

The International Whaling Commission (IWC) Conservation Committee review of the proposed South Atlantic Whale Sanctuary (SAWS)

Consider whether the SAWS is consistent with other measures to protect whales from anthropogenic and other environmental factors.

1. Whale sanctuaries established by the IWC have been primarily directed at preventing direct takes of whales in a given geographical area. However, in line with the expanding scope of the IWC's agenda to address issues with whale conservation and management beyond the decisions on lethal takes, the SAWS proposal considers present and potential threats to whale stocks and their habitats. These threats include contaminants, noise pollution, interactions with fisheries, collisions with ships, hydrocarbon exploration, climate change, and others. To help mitigate these threats, one of the objectives for the SAWS is the coordination of regional efforts to help ensure the recovery of cetacean resources and its non-extractive and non-lethal use by coastal States.
2. The Management Plan included as part of the SAWS proposal was the first initiative of its kind. The Plan focuses on all great whales that occur in the SAWS area and provides accurate and up-to-date scientific information about structure, threats, abundance estimates and trends for each recognized stock. The Sanctuary Management Plan was designed to provide guidelines on the management of threats faced by whales and on the monitoring of their potential recovery for the next ten years in the South Atlantic Ocean. The Sanctuary Management Plan should therefore be reviewed and updated every ten years to account for ecological, oceanographic and other possible changes.
3. Two Action Plans, comprising 11 actions, are proposed: the Research and Monitoring Action Plan (REAP) and the Education and Outreach Action Plan (EOAP). The aim of REAP is to achieve the main goals of the SAWS which are: (1) the assessment and addressing of threats and (2) the monitoring of the recovery of whale populations; while the aim of the EOAP is to increase the development of the non-extractive sustainable use of whales and to disseminate the information gathered to local, national and international communities. This Sanctuary Management Plan was designed to provide a scientific basis to facilitate the reviewing process regarding the effectiveness of SAWS in accordance with its objectives.
4. The identification of different stocks, included in the plan, would allow the mapping of the main areas used by different stocks and monitor the use of these areas as migratory pathways, for feeding/foraging and reproduction.
5. The creation of the SAWS will allow the direct benefit of protecting great whales through banning whaling but will also provide indirect benefits including greater research opportunities and increased collaboration with other international agreements.
6. Establishing SAWS with a management plan already in place provides scope for improved coordination when it comes to dealing with ship collisions and reducing underwater noise from ships. This can be achieved through collaborative measures implemented through the International Maritime Organization (IMO). A coordinated approach to identifying high risk areas and mitigation measures, with support from stakeholders and all States across the region, would be one clear benefit of establishing the Sanctuary.
7. The SAWS would also provide contiguous marine environmental protection with other areas created in national coastal regions of the South Atlantic countries. Nationally protected areas of coastal states would act as an anchor for conservation, research, monitoring, education and capacity-building initiatives that could spread over the SAWS' area, optimizing resources to protect whales.

8. The primary anthropogenic and environmental factors likely to affect whales in the SAWS are those due to krill fisheries and climate change (including ocean acidification). It is difficult to predict the effects of climate change and ocean acidification on whales in the SOS. It is generally considered likely that reductions in sea ice will adversely affect krill abundance. There is therefore concern around the combined effects of climate change, ocean acidification and expanding fisheries on krill populations and their dependent predators. Recent studies have shown that ocean acidification has adverse effects on larval development and survival (Kawaguchi *et al.*, 2013) of Antarctic krill (*Euphausia superba*).
9. There is existing management in place for krill fisheries which impact feeding areas of Whales in the Antarctic. They are managed conservatively under a precautionary approach by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). As whales that feed in Antarctic are krill-dependent predators, the CCAMLR has an important role in the long term conservation of large whales throughout the range of stocks in the SOS and SAWS.
10. The other relevant consideration is the role that whales may play in the global carbon cycle. The "iron fertilisation hypothesis" (Smetacek and Nicol, 2005) indicates that the recovery of depleted whale population is likely to be important in the continuing drawdown of atmospheric carbon dioxide and its transport to the deep ocean in the form of organic detritus. These mechanisms may help mitigate global climate change and the local Southern Ocean effects of ocean acidification.

The Conservation Committee therefore concludes that the proposed SAWS is consistent with existing measures to protect whales and has the potential to enhance coordinated efforts in tackling environmental threats and promote socially important activities such as research and public education, particularly in developing countries.

Assess the effectiveness of the SAWS and any adjacent IWC Sanctuaries in terms of International agreements concerning biodiversity and conservation of nature.

11. The effectiveness of the SAWS and the adjacent IWC Sanctuaries (SOS) may be enhanced by cooperation with other international organizations, such as CCAMLR, the United Nations Framework Convention on Climate Change, and the Convention on Biological Diversity (CBD).
12. The 1992 United Nations Framework Convention on Climate Change (UNFCCC) notes that (article 4) all parties shall: "*Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems*". This article takes into account national and regional development priorities, objectives and circumstances of each party. As discussed above, the CCAMLR has an important role in managing Krill fisheries and the long term conservation of large whales throughout the range of stocks in the SOS and SAWS.
13. The CBD was developed to provide an international framework for the conservation of biodiversity and sustainable development, outlining obligatory measures for conserving biodiversity. The CBD notes that "*the fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings*".
14. Article 13 of the CBD refers to Public Education and Awareness and notes that the Contracting Parties shall promote and encourage understanding of the importance of biodiversity conservation and cooperate with other states to develop educational and awareness programmes. In accordance with this, the EOAP (presented in the SAWS management plan) outlines plans to disseminate

information gathered for national and international communities to help raise awareness and engagement and develop the sustainable use of whales.

15. Article 14 of the CBD which requires environmental impact assessments to be carried out to ensure that any impact of programmes or policies are minimized; while Article 18 states that contracting parties shall promote international technical and scientific cooperation for conservation and sustainable development. In accordance with these articles, the REAP (presented in the SAWS management proposal) has been developed to achieve the main goals of the SAWS which are: (1) the assessing and addressing of threats and (2) the monitoring of the recovery of whale populations. These focus on stimulating coordinated research in the area and promoting data sharing alongside goals to maintain or increase the whale population size while assessing the distribution, status and trends of populations. This demonstrates that proposals for the SAWS and adjacent IWC sanctuaries are consistent with the CBD.
16. The Convention on Migratory Species (CMS), recognized as CBD's leading partner on issues regarding migratory species, presents another key opportunity to bring together collaborative work with the SAWS. There are currently CMS Agreements relevant to the conservation of migratory whales, dolphins and porpoises, and CMS has adopted a series of Resolutions to address these species– including numerous policies towards bycatches, ocean noise, marine debris, data-deficiencies and other impediments to their optimum conservation status.

The Conservation Committee therefore concludes that the proposed SAWS would contribute positively to a number of existing international commitments on biodiversity and climate change.

Assess whether the SAWS is consistent with the precautionary approach in accordance to Principle 15 of the 1992 Rio Declaration.

17. The precautionary approach, as defined by Principle 15 of the 1992 Rio Declaration states that: *“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”*. The concept of the precautionary approach is commonly invoked in the literature to justify the establishment of marine reserves and marine protected areas.
18. The establishment of the SAWS would improve resilience and contribute to reducing the impact of multiple threats to whales’ stocks using the best available scientific advice. There remain some outstanding questions concerning the biological and ecological aspects which can be answered with the establishment of the sanctuary and the subsequent implementation of the REAP which aims to define whale stock identity, determine habitat use patterns and critical areas, and produce abundance and trend estimates. The REAP will focus on mitigating impacts on whale populations in the sanctuary, including intentional takes, entanglements in fishing gear, and vessel collisions. These actions are intended to protect and promote population recovery despite an incomplete evidence base, in line with the Precautionary Principle. In addition to this, the establishment of whale sanctuaries in accordance with the rules of the ICRW is, therefore, also in line with the application of the Precautionary Principle established in the Principle 15 of the 1992 UNCED Rio Declaration.

The Conservation Committee therefore concludes that the proposed SAWS is consistent with the precautionary approach.