



Essential Readings in Environmental Law
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POLAR REGIONS AND ENVIRONMENTAL LAW

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OVERVIEW OF KEY SCHOLARSHIPS

The Antarctic and Environmental Law

1. Scott, K. N., “Managing Sovereignty and Jurisdictional Disputes in the Antarctic: The Next Fifty Years” (2009) 20:3 *Yearbook of International Environmental Law* 39.
2. Scott, S. V., “Ingenious and innocuous? Article IV of the Antarctic Treaty as imperialism” (2011) 1 *The Polar Journal* 51-62.
3. Redgwell, C., “Environmental Protection in Antarctica: The 1991 Protocol” (1994) 43 *International and Comparative Law Quarterly*: 599–634.
4. Hemmings, A. D., D. R. Rothwell, and K. N. Scott (eds.), *Antarctic Security in the Twenty-First Century: Legal and Policy Perspectives* (Abingdon, Oxon: Routledge, 2012).

The Arctic and Environmental Law

5. Koivurova, T. and D. L. VanderZwaag, “The Arctic Council at 10 Years: Retrospect and Prospects” (2007) 40:1 *University of British Columbia Law Review* 121-194.
6. PAME, The Arctic Ocean Review Project, Final Report, (Phase II 2011-2013), Kiruna May 2013, Akureyri, Protection of the Arctic Marine Environment (PAME) Secretariat, 2013.
7. Hoel, A.H., (ed.) *Best Practices in Ecosystem-based Oceans Management in the Arctic*, (Tromsø: Norwegian Polar Institute, 2009).
8. Koivurova, T., H. Keskitalo, E. Carina, and N. Bankes, (eds.), *Climate Governance in the Arctic*, (Berlin: Springer, 2009).

Comparative Perspectives on Polar Law and Governance

9. Loukacheva, N. (ed.), *Polar Law Textbook* (Copenhagen: Nordic Council of Ministers, 2010).
10. Bowman, M., P. Davies, and C. Redgwell, *Lyster’s International Wildlife Law* (2nd edition) (Cambridge: CUP, 2010).

11. Molenaar, E. J., A. G. O. Elferink, D. R. Rothwell (eds.), *The Law of the Sea and the Polar Regions: Interactions between Global and Regional Regimes* (Leiden: Martinus Nijhoff Publishers, 2013).
12. Rothwell, D. R., "Polar Oceans Governance in the 21st Century" (2012) 26 *Ocean Yearbook* 343-360.

Background

The Antarctic and Arctic are "poles apart" in many dimensions of environmental governance. The Arctic Ocean is surrounded by five coastal states having clear jurisdiction to control offshore activities pursuant to domestic legal systems while the Antarctic is a continent not having generally recognized coastal states. The Arctic has permanent human communities, including indigenous inhabitants, and is increasingly facing globalization realities of outside commercial interests in exploiting the vast mineral and hydrocarbon deposits in the region. The Antarctic hosts only temporary residents at scientific stations as well as transient tourists, and is subject to an indefinite moratorium on mineral exploration and development. A substantial treaty system has developed to govern human activities in the Antarctic region while the Arctic is sparse in regional agreements, and cooperation is occurring largely through the Arctic Council established pursuant to a non-binding declaration.

However, the two Polar Regions do share many similarities. Both are facing the impacts of climate change and ocean acidification. Both are likely to see increased tourism in light of their abundant wildlife and natural heritages. Both regions host valuable commercial fisheries. In the wake of increasing international interest in the Polar Regions, the literature on polar law and governance has grown exponentially. A *Yearbook of Polar Law* has even been initiated with the fifth volume published in 2013. Such literature expansion makes selection of key readings especially difficult, but the following 12 suggested works, involving articles, reports and books should provide useful "launching pads" for researchers interested in legal developments and challenges surrounding environmental protection and conservation in the two Polar Regions.

The Antarctic and Environmental Law

1. **K. Scott's** article on *Managing Sovereignty and Jurisdictional Disputes in the Antarctic: The Next Fifty Years* provides an introduction to the *Antarctic Treaty System* (ATS) with a particular focus on the management of sovereignty and jurisdictional disputes in the region. Whilst not all of these disputes have an environmental nexus, the very existence of contested sovereignty over Antarctica affects the nature, mode and extent of environmental protection in the region, in both positive and negative ways. In her article, **K. Scott** analyses Article IV of the *1959 Antarctic Treaty*, which seeks to reconcile the interests of claimant and non-claimant states for the duration of the Treaty, and identifies three recent challenges to the stability of the region: claims to the Antarctic continental shelf; uncertainties over the exercise of criminal and coronial jurisdiction on the ice; and disputes over the conservation of natural resources, with a particular focus on

the whaling dispute between Australia and Japan. In the final part of her article, **K. Scott** discusses the ATS in the wider context of other extra-territorial regimes and sets out one possible vision for the future management of the Antarctic.

2. In the *Ingenious and innocuous? Article IV of the Antarctic Treaty as imperialism*, **S.V. Scott** provides an alternative history of Article IV of the *1959 Antarctic Treaty*, eschewing the orthodox, often celebratory interpretation of this provision in favour of a post-Colonial analysis that views Article IV as ushering in a third wave of Antarctic imperialism. **S. Scott** further challenges the traditional application of international law to the issue of Antarctic claims and argues that Chile and Argentina were not late entrants into the “Great Game in Antarctica” so much as playing an altogether different game: one that focused on the question of delimitation of boundaries rather than issues of permanent occupation and administration. **S. Scott**’s thoughtful and perceptive article demonstrates the existence of multiple perspectives on Antarctic issues and provides insight into how these perspectives affect environmental governance in the region.
3. The article by **C. Redgwell** titled *Environmental Protection in Antarctica: The 1991 Protocol* provides an authoritative and comprehensive introduction to the regime of environmental protection in Antarctica as developed under the *1991 Environmental Protocol to the 1959 Antarctic Treaty*. **C. Redgwell** charts the development of the Protocol following the abandonment of a mineral resource convention in 1989 and provides a thoughtful and in-depth analysis of the environmental principles developed within the Protocol and the conservation tools set out in Annexes I to V to the Protocol (dealing with environmental impact assessment; conservation of flora and fauna; waste management; marine pollution; and marine protected areas). Readers interested in more recent developments related to environmental protection may wish to consult articles by **K. N. Scott** (on the Liability Annex to the Protocol, Annex VI, adopted in 2005), **R. Roura** and **A. Hemmings** (on Strategic environmental impact assessment in Antarctica), **B. Stonehouse** and **J. Snyder** (on Antarctic tourism), **M. Rogan-Finnemore** (on Non-native species in the Antarctic), **J. Jabour** and **D. Leary** (on Bioprospecting) and **A. Brown** (on the *1980 Convention on the Conservation of Antarctic Marine Living Resources* (CCAMLR) as well as the edited collection by **A. D. Hemmings**, **D.R. Rothwell** and **K.N. Scott** noted below.
4. The edited collection in **A. Hemmings**, **D. Rothwell** and **K. Scott**’s *Antarctic Security in the Twenty-First Century: Legal and Policy Perspectives* provides a contemporary introduction into a wide variety of Antarctic issues analysed within the paradigm of “security”. Given the nature and context of the Antarctic, the majority of chapters in this collection focus on environmental issues such as the management of natural resources including fisheries and minerals, marine pollution, whaling, biosecurity and climate

change. The authors provide an overview of current regulatory and policy development within their sphere of expertise, and speculate how regional environmental governance will evolve against an increasingly dynamic political and ecological Antarctic context.

The Arctic and Environmental Law

5. **T. Koivurova** and **D. VanderZwaag**'s *The Arctic Council at 10 Years: Retrospect and Prospects* provides a comprehensive overview of regional cooperation developments from the Arctic Environmental Protection Strategy, adopted in 1991, to the establishment of the Arctic Council in September 1996 and the first ten years of its existence. The innovative structure of the Arctic Council is explained with six indigenous organizations having Permanent Participant status in addition to the eight Arctic member states and various observers. The roles and efforts of the Council's six working groups (Arctic Contaminants Action Program; Arctic Monitoring and Assessment Programme; Conservation of Arctic Flora and Fauna; Emergency Prevention, Preparedness and Response; Protection of the Arctic Marine Environment; and the Sustainable Development Working Group) are reviewed in substantial detail. The pressing challenge to consider future directions for governance arrangements in the central Arctic Ocean beyond national jurisdiction is emphasized. Readers interested in more recent advances in regional cooperation to protect the Arctic environment, including the appointment of Council task forces that negotiated regional agreements on search and rescue and marine oil spill preparedness and response, might wish to consult further overview articles by **Timo Koivurova, David VanderZwaag** and **Oran Young**.

6. *The Arctic Ocean Review (AOR) Project, Final Report*, published through the efforts of the **Protection of the Arctic Marine Environment (PAME)** Working Group in May 2013, was meant to identify opportunities for strengthening global and regional governance arrangements to protect the Arctic marine environment. Management approaches are reviewed and possible ways forward suggested for four sectoral areas: shipping operations (Ch. 3), marine living resources (Ch. 4), Arctic offshore oil and gas (Ch. 5) and Arctic marine pollution (Ch. 6). Three cross-cutting themes are identified: the need to promote the well-being and interests of indigenous peoples and cultures (Ch. 2), the importance of applying ecosystem-based management (EBM) to address human uses of the marine environment (Ch. 7), and the need to further enhance and coordinate marine scientific efforts and activities (Ch. 8) The 24 recommendations set out in Chapter 9 of the AOR might be described as overall quite general. For example, Arctic states are urged to promote timely completion and implementation of the *IMO Polar Shipping Code* and to encourage ratification of the *IMO Ballast Water Management Convention* and research into ballast water management systems that are effective in the colder setting of Polar Regions (Recom. 3). Arctic states are urged to explore the possibility of developing sustainable tourism guidelines (Recom. 4). Recommendation 10 provides that "fisheries resources beyond national jurisdiction should be managed based on cooperation in

accordance with international law to ensure long term sustainability of fish stocks and ecosystems.” The report stops short of recommending the establishment of regional standards for oil and gas operations and instead suggests that Arctic states should move toward circumpolar policy harmonization in discrete sectors, such as environmental monitoring of oil and gas activities (Recom. 15).

7. The report on *Best Practices in Ecosystem-based Oceans Management in the Arctic* by **A. Hoel** was an output of a joint project undertaken by the PAME and Sustainable Development Working Groups of the Arctic Council. The report highlights the international legal context that calls for an ecosystem approach, and provides seven case studies on how countries (Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia and USA) have developed and implemented ecosystem-based oceans management in the Arctic. A chapter on indigenous perspectives on oceans management is also included and the report concludes with a listing of core elements and best practices in ecosystem-based oceans management. The report documents the limited application to date of EBM in a transboundary context in the Arctic.
8. **T Koivurova, H. Keskitalo, E. Carina, and N. Bankes’** *Climate Governance in the Arctic* should be of particular interest because of the multiple chapters addressing the relationship of climate change in the Arctic to national, regional and global governance regimes. How the Arctic Council and Arctic states have responded to the need to mitigate and adapt to climate change impacts is a central topic. The challenges raised by climate change to Arctic fisheries management and the conservation of polar bears are considered in separate chapters. A chapter addressing the status and human rights of indigenous peoples in the era of climate change raises the interesting possibility that the Arctic Council’s giving special participatory status to indigenous organizations might provide a model for other international environmental decision-making processes.

Comparative Perspectives on Polar Law and Governance

9. While the *Polar Law Textbook* by **N. Loukacheva** devotes considerable attention to Arctic governance issues, such as oil and gas and mining regulation and indigenous rights, three chapters provide detailed comparison of how the Arctic and Antarctic legal regimes are similar and different. **T. Koivurova’s** chapter on “Environmental Protection in the Arctic and Antarctic” highlights the fact that numerous multilateral environmental agreements continue to apply to both polar regions while key differences include the need to balance human needs with environmental protection in the Arctic due to permanent human inhabitants and the more extensive development of hard law regional instruments for the Antarctic, particularly the *1991 Madrid Protocol*. Chapter 3 by **D. VanderZwaag** compares the law of the sea and shipping governance approaches in the two polar regions with the Antarctic clearly ahead in developing strict environmental standards through designation of the Antarctic as a “special area” under the *International Convention for*

the Prevention of Pollution from Ships (MARPOL) in relation to discharges of oil, hazardous and noxious substances and garbage. Meanwhile, the negotiation of a new *Polar Shipping Code*, applicable to both regions, promises to bring the poles closer together in the regulation of ship safety and environmental protection. Chapter 4 by **T. Potts** compares the management of living marine resources in the Polar Regions. He describes how Antarctic is leading in the implementation of ecosystem and precautionary approaches under CCAMLR while Arctic fisheries management remains quite fragmented with various regional fisheries management organizations (RFMOs) working to sustain specific commercial species but no specific RFMO yet established to address the central Arctic Ocean. Readers might also wish to consult a second volume of the *Polar Law Textbook*, published in 2013, which adds comparative looks at how the regions are tackling climate change and extended continental shelves.

10. In *Lyster's International Wildlife Law* **M. Bowman, P. Davies** and **C. Redgwell** provide a concise and contemporary introduction to environmental governance in both the Arctic and the Antarctic. Their chapter describe the regulatory arrangements for both the Arctic and the Antarctic with a particular emphasis on fisheries and protection of marine mammals. The chapter also places the regional regimes within their broader international context, noting the various international treaties such as the *1973 Convention on the International Trade in Endangered Species of Fauna and Flora* (CITES) that have implications for environmental governance within the polar regions.
11. The edited collection by **E. Molenaar, A. Elferink** and **D. Rothwell**, titled *The Law of the Sea and the Polar Regions: Interactions between Global and Regional*, provides a contemporary and comparative introduction to the application of the law of the sea to both the Arctic and Antarctic within the context of global ocean developments more generally. The authors address a range of environmental issues such as marine protected areas, environmental impact assessment, conservation of migratory and endangered species, fisheries management and marine pollution. The collection provides a careful balance of discussion between the Arctic and Antarctic, and issues are dealt with either within one Polar chapter or in two chapters consecutively. The authors provide an introduction to current regulatory and policy developments relevant to their theme as well as noting issues ripe for future development.
12. **D. Rothwell's** article, titled *Polar Oceans Governance in the 21st Century*, provides a concise and timely comparison of how the law of the sea applies to the two polar regions and the differing regional approaches being taken to manage marine resources, shipping and protection of the marine environment. He concludes by offering ideas on future directions for polar ocean governance with one suggestion being adoption of an Antarctic

Treaty-type model for the Arctic region but respecting existing sovereign rights of coastal states.