

RECONNECT

INTERREG V-B “Balkan-Mediterranean 2014-2020”

Regional cooperation for the transnational ecosystem sustainable development

Citizen Science involvement in monitoring the marine environment of Cavo Greco

**Open day activity event for the marine environment, Cavo Greco, Cyprus,
27/03/2019**

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Marine Environment and Society

- The marine environment supports a diverse range of sea life that is important for global biodiversity.
- A healthy marine environment supports our cultural and social well-being, and the ocean's resources contribute to our economy.
- The marine and coastal environment also plays a significant role in the economy and way of life.

What is Citizen Science?

As defined by European Commission in a White paper on Citizen Science:

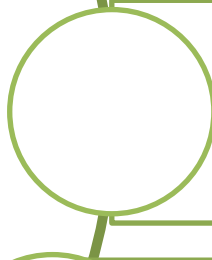
“Citizen Science refers to the general public engagement in scientific research activities when citizens actively contribute to science either with their intellectual effort or surrounding knowledge or with their tools and resources. ”

Benefits of Citizen Science

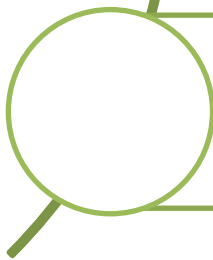
Citizen Science offers immediate benefits to the volunteers who participate in it.



•**Enjoyment:** Many volunteers find Citizen Science activities to be fun.



•**Social community:** Citizen Scientists receive the benefit of participating in the social community enabled by networking tools such as the forum and blog, and meetups in real life.



•**Ability to participate in real science:** Citizen Science allows volunteers to participate in real scientific projects, and to be recognized for this participation.

Benefits of Citizen Science

Citizen Science offers immediate benefits to the volunteers who participate in it.



- Education of the public in science.

- Better attitudes towards science.

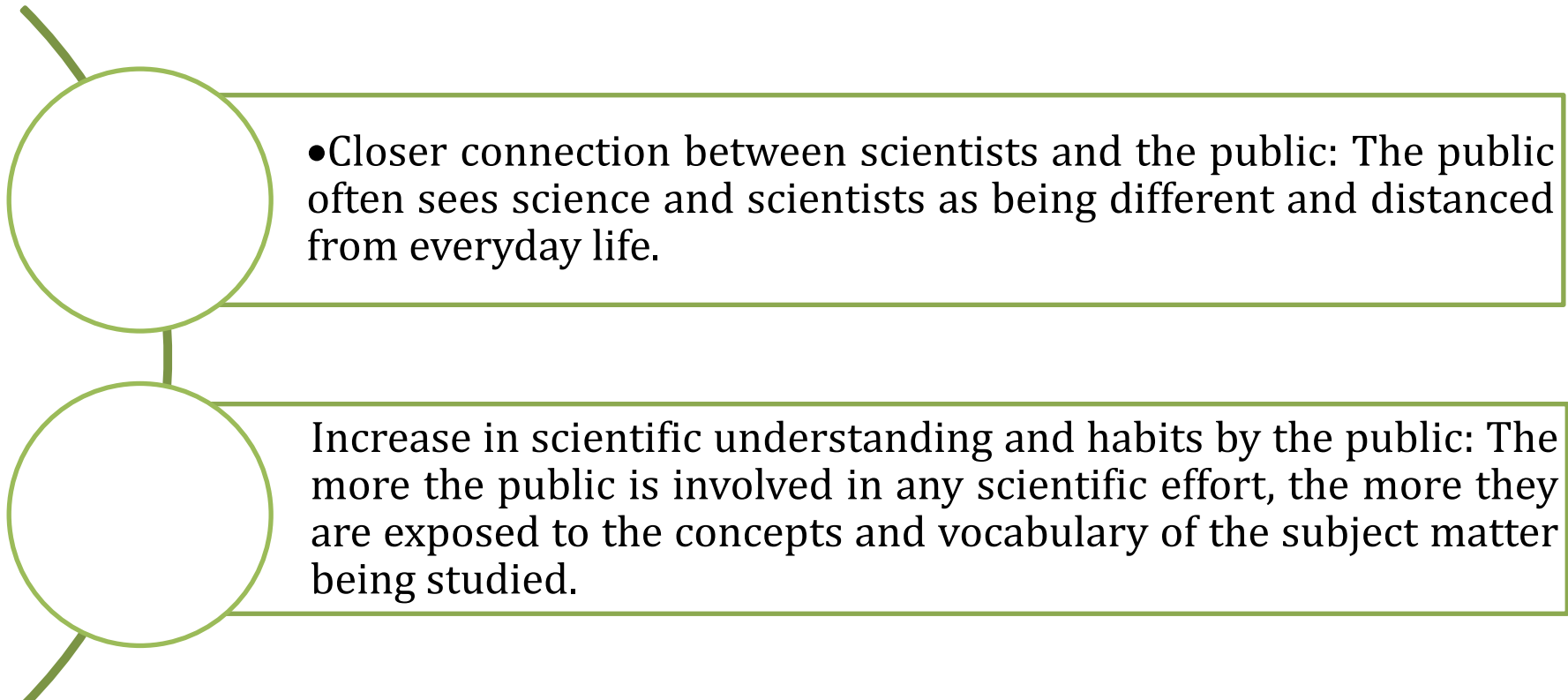
- Improved scientific knowledge and literacy.

- Improved scientific thinking and the ability to use science to solve daily problems.

- Increased awareness and knowledge of various problems.

Benefits of Citizen Science

Citizen Science could also lead to major benefits to society.



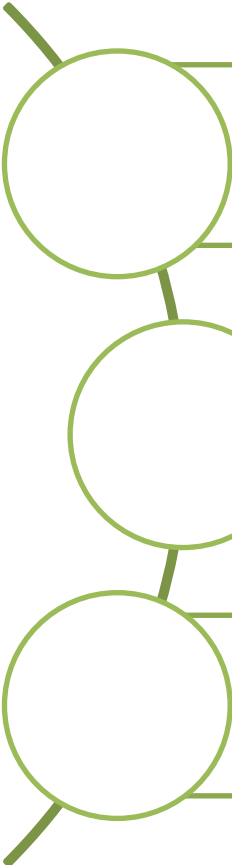
- Closer connection between scientists and the public: The public often sees science and scientists as being different and distanced from everyday life.

- Increase in scientific understanding and habits by the public: The more the public is involved in any scientific effort, the more they are exposed to the concepts and vocabulary of the subject matter being studied.

Citizen Science projects

- Environmental monitoring using citizen science projects has increased worldwide over the past few years.
- These projects have been implemented in many ecosystems including marine and terrestrial environments.
- It not only serves the purpose of increasing knowledge and awareness about the environment, it also increases the amount of information and data that can be collected when funding is limited.

Marine Citizen Science RECONNECT project

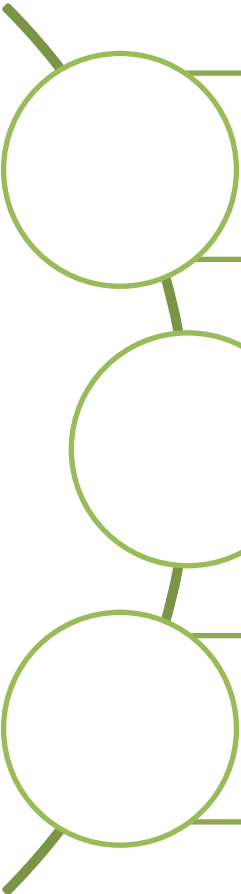


One of the main goals of the project is for the public to be **engaged and involved** in the scientific research which is achieved through the citizen science programs.

Citizen science involves data collection by members of the public that in other cases would be difficult to collect.

Divers will enjoy their dive and at the same time will contribute in the scientific research collecting data.

Importance of divers in Marine Citizen Science



Scuba diving significantly increases the potential of Marine Citizen Science, thanks to the skills and behavioural properties of people who participate in the diving sport.

Engaging scuba divers in marine citizen science plays a crucial role in promoting the acceptance of management decisions.

Divers may receive **personal benefits** such as: increased knowledge or improved skills, a sense of fulfilment or pride, strengthened social bonds, and increased wellbeing in terms of better physical and mental health.

RECONNECT project

The **main outputs** of the RECONNECT project will be to provide information:

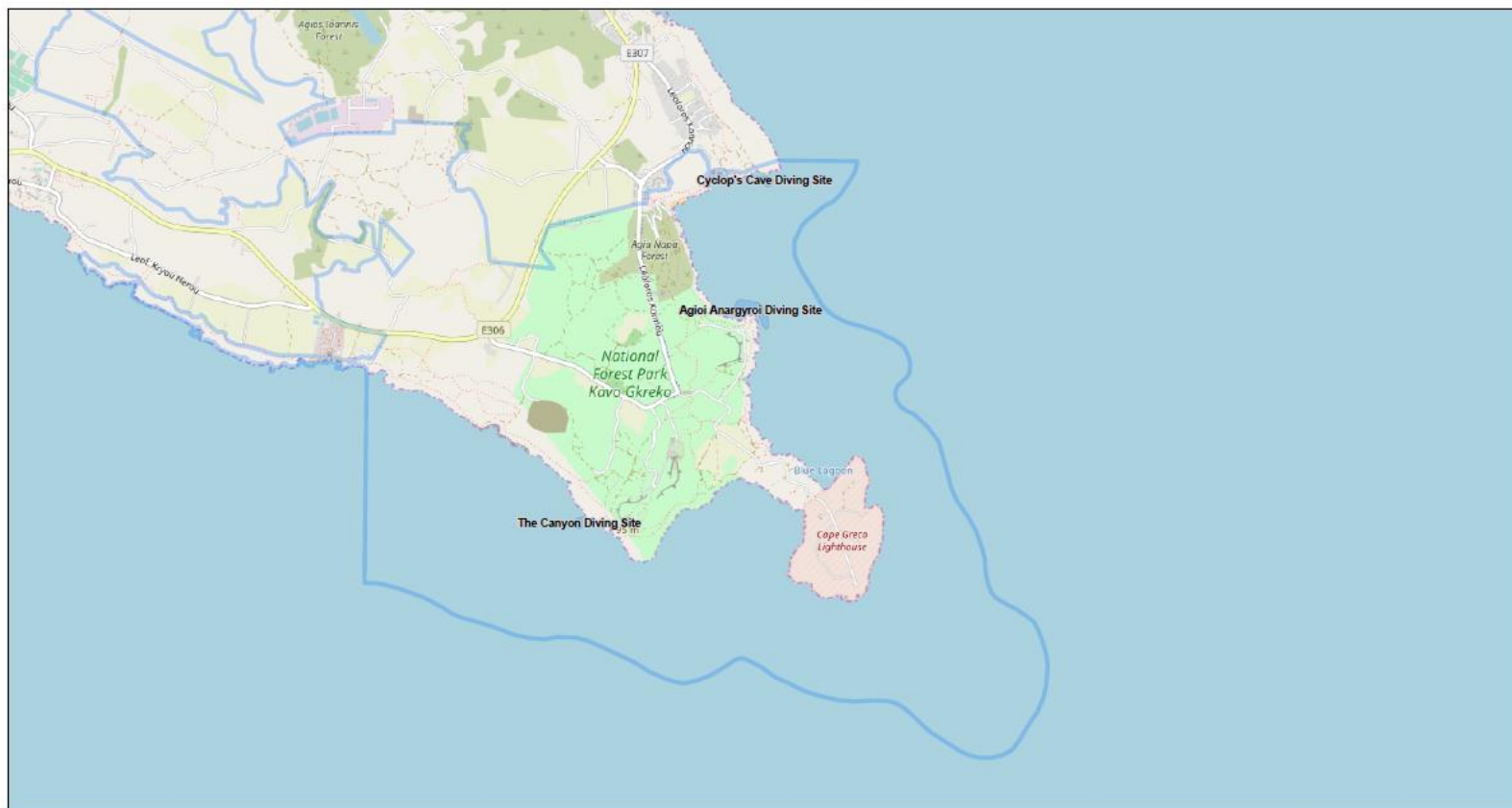
- concerning habitat attributes,
- the essential biodiversity,
- socio-economic and cultural variables.

The **overall goal** of the **data collection** is the:

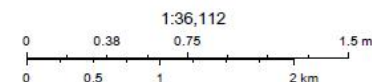
- identification of marine species found in the quadrats,
- monitoring of changes in biodiversity over time.

Study area

Cavo Greco, Cyprus



January 16, 2019

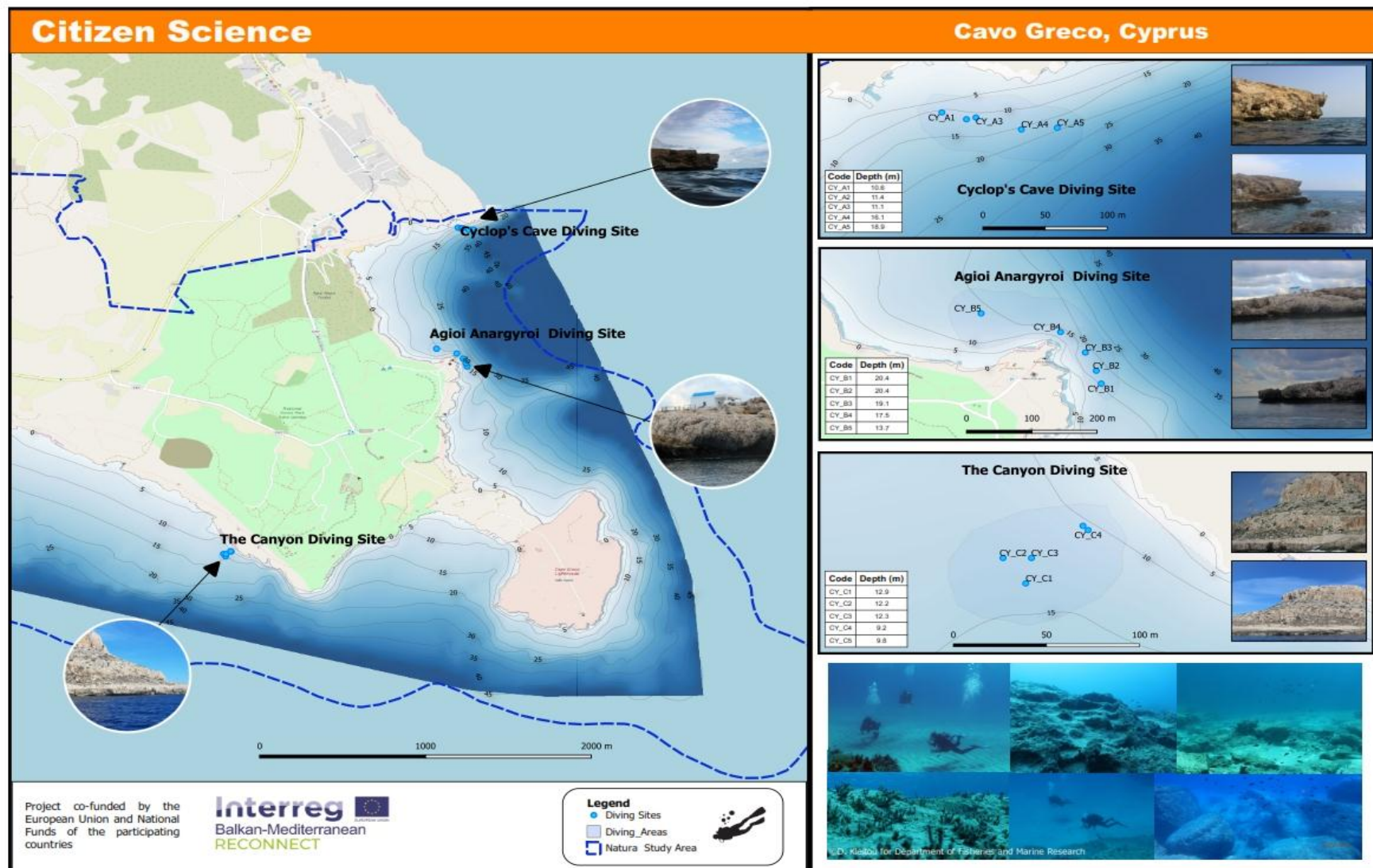


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**Project co-funded by the European Union and
National Funds of the participating countries**

Regional cooperation for the transnational ecosystem sustainable development

Open day activity event for the marine environment, Cavo Greco, Cyprus, 27/03/2019



Study area

In Cavo Greco area (Cyprus), 3 pilot stations were chosen, where, permanent quadrats have been placed in *Posidonia oceanica* meadows. It is expected that there will be an installation of quadrats on hard substrates as well.



Ag. Anargyroi (Chapel):

- The site is located near Cavo Greco, just in front of the chapel of Ag. Anargyroi.
- The depths are between 0-30 meters.
- The substrate is mostly rocky, it alternates with large meadows of *Posidonia oceanica*.
- Entering the water (with caution because in some places there are rough and slippery rocks), depths starts at 7 meters.

Study area

Cyclopes cave:



- The area is accessible both by land and sea.
- The depths of the route are between 0-25 meters.
- The substrate is mostly rocky.
- Entering the water, the substrate is initially rocky for about 50 meters (southeast), reaching 5 meters depth, having the land on our left.

Study area

Canyon:



- Situated at the south side of Cape Greco just under the cliffs, access is from the shore.
- Maximum depth is 18 meters.

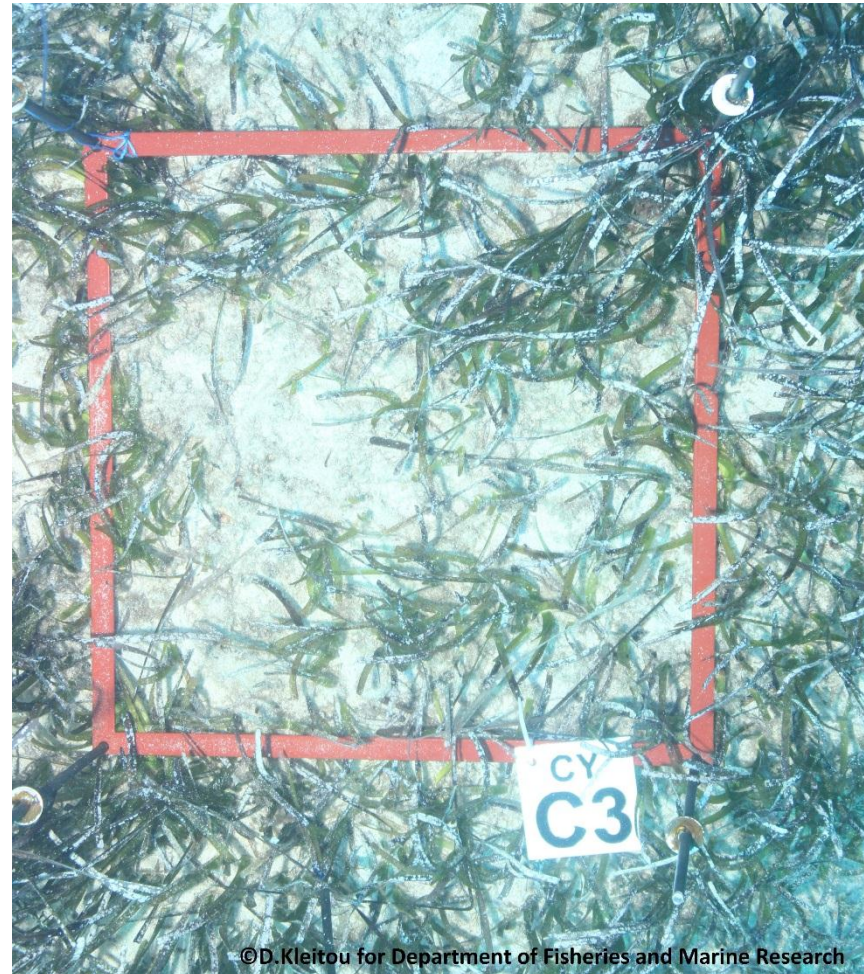
Study area

Each site has:

- 5 permanent quadrats in *Posidonia oceanica* meadows.

It is expected that there will be an installation of quadrats on hard substrates as well.

- Submerged buoys have been attached to the quadrat, rising 1-2 m from the seafloor to mark the quadrats locations, as well as identification labels.



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“You can help! Become a citizen scientist”

Methodology

Step 1: Dive the site

A website where citizens scientists will be able to find GPS coordinates and information regarding the pilot sites has been developed.

<https://cs-reconnect.hcmr.gr>

All citizen scientists should familiarize themselves with the local area of the 3 pilot stations before diving.



RE-CONNECT the lines to protect marine life.

“You can help! Become a citizen scientist”

Methodology

Step 1: Dive the site (continue)

Familiarize yourself with the local area. This can be done by:

- Visiting the project website <https://cs-reconnect.hcmr.gr> and find the coordinates for each quadrat for the dives sites.
- If you have never dived these sites, consider going with someone who is familiarize with the locations (i.e a friend or with a dive center).

Step 2: Search for the quadrats

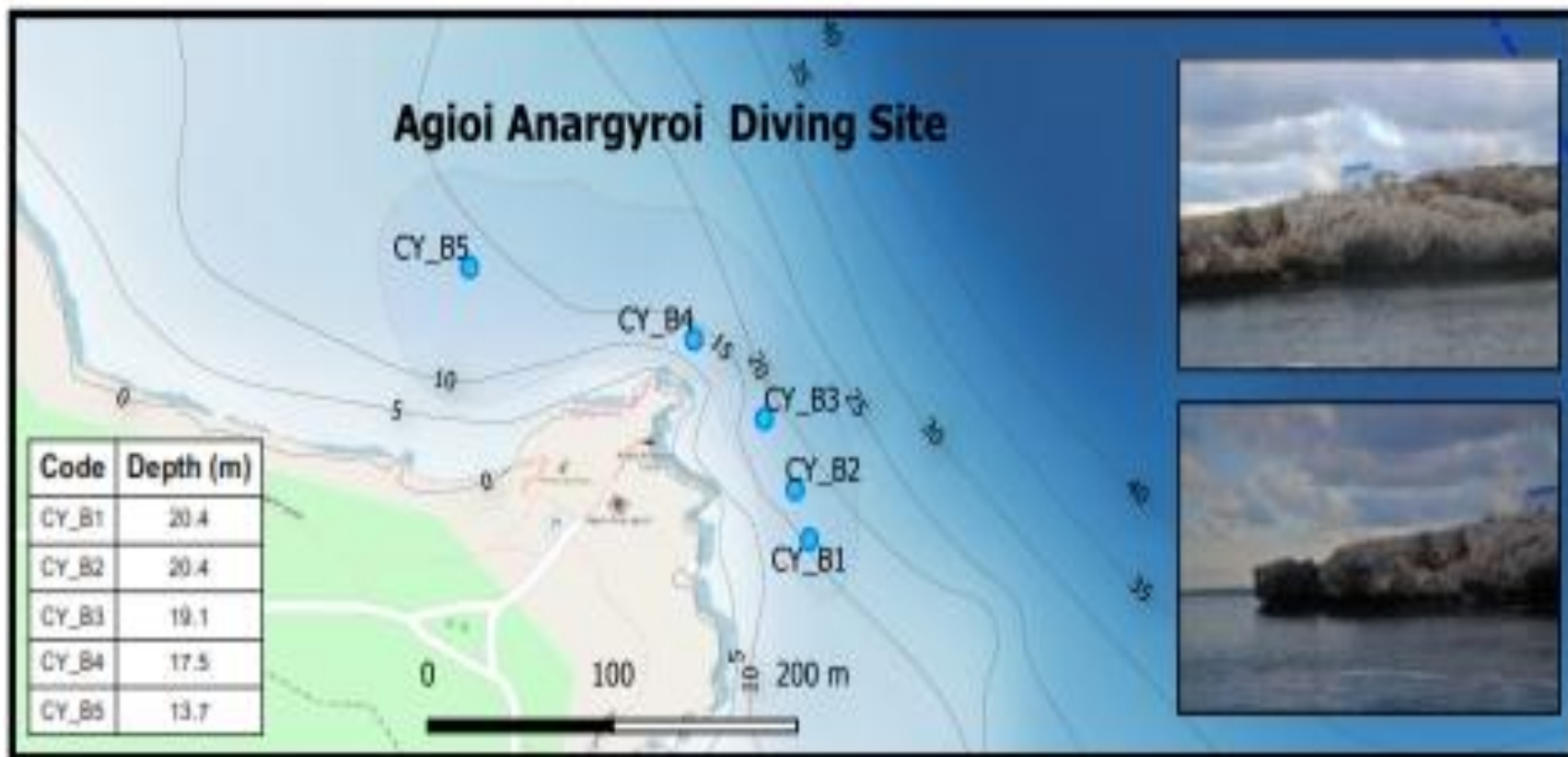
For each quadrat, a code name was given.

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Methodology

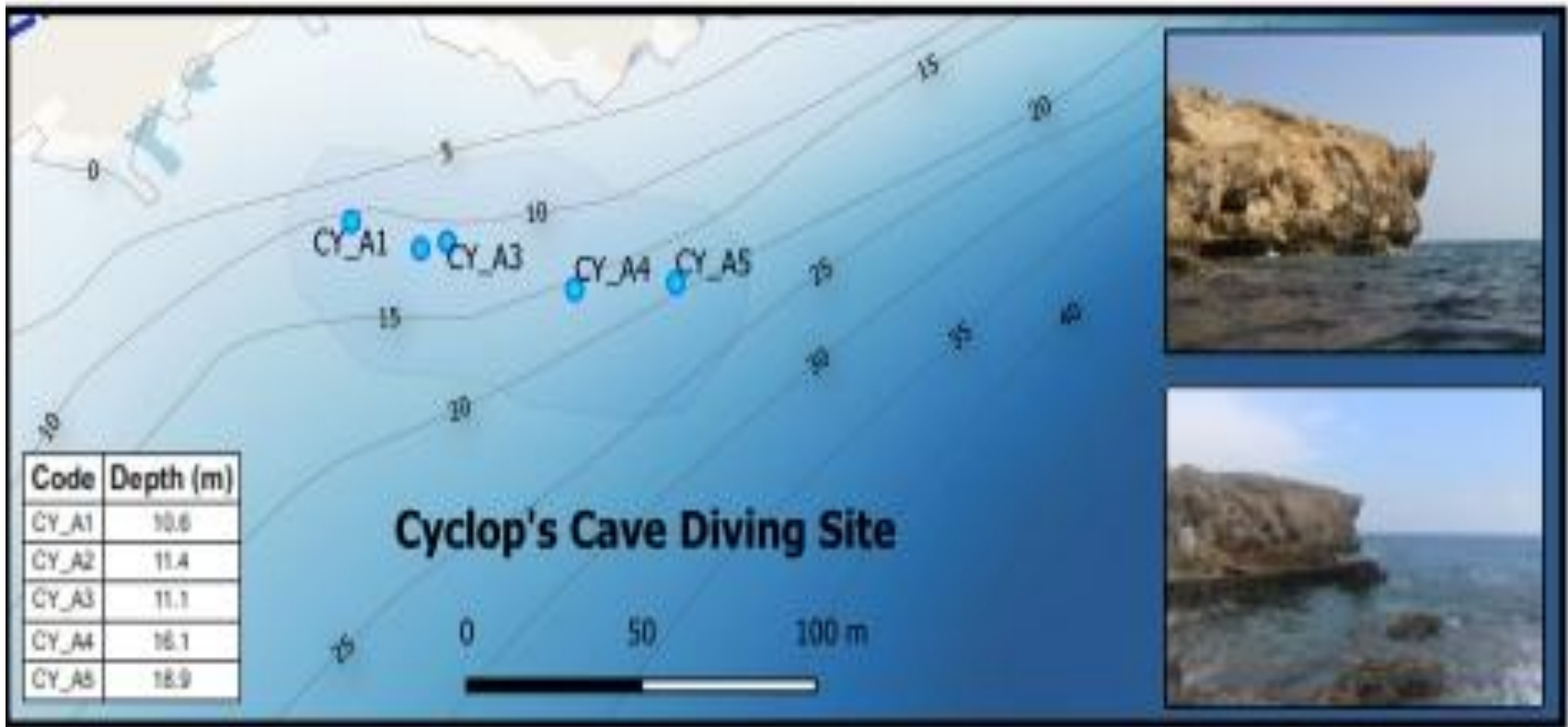


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Methodology

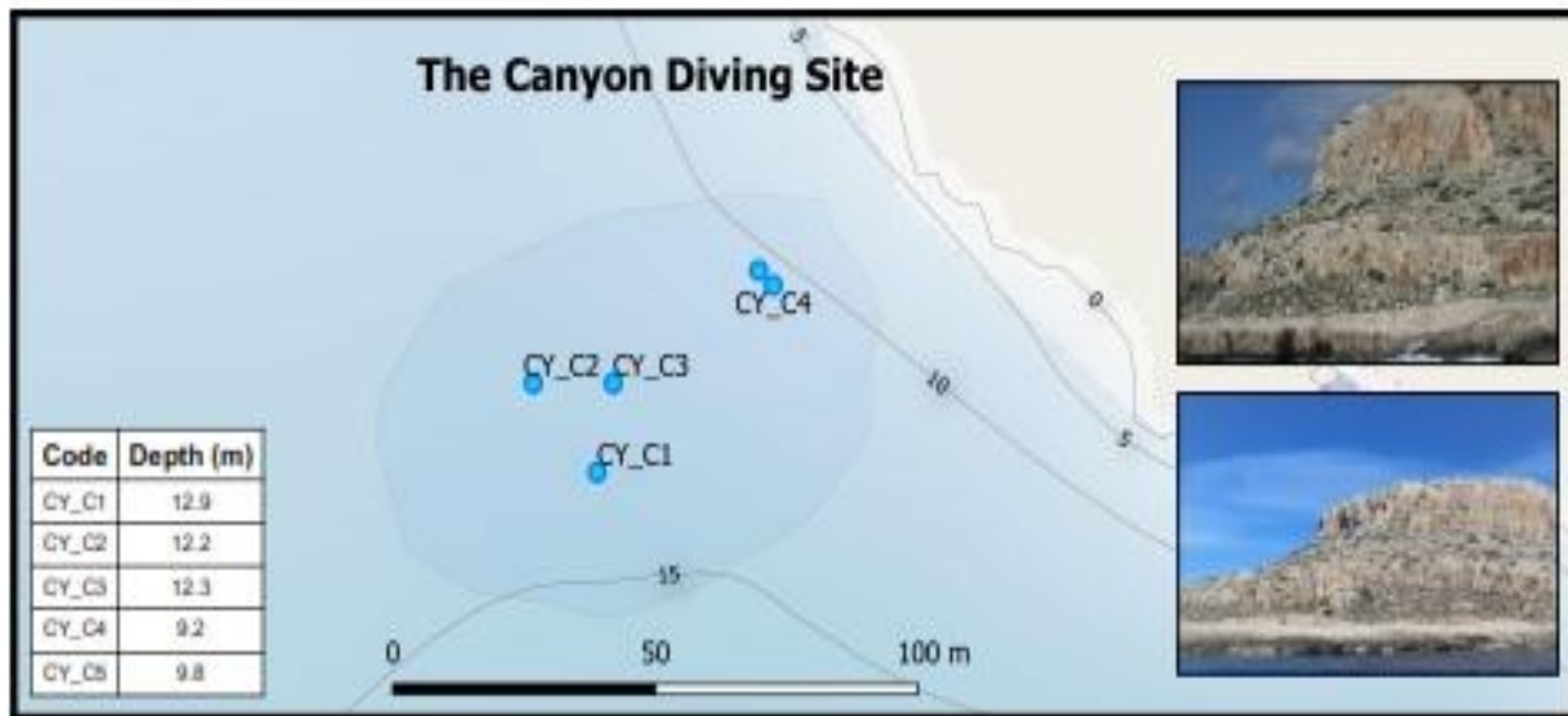


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Methodology



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Methodology

Step 3: Take your photo

- Make sure the whole quadrat and its label is in the picture.
- Don't forget to double-check your photo to make sure it's in focus.
- Make sure that the lighting settings is adjusted to the environmental conditions, e.g. cloud coverages and visibility.



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Methodology

Step 4: Report what's important

Apart from taking pictures of the quadrats you can report anything you think it's important. You can take pictures:

- of marine litter,
- any marine organism that may found interesting or you are curious about,
- abandoned fishing gears etc.

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Methodology

Step 5: Upload your photo

Upload your **data** and your **photographs** to the website:

<https://cs-reconnect.hcmr.gr>

RE-CONNECT the lines to protect marine life.

RECONNECT Project Workshop

The aims of this training for the divers are:

- to learn about the RECONNECT project,
- to become familiar with the Citizen Science,
- to acknowledge the importance of their contribution and
- to familiarize with the appropriate methodology as well as with the biodiversity of the pilot areas.



You can help! Become a citizen scientist

Dive to the site:
You can find our pre-determined GPS coordinates for diving to the sites here:
<https://cs-reconnect.hcmr.gr>

Search for the quadrats:
Each site has 10 permanent quadrats. Let's see how many you can find.

Take your photo:
Make sure the whole quadrat and its label is in the picture.
Don't forget to double-check your photo to make sure it's in focus.

Report what's important:
Apart from taking pictures of the quadrats you can report anything you think it's important. You can take pictures of marine litter, abandoned fishing gear etc.

Upload your photo:
Upload your data and your photographs here:
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Thank you for your attention

Any questions??