

# Advancing Citizen Science

for Coastal and Ocean Research

Position Paper 23



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## REFERENCE WITH ALL THE AUTHORS:

**GARCIA-SOTO, C.**, van der Meeren, G. I., Busch, J. A., Delany, J., Domegan, C., Dubsky, K., Fauville, G., Gorsky, G. von Juterzenka, K., Malfatti, F., Mannaerts, G., McHugh, P., Monestiez, P., Seys, J., Węśławski, J.M. & Zielinski, O. (2017) Advancing Citizen Science for Coastal and Ocean Research. French, V., Kellett, P., Delany, J., McDonough, N. [Eds.] Position Paper 23 of the European Marine Board, Ostend, Belgium. 112pp. ISBN: 978-94- 92043-30-6

## DOWNLOAD:

[https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB\\_PP23\\_Citizen\\_Science\\_web.pdf](https://www.marineboard.eu/sites/marineboard.eu/files/public/publication/EMB_PP23_Citizen_Science_web.pdf)

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[www.marineboard.eu](http://www.marineboard.eu)

European  
**MARINE BOARD**  
Advancing Seas & Ocean Science

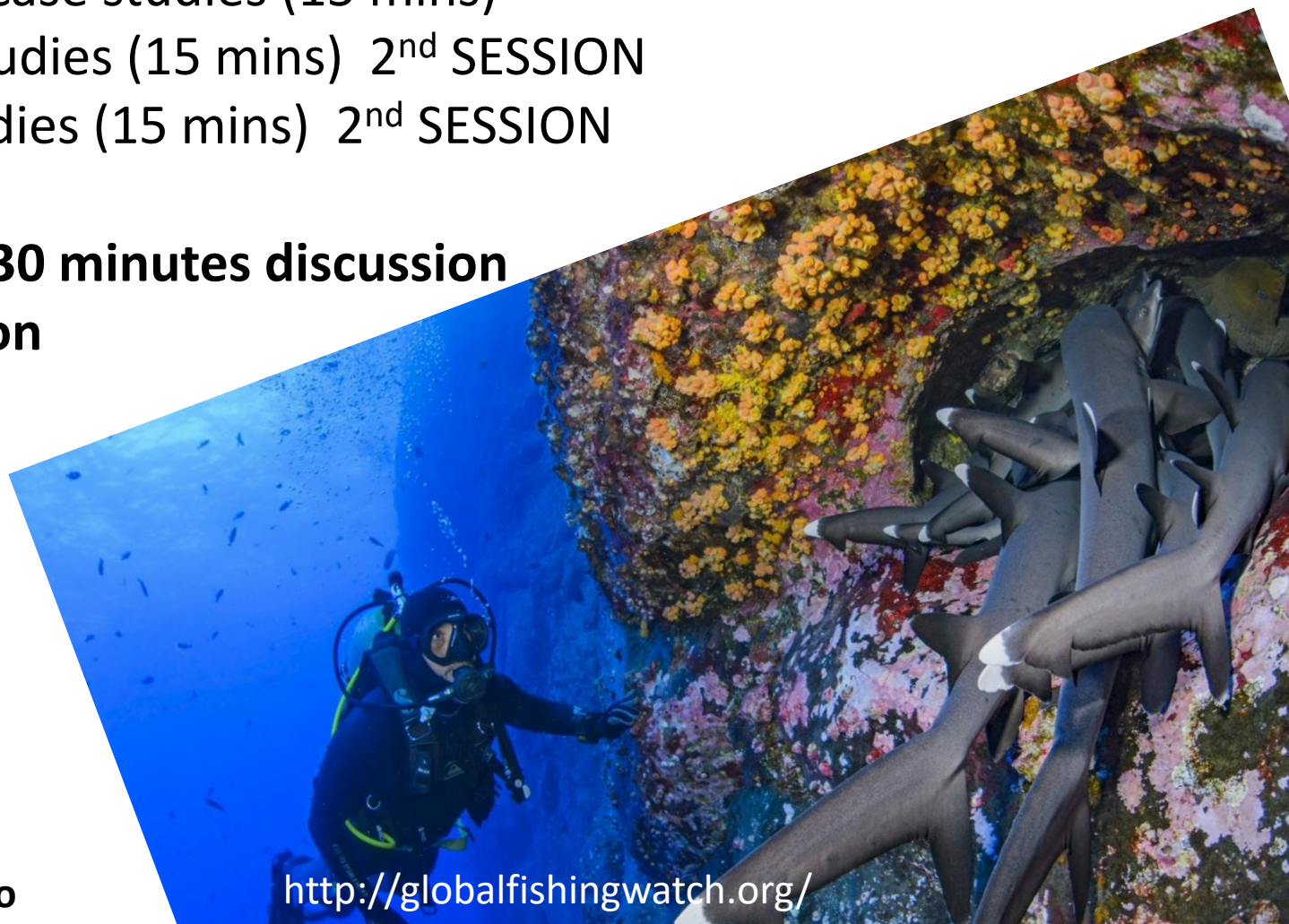


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## WEBINAR STRUCTURE

- Introduction by Sheila Heymans (5-7 mins)
- **Brief presentation of the EMB Document (5-7 mins)**
- Norwegian case studies (15 mins)
- Irish case studies (15 mins) 2<sup>nd</sup> SESSION
- UK case studies (15 mins) 2<sup>nd</sup> SESSION

**Followed by 30 minutes discussion  
in each session**



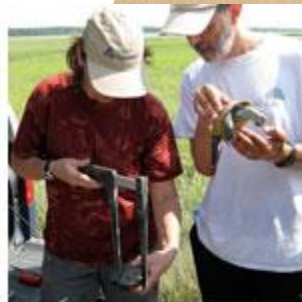
# Working Group Objectives (ToR EMB)



- 01- COMMON FACTORS OF SUCCESS
- 02- MARINE DATA AMENABLE TO CS
- 03- BEST PRACTICES
- 04- OVERALL RECOMMENDATIONS



<http://blogs.massaudubon.org/wellfleetbayCITIZENSCIENCE/>



Field Notes: Citizen Science at Wellfleet Bay

# Working Group Objectives (new objectives)



## 4 ADITIONAL CHAPTERS

- Role of Technology in Citizen Science: Sensors, Apps and E-Science
- Coordination of Projects
- Ocean Literacy and Education
- From Citizen Science to Marine Policy

### WHAT IS CITIZEN SCIENCE?

Citizen science occurs when ordinary people like you help to conduct real scientific research. By participating in citizen science projects, you can contribute to our understanding of our world and make it a much better place.

You don't have to have an advanced degree to contribute, and it's something you can do in your spare time. Check out a few of the amazing results of citizen science projects below, and learn how you can join in the fun!

#### DATA

50 million classifications were received by the Galaxy Zoo project in its first year, contributed by more than 100,000 people!

#### PAPERS

More than 60 scientific papers have used Cornell Lab citizen science data collected by bird watchers since 1997.

#### DISCOVERIES

Foldit players discovered the structure of a protein-cutting enzyme produced by an AIDS-like virus in monkeys...in just three weeks.

#### A FEW WAYS YOU CAN PARTICIPATE:

- Donating money:** The easiest way to contribute to a project is to give money! As a crowdfunding site, Monarch Watch offers the ability to contribute to a project.
- Set and forget:** Another easy way to be a citizen scientist is to install a program called BOINC on your computer and let it collect data while you work your email.
- Web-based:** Way more fun is actually doing the science yourself: you can listen to bat calls at Bat Detectives, or sort through ocean images at Seafloor Observers.

#### WHAT DO I GET OUT OF IT?

- Fun!** You never know what you might find.
- An education!** Learn about your favorite topics in depth while contributing.
- A sense of purpose!** Online games and reality TV are great fun, but winning doesn't provide a way to put your spare time to use in a meaningful way.

"There are a lot of smart, educated, thinking people who are not in the tenure track who have a lot to contribute to the world."  
- Jessica Richman, uBiome

FIND OUT MORE AT:  
[WWW.CITIZENSCIENCECENTER.COM](http://WWW.CITIZENSCIENCECENTER.COM)

<http://www.citizensciencecenter.com/CITIZEN-SCIENCE>

<http://blogs.massaudubon.org/wellfleetbayCITIZENSCIENCE/>



## Field Notes: Citizen Science at Wellfleet Bay

# Additional information contained

## 1- Compilation of Marine CS Initiatives in Europe (65 initiatives in Annex 3)



<https://www.floridamuseum.ufl.edu/science/>

NAME	PARTICIPATING COUNTRY/REGION	WEBSITE	SUMMARY
ANEMOON	The Netherlands	<a href="http://www.anemoon.org/">www.anemoon.org/</a>	Biodiversity projects from both the coast and for recreational divers including a national inventory of sea molluscs
Angler Recording Project	UK	<a href="http://www.sharktrust.org/en/anglers_recording_project">www.sharktrust.org/en/anglers_recording_project</a>	Anglers record all catches of shark, skate and ray species to increase understanding of national populations
Basking Shark Watch	UK	<a href="http://www.sharktrust.org/en/basking_shark_project">www.sharktrust.org/en/basking_shark_project</a>	Incidental reporting of basking shark sightings and photographs
Beachwatch	UK	<a href="http://www.mcsuk.org/beachwatch">www.mcsuk.org/beachwatch</a>	A beach cleaning and litter surveying programme
Big Sea Survey	UK	<a href="http://www.marinecitizenscience.com/projects/bigseasurvey.html">www.marinecitizenscience.com/projects/bigseasurvey.html</a>	Gathering ecological data on the range and distribution of coastal marine species
Bioblitz	UK	<a href="http://www.mba.ac.uk/bioblitz">www.mba.ac.uk/bioblitz</a>	Timed race to discover as many species of plant, animal and fungi as possible
Biolit	France	<a href="http://www.biolit.fr">www.biolit.fr</a>	Coastal flora and fauna biodiversity observations supplemented with photographs



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# Additional information contained

## 2- 8 Boxes describing in more detail key Citizen Science Projects in Europe



- COSTWATCH EUROPE



- PLANKTON PLANET



- COCOAST



- SECCHI DISK



- OCEAN SAMPLING DAY



- POSIDONIA NETWORK



- OCCHIO ALA MEDUSA



- CITCLOPS



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## Additional information contained

**3- Some boxes for specific topics raised by the WG**

**CITIZENS SCIENCE AND THE THIRD AGE**

**CITIZEN SCIENCE AND TRADITIONAL KNOWLEDGE**

**CITIZEN SCIENCE AND FISHERS**

**CITIZEN SCIENCE CHILDREN AND EDUCATION**

<http://lmwm.org/>

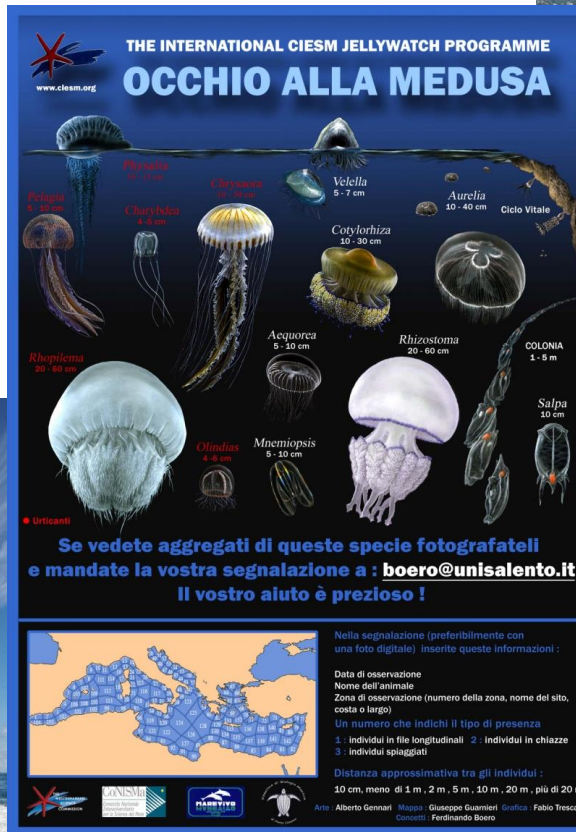


# Identifying the common factors of successful citizen science programmes

## Best Practice Using AARS Categories

- ATENTION
- ACCESIBILITY
- RELEVANCE
- SATISFACTION

[http://www.marevivo.it/news/occhio\\_alla\\_medusa-422](http://www.marevivo.it/news/occhio_alla_medusa-422)



**THE INTERNATIONAL CIESM JELLYWATCH PROGRAMME**  
**OCCHIO ALLA MEDUSA**

Se vedete aggregati di queste specie fotografateli e mandate la vostra segnalazione a : [boero@unisalento.it](mailto:boero@unisalento.it)  
Il vostro aiuto è prezioso !

Nella segnalazione (preferibilmente con una foto digitale) inserite queste informazioni :  
Data di osservazione  
Nome dell'animale  
Zona di osservazione (numero della zona, nome del sito, costa o largo)  
Un numero che indichi il tipo di presenza  
1 - Individui in file longitudinali 2 - Individui in chiazze  
3 - Individui spiaggiati  
Distanza approssimativa tra gli individui :  
10 cm, meno di 1 m, 2 m, 5 m, 10 m, 20 m, più di 20 m

Arta: Alberto Genneri Raposo Giuseppe Galzerani Trullini Fabio Tesco  
Fornaciotti Ferdinando Boero



<https://es.pinterest.com/nzsciencelearn/CITIZEN-SCIENCE/>



<https://sharkresearch.rsmas.miami.edu/participate/CITIZEN-SCIENCE-public-expeditions>



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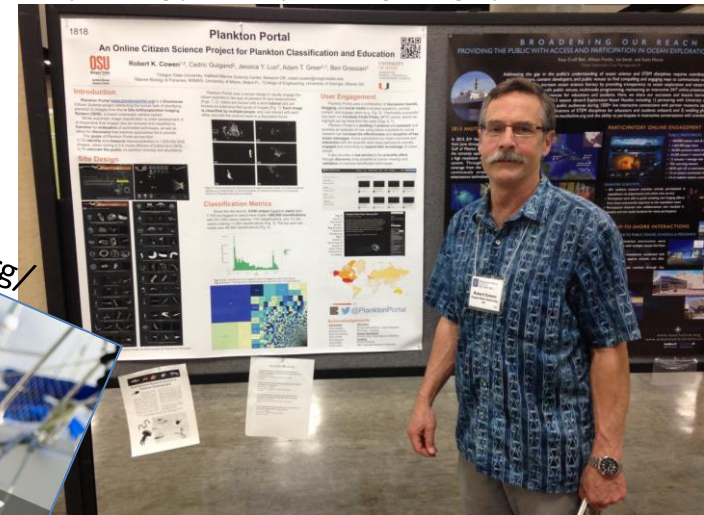
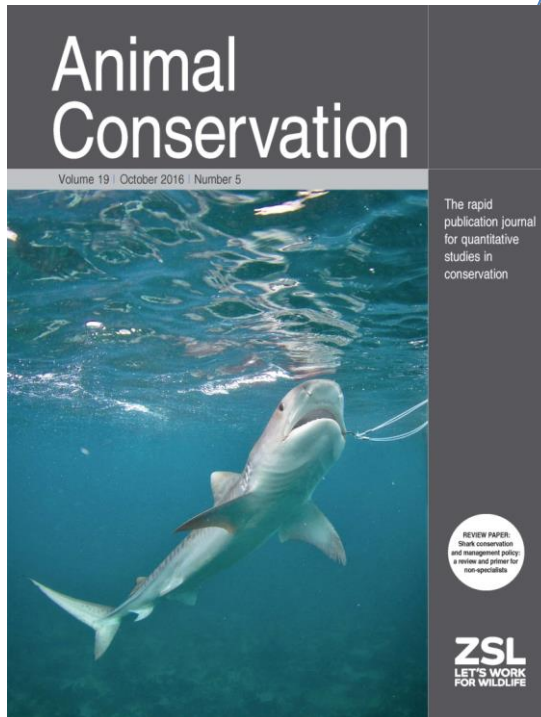
# Identifying the common factors of successful citizen science programmes



## Best Practice Using Standard Project Sections

- OBJECTIVES
- METHODS
- RESULTS
- PUBLICATION

<https://blog.planktonportal.org/category/CITIZEN-SCIENCE>



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# Best practices in Marine Citizen Science



## ***SWOT analysis:***

***List of 30 key questions that CS Project managers and coordinators should ask and address in order to ensure that a project is being run successfully***

- What is the novel idea?
- What is the novel approach?
- What advantages does the project have (knowing the environment, knowing stakeholders, knowing a recruiting pipeline)?
- What are the expertise within the group?
- How could the project become interdisciplinary?
- How could the legal aspect of the project be addressed?
- Are there dedicated scientists who accompany the scientific aspects of the project?
- What unique or lowest-cost resources can the project draw upon that others can't?
- Are there enthusiastic volunteer citizen scientists who are willing to contribute?
- What good opportunities can be identified based on the citizen network created?
- What interesting (climate or environmental) trends have been highlighted?
- Can outreach events be targeted towards new findings?
- Can changes in technology broaden the goals or scope of the project or make them achievable in a shorter timeframe?
- Can changes in government policy related to the field under study facilitate the project?
- Can changes in social patterns, population profiles, lifestyle etc. boost the project?
- What is the legacy of the project?



## 8 FINAL RECOMMENDATIONS OF THE DOCUMENT



- 1-Launching a European Marine Citizen Science Platform
- 2-Driving Best Practice at European Level
- 3-Building Competencies Across Multiple Disciplines
- 4-Better Funding Opportunities

- 5-Facilitating Efficient Management of Citizen-Generated Data
- 6-Empowering Citizen Science to Support Maritime Policy
- 7-Understanding the Wider Benefits of Citizen Science for Marine Science Research and Policy
- 8-Cultivating Ocean Literacy

[http://connectocean.com/ConnectOceanExpeditions/  
community-outreach-social-learning-holiday-packages.](http://connectocean.com/ConnectOceanExpeditions/community-outreach-social-learning-holiday-packages)





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THANKS FOR THE ATTENTION !

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