

# Marine Scientific Research in UNCLOS: A Critical Overview

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## Abstract

*Marine scientific research and its promotion are integral features of the global ocean governance framework and the international legal order of the oceans. Despite UNCLOS providing for marine scientific research activities in Part XIII of the Convention, gaps continue to exist in the legal framework governing the conduct of marine scientific research activities. This paper aims to provide a critical overview of the marine scientific research paradigm under UNCLOS in light of contemporary challenges. The paper is divided into 3 parts. Part –I provides an overview of marine scientific research. Part-II analysis the legal provision pertaining to marine scientific research in UNCLOS and Part-III reflects on contemporary challenges facing the marine scientific research framework.*

## Part-I

### Situating Marine Scientific Research

#### 1. Introduction

The *Challenger* expedition led by British naturalist John Murray and Scottish naturalist Charles Wyville Thompson between 1872 and 1876 heralded the rise of modern oceanography and with it the advent of Marine Scientific Research (henceforth, MSR) also known as Ocean Science Research (OSR). With its focus on mapping ocean temperatures, currents, marine life and seafloor geology, the first scientific study of the oceans and ocean life heralded a new dawn in man's scientific endeavours with the publication of the fifty volume *Challenger Reports*. Since then the significance and understanding of MSR has increased manifold with State practice endeavouring to make best use of available technology to further ocean exploration and research furthering human understanding of this vast abyss<sup>1</sup>.

One of the first marine conservation treaties entered into, namely the Bering Fur Seal Convention, 1911, itself based on the Bering Fur Seal arbitration of 1893 was the result of extensive international law-science interface that underscored the importance of scientific methods in arriving

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<sup>1</sup> E. Doussis, Marine Scientific Research, Taking Stock and Looking Ahead in G. Andreone (ed.), *The Future of the Law of the Sea* (2017)

at conservation treaties<sup>2</sup>. It has been argued that had the scientific recommendations of the International Council for the Exploration of the Sea regarding fishery conservation been followed, the necessity of discussing fisheries sustainability in UNCLOS I and II would not have arisen<sup>3</sup>. The importance of MSR to the global community cannot be overemphasized. If humankind is to develop a better understanding of the oceans for its conservation and sustainable use, MSR will be the primary driver advancing our collective knowledge of the oceans<sup>4</sup>.

Post the Second World War, the international scientific community started making strides in advancing marine scientific research in a systematic manner with the conceptualization of the International Geophysical Year (IGY) of 1957-58. Despite its focus on oceanographic research being limited, the initiative gave rise to two international institutions namely, the Scientific Committee of Ocean Research (SCOR) and the International Council of Scientific Union (ICSU) in 1957 with the aim of streamlining and coordinating marine scientific research in the IGY<sup>5</sup>. The International Oceanographic Commission (IOC) established in 1960 through UNESCO's 11th General Conference has been mandated by the UN General Assembly to streamline and coordinate all aspects of marine scientific research governance for the international community<sup>6</sup>. The IOC with the aim of facilitating the achievement of Goal 14 of the UN Agenda for Sustainable Development encourages States to create the necessary scientific and institutional structure necessary to pursue marine scientific research and thereby conserve ocean health and marine ecosystems<sup>7</sup>. The Global Ocean Science Report (GOSR) brought out by the

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<sup>2</sup> <<https://archive.afsc.noaa.gov/History/research/pubs> accessed 2 November 2020

<sup>3</sup> International Council for the Exploration of the Sea (ICES) is a scientific and research organization entrusted with coordinating and promoting marine research on oceanography, the marine environment and ecosystems, and living marine resources in the North Atlantic Ocean and adjacent seas for its Member States. (<http://www.fao.org/fishery/rfb/ices/en#Org-Mission> accessed 30 October 2020). See also, <[https://www.un.org/depts/los/global\\_reporting/WOA\\_RPROC/Chapter\\_30.pdf](https://www.un.org/depts/los/global_reporting/WOA_RPROC/Chapter_30.pdf)>

<sup>4</sup> Supra n.1

<sup>5</sup> <[www.un.org/depts/los/global\\_reporting?WOA\\_RPROC/Chapter\\_30.pdf](http://www.un.org/depts/los/global_reporting?WOA_RPROC/Chapter_30.pdf) accessed 30 October 2020

<sup>6</sup> Oceanography embraces all studies pertaining to the sea and integrates the knowledge gained in the marine sciences that deal with such subjects as the ocean boundaries and bottom topography, the physics and chemistry of sea water, the types of currents, and the many phases of marine biology. The close interrelation and mutual dependence of the single marine sciences have long been recognized. (Sverdrup, Johnson, and Fleming, 1942, p. 1)

<sup>7</sup> The IOC is mandated “to promote international cooperation and to coordinate programmes in research, services and capacity-building, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of management, sustainable development, the protection of the marine environment, and the decision-making processes of its Member States” (IOC Statutes, Article 2.1).