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Global relationships between sargassum and fisheries: a scoping review protocol

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We use this protocol and it's working

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Abstract

The growing scientific interest in the genus *Sargassum* stems both from its ecological functions and from the diverse relationships it establishes with human communities in coastal environments. Across different regions, these interactions range from benefits to negative impacts associated with massive influx events. Fisheries, a central activity for coastal livelihoods, have been directly affected by these dynamics, whether through environmental disruptions or emerging opportunities. Considering this context, a scoping review is proposed, following JBI and PRISMA guidelines, and using consolidated scientific databases to map the existing literature on the topic, examine how it has been addressed, and identify knowledge gaps. This effort aims to contribute to the visibility and advancement of the discussion, as well as to guide future research.

Attachments



[Table 1.pdf](#)

54KB

Guidelines

The Scopus review will be conducted following the guidelines of the *JBI Manual for Evidence Synthesis* (2020) and the specific methodological recommendations proposed by Peters et al. (2020). The review will employ the PRISMA flow diagram and checklist to ensure transparency and methodological rigor.



Before start

All retrieved studies will be imported into Zotero software to organize references and identify duplicates. The screening process will be conducted using Rayyan software, following the PRISMA-ScR guidelines: (1) screening based on titles and abstracts, and (2) full-text screening. In both stages, excluded studies will be documented according to the exclusion criteria. The screening process will involve at least two reviewers, and any disagreements will be resolved through consensus.

Methodology

- 1 The Scopus review will be conducted following the guidelines of the *JBIManual for Evidence Synthesis* (2020) and the specific methodological recommendations proposed by Peters et al. (2020). The review will employ the PRISMA flow diagram and checklist to ensure transparency and methodological rigor.
- 2 The search strategy will follow JBI (2020) recommendations and will begin with an initial exploratory search in at least two databases, using different combinations and variations of terms and keywords to identify the most effective search expressions for the review.
- 3 In the second stage, a comprehensive search will be conducted across multiple databases using the selected combinations of keywords, free terms and Boolean operators.
- 4 In the third stage, additional references will be identified through backward citation searching using the reference lists of the included studies, as well as through searches of grey literature, in accordance with JBI (2020) and Peters et al. (2020).

Identification of a research question

- 5 To assess the suitability of the research question for a scoping review, we utilised the PCC framework, which stands for Population, Concept, and Context. The research question is: What have we published about the interaction and relation between sargassum and fishing and how this has been studied?

PCC structure

- 6 *P (Population)*: fishing activities, with focus on artisanal fishing
C (Concept): algae of the genus *Sargassum*
C (Context): Fishing activities at different oceanographic and coasts regions of the world and their interaction with *Sargassum*.

Search strategy

- 7 The research was conducted using the databases: Academic Google, Scopus, Scielo, ScienceDirect, Web Of Science and the platform R. Discovery (scientific database aggregator). The search isolate terms, boolean operator and term combinations used - in english, portuguese and spanish - are:
Artisanal fishing OR small scale fisheries OR small scale fishing OR coastal fisheries OR coastal fishing OR fisheries AND sargassum OR sargassum bloom OR pelagic sargassum OR sargassum influx OR golden tide

Selection of eligible studies

- 8 Inclusion criteria: Studies that examine the relationship or interactions between *Sargassum* and fisheries, including ecological, social, or economic impacts. Articles, theses/dissertations, and technical reports will be included.
Language: English, Portuguese, and Spanish.
Time period: No time restrictions will be applied in order to broaden the scope of the mapping.
Grey literature: Thesis, reports.
Exclusion: Purely taxonomic studies on *Sargassum* with no relation to fisheries or any socio-environmental aspect; studies that address fisheries but not *Sargassum*; studies that address neither topic; documents without accessible full text.

Data Extraction

- 9 To the extraction of data were elected five groups of themes (table 1): general information, locality, sargassum, fishing and other activities. Inside of each one, were elected important points for extraction and discussed in the research.
The validation and extraction will be done by consensus.

Data Analysis and Synthesis

- 10 The analysis will be carried out through the systematization, by tabulation, of the main information from the studies, based on the categorized themes. From the analysis of the results, a discussion will be proposed regarding the trends identified in the approaches and the knowledge gaps to be further explored within the topic.

Presentation of Results

- 11 The work will be structured around a discussion of how the interaction occurs globally. To this end, visual resources such as graphs, maps, and tables will be used to enhance the visibility of the results and illustrate the distribution of the studies across the identified categories.

Protocol references

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