Sewell		
7	Amphipholis squamata	125064	Amphipholis squamata		P	Presence/Absence		Jack Sewell		
8	Anemonia viridis	100808	Anemonia viridis		P	Presence/Absence		Jack Sewell		
9	Anguilla anguilla	126281	Anguilla anguilla		P	Presence/Absence		Jack Sewell		
10	Arenicola marina	129868	Arenicola marina		P	Presence/Absence		Jack Sewell		
11	Austrominius modestus	712167	Austrominius modestus		P	Presence/Absence		Jack Sewell		
12	Balanus crenatus	106215	Balanus crenatus		P	Presence/Absence		Jack Sewell		
13	Perforatus perforatus	535477	Perforatus perforatus		P	Presence/Absence		Jack Sewell		
14	Botryllus schlosseri	103862	Botryllus schlosseri		P	Presence/Absence		Jack Sewell		
15	Buccinum undatum	138878	Buccinum undatum		P	Presence/Absence		Jack Sewell		
16	Buglossidium luteum	127153	Buglossidium luteum		P	Presence/Absence		Jack Sewell		
17	Carcinus maenas	107381	Carcinus maenas		P	Presence/Absence		Jack Sewell		
18	Cerastoderma edule	138998	Cerastoderma edule		P	Presence/Absence		Jack Sewell		
19	Cereus pedunculatus	100987	Cereus pedunculatus		P	Presence/Absence		Jack Sewell		
20	Chondria coerulescens	144796	Chondria coerulescens		P	Presence/Absence		Jack Sewell		
21	Chondrus crispus	145625	Chondrus crispus		P	Presence/Absence		Jack Sewell		
22	Ciona intestinalis	103732	Ciona intestinalis		P	Presence/Absence		Jack Sewell		
23	Colpomenia peregrina	145856	Colpomenia peregrina		P	Presence/Absence		Jack Sewell		
24	Corella eumyota	173223	Corella eumyota		P	Presence/Absence		Jack Sewell		
25	Crangon crangon	107552	Crangon crangon		P	Presence/Absence		Jack Sewell		

General Metadata Form | Station Form (optional) | Sighting Form

Ready

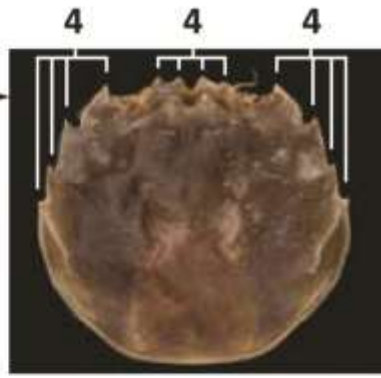
DASSH The Archive for Marine Species and Habitats Data



Have you seen a Chinese mitten crab?

Chinese mitten crab
(*Eriocheir sinensis*)

- Grey-green to dark brown crab
- Long walking legs
- Squarish body up to 86 mm across
- Dense brown 'fur' on the white-tipped claws
- Habitat: rivers, brackish water estuaries, rarely along the marine inshore coast
- 4+4+4 pattern of teeth around front of shell
- Juveniles may lack 'fur' on claws



Not to be confused with:

Common shore crab
(*Carcinus maenas*)

- Lacks 'fur' on claws
- Shell shape more triangular
- Found on the sea shore and in estuaries but never in freshwater rivers

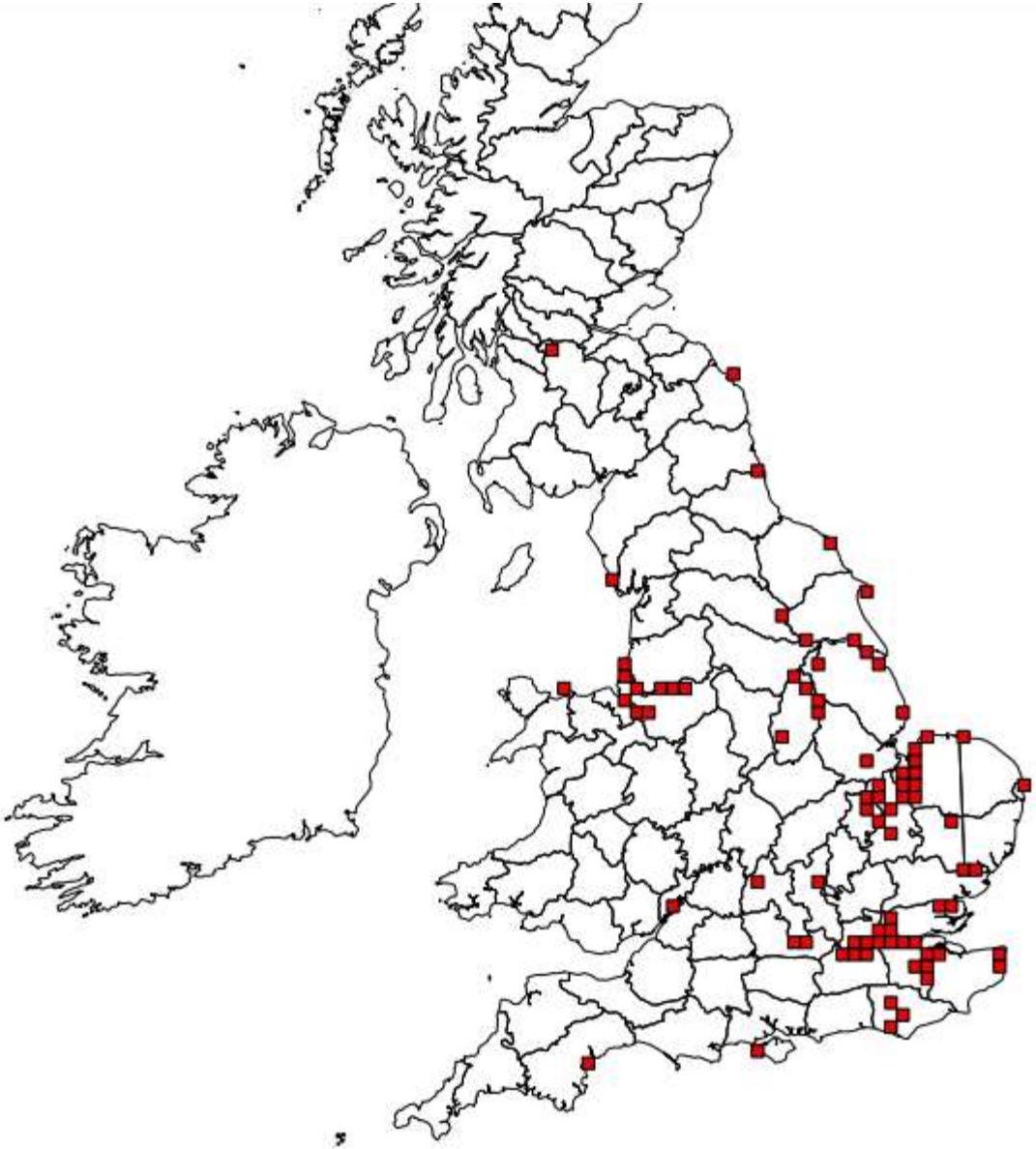
The broad-clawed porcelain crab
(*Porcellana platycheles*)

- 2 long antennae
- Only 3 pairs of walking legs apparent
- Found on the sea shore but never in freshwater rivers

Powerful claws

Handle with care

Chinese Mitten Crab (Eriocheir sinensis)



Wakame Watch Recording Project

Home | Distribution | Identification | Resources | Links | Contact

About

Wakame (Undaria pinnatifida) is a large species of seaweed originating from the Pacific and is considered by the IUCN Invasive Specialist Group to be one of the 100 'world's worst' invasive species, due to its potential to impact ecological and economic interests. Scientists do not currently believe that the true spread of the species is known for Great Britain and North West Europe and producing an accurate distribution of this species is important in terms of managing and controlling spread.

Wakame Watch has been established in order to generate an up-to-date picture of the distribution of the species, by encouraging recording of sightings from the public, in particular, we are asking divers, snorkelers, recreational boat users, fishermen and environmental surveyors to let us know when they encounter the species.

Add a record

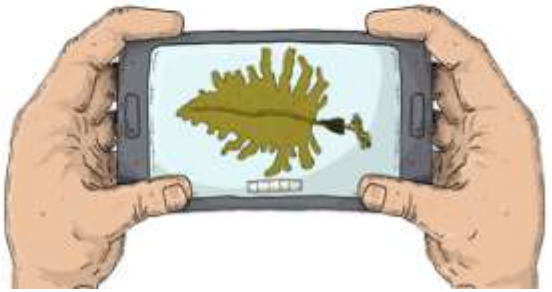
Report your sightings by email, phone or online

Please tell us where and when you observed wakame and your contact details

Online Recording

Text a sighting

You can also send a text or picture message to us on 07806 938789



Home Moments Notifications Messages Search T

Wakame Watch

TWEETS 9 | FOLLOWING 7 | FOLLOWERS 44 | LIKES 2

WakameWatch
@WakameWatch

A project to encourage everyone to look for and report wakame in the North East Atlantic and help scientists develop a picture of its distribution.

Plymouth
wakamewatch.org.uk

Tweet to WakameWatch

33 Followers you know

Tweets | Tweets & replies | Media

WakameWatch @WakameWatch · Apr 7

Wakame of all shapes and sizes have been found in Plymouth over the last month. @thembauk @MacroalgaeUK

MBA Volunteer Surveys

- Members and regular volunteers
- Monthly Survey Events
- Repeat surveys annual (some 5yrs)
- Targeted, Simple, minimal training required
- Interesting seasonal data e.g. *U.pinnatifida* in Plymouth Sound
- *C.gigas* surveys revealed continuing settlement

MARINEXUS

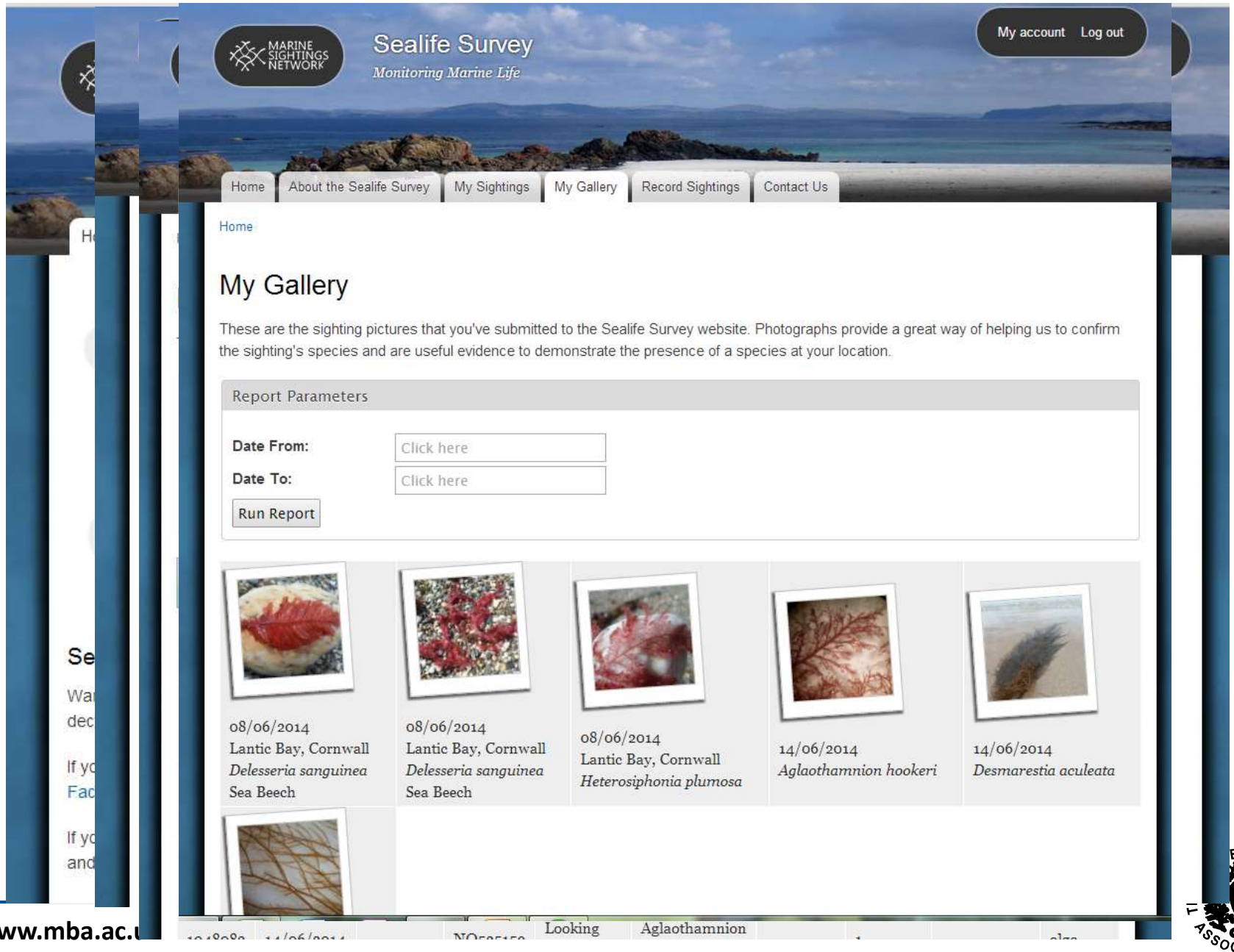
THE MARINE BIOLOGICAL ASSOCIATION

GBNNSIP www.nonnativespecies.org

- MBA - the Marine Node of the GBNNSIP
- Work with partners e.g. NHM, MCS, BPS, Seasearch etc.
- Horizon scanning
- Recording & Reporting
- Alert system and fast track
- Making distribution information rapidly available
- Factsheets and register
- Archive - DASSH and NBN

Rapana venosa

Recording your sightings



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#SocialMedia

ResearchGate

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www.mba.ac.uk

THE MARINE BIOLOGICAL ASSOCIATION

PHOTOS

UPCOMING EVENTS

Sealife Survey shared The Marine Biological Association of the UK's photo.

Published by Esther Hughes [?] · 20 April at 20:46 ·

The Marine Biological Association of the UK

Published by Jack Sewell [?] · 1 April ·

Want to learn more about seaweeds? Why not come along to our 'Introduction to Seaweed' Short Course in May? https://goo.gl/ZkP4qz
There's a big discount for MBA members!

"A learned society advancing marine science through research, communication and education"

www.mba.ac.uk

THE MARINE BIOLOGICAL ASSOCIATION


Emmie Readman @inkpotblemmie · Apr 7
Beautiful snakelocks anemone found today with @WemburyMarine
@rockpoolsteph @Jackapod @christicarol1 #LEMURplus

Bioblitz's

MBA: First UK Marine BioBlitz at Wembury in 2009

Guide to Running a Bioblitz

Trained National Trust staff for 2015 coastal Bioblitz events

~3500 people involved

SEA CHANGE
OUR OCEAN | OUR HEALTH

Sea Change aims to bring about a fundamental "Sea Change" in the way European citizens view their relationship with the sea.

It does this by empowering them – as '**Ocean Literate**' citizens - to take *direct* and *sustainable* action towards healthy seas and ocean, healthy communities and ultimately - a healthy planet.

Capturing Our Coast

UK WATERS ARE TEEMING WITH FANTASTIC MARINE LIFE.

CoCoast is a project that aims to find out more about the species that live in our seas and how we can protect them.

FIND OUT MORE

"A learned society advancing marine science through research, communication and education"

www.mba.ac.uk

Shore Thing

THE SHORE THING
GET INVOLVED!

GET INVOLVED IN INTERTIDAL RECORDING

THE MARINE BIOLOGICAL ASSOCIATION

About | Data | Resources | Links | Contact | Gallery | Map

The Shore Thing

The Shore Thing is an initiative of the Marine Biological Association, working with schools and community groups around the British Isles to collect information on rocky sea shore life. The project follows on from the UK's Marine Biodiversity and Climate Change Programme (MarClim). MarClim provides evidence that recent climate change has altered the abundance, population structure and biogeographic ranges of a number of intertidal indicator species. The survey protocol and methodologies have been developed from MarClim. All the information collected by volunteers will be made available online and will help to build a picture of the present state of UK rocky shores and measure change in the future.

Like Share One person likes this. Be the first of your friends.

Follow @ShoreThing_MBA

The Asian Shore Crab (*Hemigrapsus sanguineus*) reaches UK shores....

Two sightings of the non-native Asian shore crab (*Hemigrapsus*

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BLUE SOUND PROJECT

- Home
- Events
- Locations
- Games
- Downloads
- Action Group

Welcome to the Blue Sound Project! Home of the Beach Rangers and the Blue Sound Action Group who are working to help connect more people with the marine environment.

Latest Uploads

Latest images on the **Blue Sound Flickr page**

flickr

Join our Facebook Group

Visit our Flickr page

Join the Action Group

THE MARINE BIOLOGICAL ASSOCIATION

Current MBA roles:

Helping to develop common standards and interoperability – looking at the national picture

Providing resources

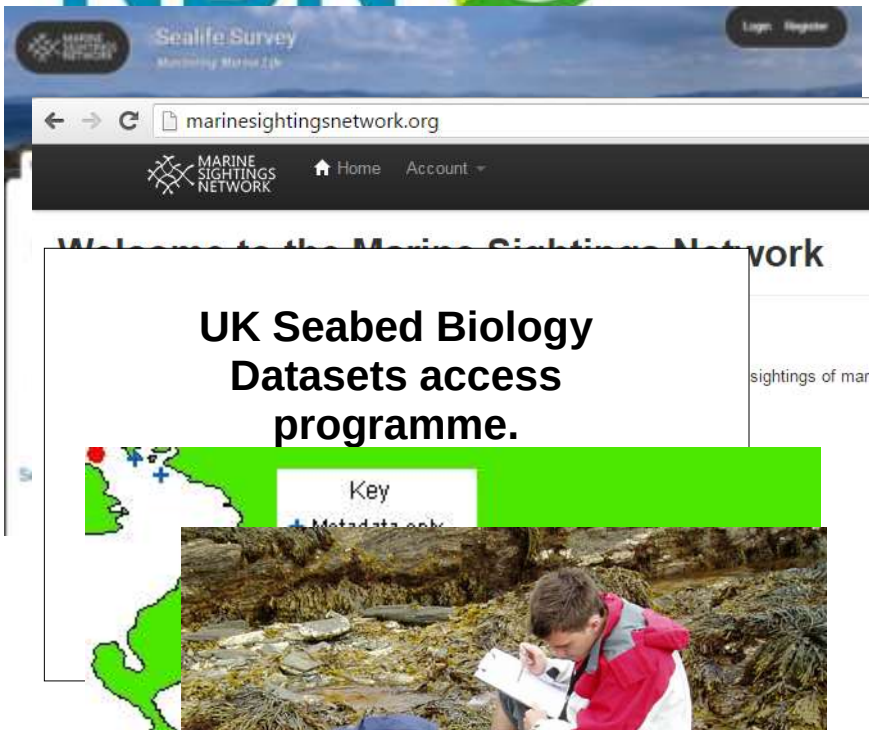
Linking to other schemes

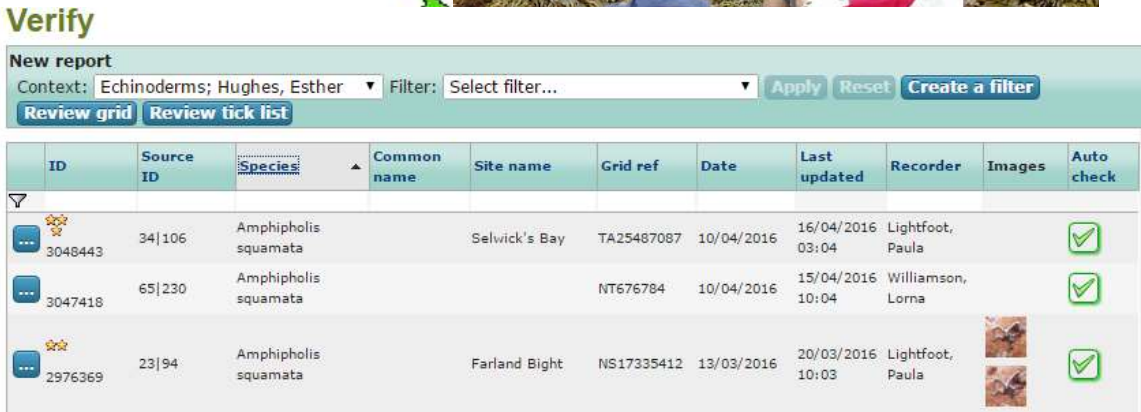
Identifying data sets

Accessing / accepting data sets

Encouraging and dev volunteer recorders

Ensuring accessibility





Challenges

Expectations are high

Multitude of resources can be confusing

Marine life identification skills

Entering records

Accuracy

‘Professional’ societies

Species suitability

Funding

The future of recording at the MBA?

- Improving recording schemes:
  - development of training
  - providing support (identification guides, reporting schemes)
  - Providing opportunities (schemes & events)
- Mobile friendly recording interfaces and applications

The future of recording at the MBA?

Developing infrastructure:

- Databases, data flows & opportunities for sharing data
- Data entry interfaces and resources which are meaningful
- Maintenance of data flow
- Data dissemination to decision makers
- Training in verification procedures for high quality data

Thank you

For more information please contact

recording@mba.ac.uk
01752 633291

@SealifeSurvey @theMBAUK