

# Representation of the sea in the UK press

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**CASS**

Corpus Approaches  
to Social Science

CASS: Briefings

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**Published 2022 by**

The ESRC Centre for Corpus  
Approaches to Social Science (CASS),  
Lancaster University, UK

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## About CASS...

The ESRC-funded Centre for Corpus Approaches to Social Science (CASS) is a research centre based at Lancaster University which aims to bring the methods and benefits of the corpus approach to other disciplines.

## From the Centre Director

The corpus approach harnesses the power of computers to allow analysts to work to produce machine aided analyses of large bodies of language data - so-called *corpora*. Computers allow us to do this on a scale and with a depth that would typically defy analysis by hand and eye alone.

In doing so, we gain unprecedented insights into the use and manipulation of language in society. The centre's work is generating such insights into a range of important social issues like climate change, hate crime and education. This series of briefings aims to spread the social impact and benefits of the work being done by the centre and, in so doing, encourage others to use our methods in future.

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**Professor Elena Semino**

# Why investigate?

This is a project on public awareness of the sea. Ocean sustainability is contingent to citizens' awareness of "the benefits they receive from the marine environment" ([DEFRA](#), 2021, p.4). However, 'sea blindness' is still dominant in Britain ([Germond-Duret & Germond](#), 2022), and the sea is at the bottom of the list when it comes to public perception of global environmental issues ([Potts et al.](#), 2016).

Enhancing public perception of the sea requires a good understanding of the representation of the sea in the UK written press, which is the third source of information about the marine environment ([DEFRA](#), 2021, p.23).

The project aimed to provide a systematic account of the way the sea is represented by applying corpus linguistic methods to the analysis of representations of the sea in the UK press.

Data shows that, although the need to protect the marine environment is present, the dominant narrative centres on economic benefits, and there is a lack of emotional vocabulary linked to the sea. We thus recommend to prioritise public policies that contribute to connect people and the sea in an emotional (versus utilitarian) way.

## Research questions

- To what extent is the sea represented in purely technical, economic and opportunistic terms as opposed to emotional and identity terms?
- How can the media representation of the sea inform our understanding of citizens' connection to the sea?

This research involved the collection of an amount of textual data that was too large to be analysed manually:

- We collected all articles containing either the words 'sea(s)' or 'ocean(s)' published in 2020, from the major national newspapers: 20,099 articles from broadsheet, 8,307 from tabloids, and 11,545 articles from regional newspapers.
- In total we analysed 28,406 articles and over 28 million words. All texts were collected from a news aggregator service (LexisNexis).

We used analytical techniques associated with the field of Corpus Linguistics (the computer-aided analysis of large language data sets, known as 'corpora') to study the dominant narratives in the newspapers.

Corpus linguistic methods make it possible to analyse the data both quantitatively (for example, by using tailor-made software tools to identify the words that tend to occur around 'sea') and qualitatively (by looking at the use of selected instances of 'sea' in context).

To provide an overview of the most distinctive linguistic characteristics of the corpora, we carried out 'keyword' analyses. Keywords are words that are more frequent in a corpus of interest than they are in another corpus, where the difference is statistically significant. They can be interpreted as reflecting the most distinctive concepts and themes in a particular corpus.

Keywords were interpreted by examining their 'collocations'. Collocation analyses explore co-occurrence relationships between words, and therefore makes it possible to study the narratives or discourses that a word is part of.

## 1. **The sea is frequently represented in terms of economic opportunities: a source of revenue and job creation:**

The fishing industry has a central place in the narrative, especially in the context of Brexit. In addition to collocating with 'Brexit', the keyword 'fishing' collocates with types of sea transport ('boat(s)', 'fleet(s)', 'vessel(s)', and 'trawler'), fishing gears ('gear' and 'nets') as well as words indicating some kind of restrictions (such as 'quotas', 'illegal', 'rights', 'access').

References to economic resources are also seen through the collocations of 'sea' with 'North', which point towards mentions of oil production in the North Sea. Most mentions of the North Sea in regional newspapers (74%) come from the two newspapers based in Aberdeen (*Aberdeen Press and Journal* and *Aberdeen Evening Express*).

References to renewable energy are prominent in the Regional Corpus only, as indicated by the keyword 'offshore', which uncovered mentions of the generation of renewable energy through offshore wind farms. This demonstrates how the sea is considered as an important source of revenue (in particular via job creation) in communities that have traditionally depended on the sea for income generation.

In contrast, national newspapers frequently mention mining of the deep sea for minerals (collocations of 'sea' with 'deep'), especially in relation to campaigns to halt deep-sea mining given its environmental impacts.

**2. The 'marine environment' is represented as a natural resource that must be protected, especially in view of sustaining the economic benefits from the sea:**

The sea is represented as a natural resource to be preserved. However, this is seen through the collocations of the keyword 'marine' rather than through the word 'sea' itself. 'Marine' collocates with words such as 'protected', 'conservation', 'ecosystems' and 'environment' (see for example Figure 1), uncovering mentions of initiatives and campaigns to protect marine life.

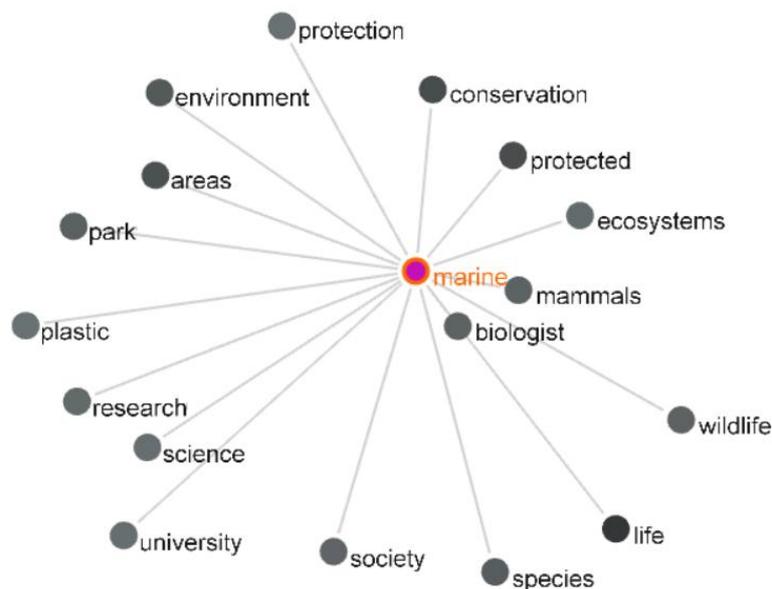


Figure 1: Collocates of 'marine' in the National Broadsheet Corpus

Concern about preservation of the sea ecosystem is also seen through the analysis of the keywords 'boats' or 'vessel(s)'. The reporting revolves around campaigns against supertrawlers fishing in UK waters, especially in protected areas, as they have a negative impact on fishing 'villages' and 'communities'. In the National Broadsheet Corpus, this narrative is also seen through the collocations of 'fishing' with 'sustainable' and 'protected', which unveiled references to sustainable fishing.

**3. Newspapers frequently stress the negative impacts of climate change on the sea:**

Climate change is a prominent theme in the discourse of both national and regional newspapers, as indicated by the association of 'sea' with 'level(s)' across the three corpora, and with 'rising', 'rise' and 'ice' in the National Broadsheet Corpus. The newspapers frequently mention the rising of sea levels due to higher global temperatures. The National Broadsheet Corpus specifically mentions declining of sea ice cover in the Arctic Ocean due to climate change. This is evident through the collocations of the keyword 'ocean' with words such as 'Arctic', 'temperatures' and 'warming'.

**4. An emotional lexicon can only be found in relation to aesthetic considerations:**

The emotional lexicon is infrequent. The keyword 'sea' collocates with 'view(s)' across the three corpora, uncovering descriptions of places with 'panoramic', 'stunning', 'incredible' or 'superb' sea views. This relates to value of a sea view in the hospitality sector (hotels, accommodations, restaurants, etc.) as well as in private properties.

**5. A sense of place can be found in relation to the seashore/coastal locations (not the sea itself):**

A clear distinctive feature of regional newspapers relates to the prominence of placenames. This is interesting because it draws attention to places close to the seashore.

The dominant narrative in the British written press represents the sea as an economic resource and, at the same time, as a 'marine environment' to be protected and preserved. The sea is also recurrently represented as in needs of more regulations.

The dominant narrative is one of utilitarianism and opportunism: in other words, the sea must be protected as it is useful, and not so much because we have any sense of belonging and connection to the sea.

This fits with a weak conception of sustainable development that prioritises economic needs over environmental preservation (while trying to find a balance between these two necessities).

The representation of the sea in the British press demonstrates that there is an awareness of the benefits of the sea for livelihood and a need for the marine environment to be protected. But what is lacking is the conveyance of a real sense of place and belonging.

## **Towards an emotional ocean awareness:**

The narrative around the sea is too much utilitarian/opportunistic and not emotional enough:

- This contributes to a lack of sense of belonging and the valuing of oceans for their sole economic importance. This can negatively impact on ocean citizenship.
- People's *economic* awareness of the sea is necessary but not sufficient. Ocean sustainability (i.e. recognising the utter importance of the environmental and social dimensions of oceans) requires a stronger *emotional* connection with the sea.
- Public policy stakeholders which want to further develop ocean awareness among the wider public need to contribute to the promotion of a narrative about the sea that is not just utilitarian (revenue, job creation) but also emotional.

## **The full study can be found here:**

<http://cass.lancs.ac.uk/representation-of-the-sea-in-the-uk-press-public-awareness-of-the-oceans/>

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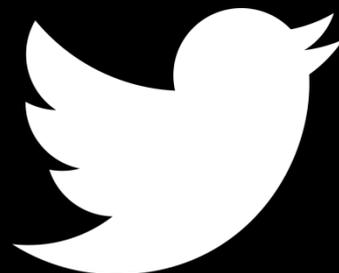
Part of our aim at CASS is to make Corpus Linguistics accessible, which is why we have created our **free online FutureLearn course**. With the course, we aim to demonstrate that corpus approaches can offer researchers from all disciplines unique, valuable insights into the use and manipulation of language in society. We provide all you need to start 'doing' Corpus Linguistics yourself.

This briefing should act as an introduction and companion to the course where you will begin to apply the concepts and methods mentioned here in a practical way relevant to your field of interest.

**The course is free, can be done from home, and comes with a whole range of content and support from world-leading scholars in the field of Corpus Linguistics. For more, visit:**

**[futurelearn.com/courses/corpus-linguistics](https://futurelearn.com/courses/corpus-linguistics)**

For more about CASS and our freely available resources, please visit: **[cass.lancs.ac.uk](https://cass.lancs.ac.uk)**



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**CASS: Briefings** is a series of short, quick reads on the work being done at the ESRC/CASS research centre at Lancaster University, UK. Commissioning work from internationally recognised academics in the field of Corpus Linguistics, *CASS: Briefings* set out to make cutting edge research easily accessible, providing a good introduction to the variety of vital and exciting research going on in the area of Corpus Linguistics.

