A Systematic Approach to Designating ASPAs and ASMAs
A Systematic Approach to Designating ASPAs and ASMA

Information paper submitted by ASOC

Summary

In this paper, ASOC provides preliminary suggestions on how to expand the protected areas system under the Protocol in order to comply with the requirements of Annex V, Arts. 3 and 4. It also discusses how this system might have benefits for the management of tourism, a topic that has been under discussion by the ATCM for a number of years without significant changes.

Introduction

Since the early days of the entry into force of the Environment Protocol, ASOC has argued that the long-term conservation of Antarctica requires a strategic approach that looks at the region as a whole, assessing the set of activities that take place there from that perspective, including with respect to tourism. In particular, ASOC has argued that applying area protection tools under the Protocol on a regional or continent-wide basis would enable ATCPs to manage these activities more systematically, from tourism to scientific research, while implementing Annex V more effectively.

More recently, at ATCM XXXVIII, ASOC submitted IP 112, Expanding Antarctica’s Protected Areas System, which reported that a major scientific analysis of the continent found Antarctica’s protected areas system to be inadequate, and recommended the designation of additional areas to rectify the situation. Additionally at ATCM XXXVIII, ASOC submitted IP 109, Antarctic Tourism and Protected Areas. In that paper, ASOC suggested that “Parties consider using strategically ASPAs and ASMA to regulate current and potential future tourism.”

In this paper, ASOC will develop these ideas further by providing preliminary suggestions on how to expand the protected areas system under the Treaty. We will also discuss how this system might have benefits for the management of tourism, an area that has been under discussion by the ATCM for a number of years without significant progress.

Recent area protection developments

Expanding the protected area system in Antarctica would improve compliance with the obligations of Annex V. It would also be in tune with recent developments globally and in the Southern Ocean.

In 2010 the Parties to the Convention on Biological Diversity, to which most Antarctic Treaty states are a party, adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period. One of the strategic goals is to improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. Target 11 states that:

---

1 Lead authors Claire Christian and Ricardo Roura, with contributions from Jessica O’Reilly, Barry Weeber, Rodolfo Werner and Bob Zuur.


By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

The most recent IUCN World Parks Congress in 2014 recommended that “...a steep increase is necessary in the scale of protected area investment to deliver conservation goals.”

In recent years ATCM/CEP discussions on protected areas have largely focused on the designation and review of a considerable number of ASPAs and some ASMAs; and on streamlining the designation and review process, for instance through the development of guidelines for the presentation of documents on ASPAs and ASMAs, a checklist for Protected Area inspections, and Guidelines: A prior assessment process for the designation of ASPAs and ASMAs.

More broadly, the Environmental Domains Analysis, followed up by the Antarctic Conservation Biogeographic Region (ACBR) analysis, have made substantial contributions to conservation planning from a more strategic and systematic perspective.

However, the implementation of Annex V, Articles 3 and 4 has not yet been systematically carried out. To date over 70 ASPAs and 6 ASMAs have been designated by the Antarctic Treaty Consultative Meeting. The protected area network privileges certain ACBRs and environmental domains, with some areas being currently unrepresented (Appendix 1).

**Recent developments on Antarctic tourism**

Recent developments on tourism management have included the adoption of general principles of Antarctic tourism, the CEP Tourism Study and Recommendations, in addition to discussions on a strategic vision for tourism (ongoing). Nevertheless, site guidelines remain the primary means of visitor management. While these site guidelines are helpful, they are usually reactive to developments on the ground and not a substitute for more systematic forms of area protection.

In general terms, the establishment of a regular destination will make consensus by ATCPs on the establishment of a protected area at that site difficult. In this context, ASOC suggests that ATCPs should recognize the significant overlap between the processes of expanding the network of protected areas and managing tourism. Until now, however, the establishment of protected areas and the management of tourism have progressed in separate tracks. These have coalesced only in respect to some ASPAs and ASMAs near or at locations where tourism is a significant activity, and to site guidelines.

These recent developments underscore the importance of proceeding proactively with the implementation of a road map for a comprehensive system of protected areas. Tourism is often discussed in very broad terms, with few specific proposals presented. Considering tourism in the more concrete framework of protected areas could enable the ATCM to identify ways forward more easily. Moreover, tourism and a changing

---


6 ATCM XXXI. 2008, R4, Checklist for inspections of Antarctic Specially Protected Areas and Antarctic Specially Managed Areas.

7 CEP XVIII Final Report, Appendix 3.


10 See also http://ats.aq/devPH/apa/ProtectedAreas_Report.aspx.

climate are key factors driving the need for area protection in some parts of Antarctica, although it should be noted that other activities should be considered too.

**Steps towards expanding Antarctic protected areas**

ASOC suggests that the basic steps for expanding the system are:

1. Design a systematic conservation planning process;
2. Identify candidate ASPAs in each Antarctic Conservation Biogeographic Region (ACBR);
3. Identify current and future candidate ASMAs;
4. Propose and designate new ASPAs and ASMAs, along with management plans.

**Step 1. Design a systematic conservation planning process**

The broad identification of particular areas within environmental domains or ACBRs for designation as ASPAs or ASMAs could follow the systematic conservation planning process described by Margules and Pressey (2000):\(^{12}\)

1. Measure and map biodiversity
2. Identify conservation goals for the planning region
3. Review existing reserves
4. Select additional reserves
5. Implement conservation actions on the ground
6. Management and monitoring of reserves

Since steps one and three are already underway, the ATCM could start with identification of areas based on the goals of protecting representative biodiversity in ACBRs and fulfilling Annex V criteria, and then proceed to selection, implementation and management.

In addition, although science should take precedence, experience suggests that political and economic considerations will also be part of this discussion. Both scientific knowledge and a precautionary approach would be key factors in the identification of prospective Protected Areas.

The task of identifying new ASPAs and ASMAs will be somewhat more complicated in areas that have numerous tourist sites (and to some extent a larger scientific presence). It will therefore be useful to refer back to the CEP Tourism Study, which identifies some important considerations that are relevant to both managing tourism as well as the design and location of protected areas. One particularly relevant concept was that of taking a regional approach to environmental impact assessment and ASMAs. A regional EIA approach could assist in identifying the most important locations for ASPAs and ASMAs.

**Step 2. Identify candidate ASPAs in each ACBR**

ACBRs provide a simple way of organizing work and ensuring that all of Antarctica’s ecosystems are represented in the protected areas network. It may be useful to start with ACBRs since these represent ice-free areas, which are often tourism attractions and in greater need of biodiversity protection. After identifying a systematic conservation planning process to guide their work, ATCPs should identify the candidate areas for ASPAs in each ACBR, which should include areas that possess the criteria described in Annex V, Article 3 of the Protocol.

For example, an ACBR with current high visitation levels may need to focus on identifying inviolate areas and scientific research areas so that these areas can provide useful data for comparison with visited sites. Of course, in many instances a single ASPA could meet several of the Article 3 criteria, e.g. an area with important bird colonies that also has outstanding geological features. At the opposite end of the spectrum, sites with little current tourism or other activity are also candidates for the potential designation of inviolate areas to preserve their wilderness values. Ideally, each ACBR will have protected areas that fulfil most of the Annex V criteria.

---

Step 3. Identify current and future candidate ASMAs
In terms of ASMAs, it is apparent that the potential for conflicts resulting from overlapping activities is increasing in some parts of Antarctica. Ongoing work by the Subsidiary Group on Management Plans on the development of an ASMA guide is a useful starting point to the establishment of ASMAs. In general, it would be helpful for ATCPs to identify areas where this instrument may need to be applied in the future, as the ASMA process itself may take years during which conditions may change (for instance, with the appearance of new stakeholders in an area). These would be primarily areas where research, tourism or other activities currently take place or are likely to take place in the foreseeable future.

Step 4. Propose and designate new ASPAs and ASMAs, along with management plans
The following step is to develop proposals for specific protected or managed areas and designate them. In practice this step may be preceded by the prior assessment process for the designation of ASPAs and ASMAs for subsequent consideration by the CEP.

It would additionally be useful to develop a system of visitor management complementary to the network of ASPAs and ASMAs. The CEP Tourism Study noted that many other locations worldwide, including the Arctic, must address similar challenges as those faced in Antarctica. ASOC believes that ATCPs should examine best practices from world heritage sites, national parks and other polar and sub-polar locations to develop a similar system for tourism management in consultation with stakeholders. It is important to note that this does not mean that site-specific guidelines will no longer be necessary, but that these should be part of a broader framework of area protection developed using the instruments of the Protocol.

Conclusions
Expanding the network of protected areas is a key task for ensuring the long-term protection of the Antarctic environment and other intrinsic values of the region. Although the expansion of this network is likely to assist in the management of human activities, it will not necessarily solve the challenges entirely. It will, however, allow ATCPs to manage tourism as part of a larger plan for protecting Antarctica and managing this and other human activities in the region. In addition, given the dynamics of tourism, the earlier a protected area system is developed according to a systematic plan, the better is to ensure protection. Moreover, the CEP Tourism Study identified a lack of certainty about impacts and a lack of data. The process of designing and implementing new protected areas provides an opportunity to plan for obtaining the data needed to determine the impacts of tourism.

A representative network of protected areas will be beneficial to tourism in terms of preserving inter alia environmental, aesthetic and wilderness resources that are relevant to this activity on a regional scale. While some discrete protected areas might restrict some tourism activities at some sites, it may still allow others (such as ship cruising or zodiac cruising) and contribute to the sustainability of tourism in the longer term.

Ultimately, an expanded system of protected areas will enhance the implementation of the Protocol and help address developments in Antarctica from a more strategic perspective.
Appendix 1. Overlap of ice-free, biodiversity-designated ASPAs and ACBRs.\textsuperscript{13}

<table>
<thead>
<tr>
<th>Region ID</th>
<th>ACBR name</th>
<th>Approximate area ACBR (km\textsuperscript{2})</th>
<th>Number ASPAs in ACBR</th>
<th>Area of overlap (km\textsuperscript{2})</th>
<th>% of ACBR covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBR 1</td>
<td>North-east Antarctic Peninsula</td>
<td>1142</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ACBR 2</td>
<td>South Orkney Islands</td>
<td>148</td>
<td>4</td>
<td>8.8</td>
<td>5.9</td>
</tr>
<tr>
<td>ACBR 3</td>
<td>North-west Antarctic Peninsula</td>
<td>5081</td>
<td>17</td>
<td>93.7</td>
<td>1.8</td>
</tr>
<tr>
<td>ACBR 4</td>
<td>Central south Antarctic Peninsula</td>
<td>4959</td>
<td>2</td>
<td>75.6</td>
<td>1.5</td>
</tr>
<tr>
<td>ACBR 5</td>
<td>Enderby Land</td>
<td>2152</td>
<td>1</td>
<td>4.85</td>
<td>0.2</td>
</tr>
<tr>
<td>ACBR 6</td>
<td>Dronning Maud Land</td>
<td>5500</td>
<td>2</td>
<td>9.15</td>
<td>0.2</td>
</tr>
<tr>
<td>ACBR 7</td>
<td>East Antarctica</td>
<td>1085</td>
<td>8</td>
<td>27.8</td>
<td>2.6</td>
</tr>
<tr>
<td>ACBR 8</td>
<td>North Victoria Land</td>
<td>9522</td>
<td>4</td>
<td>13.95</td>
<td>0.14</td>
</tr>
<tr>
<td>ACBR 9</td>
<td>South Victoria Land</td>
<td>10368</td>
<td>10</td>
<td>409</td>
<td>3.9</td>
</tr>
<tr>
<td>ACBR 10</td>
<td>Transantarctic Mountains</td>
<td>19347</td>
<td>1</td>
<td>44.6</td>
<td>0.2</td>
</tr>
<tr>
<td>ACBR 11</td>
<td>Ellsworth Mountains</td>
<td>2965</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ACBR 12</td>
<td>Marie Byrd Land</td>
<td>1158</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ACBR 13</td>
<td>Adélie Land</td>
<td>178</td>
<td>1</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>ACBR 14</td>
<td>Ellsworth Land</td>
<td>220</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ACBR 15</td>
<td>South Antarctic Peninsula</td>
<td>2990</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

\textsuperscript{13} Justine D. Shaw et al. (2014)“Antarctica’s Protected Areas Are Inadequate, Unrepresentative, and at Risk,” *PLoS Biology* 12, no. 6): 1–5, doi:10.1371/journal.pbio.1001888.