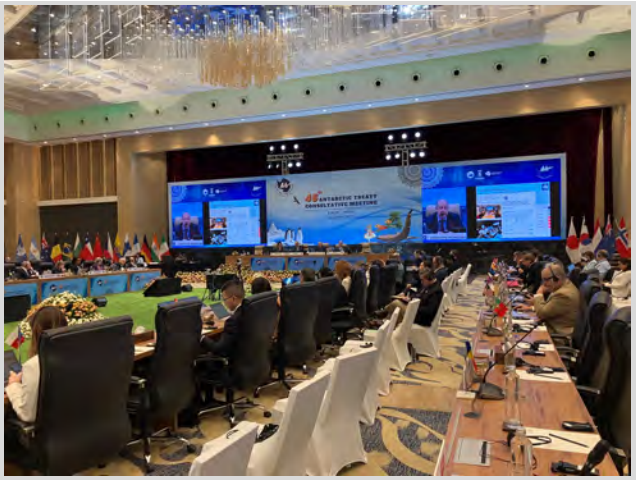

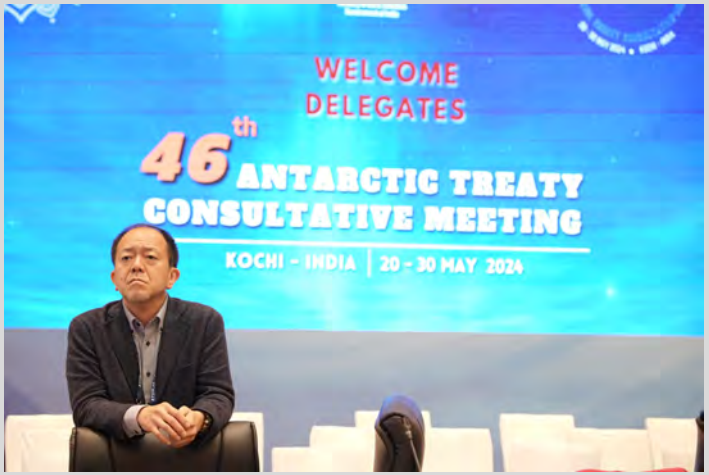

An Introduction: Institutional framework to implement Antarctic governance based on best available science

Session 46 on Consensus-Building based on Best Available Science in ATS

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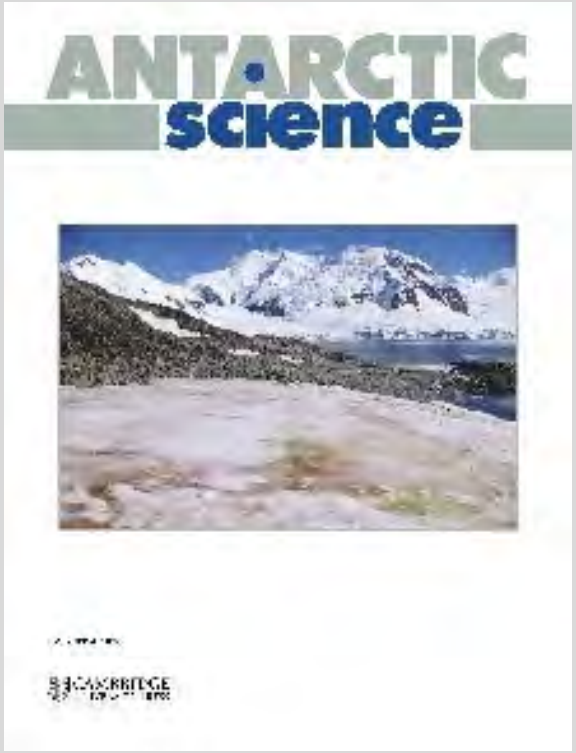


1. Best available science (BAS): ignored? abused? What had happened at 46 ATCM in Kochi?

Two examples of concern:

- **Emperor Penguin ASPS designation rejected, again**
- **ASPA 139 revised Management Plan not adopted**

Examination of Chinese reasons of objections:

46 ATCM Final Report language:

ASPA 139: "***China*** *noted its concerns that prevented consensus on ASPA 139:* ***the lack of scientific data*** *involved in the proposal about the marine areas to be included in the ASPA; the major nature of the change (from 0.6 square kilometres to 3.9 square kilometres); and that* ***no alternative measures*** *to manage human impacts in the area had been considered.*"

Photo: May 21 CEP discussion on ASPA 139 revised Management Plan. Due to an objection by China, the proposal was not adopted.

Emperor Penguin: "***Some Parties*** *did not support designating the emperor penguin as a Specially Protected Species, noting that drivers of the population decline were* ***not fully understood****; there was little evidence that sea-ice would continue to decline; there was* ***not a strong correlation*** *between sea-ice reduction and penguin population decline; and there was no scientific basis for protection. These Parties also stressed their position that the emperor penguin was already adequately protected under existing measures.*"

"*In response,* ***SCAR*** *emphasised that there was* ***clear evidence for a 10% decline*** *in emperor penguins over the past decade. It highlighted the* ***statistically significant correlation*** *between sea-ice decline and emperor penguin numbers and that the importance of sea-ice to emperor penguins was well understood and documented.*"

2. BAS as an established principle of ATS governance

Long-standing principle of marine resource conservation:

- ✓ **1968 SCAR's Guidelines** on Pelagic Sealing already refers to the total number of seals to be taken in the Antarctic Treaty area "will be set in light of the best available scientific evidence"; and later more generally and legally in **Art.3 (2) of the Convention for the Conservation of Antarctic Seals (1972):** "measures adopted under paragraph (1) of this Article shall be based on the best scientific and technical evidence available".
- ✓ **1980 CCAMLR Art.IX (1) (f)** provides a mandate of the Commission to "formulate, adopt and revise conservation measures on the basis of the best available scientific evidence available".
- ➢ **1982 UNCLOS** Arts. 61 & 119 in relation to allowable catch of marine living resources.
- ➢ **1995 Fish Stock Agreement**: as a general principle (Art. 5 (1) (b) and in all aspects, including in the context of precautionary approach (Art. 6).

Development into general principle of environmental protection:

- ✓ **1991 Madrid Protocol Art.10 (1)** has broadened the applicability of the BAS principle to Antarctic environmental protection generally and mandated the ATCM to draw "upon the best available scientific and technical advice available", to define general environmental protection policies and to adopt measures to implement the Protocol.
- ➢ 1982 UNCLOS Art.234; 1992 UNFCCC Art. 4; 2015 Paris Agreement; **2023 BBNJ Art.7 (i)**

2. BAS as an established principle of ATS governance

BAS in BBNJ Agreement: its potential legal implication to ATS

Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction

Article 7
General principles and approaches

In order to achieve the objectives of this Agreement, Parties shall be guided by the following principles and approaches:

(e) The precautionary principle or precautionary approach, as appropriate;

(i) The use of the best available science and scientific information;

Article 5
Relationship between this Agreement and the Convention and relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies

2. This Agreement shall be interpreted and applied in a manner that does not undermine relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies and that promotes coherence and coordination with those instruments, frameworks and bodies.

Cf: 46 ATCM (2024) Draft resolution on "Relationship between BBNJ and ATS" was not adopted due to different views among CPs.

3. Remaining research questions regarding BAS

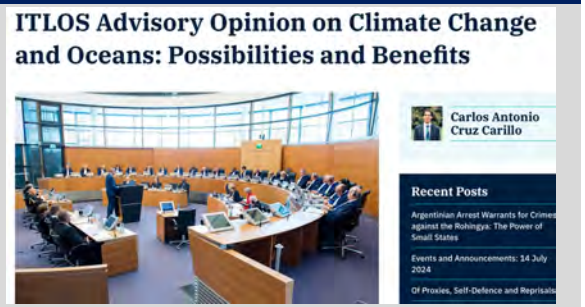
1. Its conceptual and practical relationship with precautionary approach in international law generally and in Antarctic governance specifically
   - ✓ IL generally: ITLOS advisory opinion on climate change and international law, May 21, 2024.
   - ✓ Antarctic governance: Madrid Protocol practice (ASPA & ASPS); CCAMLR practice

2. Substantive elements of science being "best" and "available"
   - ✓ What do these qualifiers mean, scientifically, legally, and practically?
   - ✓ How are these qualifiers applied actually? Case studies.

3. How does consensus decision-making in Antarctic environmental / resource management governance affect the application of BAS?
   - ✓ Is "best" and "available" science determined politically (what can be agreed by all CPs, in their specific negotiating and geopolitical situations)? Weaponization of science?
   - ✓ How does institutionalization of the process of determining "best" and "available" science contribute to de-politization of the application of BAS? Cf. The role of SCAR.

3-1. Conceptual relationship between BAS and precaution

1. Lessons from 2024 ITLOS advisory opinion



- ✓ **IPCC Report as the "best available science" but should not be the sole determinant for necessary decisions (paras. 208, 211-212).**
- ✓ **When BAS shows serious and irreversible damage, the precautionary approach is "more" necessary (para.213).**
- ✓ **Under due diligence obligation under UNCLOS 194, BAS informs the high risks of harm in its foreseeability and severity and necessary decisions be made accordingly. At the same time, due diligence obligation requires precautionary approach even when scientific evidence is insufficient (paras. 241-242).**

How to understand these pronouncements? The details of "relationship" is not yet clear.

2. Background information with literature review

- ✓ **2015 ITLOS advisory opinion on SRFC**: UNCLOS Arts. 61 & 62 oblige management based on BAS, but when such evidence insufficient, precautionary approach be applied (para.208).
- ✓ **Cook (2018):** ***"the absence of BAS to trigger the application of precautionary approach"*** **(p.393)**

3-2. Substantive elements of ”best” and “available”

1. 2024 ITLOS advisory opinion

✓ **IPCC report as best available science because it “reflects scientific consensus” (para.208).**

2. Literature review

✓ **Cook (2018):** ***“Best” science must adhere to best practice standard, which requires acceptance by international scientific research communities.***

✓ **Ryder (2010):** ***“Best” science is either academically credible or convenient and ranges from accurate to acceptable to support user’s position or agenda.***

✓ **Ryder (2010) & Cook (2018):** ***“Availability” of science is evaluated by a process how the science reaches the end-users or how the international scientific bodies and relevant governments comply with their duties to ensure that the science is made available for certain purposes.***

✓ **Cook (2018):** ***In order to be ‘best’ science, that science must be ‘available’, thus, one element is reinforcing the other. (p.400)***

How to understand these views? A little different nuances as to the “best” criteria; and the availability criteria relates more to the process.

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- **International Tribunal for the Law of the Sea (2024).** Request for an advisory opinion submitted by the Commission of Small Island States on Climate Change and International Law, Advisory opinion, 21 May 2024, ITLOS Report 2024.
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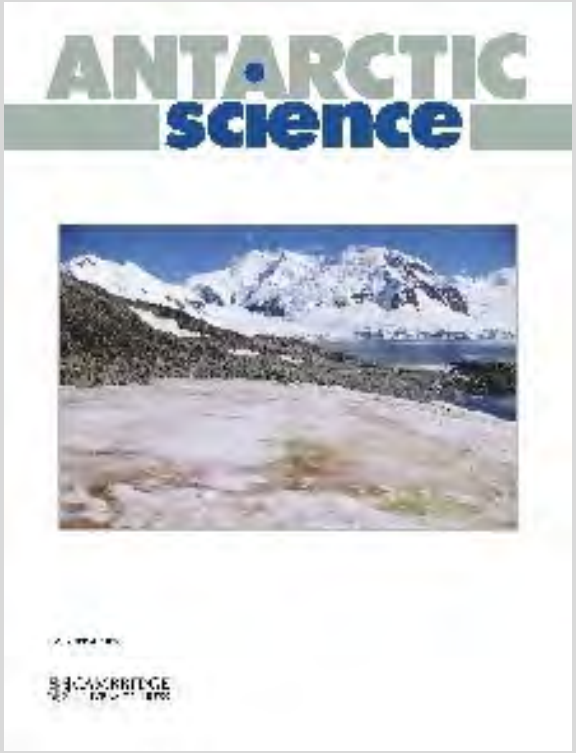

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Looking towards 2026 ATCM: Some Homework to do

Thank you for listening

and look forward to welcoming you in Hiroshima for 2026 ATCM

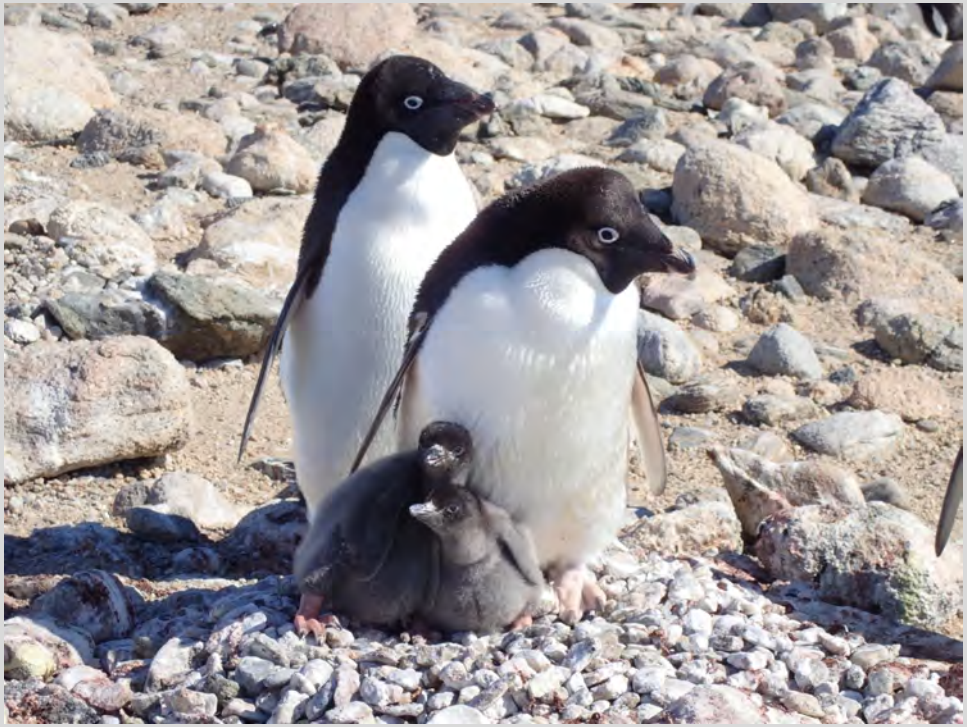

Photo:

January 2017

Adelie penguins at Japanese penguin research field,

Mizukukuriura,

East Antarctica