

SUPPLEMENT ARTICLE

A world of difference - opportunities for applying the 1972 World Heritage Convention to the High Seas

Dan Laffoley¹  | David Freestone² 

¹IUCN, Gland, World Commission on Protected Areas, Switzerland

²Executive Secretary, Sargasso Sea Commission, Washington, D.C., USA

Correspondence

D. Laffoley, IUCN, Gland, Switzerland.
Email: danlaffoley@btinternet.com

Abstract

1. The 1972 World Heritage Convention has not to date been applied to marine areas beyond national jurisdiction (ABNJ), i.e. to high seas and deep sea bed sites.
2. Examples are given of high seas and deep seabed sites that appear to meet the criteria of Outstanding Universal Value for inscription.
3. The ongoing negotiations at the United Nations for a new International Legally Binding Instrument (ILBI) on the conservation and sustainable exploitation of biodiversity in ABNJ are highlighted as a significant complementary initiative.
4. Three feasible modalities are suggested by which the Parties to the 1972 Convention might be able to allow inscription of sites in ABNJ and establish appropriate management regimes: incremental and pragmatic agreement to minor changes in the way that they apply the treaty or formally announcing a change in the way that they intend to apply a treaty among themselves in the future; agreeing to an Amendment outside the terms of the 1972 Agreement; or developing an optional protocol to the 1972 Convention could be developed through an international negotiation among States Parties, binding only on those States that choose to ratify any resulting protocol.
5. The merits of these different options are explored. Under any scenario, a system will also need to be elaborated for the protection of World Heritage sites in areas beyond national jurisdiction. This will be an important undertaking which will require collaboration between UNESCO and the relevant competent international organizations and their States Parties.

KEYWORDS

ABNJ, BBNJ, High Seas, Law of the Sea, marine World Heritage, opportunities, outstanding universal value, underwater cultural heritage, UNESCO

1 | INTRODUCTION

In 1972 the World Heritage Convention¹ (UNESCO, 1972) was adopted and provided humanity with a long awaited opportunity to recognize outstanding natural and cultural places, and to celebrate their conservation and protection. Some 45 years later the Convention remains a strong beacon of hope and global reference for what is both unique and important and in need of protection. Since those early

days, more than 1000 sites have been recognized for their Outstanding Universal Value (OUV) and protected through the mechanisms of the Convention. The only problem is that virtually all such inscribed sites sit in the half of our world which is considered land, or where individual nations of the world claim governance over ocean spaces. As with virtually all other spatial measures, the open ocean covering half the planet is missing from such conservation efforts under this Convention. Since 1972 much has changed and the open ocean beyond the jurisdiction of an individual country – the so called 'High Seas' – is now recognized as needing urgent conservation action as well.

So in the context of the overall failure to protect biodiversity in the High Seas, what are the reasons that this Convention has not been

¹By the General Conference of the United Nations Educational, Scientific and Cultural Organization meeting in Paris from 17 October to 21 November 1972, at its seventeenth session. Text at: <http://whc.unesco.org/en/convention/>. It came into force 17 December 1975.

applied to the entire world as its name implies? It was most certainly not the intention of the founding fathers of the Convention to create a double standard for World Heritage – the ‘haves’ with an abundance of examples of conservation in action, and ‘have-nots’ in the other half consisting of the High Seas where nothing at scale has been inscribed under the Convention. It is more likely the case that the immediate needs of the Convention were closest to home. The drafting of the Convention dates from before the finalization of the texts of the 1982 UN Convention on the Law of the Sea (UNCLOS) and considerations about areas beyond national jurisdiction were simply not a point of discussion at that time. It is certainly undeniable that as the footprint of human endeavours has spread out across and into the deep ocean, the need in that second half of our world for World Heritage action is now felt more strongly than ever.

Scientific knowledge in the five decades since the Convention was established has shown the significant degree of impact that humans are having on the remote and deep ocean (see for example Halpern et al., 2015). At the same time knowledge of species, habitats, ecosystems and physical ocean processes has developed to such a degree² that conservation organizations, and the Convention on Biological Diversity alike, are providing maps³ of increasing detail and sophistication of areas of conservation value in need of protection and better management.⁴ Such information provides the basis to suggest areas, just as on land, that meet the criteria and standards that mark out places of Outstanding Universal Value – and hence would warrant action by Member States of the World Heritage Convention.

Calls for action under the World Heritage Convention to protect High Seas date back to at least 2007. This was when the International Union for the Conservation of Nature and Natural Resources (IUCN) World Commission on Protected Areas hosted a global Marine Protected Areas (MPAs) Summit in Washington DC. This Summit resulted in a global *Plan of Action* for MPAs (Laffoley, 2008), within which Marine World Heritage was identified as a key global strategic priority. In 2010 IUCN collaborated with the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Centre, the Arab Regional Centre for World Heritage and other partners in developing the *Bahrain Action Plan for Marine World Heritage* (Laffoley & Langley, 2010). This Action Plan highlighted what it called the ‘reality of application of the World Heritage Convention’: highlighting the fact that it currently is being applied to just half the world’s surface. The action plan called for this inequality to be addressed.

In recent years, the calls for action under the World Heritage Convention have been mirrored by extensive debates and negotiations in the United Nations about addressing the inadequacies in the way the High Seas are governed overall. Governance of the ocean is achieved through the 1982 UN Convention on the Law of the Sea (United Nations, 1982). Although the negotiation of the 1982 Convention took nine years, the drafters clearly did not envisage the full extent of human creativity in exploiting the open ocean since that time

(Freestone, 2011). Although the 1982 Convention still provides a foundational legal mandate for the conservation of the oceans, it is true that the legal regime for the governance of the High Seas is still an ‘unfinished agenda’ of the 1982 Convention (Freestone, 2016b). Negotiations are now underway to secure a new International Legally Binding Instrument (ILBI) under the 1982 Law of the Sea Convention (LOSC) for the conservation and sustainable use of biodiversity in areas beyond national jurisdiction, which might include provision for the use of area-based management tools, including the designation of high seas protected areas.

In 2011 an audit of UNESCO’s Global Strategy for a representative and balanced World Heritage List (UNESCO World Heritage Committee, 2012) recognized the need to reflect OUV in areas beyond national jurisdiction. The need and urgency to act was further amplified by a study of marine world heritage (Spalding, 2012) and by the IUCN 2013 major thematic study on Marine World Heritage (IUCN, 2013a).⁵ Within the last two years the UNESCO World Heritage Centre Marine Programme, in collaboration with IUCN, has taken up the challenge of assessing how the World Heritage Convention could apply to the High Seas from scientific, legal and policy perspectives.

In August 2016, the World Heritage Centre and IUCN launched the publication *World Heritage in the High Seas: An Idea Whose Time has Come* (Freestone, Laffoley, Douvère, & Badman, 2016). That report represents a comprehensive analysis of options and ways forward for the Convention. This paper draws upon that report and provides some examples of areas that may warrant protection under the Convention, as well as some of the routes via which such protection on the High Seas may be best secured.

2 | UNDERSTANDING OUTSTANDING UNIVERSAL VALUE, WORLD HERITAGE CRITERIA AND ISSUES OF INTEGRITY, PROTECTION AND MANAGEMENT

To understand the opportunity to use the World Heritage Convention for protection of special places on the High Seas it is essential to understand that OUV lies at the heart of the Convention and every site inscribed is required to demonstrate OUV, whether for natural, cultural or mixed values. Nomination of a site for consideration of its listing as World Heritage is decided by whether the nominated site is found to be of OUV. The ultimate decision over whether a site is of OUV lies with the World Heritage Committee that meets annually. The definitions which make up the term are:

- Outstanding – the site should be *exceptional*. The World Heritage Convention sets out to define the geography of the superlative – the most outstanding natural and cultural places on Earth.
- Universal – the scope of the Convention is *global* in relation to the significance of the properties to be protected as well as its

²http://www.un.org/Depts/los/global_reporting/WOA_RegProcess.htm

³<https://www.cbd.int/ebsa/>

⁴<http://www.gobi.org/>

⁵The special role of IUCN is recognized in Articles 8(3) and 13(7), World Heritage Convention (UNESCO, 1972)

importance to all the people of the world. Sites cannot be considered for OUV from only a national or regional perspective.

- Value – implies clearly defining the *worth* of a property, ranking its importance based on clear and consistent standards, including the recognition and assessment of its integrity.

The process first requires a global comparative analysis where sites (properties) with the same values are compared, and then a comparative analysis of existing properties to see if properties of the same or similar value have already been inscribed as World Heritage, and under what circumstances.

The analysis around the values is rigorous to determine which ones are of OUV. The concept of OUV itself is based on three foundations:

- a property is required to meet one or more of the World Heritage criteria (see criteria below);
- a property is required to meet the conditions of integrity (and authenticity if relevant); and
- a property needs to meet the requirements for protection and management.

All three aspects must be in place for a property to be recognized as of OUV and as such become eligible for inscription on the UNESCO World Heritage List.

Ten criteria are set out in the World Heritage Convention of which only four relate to natural World Heritage. The four criteria of relevance are:

- Criterion vii. Contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
- Criterion viii. Be outstanding examples representing major stages of Earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.
- Criterion ix. Be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.
- Criterion x. Contain the most important and significant natural habitats for *in situ* conservation of biological diversity, including those containing threatened species of OUV from the point of view of science or conservation.

Because the Convention has not yet been applied to the High Seas, interpretation for application of the above criteria is required. IUCN has accordingly developed guidance for how these criteria may be applied in the ocean (Abdulla, Obura, Bertzky, & Shi, 2013; Obura, Church, & Gabrié, 2012). Issues such as ocean processes may be best accommodated under Criterion viii, while similarities allow easy relationships to be established between Criterion ix which explicitly mentions 'coastal', 'marine' and biological oceanographic processes, as well as habitat and ecosystem dynamics, and Criterion x, which has a focus

on species and critical habitats for their conservation, and so can be similarly applied in the ocean.

Alongside these criteria, as described earlier, is the need for a property to meet the conditions of integrity and protection and management. In terms of integrity this can be taken as a measure of the wholeness or intactness of the heritage on the site being proposed. There is a strong relationship here with protection and management as maintenance of integrity is achieved when adequate protection and management is also in place. Where protection and management are not so well developed, then the area being evaluated is considered to have a weaker claim and/or potential OUV compared with other examples where higher standards of protection and management are displayed.

Protection and management is a concern for areas showing potential OUV on the High Seas. Given a lack of 'land ownership' in the open ocean, the approach taken in Freestone et al. (2016) was to identify 'competent authorities' – those bodies with sectoral management responsibilities that could take action to uphold the values of the areas being considered. These sectoral bodies often have explicit requirements to have due regard for the environment in executing their functions and so provide a starting point to ensure any OUV recognized in the future could be secured.

These processes require significant investment by the State Party undertaking the nomination to ensure that the standards surrounding OUV and ultimately the awarding of World Heritage status are upheld. When a property is finally inscribed this marks the start of a long-term relationship with the Convention. The focus then shifts to managing, monitoring and preserving the values of the inscribed property. Regular reports are required by the nominating party on the state of conservation and the management put in place. This enables the World Heritage Committee to keep track of properties and where steps fall short of sustaining the OUV the Committee can take steps to ensure remedial action is taken. One such step is listing the property as World Heritage in Danger. If OUV is being lost, then the property can be removed altogether from the list and lose its World Heritage status.

3 | LEGAL OPPORTUNITIES FOR APPLYING THE CONVENTION TO ABNJ

Inscription of a site on the UNESCO World Heritage List is only the first step. Central to the Convention are its mechanisms to monitor the state of conservation of sites' OUV and to assist countries to secure their long-term protection. Therefore, other than the nomination and inscription of World Heritage sites in marine ABNJ, a central question relates to the protection of their OUV once they are recognized. Key anthropogenic threats to the High Seas include overfishing, pollution and physical damage to ecosystems, habitats and species. There are already several legal regimes in places that address these issues – albeit with varying degrees of success.

Existing management regimes in ABNJ are largely sectoral and can be fragmented, however, it is not true to say that ABNJ are not governed (Freestone, 2016b). Although there are gaps in coverage, there is a large range of specialist organizations whose specific tasks include coordinating the management of human activities in ABNJ.

Although the organizations do not necessarily have specific mandates to protect natural or cultural heritage, many of their constitutive agreements impose obligations on their constituent member states regarding the conservation and management of resources in ABNJ. For example, the International Seabed Authority (ISA) is the organization 'through which States Parties shall . . . organize and control activities in the Area, particularly with a view to administering resources . . .' (in accordance with Part XI. (United Nations., 1982: Article 157). The 1982 LOSC (United Nations, 1982) also provides in Article 140(1) that activities in the Area (i.e. the deep seabed) must '*be carried out for the benefit of mankind as a whole, irrespective of the geographical location of states...*'⁶

Other relevant bodies include the International Maritime Organization (IMO) which coordinates its member states' regulation of international vessel traffic, safety and vessel source pollution in the marine environment including ABNJ; the Food and Agriculture Organization of the United Nations (FAO) and the wide range of Regional Fishery Management Organizations (RFMOs) that are the organizations by which member states coordinate the conservation and management of fisheries resources in ABNJ. The effectiveness of these organizations largely depends on flag state⁷ and port state enforcement.⁸ Regulatory measures are developed by the organizations but compliance with these measures is primarily the responsibility of the members states themselves, either individually or jointly.

The context within which such regulatory measures operate is laid down by the 1982 LOS Convention which prescribes a regime of 'Freedom of the high seas.'⁹ This means that 'the high seas are open to all States, whether coastal or land-locked.' And that all States may, subject to the conditions laid down by international law, exercise the freedoms of the High Seas. These include navigation, over flight and fishing.¹⁰ When ships are on the High Seas they are subject to the jurisdiction of the state whose flag they fly. When vessels are involved in activities in ABNJ, such as navigation or fishing, then states may exercise jurisdiction over those activities when they are conducted by vessels flying their flag or by persons or legal entities – such as companies – which hold their nationality. They may not, however, exercise jurisdiction over vessels flying the flag of other nations or over foreign nationals unless those other nations have agreed, usually by treaty, to allow reciprocal enforcement. So that, for example, the member states of an RFMO can agree to recognize the authority of the coast guard or navy vessels of other member states to enforce the legally binding conservation measures of the RFMO against their

own vessels.¹¹ Port states may also inspect foreign vessels calling into their ports to ensure that they are in compliance with international agreements to which the flag state is party.¹²

The 1982 Convention does specifically require that a flag state has a duty to 'effectively exercise its jurisdiction and control in administrative, technical or social matters.'¹³ What has not been entirely clear until recently, however, is the extent to which that duty requires a flag state to ensure that its vessels comply with international obligations that bind them, such as those required by IMO Conventions or by RFMO regulations.

However, the International Tribunal for the Law of the Sea (ITLOS) has recently reinforced the legal duties that a flag state has to supervise closely the activities of its vessels, nationals and those acting under its authority. In a ground breaking Advisory Opinion of 2011 rendered at the request of the International Seabed Authority (ISA), the Seabed Disputes Chamber of ITLOS found that states that sponsor activities relating to exploration and exploitation of the deep seabed – i.e. in ABNJ – are under the highest duty of due diligence to ensure that the entities they sponsor comply with the best possible environmental practices (ITLOS, 2011). This duty cannot be avoided.

Building on that Opinion, in 2015 the full Tribunal examined the obligations of states in relation to fishing vessels flying their flags (Freestone, 2016a; ITLOS, 2015). The Tribunal ruled that 'the flag State, in fulfilment of its responsibility to exercise effective jurisdiction and control in administrative matters, must adopt the necessary administrative measures to ensure that fishing vessels flying its flag are not involved in activities which will undermine the flag State's responsibilities under the Convention in respect of the conservation and management of marine living resources.' (ITLOS., 2015: para 119).

The Tribunal is also a reminder that it had already found in a previous case that a flag state's obligation under Art 192 LOSC to 'protect and preserve the marine environment' includes 'conservation of the living resources of the sea.' (ITLOS, 1999: para 70) Therefore, flag states are obliged to take the necessary measures to ensure that their nationals and vessels flying their flag are not involved in illegal, unreported and unregulated fishing (IUU) activities in the 200 nautical mile wide Exclusive Economic Zone EEZ of another state (ITLOS, 2015: para 144). Although this Opinion only related to the EEZ, the same principles would be applicable on the High Seas.

These examples are intended to illustrate that it is quite feasible for the Member States of the 1972 World Heritage Convention to agree among themselves a regime for the protection of inscribed sites in marine ABNJ. The chosen regime would focus on the protection of those iconic marine areas that would be recognized for their OUV and as such would be inscribed on the UNESCO World Heritage List.

Commission and South Pacific Regional Fisheries Management Organization. <https://www.wcpfc.int/high-seas-boarding-inspection>

¹²There is a network of 'Memoranda of Understanding' (MOUs) between the port states of each region of the oceans where the States of the region each undertake to inspect a certain percentage of vessels visiting their ports to ensure they comply with international obligations agreed by the IMO regarding ship safety, pollution control, etc. The 2009 Agreement on Part State Measures to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing (FAO., 2009) negotiated under the auspices of the FAO recognizes *inter alia* port state rights to inspect vessels suspected of IUU fishing.

¹³Article 94(1) LOSC

⁶Article 140(1) LOSC.

⁷The flag state of a vessel is the state under whose laws the vessel is registered or licensed.

⁸Port State Control (PSC) is an internationally agreed regime for the inspection of foreign ships in other national ports by PSC inspectors. The remit of these PSC officers is to investigate compliance with the requirements of international conventions.

⁹Article 87(1) LOSC

¹⁰Also laying of submarine cable and pipelines, construction of artificial islands and installations and scientific research – but all subject to the conditions set out in the Convention and by international law. Article 87(2) LOSC.

¹¹See for example under Article 21, of the 1995 United Nations Fish Stocks Agreement (United Nations., 1995). There are also examples of reciprocal High Seas boarding inspection schemes under the Western Central Pacific Fisheries

Member States can also agree to collaborate with existing international sectoral organizations with relevant competences – for example, the International Seabed Authority in relation to a seabed site in the Area,¹⁴ or an RFMO in relation to a high seas site recognized for its fish species aggregations of OUV. In this regard, the mechanisms developed by the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage are of particular interest and provide a useful precedent (UNESCO, 2001).¹⁵ The 2001 Convention provides a collaborative regime among Member States for the protection of underwater cultural heritage (UCH) in the Area – i.e. in ABNJ – which involves UNESCO and the International Seabed Authority.¹⁶ Under Articles 11 and 12, all States Parties have a responsibility to protect UCH in the Area¹⁷ and also have obligations to ensure that their nationals – or the masters of ships flying their flags – report to it any discovery of UCH or any intention ‘to engage in activities directed at underwater cultural heritage located in the Area’.¹⁸ The State Party then reports these activities to both the Director-General of UNESCO and the Secretary-General of the ISA. The Director-General then makes this information available to all States Parties so that they may declare an interest in the UCH in ABNJ. Interested states then collaborate on how to best protect the UCH, and appoint a ‘Coordinating State’ to implement or organize agreed protection measures in consultation with the ISA if it accepted the invitation of the Director-General. It is recognized that any and all Member States have the authority to take ‘all practicable measures in conformity with the Convention ... to prevent any immediate danger to the [UCH], whether arising from human activities or any other cause including looting’¹⁹ prior to the selection of the Coordinating State and protective measures to be implemented through the authorization system. In coordinating consultations, taking measures, conducting preliminary research, and/or issuing authorizations, the Coordinating State shall act for the benefit of humanity as a whole, on behalf of all States Parties.²⁰

A central force of the 1972 Convention is its capacity to call upon the international community to safeguard a site when its unique values are severely threatened, by inscribing the site on the List of World Heritage in Danger or by stripping a site of its World Heritage status when its OUV is irrevocably lost. The risk of potential delisting of a site ‘in Danger’ has proved highly effective in the form of an ‘alert system’ that ensures the attention of the international community to put the necessary measures in place that will secure the preservation of a site’s unique values. Numerous examples exist where such an alert has prevented an irrevocable loss to the unique and irreplaceable heritage of humanity.

¹⁴Article 1(1) LOSC reads: ‘Area’ means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.’

¹⁵UNESCO., 2001. Convention on the Protection of the Underwater Cultural Heritage adopted by the General Conference at its 31st session, Paris, 2 November 2001. 48 *Law of the Sea Bulletin* 29.

¹⁶See Dromgoole, 2013: pp. 294–298.

¹⁷This is consistent with framework of the LOSC, particularly Articles 149 and 303(1).

¹⁸Article 11(1) 2001 Convention

¹⁹Article 12(3) 2001 Convention

²⁰Consistent with the LOSC Article 149, particular regard shall be paid to the preferential rights of States of cultural, historical or archaeological origin in respect of the underwater cultural heritage concerned.

4 | IDENTIFYING POTENTIAL EXAMPLES OF OUV ON THE HIGH SEAS

To identify areas of potential OUV on the High Seas, the preliminary analysis (Freestone et al., 2016) relied on a considerable body of existing research, largely stemming from work conducted by the Convention on Biological Diversity on Ecologically and Biologically Significant Areas (EBSAs).²¹ This was supplemented by work conducted by OSPAR²² (OSPAR, 1992) and a regional survey of marine features such as seamounts in the High Seas (IUCN, 2013a, b). A preliminary analysis based on these sources was then discussed in more detail with a group of leading high seas scientists to discuss and refine the conclusions of an initial selection process against the criteria and standards around the World Heritage Convention.

The end-point objective was to select examples of major ocean ecosystems to illustrate the potential application of the Convention on the High Seas. Any such sites needed to have sufficient scientific data available so they could be properly described against the World Heritage Criteria. This resulted in illustrative examples of potential OUV on the High Seas where five locations were identified (Figure 1).

- **The Costa Rica Thermal Dome** (Figure 2).- The Costa Rica Thermal Dome is a unique oceanic oasis, a wind-driven upwelling system, which forms a highly productive area and a critical habitat, which provides singular spawning sites, migration pathways and feeding grounds to multiple endangered and commercially important species (see for example Fiedler, 2002).²³
- **The Sargasso Sea** (Figure 3).- The ‘Golden Floating Rainforest of the Ocean’, the Sargasso Sea, is home to an iconic pelagic ecosystem based upon the floating *Sargassum* seaweeds, the world’s only holopelagic²⁴ algae. It was first viewed by Columbus on his first voyage in 1492 and has been a place of myth and legend ever since. Its global importance derives from a combination of physical and oceanographic structures, its complex pelagic ecosystems, and its role in global ocean and earth system processes (Laffoley & Roe, 2011).
- **The White Shark Café** (Figure 4).- The White Shark Café is a pristine open ocean region approximately halfway between the North American Mainland and Hawai’i that is the site for the only known offshore aggregation of north Pacific great white sharks (*Carcharodon carcharias*). The Café provides a unique offshore habitat where these irreplaceable marine predators congregate in cobalt blue pristine waters (see for example Jorgensen, Arnoldi, et al. (2012) and Jorgensen, et al. (2012)).

²¹<https://www.cbd.int/ebsa/>

²²The 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (the ‘OSPAR Convention’) was formed from the merger of the Commissions of the 1972 Oslo Convention and the 1974 Paris Convention, and entered into force in March 1998.

²³<http://crdome.marviva.net/?lang=en>

²⁴Living floating in the open sea rather than attached to the seabed in coastal waters.



FIGURE 1 Illustrations of potential outstanding universal value on the high seas. From Freestone et al. (2016). © UNESCO/marine Geospatial Ecology lab, Duke University

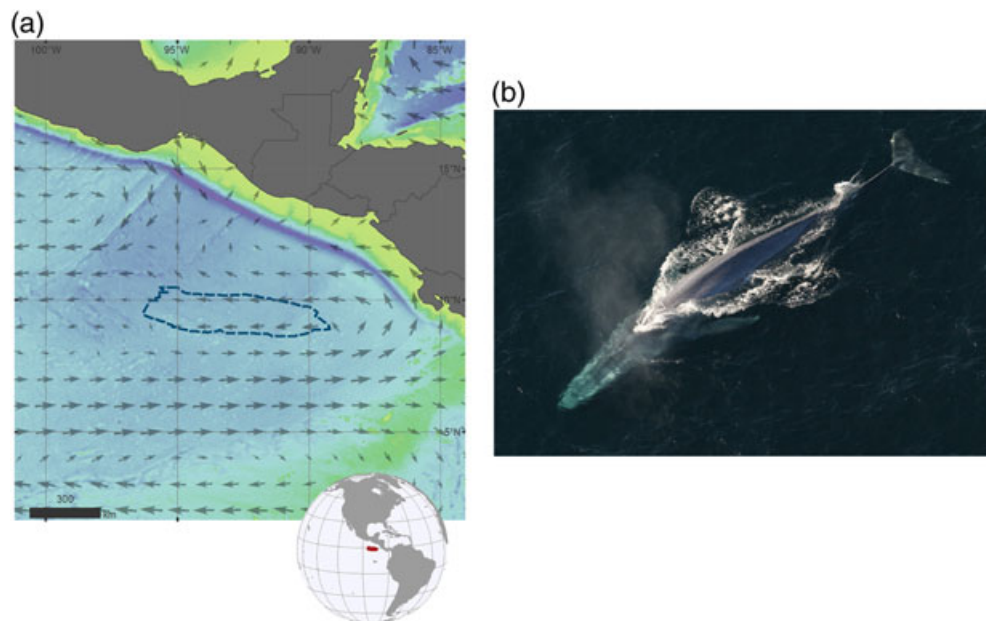


FIGURE 2 (a) the Costa Rica Thermal Dome located in the eastern Pacific off central America (source: Bathymetry (GEBCO, 2014) and surface currents (Lumpkin & Johnson, 2013), © UNESCO/marine Geospatial Ecology lab, Duke University) is home to impressive oceanic megafauna including (b) the blue whale *Balaenoptera musculus* (public domain – NOAA photo library)

- **The Lost City Hydrothermal Field** (Figure 5).- The Lost City Hydrothermal Field is a remarkable geobiological feature (biotope) in the deep sea (700–800 m water depth) that is unlike any other ecosystem yet known on Earth. The site, dominated by the Poseidon carbonate monolith (a 60-metre high carbonate column), was discovered serendipitously in 2000 during a submersible research cruise on the Mid-Atlantic Ridge, and it is still being explored (see for example Kelley et al. (2005) and Kelley, Früh-Green, Karson, and Ludwig (2007)).
- **The Atlantis Bank** (Figure 6).- The Atlantis Bank, located within sub-tropical waters of the Indian Ocean, was the first tectonic sunken fossil island ever studied. The complex geomorphology

of old headlands, precipitous cliffs, stacks, beaches and lagoons harbours a very diverse deep-sea fauna at depths from 700 to 4000 m characterized by large anemones, massive sponges, and octocorals. Large *Paragorgia* colonies are particularly notable (see for example Rogers et al. (2009) and Rogers and Taylor (2012)).

This preliminary analysis is only a first step towards a more comprehensive approach that could be put in place. Such an approach could be undertaken using an expert group drawing on the not inconsiderable investments already made to describe EBSAs for the Convention on Biological Diversity (CBD, 1992), supplemented by

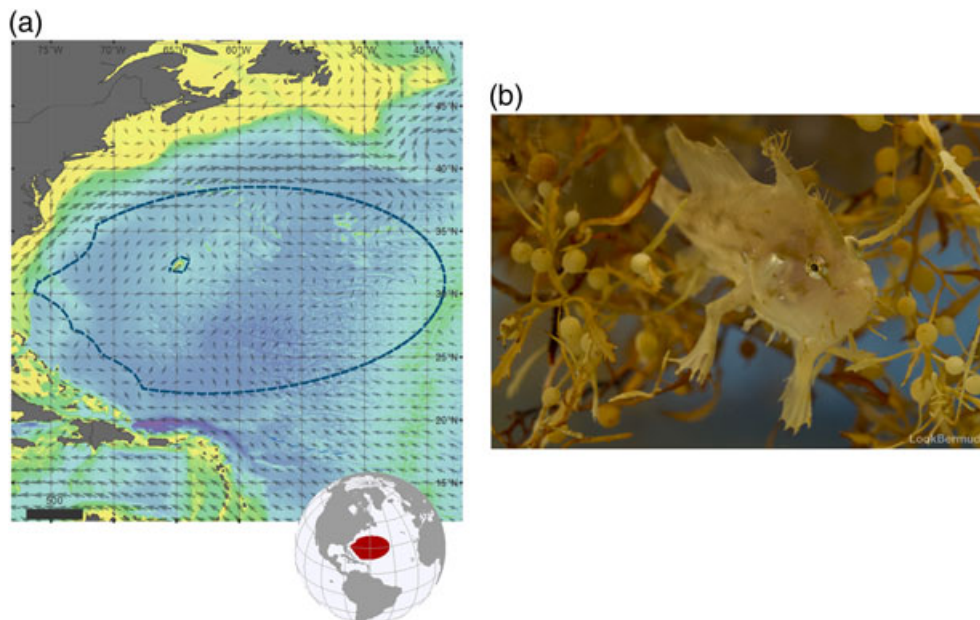


FIGURE 3 (a) the Sargasso Sea, located in the western Atlantic (source: Bathymetry (GEBCO, 2014) and surface currents (Lumpkin & Johnson, 2013), © UNESCO/marine Geospatial Ecology lab, Duke University) is home to a floating ecosystem based around two species of free-living, floating brown *Sargassum* seaweed that provides a refuge for many species including species endemic to the seaweed such as (b) the *Sargassum* fish *Histrio histrio* (source: Look Bermuda)

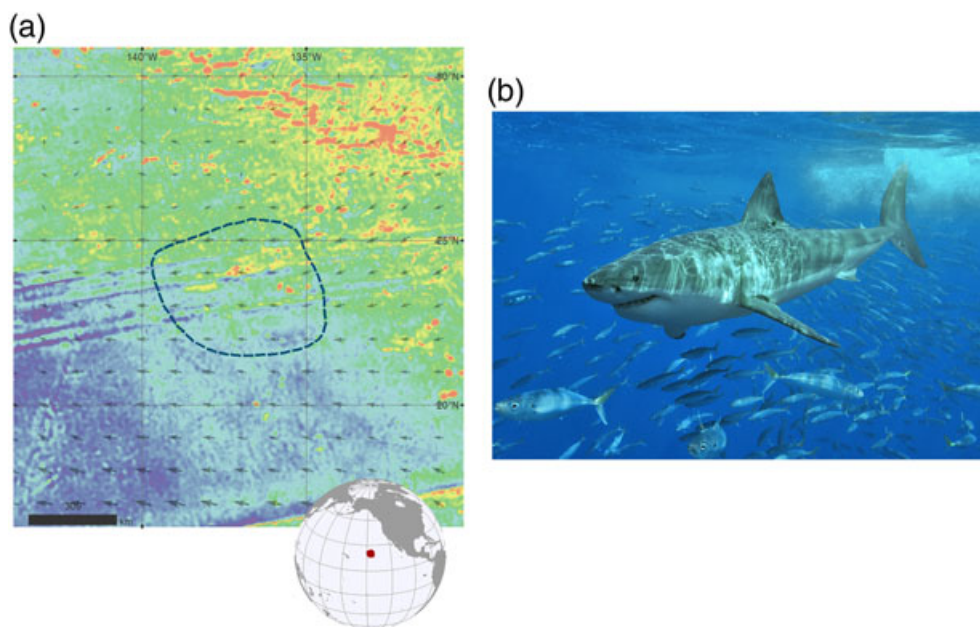


FIGURE 4 (a) the white shark Café situated between North America and Hawai'i (source: Bathymetry (GEBCO, 2014) and surface currents (Lumpkin & Johnson, 2013), © UNESCO/marine Geospatial Ecology lab, Duke University) is the only known offshore aggregating area for (b) north Pacific great white sharks (*Carcharodon carcharias*) (source: https://commons.wikimedia.org/wiki/file:White_shark.Jpg)

information from research studies and programmes which have a focus on small regional areas or on specific features or species groups.

5 | OPPORTUNITIES TO TAKE THE CONCEPT FORWARD

There are several routes by which qualifying properties could be afforded protection under the Convention on the High Seas and that the World Heritage Committee could act upon. The 1972 Convention

itself envisages revision. Article 37 provides that '[T]his Convention may be revised by the General Conference of the United Nations Educational, Scientific and Cultural Organization. Any such revision shall, however, bind only the States which shall become Parties to the revising convention.'²⁵

However, such a revision entails a major procedure involving the replacement of the existing Convention with a new text, through the

²⁵Article 37(1), 1972 World Heritage Convention

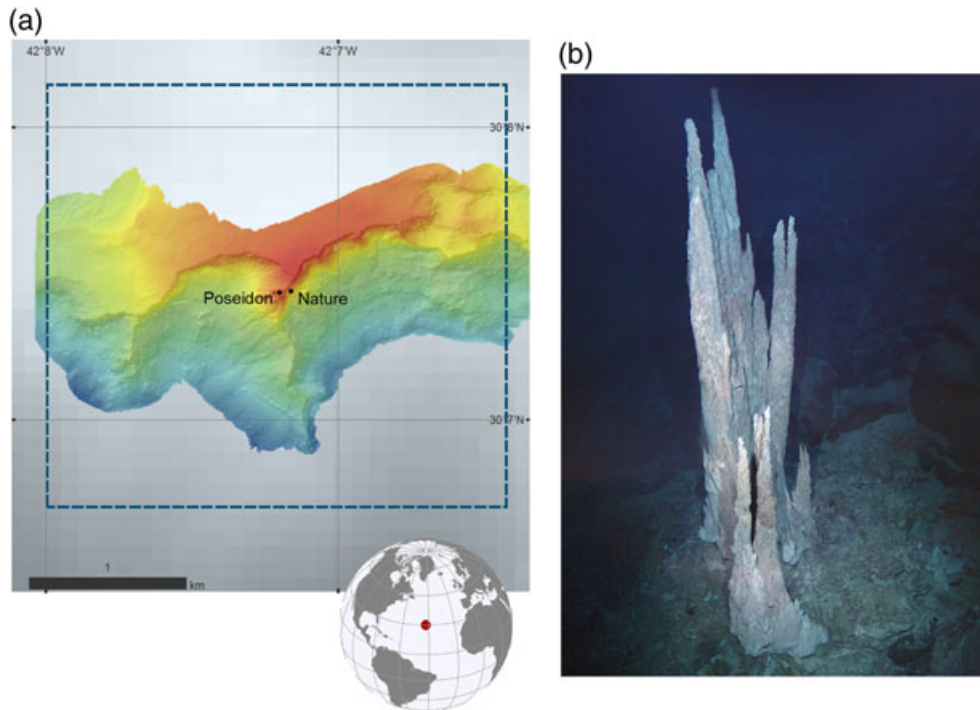


FIGURE 5 (a) the lost City hydrothermal field, located on the mid-Atlantic Ridge (source: Bathymetry (Karson et al., 2006) and hydrothermal vents (Kelley et al., 2007), © UNESCO/marine Geospatial Ecology lab, Duke University), is dominated by (b) massive white carbonate monoliths that can rise 60 metres towards the surface (source: © D.S Kelley & M. Elend, School of Oceanography, University of Washington)

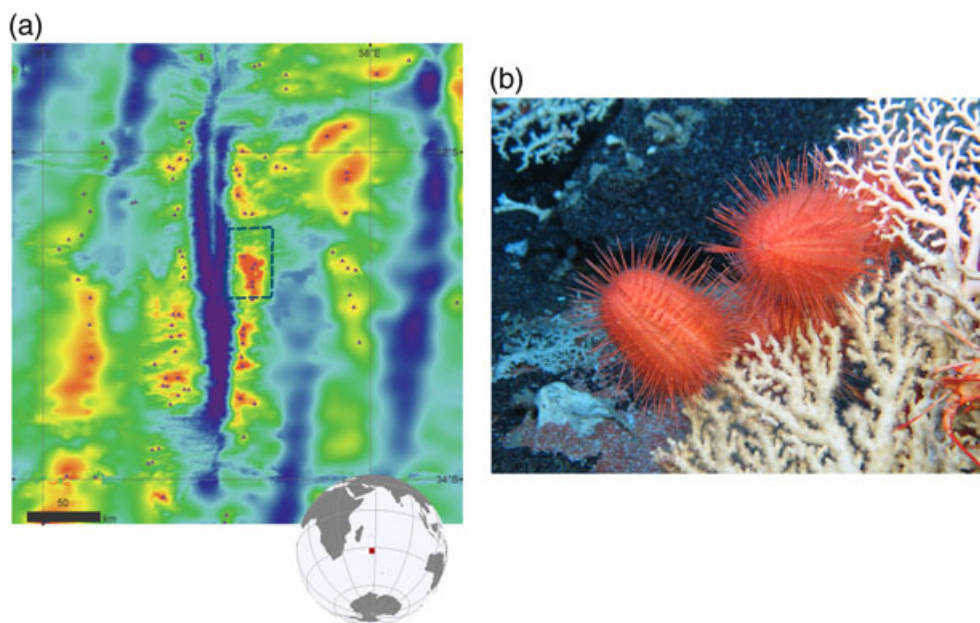


FIGURE 6 (a) the Atlantis Bank in the Indian Ocean (source: Bathymetry (DOC/NOAA/NESDIS/NCET, 2016; GEBCO, 2014) and seamounts (Yesson, Clark, Taylor, & Rogers, 2011), © UNESCO/marine Geospatial Ecology lab, Duke University) is the first tectonic sunken fossil island ever studied and has a profusion of marine life such as (b) large stylasterid colonies, with the echinoid *Dermechinus horridus* (source: © the Natural Environment Research Council and IUCN/GEF seamounts project C/O Alex D Rogers)

convening of a special meeting of the UNESCO Conference. Once such a meeting were convened then the whole text of the Convention would be open for revision. There is a strong risk that such a process would threaten to be a divisive one among the Parties and, of course, it could not be guaranteed that among the changes that might be agreed would be provisions relating to ABNJ.

In addition, there is a real risk that the new replacement convention might not command the level of universal support that the current convention enjoys. Over 40 years the 1972 Convention has gathered 192 parties – it might take a similar period to reach the same level of support for a new convention, during which time two conventions would be operating side by side.

It has been thought therefore that utilizing the amendment procedure of the 1972 Convention is not a feasible option, so there remain three possible modalities for the extension of the World Heritage Convention to include marine cultural and natural sites on the High Seas.

First the World Heritage Convention Parties could take a 'bold' interpretation of the Convention, either through a series of incremental changes or a formal policy change. This could be done in two ways: The Parties to any legal agreement can incrementally and pragmatically agree to minor changes in the way that they apply a treaty. An example of this would be the way the WHC has already inscribed sites which include the Exclusive Economic Zones (EEZs) of islands – even though strictly these are not parts of their territory.²⁶ Or, the Parties to any Agreement can also agree to, and formally announce, a change in the way that they intend to apply a treaty among themselves in the future. Such a Declaration would have to be agreed unanimously or at least by consensus.²⁷ The question arises whether this unanimity/consensus would need to be among the 25 elected members the World Heritage Convention or all the States Parties. In any event it might require the negotiation of a text which might be as long, arduous, and potentially divisive, as the renegotiation of the treaty itself.

Second the Parties could agree to an Amendment outside the terms of the 1972 Agreement akin to the 1994 Part XI Implementing Agreement to UNCLOS – again a possibly controversial approach. Third, an optional protocol to the 1972 Convention could be developed through an international negotiation among States Parties, binding only on those States that choose to ratify any resulting protocol. The key issue for all these options is the opportunity this presents the World Heritage Committee to move forwards to finally complete the global application of a globally named Convention.

Under any option, a system for the protection of World Heritage sites in areas beyond national jurisdiction will need to be elaborated, both in conjunction with the relevant competent international organizations and their States Parties, and in coordination with potential procedures for establishing or recognizing marine protected areas developed for the conservation and sustainable use of marine biodiversity in ABNJ pursuant to any new international instrument under the 1982 Law of the Sea Convention (United Nations, 1982). As the criteria for defining the OUV of potential World Heritage sites go beyond simply biodiversity to include, for example, 'geological and physiographical formations' and sites of historic, archaeological or cultural value, the discussions at the UN in New York would not supersede the need for discussions within the World Heritage Convention membership itself.

²⁶Phoenix Island Protected Area in Kiribati and the Papahānaumokuākea Marine National Monument in the US Hawaiian islands have both been inscribed as WH sites. The outer limits of both sites extend beyond the territorial sea of Kiribati and the US respectively. Under the terms of Article 2(1) of the 1982 UN Law of the Sea Convention – taken to reflect customary international law – 'The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.' Beyond that zone however, in its exclusive economic zone, a coastal state only has 'sovereign rights' over the resources of the seabed and water column (Art 55 LOSC).

²⁷Unanimity requires the positive vote of all members; consensus requires the absence of dissent.

Alongside such direct considerations lie other actions to further the application of the World Heritage Convention on the High Seas:

- Scientists and conservation organizations with an interest in the High Seas need to come together to develop a more extensive shadow list of sites of potential OUV expanding the handful of illustrative examples highlighted here, and described in detail in Freestone et al. (2016). This would have the twin effect of mobilizing science to action within the context of the Convention, while showing the depth, breadth and scale of the potential OUV missing from recognition under the Convention.
- Greater pressure must be brought to bear on the so-called 'competent authorities' to have much greater regard for biodiversity in implementing their sectoral functions on the High Seas. All too often to date, where recognition of the importance of certain areas has been agreed, then protection measures have not been implemented with the same standards of diligence expected for similarly worthy locations on land or inside national marine jurisdictions. Perhaps this has related to the notion of 'out of sight, out of mind', but responsibilities and actions for implementation on the open ocean now need to improve.
- The opportunity that areas of potential OUV on the High Seas provide to donors and other funding bodies seeking new innovative opportunities to deliver marine conservation action at scale. While it is laudable that significant money has been spent to protect vast areas of ocean around remote islands within national jurisdiction, similar serious expenditure must also be made for areas of potential OUV on the High Seas to provide enough time to consolidate data and information and provide compelling illustrations of the amazing locations at risk.

The combination of these three actions would bring greater pressure on the World Heritage Convention and the ongoing negotiations on the international legally binding instrument (ILBI) under the UNCLOS to act with more urgency and determination.

6 | CONCLUSIONS

This paper demonstrates the gaping hole that exists in the ability to nominate properties in ABNJ under the 1972 World Heritage Convention which now needs to be plugged – the recognition of OUV on the High Seas covering half of the planet. Considering the original intent of the World Heritage Convention, its nearly universal ratification, and the science and technology advances that reveal in the High Seas what was previously hidden, World Heritage in the High Seas is indeed an idea whose time has come.

We have set out feasible ways in which the regime of the 1972 Convention could be adapted by the parties. A system now needs to be elaborated for the protection of World Heritage sites in areas beyond national jurisdiction. This will be an important undertaking which will require collaboration between UNESCO and the relevant competent international organizations and their States Parties. It will also require coordination with potential procedures for the establishment of high seas marine protected areas currently being developed

in the context of the United Nations negotiations of the international legally binding Instrument (ILBI) for the conservation and sustainable use of marine biodiversity in ABNJ.

The fact that the UN is already looking in detail at the legal regime of the High Seas – of ABNJ – means that this is indeed an idea whose time has come. The opportunity to achieve this is definable and within reach, but the actions identified above need to be taken to turn this into a practical reality. Set alongside the increasing and inexorably spreading impacts from humans in the remote deep ocean in the High Seas, there is a window of opportunity for one last time to get ahead of the curve of degradation and to safeguard areas that are clearly of World Heritage stature before they are irreparably damaged.

There are already significant challenges and losses to properties already inscribed on the World Heritage List. Taking opportunities to expand the application of the World Heritage Convention provides a very rare opportunity to act in a timely way to preserve important sites in the High Seas. The only real question should be: 'what are we waiting for?'

ACKNOWLEDGEMENTS

We are very grateful to Dr Fanny Douvère and her team at the UNESCO World Heritage Marine Programme who mobilized support for this initiative from the Khaled bin Sultan Living Oceans Foundation, the French Marine Protected Areas Agency and Jaeger-LeCoultre. To all the participants in the Expert Working Meeting, held at UNESCO Paris 29–30 October 2015, and to the other experts the authors interviewed in preparing their 2016 Report, on which this paper is based.

DISCLOSURE/CONFLICT OF INTEREST

The authors declare no conflicts of interest.

ORCID

Dan Laffoley  <http://orcid.org/0000-0001-6338-6244>

David Freestone  <http://orcid.org/0000-0002-0550-3411>

REFERENCES

- Abdulla, A., Obura, D., Bertzky, B., & Shi, Y. (2013). Marine Natural Heritage and the World Heritage List Interpretation of World Heritage criteria in marine systems, analysis of biogeographic representation of sites, and a roadmap for addressing gaps. Gland, Switzerland: IUCN.
- CBD. (1992). *Convention on Biological Diversity*. Text at (1992) 31 International Legal Materials (ILM) 818. Came into force 29 December 1993.
- DOC/NOAA/NESDIS/NCET. (2016). https://ngdc.noaa.gov/docucomp/page?xml=NOAA/NESDIS/NGDC/MGG/Multibeam/iso/xml/RC2709_Multibeam.xml&view=getDataView&header=none
- Dromgoole, S. (2013). *Underwater Cultural Heritage and International Law*. Cambridge, UK: Cambridge university Press.
- FAO. (2009). FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing (Port State Measures Agreement) (in force 5 June 2016). <http://www.fao.org/fishery/psm/agreement/en>
- Fiedler, P. C. (2002). The annual cycle and biological effects of the Costa Rica Dome. *Deep-Sea Research I: Oceanographic Research Papers*, 49, 321–338.
- Freestone, D. (2011). Problems of High Seas governance. In D. Vidas, & P. J. Schei (Eds.), *The World ocean in globalisation: Challenges and responses* (pp. 99–130). Utrecht: Nijhoff/Brill.
- Freestone, D. (2016a). Case 21: Request for an Advisory Opinion submitted by the sub-regional fisheries Commission (SRFC), International Tribunal for the law of the sea. *Asia-Pacific Journal of Ocean Law and Policy*, 1, 126–133.
- Freestone, D. (2016b). Governance of areas beyond national jurisdiction: an unfinished agenda? In J. Barrett, & R. Barnes (Eds.), *The UN Convention on the Law of the Sea: A Living Treaty?* (pp. 231–266). London, UK: British Institute of International and Comparative Law.
- Freestone, D., Laffoley, D., Douvère, F., & Badman, T. (2016). *World Heritage in the High Seas: An idea whose time has come*. World heritage reports 44. July 2016, Paris: UNESCO world heritage convention.
- GEBCO. (2014). http://www.gebco.net/data_and_products/gridded_bathymetry_data/gebco_30_second_grid/
- Halpern, B. S., Frazier, M., Potapenko, J., Casey, K. S., Koenig, K., Longo, C., ... Walbridge, S. (2015). Spatial and temporal changes in cumulative human impacts on the world's ocean. *Nature Communications*, 6. Article number: 7615. <https://doi.org/10.1038/ncomms8615>
- ITLOS. (1999). *Southern Bluefin Tuna (New Zealand v. Japan; Australia v. Japan)*, Provisional Measures, Order of 27 August, 1999, ITLOS Reports 1999, 280. <http://www.itlos.org/>
- ITLOS. (2015). *Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission (SRFC)*, case 21, International Tribunal for the law of the sea, Advisory Opinion (ITLOS), 2 April 2015. At <http://www.itlos.org/>
- ITLOS (Seabed Disputes Chamber). (2011). *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Case No. 17, Advisory Opinion (ITLOS Seabed Disputes Chamber Feb. 1, 2011), <http://www.itlos.org/>
- IUCN. (2013a). Marine Natural Heritage and the World Heritage List interpretation of World Heritage criteria in marine systems, analysis of biogeographic representation of sites, and a roadmap for addressing gaps. Gland, Switzerland: IUCN.
- IUCN. (2013b). Seamounts project: An ecosystem approach to management of seamounts in the Southern Indian Ocean. Gland, Switzerland: IUCN.
- Jorgensen, S. J., Chapple, T. K., Anderson, S. D., Hoyos, M., Reeb, C., & Block, B. A. (2012). Connectivity among white shark coastal aggregation areas in the Northeastern Pacific. In M. L. Domeier (Ed.), *Global perspectives on the biology and life history of white shark* (pp. 159–167). New York: CRC Press.
- Jorgensen, S. J., Arnoldi, N. S., Estess, E. E., Chapple, T. K., Rückert, M., Anderson, S. D., & Block, B. A. (2012). Eating or meeting? Cluster analysis reveals intricacies of white shark (*Carcharodon carcharias*) migration and offshore behavior. *PLoS ONE*, 7, e47819
- Karson, J. A., Früh-Green, G. L., Kelley, D., Williams, E. A., Yoerger, D. R., & Jakuba, M. (2006). Detachment shear zone of the Atlantis massif core complex mid-Atlantic Ridge 30°N. *Geochemistry Geophysics Geosystems*, 7(6). <https://doi.org/10.1029/2005GC001109>
- Kelley, D. S., Früh-Green, G. L., Karson, J. A., & Ludwig, K. A. (2007). The lost city hydrothermal field revisited. *Oceanography*, 20, 90–99.
- Kelley, D. S., Karson, J. A., Früh-Green, G. L., Yoerger, D. R., Shank, T. M., Butterfield, D. A., & Sylva, S. P. (2005). A serpentinite-hosted ecosystem: The lost city hydrothermal field. *Science*, 307, 1428–1434.
- Laffoley, D. d'A. (Ed.). (2008). Towards networks of marine protected areas. The MPA plan of action for IUCN's World Commission on Protected Areas. Gland, Switzerland: IUCN WCPA.
- Laffoley, D., & Langley, J. (Eds.). (2010). The Bahrain Action Plan for marine World Heritage. Identifying priorities for marine World Heritage and enhancing the role of the World Heritage Convention in the IUCN WCPA Marine Global Plan of Action for MPAs in our Oceans and Seas. Gland, Switzerland: IUCN.

- Laffoley, D., & Roe, H. (Eds.). (2011). *The Protection and Management of the Sargasso Sea: The golden floating rainforest of the Atlantic Ocean. Summary Science and Supporting Evidence Case. Sargasso Sea Alliance: Washington DC.* Available at <http://www.sargassoseacommission.org/storage/documents/Sargasso.Report.9.12.pdf>
- Lumpkin, R., & Johnson, G. C. (2013). Global ocean surface velocities from drifters: Mean variance el Niño – Southern oscillation response and seasonal cycle. *Journal of geophysical Research: Oceans*, 118, 2992–3006.
- Obura, D. O., Church, J. E., & Gabrié, C. (2012). *Assessing Marine World Heritage from an ecosystem perspective: The Western Indian Ocean.* World Heritage Centre, United Nations Education, Science and Cultural Organization (UNESCO). <http://whc.unesco.org/document/117644>
- OSPAR. (1992). *Convention for the Protection of the Marine Environment of the North-East Atlantic* (the 'OSPAR Convention') was formed from the merger of the Commissions of the 1972 Oslo Convention and the 1974 Paris Convention, and entered into force in March 1998; text at (1993) 32 ILM 1072 and http://www.ospar.org/html_documents/ospar/html/ospar_convention_e_updated_text_2007.pdf
- Rogers, A. D., Alvheim, O., Bemanaja, E., Benivary, D., Boersch-Supan, P. H., Bornman, T., ... Sonnekus, T. (2009). Cruise Report 'Dr. Fritjof Nansen' Southern Indian Ocean Seamounts (IUCN/UNDP/ASCLME/NERC/EAF Nansen Project 2009 Cruise 410) 12th November – 19th December, 2009. Gland, Switzerland: International Union for the Conservation of Nature.
- Rogers, A. D., & Taylor, M. L. (2012). Benthic biodiversity of seamounts in the southwest Indian Ocean Cruise report – R/V James Cook 066 Southwest Indian Ocean Seamounts expedition – November 7th – December 21st, 2011.
- Spalding, M. (2012). *Marine World Heritage: Toward a representative, balanced and credible World Heritage List.* World Heritage Centre, Paris: UNESCO.
- UNESCO. (1972). *Convention concerning the Protection the World Cultural and Natural Heritage.* Adopted by General Conference at its 17th session, Paris, 16 November 1972. <http://whc.unesco.org/en/conventiontext/>
- UNESCO. (2001). *Convention on the Protection of the Underwater Cultural Heritage* adopted by the General Conference at its 31st session, Paris, 2 November 2001. *Law of the Sea Bulletin*, 48, 29 (in force 2 January 2009). <http://unesdoc.unesco.org/images/0012/001246/124687e.pdf#page=56>
- UNESCO World Heritage Committee. (2012). WHC-11/35.COM/INF.9A. Paris, 27 may 2011. <http://whc.unesco.org/archive/2011/whc11-35com-9Ae1.pdf>
- United Nations. (1982). *United Nations Convention on the Law of the Sea.* UN doc. A/CONF.62/122; text in United Nations Treaty Series (UNTS) 1833: 3; text reprinted in (1982) *International Legal Materials (ILM)* 21: 1261; www.un.org/Depts/los. (in force 16 November 1994)
- United Nations. (1995). *The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.* UN Doc. A/CONF.164/37. Text at (1995) *International Legal Materials* 34: 1542. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N95/274/67/PDF/N9527467.pdf?OpenElement> (in force 11 December 2001)
- Yesson, C., Clark, M. R., Taylor, M. L., & Rogers, A. D. (2011). The global distribution of seamounts based on 30 arc seconds bathymetry data. *Deep Sea Research Part 1: Oceanographic Research Papers*, 58, 442–453.

How to cite this article: Laffoley D, Freestone D. A world of difference - opportunities for applying the 1972 world heritage convention to the high seas. *Aquatic Conserv: Mar Freshw Ecosyst.* 2017;27(S1):78–88. <https://doi.org/10.1002/aqc.2813>