



Barriers and motives to Citizen Science participation in coastal Island environments: A Systematic Literature Review

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Introduction

Citizen Science is a tool widely being adopted around the world for its participatory and community-based approach in expanding scientific knowledge (1, 2). There are numerous opportunities for islands to utilize citizen science through advancements in accessible technology to monitor biodiversity, facilitate knowledge sharing, collect limited baseline data and increase scientific literacy for coastal communities (2, 3). However, there are still gaps in understanding public participation and engagement in islands which is crucial for creating sustainable and effective scientific citizen campaigns (4).

MEDiverSEAty



This research forms part of an European Doctoral Network Training and Research Program investigating the human dimensions of Mediterranean Marine Biodiversity. The consortium is made up of six European countries which focuses on two pillars: **Ocean Literacy** and **Marine Biodiversity Conservation**.

Aims & Research Question

Aim: Address *gaps in literature* and build research on existing theories of citizen science for *island contexts*. Synthesize the literature regarding *citizen participation in coastal island environments*.

RQ1 - What are the *barriers* and *motives* of citizen science participation in coastal island environments?

Citizen Science

Citizen Science is the practice of **active participation** of the **general public** (non-scientists) in **scientific research**, where citizens collaborate to produce new knowledge (1).



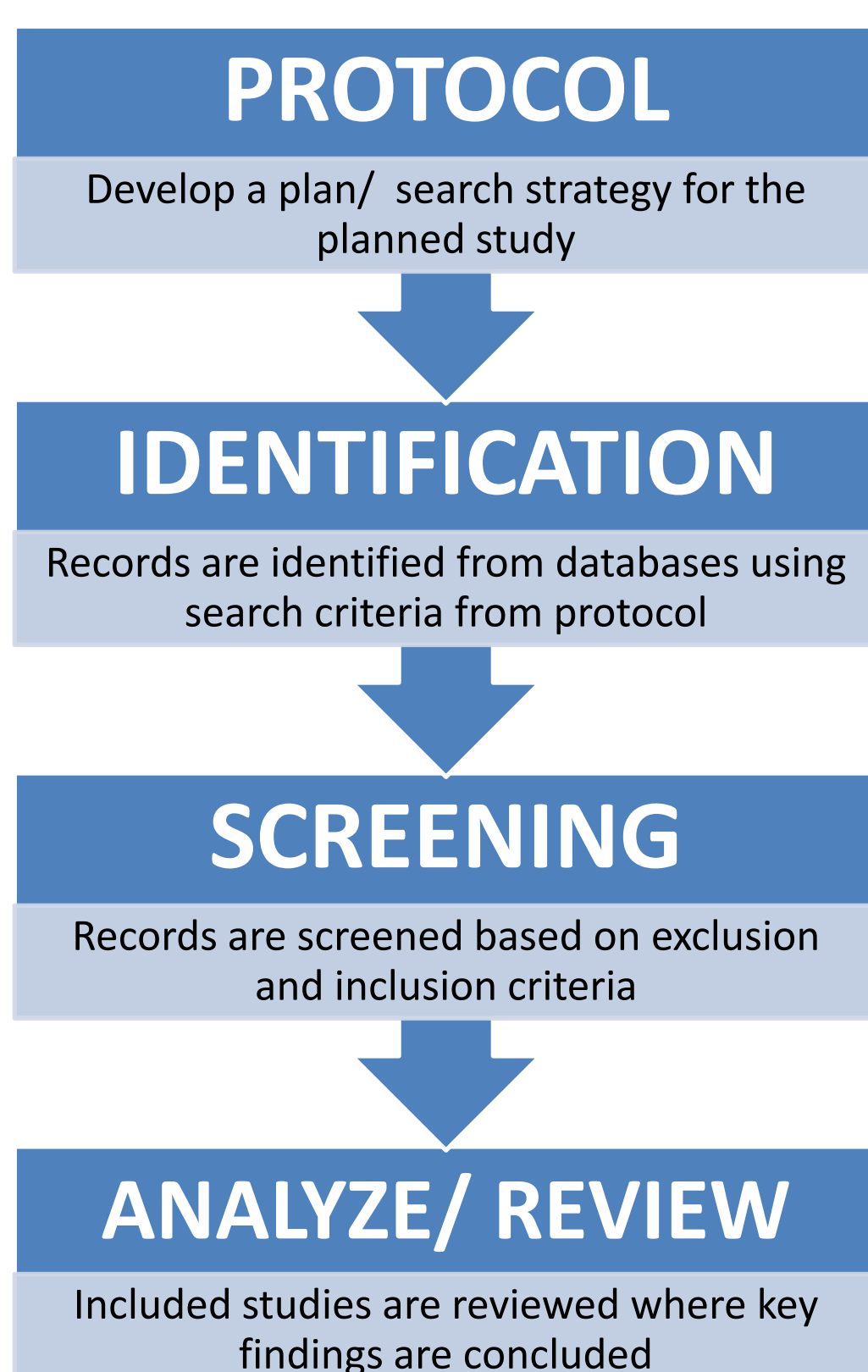
General Public



Collaboration



Research



Methods

This study will be conducting a systematic review which is used to collect all empirical evidence on a particular field to summarise research (5). We will be using the PRISMA 2020 Framework to conduct this study. Through developing the protocol, peer reviewed literature/ records we will be identified through three databases for analysis (as shown on the left).

Literature

- (1) Vohland, K., Land-Zandstra, A., Ceccaroni, L., Lemmens, R., Perelló, J., Ponti, M., Samson, R., & Wagenknecht, K. (2021). The science of citizen science evolves. Chapter 1. in Vohland, K. et al (Eds.).(2021) The Science of Citizen Science. Springer. <https://doi.org/10.1007/978-3-030-58278-4>. pp 1-12.
- (2) Fraisl, D., Hager, G., Bedessem, B., Gold, M., Hsing, P. Y., Danielsen, F., Hitchcock, C. B., Hulbert, J. M., Piera, J., Spiers, H., & Thiel, M. (2022). Citizen science in environmental and ecological sciences. *Nature Reviews Methods Primers*, 2(1), 64. <https://doi.org/10.1038/s43586-022-00113-3>
- (3) Della Rocca, F., Musiani, M., Galaverni, M., & Milanese, P. (2024). Improving online citizen science platforms for biodiversity monitoring. *Journal of Biogeography*, 51(12), 2412-2423. <https://doi.org/10.1111/jbi.14627>
- (4) Adler, F. R., Green, A. M., & Şekercioğlu, Ç. H. (2020). Citizen science in ecology: a place for humans in nature. *Annals of the New York Academy of Sciences*, 1469(1), 52-64.
- (5) Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj*, 372.

Expected outcomes

- Inform future study investigating **behavioural nudges/ conditions** for participation in citizen science.
- Assist in improving the **implementation** of Citizen Science for coastal/ marine island environments.

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