

Abstract

Healthy oceans are of great importance in achieving global sustainability, and are thus identified as one of the core Sustainable Development Goals in 'Life below Water' (SDG 14). However, at present, we still face a significant challenge in achieving lay understanding of the influence of the oceans on our lives and the impacts of our behaviour on it. As a key interface, marine ecotourism can support the development of place-based ocean literacy, but this can only be achieved through 'effective partnerships' (SDG 17). This paper examines how stakeholder collaboration can contribute to increased ocean literacy through empirical work on scuba diving in Mallorca, Spain. Ethnographic fieldwork was conducted with divers and other key stakeholders (operators, scientists, government, NGOs, and professional associations). Adopting stakeholder models based on pentahelix opportunities for collaboration we analyse the current challenges. The study identified a sector which currently lacks effective partnerships: there is limited systematic transfer of knowledge; staff are poorly trained in interpretation and communication skills; there is weak industry collaboration; and the sector is neglected in government tourism strategy. Consequently, the current structure fails to connect divers to marine issues in the Mediterranean Sea. Nevertheless, suitable conditions for developing effective partnerships are present: motivated staff and suitable facilities; interested authorities; an active network of knowledge production; and a vigilant society. This paper proposes a multi-stakeholder structure to put place-based ocean literacy into practice in order to contribute to the aspirations of improved global ocean awareness.

Comparative studies of water quality and fish species diversity in stream locations immediately above and below the outfalls of 149 secondary sewage treatment plants were made in Virginia, Maryland, and Pennsylvania. Sewage chlorine and turbidity increment resulting from sludge were found to be major causative factors for fish species diversity reduction below the outfalls.