210098 VO M4

International Biodiversity Politics: Institutions, Actors, Power Relations

Assoc. Prof. Dr. Alice Vadrot

When: Tuesdays, 18:30-20:00 **Start:** 15 October 2024
Where: Hörsaal 7 Hauptgebäude, Hochparterre, Stiege 7
Contact: alice.vadrot@univie.ac.at
Office hour: after agreement

SYLLABUS

AIMS, CONTENTS AND METHOD

This lecture introduces Master students to the basic features of international biodiversity politics, with a specific focus on the institutions, actors, and power relations that have shaped global environmental agreement-making related to the conservation and sustainable use of biological diversity.

Compared to climate change, the loss of biological diversity is less visible and popular in global environmental politics. However, for the last decade, the study of international biodiversity politics has received new impetus, inter alia because of 1) the increased recognition that biodiversity and climate change must be tackled together, 2) the establishment of new international institutions and bodies, and 3) explicit conflicts over the conceptual and political frameworks that should guide international biodiversity politics. Another important factor is the role economic reasoning and epistemic selectivity have played in reconfiguring biodiversity conservation as a relevant parameter for economic development and human well-being; a development increasingly contested by Indigenous People and local communities, many state actors of the global South, non-state actors, activists, and scientists advocating for new concepts, including “Pachamama”, “Buen Vivir”, and “Nature’s contribution to people” (NCPs).

In this vein, biodiversity politics is increasingly characterized by the struggle over the kinds of values attributed to nature, the forms of knowledge, data and monitoring suitable to understand the drivers and causes of biodiversity loss, and the appropriate regulatory frameworks for the equal distribution of the costs and benefits related to biodiversity loss and conservation.

Starting from the premise that international biodiversity politics is an increasingly important and contested field of global environmental politics this lecture has three aims:

1. To introduce students to key actors, institutions, and power relations constituting the field of international biodiversity politics *(PART I).*
2. To familiarize students with historical, institutional, and epistemic developments in the field of international biodiversity politics, illustrating how power relations have shaped *(PART II)*
    - the Convention on Biological Diversity (CBD) adopted in 1992, including the Nagoya Protocol on Access and Benefit-sharing (adopted in 2010), the Global Biodiversity Framework (GBF) adopted in 2022, and EU Nature Restoration Law.
    - the establishment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) adopted in 2012, including struggle over biocultural diversity, ecosystem services, and transformative change.
    - negotiations for the conservation and sustainable use of marine biodiversity in and beyond national jurisdiction with the adoption of the BBNJ treaty in 2023.
3. To critically discuss recent developments in international biodiversity politics and governance, including *(PART III)*
    - Governing (marine) genetic resources and digital sequence information,
    - Governing biodiversity by recognizing multiple values of nature
    - Governing biodiversity through data, monitoring and AI

The course targets Master students interested in the various themes of international biodiversity politics, and global environmental politics more broadly. The course combines theory and practice and is therefore interesting for students that wish to increase their knowledge and skills on how to study the sites, actors, and processes of global environmental agreement-making (Hughes and Vadrot 2023).

EXAM ASSESSMENT AND PERMITTED MATERIALS

Tuesday, 28.01.2025 18:30 - 20:00, Hörsaal 7 Hauptgebäude, Hochparterre, Stiege 7

Written exam in English composed of:

- 10 multiple choice questions (20 points in total), including questions on the definitions of terms, clarifications of principles and comprehension questions
- 2 open questions (20 points each, 40 points in total)
- 1 opinion question/Essay (40 points).

THIS IS NOT AN OPEN BOOK EXAM! (only English dictionaries can be used)

100 to 90 Points: Very good (1)
89 to 80 Points: Good (2)
79 to 70 Points: Satisfactory (3)
69 to 60 Points: Sufficient (4)
>60 Points: Poor (5)

MINIMUM REQUIREMENTS AND ASSESSMENT CRITERIA

- Knowledge about the content of all lectures
- Familiarity with key principles, concepts and terminology
- Knowledge about the content of the background literature

EXAMINATION TOPICS

The examination will be based on:

- The contents given in all lectures: PowerPoints and literature are available on **Moodle**
- Obligatory readings of the class (references marked with *)

STRUCTURE, TOPICS, AND TIMELINE

1. 15.10.2024: Introduction

Part I: Understanding biodiversity politics: Problem structure, institutions, and actors

2. 22.10.2024: What is biodiversity and why is it political?
3. 29.10.2024: Who governs biodiversity at the international scale and how?
4. 05.11.2024: What do we know about biodiversity? A natural science perspective

Part II: Negotiating biodiversity agreements: unpacking power relations

5. 12.11.2024: The Convention on Biological Diversity I: Negotiating a new convention
6. 19.11.2024: The Convention on Biological Diversity II: Negotiating biodiversity targets
7. 26.11.2024: EU Nature Restoration Law: Negotiating target implementation
8. 03.12.2024: The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Negotiating at the science-policy interface
9. 10.12.2024: Marine biodiversity: Negotiating biodiversity beyond national jurisdiction

Part III: Anticipating biodiversity futures: Emerging issues and future trajectories

10. 07.01.2025: Governing (marine) genetic resources and digital sequence information
11. 14.01.2025: Governing biodiversity by recognizing multiple values of nature
12. 21.01.2025: Governing biodiversity through data, monitoring and AI

CONTENT OF AND LITERATURE FOR EACH SESSION (*mandatory and relevant for exam)

LECTURE 1: 15.10.2024

Introduction

The first Lecture will introduce students to the course's aims, contents, and methods. We will start by reflecting on the concept and definition of biodiversity, how it is represented, what it means to different people, and why the notion of biodiversity itself is political. As Arturo Escobar once said: "Although "biodiversity" has concrete biophysical referents, it must be seen as a discursive invention of recent origin. This discourse fosters a complex network of actors, from international organizations and northern NGOs to scientists, prospectors, and local communities and social movements. This network comprises sites with diverging biocultural perspectives and political stakes" (Escobar, 1998, p. 53). This critical understanding of biodiversity will run through the whole Lecture, which will familiarize students with the historical, institutional, and epistemic developments in the field of international biodiversity politics, illustrating how power relations have shaped international institutions tackling biodiversity at the international scale. One key international institution is the Convention on Biological Diversity (CBD), signed by 192 countries in 1992 during the Earth Summit in Rio De Janeiro (see Lecture on the 25th of November). I will argue that the Conferences of the Parties (COPs) of the CBD have played an essential role in determining the meaning and practice of international biodiversity politics in multilateral negotiations, which I conceptualize as global environmental agreement-making. Global environmental agreement-making is defined as "the multiple actors, sites and processes through which environmental agreements are made, and the new sets and arrangements of actors, sites and processes that are created by any specific agreement, which have the potential to reinforce or reorient the global political order" (Hughes et al. 2021, p. 2). By applying this perspective to three sites: the CBD, the IPBES, and the BBNJ process, students will get the possibility to develop new knowledge on key international institutions and how they have shaped international biodiversity politics and knowledge production. The first session will close by familiarising students with the schedule, minimum requirements, assessment criteria, and examination topics.

Literature

*Escobar, A. 1998. Whose Knowledge, Whose nature? Biodiversity, Conservation, and the Political Ecology of Social Movements. *Journal of Political Ecology,* 5 (1), 53-82. https://journals.librarypublishing.arizona.edu/jpe/article/1593/galley/1850/view/

*Hughes, H. Vadrot, A.B.M., Allan, J.I. *et al.* 2021. *Global environmental agreement-making: Upping the methodological and ethical stakes of studying negotiations*. *Earth System Governance* 10: 100121 https://doi.org/10.1016/j.esg.2021.100121

THIS SESSION WAS CANCELLED. Please note that the Introduction takes place on 22.10. and that the content of Lecture 2 and 3 will be merged and presented on 29.10.

Part I: Understanding biodiversity politics: Problem structure, institutions, and actors

LECTURE 2: 22.10.2024

What is biodiversity and why is it political?

The term 'biodiversity' has a scientific and political dimension, and it is indeed through the coining of the term in the 1980ies that 'biodiversity' emerged as a policy problem to be addressed in international politics and through multilateral environmental agreement-making. This lecture has two primary purposes: Firstly, explaining why biodiversity emerged as a concept and policy problem on the international scale, and secondly showing why biodiversity is inherently political. In the first part, we will trace the emergence of `biodiversity` both as a scientific concept and a policy problem from 1986, when the term was coined during the National Forum on BioDiversity' held in Washington D.C., to the establishment of the Convention on Biological Diversity (CBD) in 1992. We will start by unpacking the problem structure of 'biodiversity loss' and questioning why and how it has become an issue on the international agenda. Students will get insights into the book "Biodiversity" edited by Edward E.O. Wilson, an ecologist who played an essential role in framing biodiversity as an object of research and a policy problem. Wilson holds that there is a rise in interest in biodiversity due to two more or less independent developments: 1) the availability of a sufficient amount of data on species extinction, deforestation, and tropical biology, and 2) an awareness of the interrelation between the conservation of biological diversity and economic development. Wilson's book is insofar important because it anticipates the development of markets for biodiversity products (e.g., pharmaceuticals, new foods, petroleum substitutes, fibers) and industries emerging from untapped reservoirs of the tropics that are likely to contribute to the destruction of natural habitat (Wilson 1988, p. vi).

Literature

*Vadrot, Alice B.M. 2018. Endangered species, biodiversity and the politics of conservation. In Kütting and Herman (eds.) Global Environmental Politics. Concepts, Theories and Case Studies, edited by London & New York: Routledge, 198-226.

*Keune, et al. 2022. Defining Nature, In: Visseren-Hamakers, I.J. and Kok, M.T.J. (eds.) Transforming Biodiversity Governance, Cambridge: Cambridge University Press, 25-42.

Wilson, E.O. 1988. *The Current State of Biological Diversity*. In: Wilson (ed) Biodiversity, Washington: National Academy Press, 3-18.

Takacs, D., 1996. The Idea of Biodiversity: Philosophies of Paradise. The Johns Hopkins University Press, Baltimore.

In the media: **The biodiversity crisis in numbers - a visual guide | Cop15 | The Guardian**

LECTURE 3: 29.10.2024

Who governs biodiversity at the international level and how?

Given the broad scope and problem structure of international biodiversity politics discussed in Lecture 2, several institutions and processes emerged that constitute the field of international biodiversity politics today. Lecture 3 has two aims: firstly, to introduce students to the landscape of the most relevant international institutions and secondly, to show how the rise of a new 'biodiversity regime'

was interpreted and studied from different research perspectives. In the first part students will be introduces to the six biodiversity-related conventions, or Multilateral Environmental Agreements (MEAs) related to biodiversity and ecosystem services, habitats, and species: the Convention on Biological Diversity (CBD) (see Lecture 5 and 6), Convention on Migratory Species (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Ramsar Convention on Wetlands, the UNESCO World Heritage Centre (WHC) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). By familiarizing students with these international institutions, the session seeks to enable them to situate biodiversity politics within the broader field of global environmental politics. The second part of the lecture will problematize different understandings of the emerging 'biodiversity regime' in the 1990ies (regime overlap, regime complexity, critical state theory). The lecture will use examples to illustrate how conflicts between states, including the stakes of different actor groups (farmers, scientists, local communities, indigenous people, NGOs), have shaped the problem structure and institutionalization of biodiversity politics on an international scale.

Literature

*Rosendal, K.G. 2020. Biodiversity Regime. In: A. Orsini, and Jean-Frederic Morin (eds), Essential Concepts of Global Environmental Governance. Routledge, 2020, 20-23.

*Raustiala, K., and Victor, D. 2004. The Regime Complex for Plant Genetic Resources. International Organization, 58(2), 277-309. https://www.jstor.org/stable/3877859

Miller Smallwood, J. et al. 2022. *Global Biodiversity Governance: What Needs to Be Transformed?* In: Visseren-Hamakers, I.J. and Kok, M.T.J. (eds.) Transforming Biodiversity Governance, Cambridge: Cambridge University Press, 43-66.

Rosendal, K. 2001. Impacts of Overlapping International Regimes: The Case of Biodiversity. Global Governance, 7 (1), 95-117.

- https://www.cbd.int/
- https://cites.org/eng
- https://www.cms.int/
- https://www.ramsar.org/
- https://www.un.org/bbnj/
- https://ipbes.net/

LECTURE 4: 05.11.2024

What do we know about biodiversity? A Natural science perspective (*Guest Lecture*)

Natural science research and ecology have significantly contributed to increase our knowledge on the drivers and causes of biodiversity loss. Furthermore, more and more researchers become active agents in biodiversity politics and conservation seeking to increase the relevance and application of biodiversity science and the need for political action. However, compared to climate change, the "biodiversity research community" is much more diverse and composed of a bundle of different disciplines from taxonomy to modelling and scenario building. For this lecture, we will welcome Dr. Bernd Lenzer, a biodiversity scientists, who will introduce you to the basic features of biodiversity science, recent developments (e.g. scenarios, bending the curve etc.), and his involvement in policy-making and conservation practice.

Speaker's CV

Bernd Lenzner is a macroecologist and terrestrial ecologist with a focus on global change ecology, island biodiversity, invasion biology and biodiversity research. Currently, he is a senior scientist at the Bioinvasions, Global Change Macroecology Group at the University of Vienna, continuing to work on past and future trends of biodiversity patterns and on how environmental, socio-economic and societal drivers interact from a systemic point of view using scenario approaches. In addition, Bernd works on questions at the science-policy interface as an expert to the Invasive Alien Species Assessment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and also investigates questions related to the Post-2020 Global Biodiversity Framework and the UN Agenda 2030 on Sustainable Development.

Literature

*IPBES, 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem *Services*. Díaz, S. et al. (eds.). IPBES secretariat, Bonn, Germany. https://doi.org/10.5281/zenodo.3553579

*Pereira, C.C. et al., 2024. Scientists' warning: six key points where biodiversity can improve climate change mitigation, BioScience, 74(5), 315–318, https://doi.org/10.1093/biosci/biae035

Part II: Negotiating biodiversity agreements: unpacking power relations

LECTURE 5: 12.11.2024

The Convention on Biological Diversity (CBD) I: Negotiating a new convention

The CBD is often viewed as the most important site for international biodiversity politics. The convention was signed at the UN Conference on Environment and Development in Rio de Janeiro in 1992 and entered into force on 29 December 1993. The CBD has three main objectives, 1) conservation of biological diversity, the sustainable use of the components of biological diversity, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources (Art. 1 of the CBD; www.cbd.int/intro). After a short overview of the development of the CBD (1992-2022), its text and protocols (Cartagena Protocol on Biosafety, Nagoya Protocol on Access and Benefit-sharing), structure, and objectives, the lecture will discuss recent research on the CBD as a site of conflict and struggle. Next, students will get insights into how scholars have used the Conferences of the Parties (COP) of the CBD to study the sites, actors, processes, and power relations shaping international biodiversity politics using the following examples: tensions in the development of CBD targets, the making of the Nagoya Protocol, indigenous demands for justice, indigenous agency, and green grabbing narratives. Finally, we will discuss recent developments, including the preparations for the Post-2020 Global Biodiversity Framework (GBF) and the struggle over including Digital Sequence Information as an item under the CBD.

Literature

*CBD 1992. Text of the Convention (https://www.cbd.int/convention/text/)

*CBD 2001. *Introduction: The Operation of the Convention on Biological Diversity*. Handbook of the Convention on Biological Diversity, London & New York: Routledge, xvii-xxvi.

*Marion Suiseeya, K.L. 2014. *Negotiating the Nagoya Protocol: Indigenous Demands for Justice*. Global Environmental Politics 2014, 14 (3), 102–124. https://doi.org/10.1162/GLEP_a_00241

Corson, C. and Iain MacDonald, K. 2012. *Enclosing the global commons: the convention on biological diversity and green grabbing*. Journal of Peasant Studies, 39 (2), 263-283.

LePrestre, P. 2002. *Governing Global Biodiversity. The Evolution and Implementation of the Convention on Biological*. Burlington: Ashgate Publishing.

Reimerson, E. 2013. *Between nature and culture: exploring space for indigenous agency in the Convention on Biological Diversity*. Environmental Politics, 22 (6), 992-1009.

Reynolds, J.L. 2020. *Governing New Biotechnologies for Biodiversity Conservation: Gene Drives, International Law, and Emerging Politics*. Global Environmental Politics 2020, 20 (3), 28–48.

LECTURE 6: 19.11.2024

The Convention on Biological Diversity (CBD) II: Negotiating biodiversity targets

Biodiversity targets are essential for monitoring the success of measures to halt biodiversity loss. However, they are also political and contested. Negotiated and adopted among states with divergent interests and priorities related to biodiversity conservation and use, targets can become detached from the negotiations that produced them. In addition, the negotiation of targets may reveal deeply rooted inequalities and diverging problem understandings between states. This lecture will introduce students to targets negotiated under the CBD and explore their political nature based on two examples: 1) CBD COP 10 (2010 in Nagoya) negotiations related to the CBD Strategic Plan and the production of the *Aichi biodiversity targets* to be reached by 2020 (Campbell et al. 2014), and 2) the negotiations and adoption of the *Kunming-Montreal Global Biodiversity Framework* (GBF) setting the 2030 targets for the CBD. The second part of the lecture will zoom into one particular conflict challenging agreement-making on the GBF targets: whether the GBF applies in international waters, with states striving to apply the GBF only within national jurisdiction or on both areas within and beyond national jurisdiction. Such struggles provide a unique case for studying diplomats' efforts to (re)define the CBD's mandate.

Literature

*CBD. (2022, December 19). *Decision 15/4, Kunming-Montreal Global Biodiversity Framework*. https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf

*Hughes, A. C., & Grumbine, R. E. (2023). The Kunming-Montreal Global Biodiversity Framework: What it does and does not do, and how to improve it. *Frontiers in Environmental Science*, *11*, 1281536. https://doi.org/10.3389/fenvs.2023.1281536

Campbell, L., Hagerman, S. and Gray, N.J. (2014). "Producing Targets for Conservation: Science and Politics at the Tenth Conference of the Parties to the Convention on Biological Diversity," Global Environmental Politics, MIT Press, vol. 14(3), pages 41-63, August.

Campbell, L. M., Gruby, R., & Gray, N. J. (2024). Configuring the field of global marine biodiversity conservation. *Frontiers in Marine Science*, *10*, 1256164. https://doi.org/10.3389/fmars.2023.1256164

Hagerman, S. M., L. M. Campbell, N. J. Gray, and R. Pelai (2021). Knowledge production for target-based biodiversity governance. Biological Conservation 255:108980.

LECTURE 7: 26.11.2024

26.11.2024: EU Nature Restoration Law: Negotiating target implementation (*Guest Lecture*)

Implementing the CBD and its targets requires action at the national level. In the European Union (EU) context, the Regulation on Nature Restoration (Nature Restoration Law) is particularly important in complying with international biodiversity commitments under the Kunming-Montreal Global Biodiversity Framework. It came into effect on 18 August 2024 after political debates within EU institutions and its member states. The law's full implementation is crucial to restoring the EU's biodiversity and stopping further biodiversity loss. As an overall target to be reached at the EU level, Member States will implement restoration measures in at least 20% of the EU's land and 20% of its sea areas by 2030. By 2050, such measures should be in place for all ecosystems that need restoration. The NRL will help also help to achieve, by 2030, the objective of restoring at least 25,000 km of rivers into free-flowing rivers. In addition, it will contribute to reversing the decline of pollinator populations and improving their diversity, enhance biodiversity in agricultural ecosystems and the biodiversity of forest ecosystems, and contribute to the commitment to plant at least three billion additional trees by 2030 at the EU level and reduce the net-loss of urban green spaces. This guest lecture will introduce students to the Nature Restoration Law and why it is critical for halting biodiversity loss. In addition, it will give insights into the politics behind the adoption of the law, key-tensions between different actors and how those were experienced by scientists advocating for the acceptance of the Law among Austrian and European policy-makers.

Literature

*Hering, D. *et al.* 2023. Securing success for the Nature Restoration Law. *Science* **382**,1248-1250(2023). DOI:10.1126/science.adk1658

Stoffers, T. et al. 2024. Reviving Europe's rivers: Seven challenges in the implementation of the Nature Restoration Law to restore free-flowing rivers. *WIREs Water*, 11(3), e1717. https://doi.org/10.1002/wat2.1717

***Link to NRL**: https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=OJ:L_202401991

LECTURE 8: 3.12.2024

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Negotiating at the science-policy interface

Lecture 8 will introduce students to the so-called 'IPCC for Biodiversity', an intergovernmental knowledge body for biodiversity. In the first part of the lecture, students will get an overview of the early history of IPBES and the epistemic choices that occurred early on in its establishment and assessment work. In comparison to the IPCC, established in 1988, IPBES was established relatively late and two decades after the establishment of the CBD. Next, students will be introduced to the functioning of IPBES as an assessment body and learn how the production of assessments and the so-called "Summaries for Policymakers" work in practice. Finally, we will critically reflect on the conceptual framework of IPBES, which tries to combine the 'ecosystem services' approach with concepts such as 'Buen Vivir' and 'Pachamama'. This conceptual shift, which implies that different knowledge forms, including local, traditional, and indigenous knowledge, are considered equal to science, has increased scholarly interest in IPBES as a site of global environmental agreement-making

and knowledge production. Finally, I will demonstrate how scholars have studied IPBES and illustrate why it is vital to understand the struggle over what constitutes legitimate biodiversity knowledge as an inherent part of international biodiversity politics.

Literature

*Hughes, H. and Vadrot, A.B.M. 2019. Weighting the World: IPBES and the Struggle over Biocultural Diversity. *Global Environmental Politics*, 19 (2), 14–37. https://doi.org/10.1162/glep_a_00503

*Díaz, S. et al. 2015. *The IPBES Conceptual Framework- connecting nature and people*. Current Opinion in Environmental Sustainability, 14, 1–16. https://www.sciencedirect.com/science/article/pii/S187734351400116X

*Borie, M. & Hulme, M. 2015. Framing global biodiversity: IPBES between mother earth and ecosystem services. *Environmental Science & Policy*, 54, 487-496. https://doi.org/10.1016/j.envsci.2015.05.009

Vadrot, A.B.M. 2020. Building authority and relevance in the early history of IPBES. Environmental Science & Policy, 113, 14-20.

LECTURE 9: 10.12.2024

Marine biodiversity: Negotiating biodiversity beyond national jurisdiction

In 2023, governments adopted a new legally binding instrument for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction (BBNJ). The new agreement aims to close legal gaps in the CBD and UNCLOS related to marine biodiversity governance. It addresses four broad themes: marine genetic resources (MGRs); area-based management tools (ABMTs), including marine protected areas (MPAs); environmental impact assessments (EIAs); and capacity building and the transfer of marine technology (CB&TT). The BBNJ negotiations are the third site that this lecture will unpack to illustrate how power relations have shaped international biodiversity politics. The lecture introduces the BBNJ negotiations, its themes, actors and conflicts and zooms into one specific issue, namely the struggle over the consideration of BBNJ under the Common Heritage of Humankind principle (CHP). By using this case, we will discuss overlap between CBD and the BBNJ negotiations and identify broader themes that matter in contemporary international biodiversity politics and the study thereof.

Literature

*Blasiak, R. & Claudet, J. 2024. Governance of the High Seas. *Annual Review of Environment and Resource 49: 549–7. https://www.annualreviews.org/content/journals/10.1146/annurev-environ-011023-022521#cited*

*Vadrot, A. B.M. Langlet, A. Tessnow-von Wysocki, I. 2022. Who owns marine biodiversity? Contesting the world order through the `common heritage of humankind´ principle. *Environmental Politics* 31(2): 226-250. https://doi.org/10.1080/09644016.2021.1911442

Campbell, L. et al. 2022. *Architecture and agency for equity in areas beyond national jurisdiction*. Earth System Governance, 13, 100144.

Langlet A, Vadrot ABM. 2023.. Not 'undermining' who? Unpacking the emerging BBNJ regime complex. Marine Policy 147:105372 https://doi.org/10.1016/j.marpol.2022.105372

Part III: Anticipating biodiversity futures: Emerging issues and future trajectories

LECTURE 10: 07.01.2025 (*Guest Lecture*)

Governing (marine) genetic resources and digital sequence information

This lecture will explore the governance frameworks surrounding Marine Genetic Resources (MGR), focusing on their critical role in marine biodiversity conservation and sustainable development. It will contextualize the MGR case in the broader discussions about benefit-sharing, equity, and governance on Digital Sequence Information (DSI) under the Convention on Biological Diversity (CBD), reflecting particularly on the outcomes of the CBD's 16th Conference of the Parties (COP). Insights from current research will help highlight the challenges and opportunities in the governance of these resources, including implications for international law and environmental justice.

Speaker's CV

Paul Dunshirn is a PhD researcher at the ERC-funded research project TwinPolitics, University of Vienna. His research explores global patent and science landscapes around marine genetic resources and DSI, aiming to sketch pathways for equitable policy-making. Paul has served as an independent observer and advisor to various UN processes, such as the BBNJ treaty and the CBD.

Literature

Blasiak, R. et al. 2018. Corporate Control and Global Governance of Marine Genetic Resources. *Science Advances* 4 (6): eaar5237. https://doi.org/10.1126/sciadv.aar5237.

Aubry, S. et al. 2022. "Bringing Access and Benefit Sharing into the Digital Age." *PLANTS, PEOPLE, PLANET* 4 (1): 5–12. https://doi.org/10.1002/ppp3.10186.

LECTURE 11: 14.01.2025

Governing biodiversity by recognizing multiple values of nature

Biodiversity conservation has been challenged by conflicting values associated with nature, most notably related to how to reconcile economic and non-economic values, concepts and terminologies. Those tensions have been inherent in international biodiversity politics since the beginnings of the CBD in the 1990ies and became more explicit during the IPBES establishments in 2012, when governments started discussing the need for a common conceptual framework for its assessments (see Lecture 8). One important outcome of those discussions was the objective to develop a stand-alone assessment of the diverse values and valuation of nature. In 2022, governments adopted the assessment to navigate pathways for reconciling people's good quality of life with life on Earth and advancing the intertwined economic, social and environmental dimensions of sustainable development in a balanced manner. It includes an understanding of the relations between different world-views and values, a values typology, guidelines for designing and implementing valuation methods and processes, and for embedding the diverse values of nature into decision-making and policymaking. The assessment is expected to contribute to achieving the 2050 Vision for Biodiversity, the 2030 Agenda for Sustainable Development and the future post-2020 global biodiversity framework, towards just and sustainable futures.'. This lecture will situate the assessment within relevant political science research, present the contents of the assessment and critically discuss its implications for international and national biodiversity policy-making.

Literature

*Díaz, S. et al. 2019. Pervasive human-driven decline of life on Earth points to the need for transformative change. Science 366, eaax3100. DOI: 10.1126/science.aax3100

*IPBES ,2022. Summary for Policymakers of the Methodological Assessment Report on the Diverse Values and Valuation of Nature of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Pascual, et al. (eds.). IPBES secretariat, Bonn, Germany. https://doi.org/10.5281/zenodo.6522392

Stevenson, H. et al. 2021. *The Practical Fit of Concepts: Ecosystem Services and the Value of Nature*. Global Environmental Politics, 21 (2), 3–22. https://doi.org/10.1162/glep_a_00587

LECTURE 12: 21.01.2025

Governing biodiversity through data, monitoring and AI

Biodiversity politics and science are inherently connected, shaping each other in manyfold ways, as exemplified by the need to set targets and monitor implementation (see Lecture 6 and 7). In the quest to review state action and whether they comply with international agreements, biodiversity data is becoming more important. While biodiversity is a data-intense science in itself, it also draws on data from a large number of disciplines in order to build up a coherent picture of the extent and trajectory of life on earth. Lecture 12 discusses the role of data, monitoring and Artificial Intelligence (AI) in International Biodiversity Politics. It provides insights into current attempts develop shared monitoring frameworks (such as within the CBD GBF framework) and to design robust and flexible databases at the international and European scale. Finally, it will discuss those developments in light of current scholars discussions on the impact of “techno-optimism” and whether a radical reform of biodiversity politics is needed.

*Corson, C. and Campbell, L.M. (2023) Conservation at a crossroads: governing by global targets, innovative financing, and techno-optimism or radical reform? Ecology & Society, 28 (2): 3.

Bowker, G. C. (2000). Biodiversity Datadiversity. *Social Studies of Science*, *30*(5), 643-683. https://doi.org/10.1177/030631200030005001

LITERATURE LIST

Aubry, S. et al. 2022. "Bringing Access and Benefit Sharing into the Digital Age." PLANTS, PEOPLE, PLANET 4 (1): 5–12. https://doi.org/10.1002/ppp3.10186.

Blasiak, R. et al. 2018. Corporate Control and Global Governance of Marine Genetic Resources. Science Advances 4 (6): eaar5237. https://doi.org/10.1126/sciadv.aar5237.

Borie, M. & Hulme, M. 2015. Framing global biodiversity: IPBES between mother earth and ecosystem services. Environmental Science & Policy, 54, 487-496. https://doi.org/10.1016/j.envsci.2015.05.009

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