## 國立臺灣海洋大學 海洋環境與生態研究所 專題討論

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It is well known that "blue carbon ecosystems" are generally described as biomes that capture and store ('sequester') organic carbon, and some of the main environments that conform it are mangrove forests, tidal marshes and seagrass meadows; these ecosystems have a key role in climate change mitigation and adaptation. The ability of these ecosystems to act as major carbon sinks has been known for decades, the term "carbon sink role of marine vegetation" was first introduced in the literature before 1980, yet the term 'blue carbon' started expanding in 2009. The growing interest for this term is reinforced by their inclusion in international climate agreements and policies in different countries. In this paper, the aim is to investigate the global scientific literatures on blue carbon over time. To achieve this, it was performed a bibliometric analysis on blue carbon research with the purpose to identify current trends for leading papers, authors, keywords, and geographical spread of contributions. It was analyzed 1,729 records, which were 1475 articles, 38 book chapters, 2 data papers, 88 proceeding papers, 105 reviews and 21 publications of other type from 5,763 different authors, within 69 countries. Correspondingly was studied which ecosystem had the highest attention, which shows mangroves (~38% of publications), followed by saltmarshes (~22%), and seagrasses (~18%); while ~16% of the studies included two or more blue carbon ecosystems and 5% of the studies focused on other ecosystems. The top 5 keywords based on their total link strength were 'blue carbon', 'carbon sequestration', 'mangrove', 'salt marsh' and 'climate change'. Blue carbon science has already proven to be a collaborative field with 99% of papers involving multiple authors and long-term, multi-country collaborative networks, which conclude to us that this type of investigation is not only from one discipline, but invite to collaborate with different type of entities and sectors that have any incurrence in the topic.

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