IN THE INTERNATIONAL COURT OF JUSTICE

AT THE PEACE PALACE
THE HAGUE, THE NETHERLANDS

QUESTIONS RELATING TO PRIOR INFORMED CONSENT AND BENEFIT SHARING

General List No. 303

ANECOYON
Applicant

v.

RIDUS
Respondent

MEMORIAL FOR THE APPLICANT

THE THIRTIETH ANNUAL
STETSON INTERNATIONAL ENVIRONMENTAL
MOOT COURT COMPETITION
2025 - 2026

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LIST OF ABBREVIATIONS

¶	Paragraph
ABS	Access and Benefit Sharing
C	Clarifications
CBD	Convention on Biological Diversity
COP	Conference of the Parties
CP	Cartagena Protocol
CRISPR	Clustered Regularly Interspaced Short Palindromic Repeats
D16/2	Decision 16/2 of the CBD
DSI	Digital Sequence Information
EIA	Environmental Impact Assessment
FPIC	Free, Prior and Informed Consent
FSIA	Foreign Sovereign Immunities Act, 1985
ICCPR	International Covenant on Civil and Political Rights
ICJ	International Court of Justice
ILO	International Labour Organization
ISIC	International Standard Industrial Classification of Economic Activities
LMO	Living Modified Organism
MOP	Meeting of the Parties
NP	Nagoya Protocol
OECD	Organisation for Economic Co-operation and Development
PIC	Prior Informed Consent

PSNR	Permanent Sovereignty over Natural Resources
R	Record
RP	Royal Panther/Puma royali
SAP	Sidney Animal Park
UNCJISTP	United Nations Convention on Jurisdictional Immunities of States and Their Property
USD	United States Dollar
VCLT	Vienna Convention on the Law of Treaties

QUESTIONS PRESENTED

[¶46A] Whether Ridus's conduct complied with or violated the prior informed consent provisions of the CBD and the NP, to the extent they are applicable.

[¶46B] Whether Anecoyon's refusal to consent based on its objections to de-extinction is counter to the CBD's objectives.

[¶47A] Whether, as an initial matter, DSI used for de-extinction activities is "biotechnology" for purposes of the CBD and the NP.

[¶47B] Whether the Sidney Animal Park is a user of DSI on genetic resources for purposes of CBD Decision 16/2 and whether the Sidney Animal Park is engaged in commercial activity covered by a sector currently listed in CBD Decision 16/2.

STATEMENT OF JURISDICTION

The International Court of Justice has jurisdiction over this dispute pursuant to Article 36(1) of the Statute of the International Court of Justice and the Special Agreement between Anecoyon and Ridus dated 14 July 2025.

By the Special Agreement, Anecoyon and Ridus agreed to submit to this Honorable Court the questions concerning prior informed consent and benefit sharing in the context of de-extinction efforts related to the RP. The Special Agreement was signed at Cincinnati, Ohio, United States of America, on 14 July 2025, and entered into force upon signature pursuant to Article V thereof.

Article I of the Special Agreement provides that the Parties shall submit the questions contained in Annex A to the Court pursuant to Article 40, paragraph 1 of the Statute of the International Court of Justice. The Parties expressly agreed that the Court has jurisdiction to decide this matter and that they will not dispute the Court's jurisdiction in the written or oral proceedings.

The joint notification dated 14 July 2025, transmitted by the Ministers of Foreign Affairs of both Anecoyon and Ridus to the Registrar of the Court, was duly acknowledged by notification dated 31 July 2025. The case was entered as 2025 General List No. 303.

Both Anecoyon and Ridus are Members of the United Nations and Parties to the Statute of the International Court of Justice. Accordingly, this Court has jurisdiction to adjudicate the present dispute.

STATEMENT OF FACTS

The RP (*Puma royali*) inhabited territories now comprising both States, going extinct approximately 6,000 years ago. In 1901, the best-preserved RP fossil was discovered in what is now Anecoyon territory.

In 2009, Anecoyon's Ministry of Natural Resources loaned this fossil to Ridus's National Museum for twenty years, explicitly "for the purposes of education and scientific research." Without Anecoyon's knowledge or consent, Ridus extracted DNA from the fossil in September 2020 and announced plans for de-extinction and commercial rewilding projects.

Anecoyon immediately objected, asserting its status as the country of origin requiring prior informed consent under the NP. Ridus rejected this requirement. Despite negotiations concluding in October 2023 with Anecoyon's explicit refusal of consent, and Anecoyon enacting legislation prohibiting use of its genetic resources for de-extinction in December 2023, Ridus continued the project.

Ridus consulted only with Panthera communities within its own territory, communities that exist solely because forced migration displaced them from Anecoyon. Ridus completed genome sequencing in August 2024, contracted with Salols Co., and produced two animals in December 2024.

The Sidney Animal Park now exploits these animals commercially, charging visitors 40.00 USD additional fees, generating approximately 4 million USD annually from this specific charge alone. The Park's total annual revenue exceeds 130 million USD, with assets surpassing 20 million USD. Despite Ridus's commitment at CBD COP16/NP-MOP5 to require benefit-sharing contributions, no contributions have been made to the Cali Fund.

SUMMARY OF ARGUMENTS

[¶46A] Ridus violated CBD and NP by extracting DNA without Anecoyon's prior informed consent. The protocols apply retroactively as objective obligations; utilization occurred post-entry into force. Extinct species fall within CBD/NP scope. The 2009 loan agreement did not contemplate de-extinction, requiring separate informed consent for this novel use.

[¶46B] Anecoyon's refusal aligns with CBD objectives, preventing environmentally unsound uses with unknown ecological consequences and animal welfare harms. De-extinction creates moral hazards, undermining conservation of extant species. Ridus’ss inadequate EIA and failure to consult Panthera in Anecoyon justify withholding consent. National legislation prohibiting de-extinction is fair and non-arbitrary.

[¶47A] DSI use for de-extinction constitutes biotechnology under CBD/NP definitions. It employs technological applications using biological systems (CRISPR-edited cougars), living organisms, and derivatives (fossil DNA) to make products (Ixchel and Itzamna) and modify processes for specific conservation uses.

[¶47B] Sidney Animal Park is an indirect DSI user in animal/plant breeding sector under Decision 16/2. Despite non-profit status, SAP engages in commercial activity, generating $130+ million annually through visitor fees. Under the nature test, SAP's activities are commercial, requiring Cali Fund contributions.

ARGUMENTS

1. RIDUS'S CONDUCT VIOLATED THE PRIOR INFORMED CONSENT PROVISIONS OF THE CBD AND THE NP, TO THE EXTENT THEY ARE APPLICABLE

1.1. The provisions of the CBD and NP are applicable to Ridus's conduct

¶1. As signatory to the CBD and the NP, Ridus is bound to comply with its obligations in relation to loan agreement in 2009, as *first,* the NP applies notwithstanding its alleged temporal scope [1.1.1]; *second,* the utilization occurred after both instruments entered into force [1.1.2]; and *third,* the instruments extend to genetic resources derived from extinct species [1.1.3].

1.1.1. NP applies retroactively

¶2. The present case does not fall within the bar on retroactivity under A.28 of the VCLT because the NP merely operationalizes obligations contained in the CBD.[1] In *Bosnia v. FRY,* the ICJ confirmed that the non-retroactivity rule does not apply where a treaty establishes objective obligations.[2] It is settled that acts of a continuous or composite character give rise to responsibility even if they began before entry into force.[3]

¶3. CBD and the NP impose objective treaty obligations such as FPIC and fair and equitable

[1] Alexander Orakhlashvili, *Akehurst's Modern Introduction to International Law* Chapter 12; 12.4.2; 283 (9th ed. 2022, Routledge).
[2] *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Bosnia and Herzegovina v. Yugoslavia), 1996 I.C.J. 617 (July 11).
[3] Zachary Douglas, *The International Law of Investment Claims* 340-41 (Cambridge Univ. Press 2009); *Certain Property* (Liech. v. Ger.), 2005 I.C.J. Rep. p 26, para. 51.

benefit sharing obligations, which the ICJ has recognized as having objective character.[4] CBD's preamble affirms principles such as the "*common concern of humankind*" and "*equity and sustainable development*" which carry an objective status in international law. Moreover, CBD's objectives reflect an overarching framework that support a non-temporal interpretation of its scope, including in relation to past acquisitions.[5]

¶4. As a continuing activity, the use of fossils, must conform to the standards of the CBD and the NP.[6] The ICJ has recognized that, in the environmental context, new norms must be taken into account not even when States continue activities that began in the past.[7] Accordingly, the NP should apply retroactively as objective obligations and continuing acts are concerned, an interpretation fully consistent with the VCLT.

1.1.2. In any case, the use in question occurred post the entry of the protocol

¶5. The trigger for PIC and benefit-sharing obligations is "utilization".[8] The legally relevant act is the *utilization* of the genetic resource, not its initial acquisition.[9] Because the utilization in this case occurs only after the NP's entry into force, the activity squarely falls within both the CBD's and the NP's regimes.

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[4] Id. 2.
[5] Malgosia Fitzmaurice, Meagan S. Wong and Joseph Crampin, International Environmental Law: Text, Cases and Materials ch.9, pg.163 (Edward Elgar Publishing 2022).
[6] *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), 1997 I.C.J. 7, ¶140.
[7] Id.
[8] CBD pmbl., June 5, 1992, 1760 U.N.T.S. 79, art
NP on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization pmbl., Oct. 29, 2010, U.N. Doc. UNEP/CBD/COP/DEC/X/1.
[9] The Nature, Development and Philosophical Foundations of Biodiversity in International Law in *International Law and the Conservation of Biological Diversity,*conclusions, pg.291 (Michael Bowman and Catherine Redgwell eds., Kluwer Law International 1996).

1.1.3. The NP covers resources collected from and of extinct species

¶6. Anecoyon argues that *first,* that extinct species fall within the definition and objectives of CBD and NP [1.1.3.1]; and *second,* any organism produced as a Result of De-Extinction Falls within the CBD and Associated Protocols [1.1.3.2].

1.1.3.1 Extinct species fall within the definition and objectives of CBD and NP

¶7. Interpreting the CBD in accordance with the VCLT requires that its terms be construed in good faith, according to their ordinary meaning, in context, and in light of the treaty's object and purpose.[10] The CBD defines "*biological diversity*" as the *variability among living organisms, including diversity within species, between species, and of ecosystems*. This emphasis on variability confirms that extinction does not negate the value of the genetic diversity a species once represented.[11]

¶8. The CBD defines "genetic resources" as genetic material of "actual or potential value," a formulation that imposes no temporal limitation. "Biological resources" are defined to include *"genetic resources, organisms or parts thereof, populations or any other biotic component of ecosystems with actual or potential use of value for humanity."* Where the material contains functional units of heredity and retains actual or potential value for humanity, it falls within the definition.[12] DNA extracted from an extinct species qualifies,

[10] VCLT, May 23, 1969, 1155 U.N.T.S. 331. art 31.
[11] Id. at 9.
[12] Michael Bowman, Peter Davies and Catherine Redgwell, *Lyster's International Wildlife Law* ch. 17, pg.593 (2d ed., Cambridge University Press 2010); Id. At 5. Julie Micalizzi,

as it clearly carries immense potential value for scientific purposes.[13]

1.1.3.2 Any organism produced as a result of de-extinction falls within the CBD and associated protocols

¶9. The CP regulates the safe transfer and handling of any LMO resulting from such research.[14] Since entering into force in 2003, any use of an LMO - even where the underlying genetic material was historically obtained - falls within its regulatory scope. Read together, the CBD's object, context, and purpose, along with subsequent practice as a supplementary interpretative aid under Articles 31 and 32 of the VCLT, confirm that genetic resources of extinct species fall squarely within the ambit of the CBD and its protocols.[15]

1.2. Ridus's conduct violated the PIC obligations of the CBD and NP

¶10. The authority to grant FPIC is vested in the national governments.[16] Ridus's unilateral action undermines the PSNR, which is the legal basis for the mandatory requirement of PIC,[17] as *first,* the NP and CBD impose separate and independent obligations to obtain

Misappropriation of Genetic Resources in Africa: A Study of Pentadiplandra brazzeana, Impatiens usambernesis and Conbretum micranthum, 8 Case W. Res. J.L. Tech. & Internet 1, 3 (2017).
[13] Bowman, Nature, Development & Foundations, ch. 1, at 21.
[14] CP on Biosafety to the CBD, opened for signature May 24, 2000, 2226 U.N.T.S. 208 (entered into force Sept. 11, 2003).
[15] VCLT art. 31.
[16] CBD, art. 15(1).
[17] T. Fajardo del Castillo, "Principles and Approaches in the CBD and Other Biodiversity-Related Conventions in the Post-2020 Scenario in *Biological Diversity and International Law: Challenges for the Post-2020 Scenario* ch.2, pg.22 (Mar Campins Eritja and Teresa Fajardo del Castillo eds., Springer 2021).

PIC; [1.2.1] *second,* the obligations extend to each specific use; [1.2.2] *third,* de-extinction does not fall within the scope of scientific research [1.2.3]; and *fourth,* Ridus has no claim under Article 11 of the NP [1.2.4].

1.2.1. The CBD and NP impose a separate and independent obligation to obtain PIC

¶11. Access to genetic resources is contingent upon the FPIC of the provider State.[18] Following the principle enshrined in the VCLT,[19] CBD must be read in light of its object and purpose: biological diversity as *the sovereign rights of states over their biological resources*.[20] The NP reaffirms this objective,[21] while also requiring the participation of indigenous and local communities. Thus, FPIC of the provider state is a mandatory prerequisite for access.

¶12. FPIC requirements are firmly embedded in the Rotterdam Convention, the Basel Convention, and the Minamata Convention.[22] The ICJ has recognized FPIC as a binding requirement under the relevant treaty frameworks.[23] FPIC obligations extend beyond environmental law; the ICCPR and the ILO Conventions impose mandatory consultation

[18] NP, art 6-18.
[19] VCLT art. 31.
[20] CBD, Preamble.
[21] NP, preamble.
[22] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, opened for signature Mar. 22, 1989, 1673 U.N.T.S. 57 (entered into force May 5, 1992); Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, opened for signature Sept. 11, 1998, 2244 U.N.T.S. 337 (entered into force Feb. 24, 2004); Minamata Convention on Mercury, opened for signature Oct. 10, 2013, 55 I.L.M. 582 (entered into force Aug. 16, 2017).
[23] Comm'n v. Council (C-94/03), ECLI:EU:C:2006:2; Saramaka People v. Suriname, Inter-Am. Ct. H.R. (ser. C) No. 172 (Nov. 28, 2007).

and consent duties, which have been enforced by the ICJ and the Inter-American Court.[24]

1.2.2. The obligations extend to each specific use

¶13. CBD and NP require fair and equitable sharing of benefits arising from the commercial and non-commercial utilization of genetic resources.[25] NP centres on *"utilization,"* defined as *research and development on the genetic or biochemical composition of genetic material*.[26] Ridus's genome sequencing, use of DSI, and the de-extinction initiative all constitute utilization undertaken after the Protocol's entry into force.

¶14. New norms and standards must inform not only future conduct but also the continuation of activities initiated in the past.[27] It has been recognized that treaties are subject to an evolving interpretation to adapt the regime to "recent norms of international law".[28] Anecoyon's utilization of DNA is ongoing post-NP, it must comply with FPIC and benefit-sharing requirements.

¶15. Anecoyon's original loan agreement could not constitute valid consent for de-extinction. FPIC intrinsically requires renewed consent for novel or high-risk uses, particularly in light of Anecoyon's explicit refusal.[29] Rooted in biomedical ethics, informed consent demands disclosure sufficient for the provider to understand the nature and consequences

[24] Id.
[25] CBD art 15(1); NP, art. 6.
[26] NP, art. 2(2).
[27] Gabcíkovo-Nagymaros Project, 1997 I.C.J. at 40, ¶140.
[28] Iron Rhine (Belg. v. Neth.), 27 R.I.A.A. 35 (Perm. Ct. Arb. 2005).
[29] Gabcíkovo-Nagymaros Project, 1997 I.C.J. at 40, ¶140.

of the proposed access.[30] FPIC must be clear, transparent, and non-arbitrary.[31]

¶16. A generic loan agreement would not have supplied the comprehensive information required for Anecoyon to appreciate the nature and hazards of creating and reintroducing an organism. Consent must be obtained for each specific use. The NP's provisions on Mutually Agreed Terms require explicit terms governing third-party use and changes of intent. De-extinction represents a fundamental departure from the initial research purpose, thereby necessitating new PIC. Ridus did not provide information adequate to ensure that any consent would have been genuinely informed and free from manipulation.

1.2.3. De-extinction does not fall within the ambit of 'scientific research' and the loan agreement did not contemplate such novel-use

¶17. Under the CBD, access can only be facilitated for *environmentally sound uses*.[32] De-extinction creates a moral and public health hazard, undermining support for conservation of existing species.[33] The ecological consequences of introducing de-extinct species are unknown, thus it fails the core criterion of sustainable use.[34]

¶18. Scientific research must be balanced with the CBD's objectives. The ICJ has reognised that an activity's claim to "scientific research" cannot depend on the State's perception

[30] Kuei-Jung Ni, *Legal Aspects of Priority Informed Consent on Access to Genetic Resources: An Analysis of Global Lawmaking and Local Implementation Towards an Optimal Normative Construction*, 42 Vand. J. Transnat'l L. 227 (2009).
[31] Fitzmaurice, International Environmental Law, ch. 9, at 163.
[32] CBD, art.15.
[33] CBD, Preamble.
[34] Id. at 12.

but must be judged against its objective purpose and methodology.[35] De-extinction with its potential for commercial exploitation and profound ecological consequences transcends benign academic research and must be subject to the full rigor of access and benefit sharing rules.[36] Further, CBD's references to conservation contemplate extant species, not extinct species and thus de-extinction lies outside the ambit of "conservation".[37]

1.2.4. Ridus has no claim to the DNA pursuant to Article 11 of the protocol as the fossil collected is not from Ridus's *in-situ* sources

¶19. The 'country of origin' is the source of the resources collected from *in-situ* sources.[38] Since the DNA was collected from a specimen that came from the territory of Anecoyon, Anecoyon is the providing party regardless of the historical range of species.[39]

¶20. The CBD provides a mechanism for multilateral benefit sharing for transboundary genetic resources of indigenous and local communities.[40] However, the fossil DNA, originating in Anecoyon's territory clearly falls under bilateral access control, not a multilateral sharing system. Thus, Ridus's attempt to use the transboundary nature of the extinct species to claim non-sovereign control fails as the specimen was definitively collected from Anecoyon's jurisdiction.[41]

[35] Whaling in the Antarctic (Austl. v. Japan: N.Z. intervening), 2014 I.C.J. 226.
[36] Bowman, Nature, Development & Foundations, ch. 1, at 21.
[37] Id.
[38] Id. at 12.
[39] CBD, art. 11.
[40] Id. at 12.
[41] Id. at 17.

2. ANECOYON'S REFUSAL IS CONSISTENT WITH CBD'S CONSERVATION OBJECTIVES AND PREVENTS ENVIRONMENTALLY UNSOUND USES

¶21. Anecoyon's refusal to consent is based on legitimate ethical, policy and scientific concerns,[42] As first, Anecoyon's objections are in consonance with CBD's objectives [2.1]; second, Absence of Independent EIA is Justification for Refusal to Consent [2.2]; third, Ridus's de-extinction project is contrary to the objectives of the CBD on alien and invasive species [2.3].

2.1. Anecoyon's objections are in consonance with CBD's objectives

¶22. Introduction of long-extinct species to the landscape may have *unknown ecological consequences.*[43] CBD requires the use for *environmentally sound purposes.*[44] De-extinction is fundamentally different from *scientific research* and is outside the scope of *conservation* under the CBD.[45]

¶23. FPIC requires that indigenous people in Anecoyon have full information about the scope and impacts of the proposed developments prior to the start of any activities.[46] Both the ICJ and the Inter-American Courts have affirmed that participation rights must be respected regarding decisions affecting territory or culture.[47] Ridus's consultation with

[42] CBD, art. 16.
[43] Fajardo del Castillo, Principles and Approaches, ch. 2, at 22.
[44] CBD, art. 16.
[45] CBD, art. 15(2).
[46] Tara Ward, The Right to Free, Prior, and Informed Consent: Indigenous Peoples' Participation Rights within International Law, 10 Nw. U. J. Int'l Hum. Rts. 54 (2011).
[47] Id.

Panthera leaders only occurred in August 2024, after the genome work was completed.[48]

¶24. CBD's reference to species contemplates extant, threatened species. CBD is not a preservationist convention for past life.[49] The objectives of CBD prioritizes sustainable human use and economic benefit over the resurrection of past life forms. Spending vast resources on resurrecting a species for uncertain ecological gain runs counter to the immediate economic and sustainable development focus insisted by the CBD.[50]

¶25. Ridus has not agreed to Anecoyon's request to share benefits from access to genetic resources which is a mandatory requirement under the NP to the CBD.[51] Anecoyon objects to the commercial use of the de-extinction project without giving appropriate share of benefits to it. CBD mandates that the benefits arising from the utilization of genetic resources as well as subsequent commercial applications must be shared in a fair and equitable way with the provider State on mutually agreed terms, governed by national legislation.[52] Until such sharing is agreed on mutual terms, Anecoyon is entitled to refuse consent to sharing genetic resources.

¶26. PSNR, a basic constituent of the right to self-determination, is permanent and cannot be contracted out of by an international agreement.[53] The management of a State's natural

[48] R¶28.
[49] Bowman, Nature, Development & Foundations, ch. 1, at 21.
[50] Fajardo del Castillo, Principles and Approaches, ch. 2, at 22; Bowman, Nature, Development & Foundations, ch. 1, at 21.
[51] Fajardo del Castillo, Principles and Approaches, ch. 2, at 22.
[52] CBD, art. 15(2), 15(7).
[53] Alexander Orakhlashvili, *Akehurst's Modern Introduction to International Law* Chapter 16; 12.4.2; 408 (9th ed. 2022, Routledge).

resources is a matter of sovereignty and the refusal to consent is an expression of thereof.[54] The CBD does not create a right to free-access and its refusal is in consonance with the text and objectives of the CBD.

2.2. Absence of independent EIA is justification for refusal to consent

¶27. Ridus has not conducted any *independent* impact-assessment, which is a requirement as part of Customary International Law.[55] The duty to exercise due diligence in preventing significant transboundary environmental hazard requires prior assessment of transboundary harm.[56]

¶28. The obligation to conduct a prior EIA, is a principle that extends beyond industrial projects to any activity likely to adversely affect a shared resource.[57] CBD expressly obliges Parties to establish procedures for EIAs of projects likely to significantly affect biological diversity.[58] Accordingly, under the CBD framework, the absence of an *independent* EIA provides a substantive basis for withholding consent. FPIC would require an independent EIA to be conducted by independent experts not involved in the project.[59]

¶29. The FPIC process hinges on genuinely informed decision-making. Where an EIA is

[54] Id. at 46.
[55] Id. at 5.
[56] Id; *Corfu Channel (U.K. v. Alb.)*, Judgment, 1949 I.C.J. 4 (Apr. 9); *Trail Smelter (U.S. v. Can.)*, 3 R.I.A.A. 1911 (Trail Smelter Arb. Trib. 1938).
[57] *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, 2010 I.C.J. 14 (Apr. 20).
[58] Id. (n 8) CBD, art 14.
[59] Id. at 9; Id. at 46.

prepared solely by Ridus, it is neither independent nor objective, and the information provided is inherently compromised.[60] Ridus's EIA offers only vague conclusions about "net-positive benefits" and fails to assess the specific impacts on biodiversity within indigenous lands.[61] The community and State cannot be said to have been placed in a position to give meaningful informed consent. Thus, the rejection of consent is in accordance with the text and objectives of the CBD.

2.3. De-extinction is contrary to CBD's core objectives on alien and invasive species

¶30. The act of reintroducing an extinct species is structurally analogous to introducing an alien invasive species which the CBD is explicitly mandated to prevent and control.[62] If a de-extinct species is introduced into an environment it is not prepared for, the focus will shift from protecting it to regulating and controlling them to protect the environment from adverse effects. If the revived species acts as an alien invasive species, it strengthens *Anecoyon's* objections about unknown ecological concerns that will threaten ecological integrity, directly running counter to CBD's objectives.

3. DSI USED FOR DE-EXTINCTION ACTIVITIES IS BIOTECHNOLOGY

¶31. DSI for de-extinction is biotechnology because it involves technological applications [3.1] using biological systems and living organisms [3.2], specifically derivatives like DNA [3.3] that are naturally occurring biochemical compounds [3.3.1].The process

[60] Id at 46.
[61] C¶1.
[62] Erin Okuno, *Frankenstein's Mammoth: Anticipating the Global Legal Framework for De-Extinction*, 43 Ecology L.Q. 581 (2016).

makes products [3.4], modifies processes [3.5], and serves specific conservation uses [3.6].

3.1. DSI is a technological application

¶32. CBD and NP define biotechnology as "any technological application."[63] The ordinary meaning of "application" denotes practical implementation directed toward a specific outcome, distinct from pure theoretical inquiry.[64] Ridus's stated intent was never confined to academic understanding; the National Museum announced its intention to "use the digital sequence information for the 'de-extinction' and reintroduction of RPs."[65]

¶33. DSI utilization in genome reconstruction employs technological applications distinct from mere data storage. The construction of the RP reference genome from extracted DNA[66] required sophisticated bioinformatics, sequence assembly algorithms, error correction protocols, and comparative genomic analyses.[67]

¶34. CRISPR technology operates through precise molecular machinery involving guide RNAs and Cas9 endonucleases to effect targeted genetic modifications.[68] The process

[63] CBD, opened for signature June 5, 1992, 1760 U.N.T.S. 79, art. 2 (entered into force Dec. 29, 1993).
[64] *Application*, *Oxford English Dictionary*, https://www.oed.com (last visited Nov. 17, 2025).
[65] R¶16.
[66] R¶16,28.
[67] Sarah P. Otto and Troy Day, *A Biologist's Guide to Mathematical Modeling in Ecology and Evolution* 15–30 (Princeton Univ. Press 2007); Bronwen L. Aken et al., The Ensembl Gene Annotation System, 2016 *Database* 1, 2–4.
[68] Martin Jinek et al., A Programmable Dual-RNA-Guided DNA Endonuclease in Adaptive

employed by Salols Co., comparing DSI, using CRISPR to edit 15 genes across 20 loci, and implanting resulting embryos,[69] represents quintessential technological application.

3.2. DSI uses biological systems and living organisms

¶35. Biotechnology definition explicitly includes use of "biological systems" and "living organisms."[70] "Use" encompasses utilization of genetic resources in research and development leading to product commercialization.[71] Biological resources include "populations" and "any other biotic component of ecosystems."[72] SalolsCo. genetically engineered North-American cougar cells, implanted the resulting embryo in a host cougar, and produced Ixchel and Itzamna through this biological system.[73] The cougar, a living organism, was indispensable.

¶36. "Biological systems" under CBD encompasses cellular and subcellular systems,[74] as confirmed by the CP on Biosafety's coverage of "living modified organisms" at the cellular level.[75] CRISPR-edited North-American cougar cells[76] represent biological systems actively employed in the technological process. These cells contain modified

Bacterial Immunity, 337 *Science* 816, 816–17 (2012).
[69] R¶31.
[70] CBD, art. 2.
[71] NP on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, *Explanatory Guide* 45 (2017).
[72] Secretariat of the CBD, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of Their Utilization* 9 (2002).
[73] R¶31-32.
[74] Graham Dutfield, *Intellectual Property Rights and the Life Science Industries: Past, Present and Future* 145–48 (2d ed. 2009).
[75] CP on Biosafety to the CBD, opened for signature May 24, 2000, 2226 U.N.T.S. 208, arts. 3(g)–(h) (entered into force Sept. 11, 2003).
[76] R¶31.

genetic circuits directing cellular behavior according to the engineered genome.

3.3. DSI uses derivatives of biological systems and living organisms

¶37. CBD defines "biological resources" to include "genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity."[77] "Genetic resources" means "genetic material of actual or potential value."[78] Ridus may argue that 6,000 years of extinction severs the derivative relationship. This contention fails as the genetic sequence, the legally relevant property, remained intact and recoverable despite temporal passage, demonstrating "actual or potential value."

¶38. "Genetic material" is defined as "any material of plant, animal, microbial or other origin containing functional units of heredity."[79] RP fossil, though 6,000 years old, is indisputably "of animal origin."[80] Origin denotes source, not temporal proximity. VCLT mandates ordinary meaning in context.[81] Nothing in "of animal origin" imports a requirement of contemporaneous existence. International environmental law frequently addresses temporal dimensions explicitly when material, e.g., CITES Appendix listings apply to "specimens", meaning "any readily recognizable part or derivative thereof."[82]

[77] CBD, art. 2.
[78] CBD, art. 2.
[79] CBD, art. 2.
[80] R¶6.
[81] VCLT, opened for signature May 23, 1969, 1155 U.N.T.S. 331, art. 31(1) (entered into force Jan. 27, 1980); *Territorial Dispute (Libyan Arab Jamahiriya/Chad)*, Judgment, 1994 I.C.J. 6, ¶ 41; Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WTO Doc. WT/DS2/AB/R, at 23 (adopted May 20, 1996).
[82] Convention on International Trade in Endangered Species of Wild Fauna and Flora, opened for

The CBD's silence on temporal limitations indicates no such restriction exists.

3.3.1 DSI uses a naturally occurring biochemical compound (DNA)

¶39. The NP COP-MOP decisions confirm that derivatives encompass "naturally occurring biochemical compounds" that result from genetic expression or metabolism of biological resources.[83] DNA is a naturally occurring biochemical compound: a polynucleotide consisting of nucleotide monomers.[84] The fossil DNA resulted from genetic expression in RP 6,000 years ago; it was synthesized through cellular metabolism of those organisms. The fossilization process preserved this biochemical compound in mineralized form, but did not alter its molecular identity or informational content.

¶40. "Derivatives" may include "compounds produced by the genetic material or metabolism of biological resources."[85] DNA is produced by genetic material (self-replicating) and through metabolism (cellular synthesis of nucleotides and polymerization). The fossil meets both criteria.

3.4. The technological application makes products

¶41. CBD definition does not limit "products" to industrial commodities; the ordinary meaning

signature Mar. 3, 1973, 993 U.N.T.S. 243, art. I(b) (entered into force July 1, 1975).
[83] COP Serving as the Meeting of the Parties to the NP, Decision NP-4/3, *Synthetic Biology* Annex (2022).
[84] J.D. Watson and F.H.C. Crick, Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid, 171 *Nature* 737 (1953).
[85] Id. at 72.

encompasses anything produced through technological processes.[86] De-extinction "makes" organisms that did not previously exist in living form.[87] The fact that Ixchel and Itzamna possess genetic characteristics resembling extinct species does not negate that they are newly created organisms.[88]

¶42. The fact that the "product" is a living animal does not exclude it from the definition of biotechnology. The CBD definition explicitly includes "living organisms" within its scope. Moreover, CBD Decision 16/2 specifically lists "animal and plant breeding" as a sector that benefits from DSI use,[89] confirming that producing living organisms through technological means falls within biotechnology's ambit.

¶43. Patent law, biosafety regulation, and agricultural biotechnology frameworks routinely classify genetically modified organisms as "products."[90] CP on Biosafety, complementing the CBD, regulates "living modified organisms" as products of modern biotechnology requiring risk assessment.[91]

¶44. Under Ridus domestic law, Ixchel and Itzamna are property of the state, and Ridus considers them RPs.[92] They are not naturally occurring organisms discovered in the wild

[86] VCLT, art. 31(1).
[87] R¶32.
[88] R¶32.
[89] CBD Decision 16/2, Annex, Enclosure I ¶ 1(d) (Record 37).
[90] Council Directive 98/44/EC, On the Legal Protection of Biotechnological Inventions, 1998 O.J. (L 213) 13, art. 2(1)(a).
[91] CP on Biosafety to the CBD, opened for signature Jan. 29, 2000, 2226 U.N.T.S. 208, art. 3(g) (entered into force Sept. 11, 2003).
[92] R¶32

but deliberately engineered entities produced through intentional technological intervention.

¶45. RP's status as products is reinforced by their treatment: they are hosted at SAP under an agreement permitting the park to charge visitors to observe them, with approximately 50,000 visitors paying an additional 40.00 USD in the first six months.[93] This commodification underscores their product character.

3.5. The technological application modifies processes

¶46. Alternatively, the process "modifies" North-American cougar genomes to produce organisms with RP traits.[94] Even if Ixchel and Itzamna were not "products," the technological application modified processes. Standard cougar breeding does not involve CRISPR editing guided by extinct species genomic data. Ridus and SalolsCo. fundamentally altered reproductive processes by integrating DSI-derived genetic targets into embryonic development protocols. This process modification independently satisfies Article 2's requirements.

3.6. There exists specific use linked to de-extinction activity

¶47. Biotechnology definition requires "specific use," satisfied by Ridus's declared objectives: rewilding, ecological restoration, and eco-tourism.[95] "Use of genetic resources" includes

[93] R¶34
[94] R¶31; C,A8.
[95] R¶16,¶36.

research and development on the genetic or biochemical composition of genetic resources, including through biotechnology.[96] The de-extinction project involves directed application toward predetermined conservation goals, not abstract knowledge generation.[97] The targeted introduction of second-generation RP into protected areas[98] evidence application-oriented purpose satisfying "specific use."

¶48. Ridus's longer-term plan involves introducing succeeding generations in government-owned protected areas as part of a rewilding project with an eco-tourism element. The use is specific both temporally (phased implementation) and geographically (designated protected areas). This distinguishes the de-extinction project from hypothetical scenarios of spontaneous or accidental organism creation.

¶49. The term "specific use" requires an identifiable purpose, not commercial application.[99] The existence of multiple uses, some non-commercial, does not negate "specific use." The CBD's drafting history confirms "specific use" encompasses conservation applications.[100]

4. SAP IS LIABLE TO MAKE CONTRIBUTIONS TO THE CALI FUND

¶50. Anecoyon claims that, *first*, SAP is an indirect user of DSI on genetic resources in the

[96] Id. at 72.
[97] R¶27-28.
[98] R¶36.
[99] Brendan Coolsaet et al., The NP: A Policy Network Analysis, 33 *Env't Pol'y and Governance* 277, 283 (2020).
[100] UNEP, *Nairobi Final Act of the Conference for the Adoption of the Agreed Text of the CBD*, UNEP/Bio.Div/N7-INC.5/4, ¶ 45 (1992).

animal and plant breeding sector [**4.1**]. *Second*, SAP performs commercial activities [**4.2**]. SAP is therefore liable to make contributions to the Cali Fund.

4.1. SAP is an indirect user of DSI on genetic resources in the animal and plant breeding sector

¶51. Ridus may argue that SAP is not a user of DSI on genetic resources. Ridus's contentions fail on two grounds. *First,* SAP qualifies as a 'user' of DSI on genetic resources under D16/2 [**4.1.1**]. *Second*, SAP conducts its activities in the animal and plant breeding sector [**4.1.2**].

4.1.1 SAP qualifies as a 'user' of DSI on genetic resources under D16/2

¶52. D16/2 opts for a broad standard, stated as "*a user who directly or indirectly benefits from the DSI on the genetic resource"*.[101] This must be appreciated against the backdrop of the earlier standard of "*highly reliant on the use of DSI on genetic resources*", which was rejected for the present standard.[102] Ridus may argue that such an interpretation of a user of DSI would increase prices for consumers and defeat the objectives of the D15/9. A narrow approach is to levy ABS payments only on the final product available to consumers, which would prevent an increase in consumer prices.[103] The final use of the RP is with SAP, where visitors enjoy the exhibition of the animals.[104] Thus, even if a narrow view on the use of DSI on genetic resources is taken, SAP is a user under D16/2.

[101] COP to the CBD, Decision 16/2, *DSI on Genetic Resources*, Annex (2024).
[102] *Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of DSI on Genetic Resources*, Recommendation 2/1, CBD/WGDSI/REC/2/1 (Aug. 16, 2024).
[103] Bruna Gomes Maia and Sacha Bourgeois-Girondel, *Analysis of the Working Group's Recommendations and COP-16 Decision 16/2 on DSI*, 16 Global Policy 751, 751-61 (2025).
[104] R¶33.

¶53. Ridus's contentions cannot be accepted in light of the recognition of the Global South's sovereignty over its genetic resources at the COP 16.[105] Further, the NP, which D15/9 considers,[106] recognizes the rights of indigenous communities over their resources[107]. The utility of DSI on these genetic resources is ubiquitous; it strengthens food security, combats global pandemics and improves life.[108] A reading that restricts downstream uses would deny indigenous communities the benefits of these DSI applications. It was a denial of benefits to producer countries that led to the creation of the CBD.[109] It follows that a narrow reading of 'user' would be against the objectives of the D16/2, CBD and violate the principles of fair and equitable benefit sharing.

4.1.2 SAP conducts its activities in the animal and plant breeding sector

¶54. D16/2 adopts a wide understanding of the term '*animal and plant breeding'*.[110] The draft decision proposed a more specific definition for animal and plant breeding,[111] which came to be rejected. SAP actively contributes to the regional captive breeding program,[112] and is squarely covered by D16/2. The ISIC also adopts a wide standard for '*animal*

[105] Vibha Varshney and Shimali Chauhan, Chapter 2: *DSI on Genetic Resources*, in *NEGOTIATIONS ON BIODIVERSITY: THE STORY SO FAR* 10-16 (Centre for Science and Environment 2025).
[106] COP to the CBD, Decision 15/9, *DSI on Genetic Resources*, ¶11 (2022).
[107] Elisa Morgera, Elsa Tsioumani and Matthias Buck, Art. 5(1) of NP, in *Unraveling the NP: A Commentary on the NP on Access and Benefit-sharing to the CBD* 113 (Brill 2015).
[108] Margo A. Bagley, *"Just" Sharing: The Virtues of DSI Benefit-Sharing for the Common Good*, 63 Harv. Int'l L.J. 3, 19, 45 (2022).
[109] Id. at 107.
[110] COP to the CBD, Decision 16/2, *DSI on Genetic Resources*, Annex I (2024).
[111] Id.
[112] C¶4.

production', which extends to the breeding of all animals and does not exclude wild animals.[113] In any case, the application of D16/2 is not limited to the sectors therein, as the list is merely indicative.[114]

4.2. SAP is engaged in commercial activity

¶55. D16/2 places an obligation upon those who benefit from the indirect or direct use of DSI, in their commercial activity, to contribute to the Cali Fund.[115] Notably, 'commercial activity' is not defined under the D16/2, or the CBD. Anecoyon argues that *first*, SAP's activities fit within the ordinary meaning of 'commercial activity'[**4.2.1**]. *Second*, the nature test proves that SAP is engaged in commercial activity [**4.2.2**].

4.2.1. A plain reading of 'commercial activity' covers SAP's activities

¶56. Global South jurisdictions have employed similar qualifiers as 'commercial activity' in their national ABS legislations. In Brazil, '*economic exploitation'*, is distinguished from technological development and scientific research.[116] There must be a *'commercialization of reproductive material'* for ABS mechanisms to be triggered.[117] SAP's operations satisfy this standard. The Indian approach defines *'commercial utilization'* as including end uses of genetic intervention to improve livestock.[118] The end use of the de-extinction

[113] United Nations Statistics Division, *International Standard Industrial Classification of All Economic Activities* (ISIC), Rev. 4, at code 87 (2008).
[114] COP to the CBD, Decision 16/2, *DSI on Genetic Resources*, Annex (2024).
[115] Id.
[116] Brazil, Law No. 13,123, of 20 May 2015, Arts. 2(10)–2(11).
[117] Brazil, Law No. 13,123, of 20 May 2015, Art. 18.
[118] India, Biological Diversity Act, No. 18 of 2002, § 2(f).

project is the exhibition of the RP at SAP[119]. D16/2 expressly excludes entities that maintain public databases, conduct public research and academic institutions.[120] SAP, is a private entity[121] that does not conduct any research, and therefore cannot claim any exception from liability under D16/2. Its operations satisfy the plain meaning understanding of commercial activity.

4.2.2. The nature test proves that SAP is engaged in commercial activity

¶57. Anecoyon submits that *first*, the nature test is the preferred standard to conclude whether the activities are commercial [**4.2.2.1**], and *second*, the nature test proves that the activities of SAP are commercial in nature [**4.2.2.1**].

4.2.2.1. *The nature test is the preferred standard to conclude whether the activities are commercial*

¶58. D16/2 does not discriminate on the nature of the entity benefitting from DSI, but on whether the activity itself is commercial.[122] Anecoyon therefore argues that principles from the jurisprudence on sovereign immunity can be analogized in the present case, where the same approach on commerciality is taken.

¶59. Courts have either relied on the purpose of a transaction or its nature when determining whether the commercial exception applies.[123] With the restrictive theory of sovereign

[119] R¶31.
[120] CBD COP Decision 16/2, *DSI on Genetic Resources*, art. 9 (2024).
[121] R¶33.
[122] Id. at 101.
[123] James Crawford, *Brownlie's Principles of Public International Law* 979 (8th ed. 2012).

immunity, jurisdictions rely more on the nature test.[124] The UNCJISTP has also codified this principle.[125]

¶60. It has been recognized that the purpose test risks rendering all activities of the state sovereign, since they serve an ultimate sovereign purpose.[126] Ridus may argue that SAP, being run by a non-profit, cannot have a commercial purpose; however, examining the purpose of the transaction would be opposed to the trend in international law. The OECD states also generally follow the nature test,[127] and some Global South states have adopted an approach that applies the nature test.[128] Across jurisdictions, the nature test is more widely applied than the purpose test.

4.2.2.2 The nature test proves that the activities of SAP are commercial in nature

¶61. Under the nature test, the focus is on the activity and not the entity participating in the activity.[129] In the American jurisdiction, the FSIA expands the restrictive theory of state immunity. The Court examines the nature of the activity, and not its purpose.[130]

[124] Hazel Fox and Philippa Webb, *The Law of State Immunity* 5 (Rev. and Updated 3d ed., Oxford Int'l L. Library 2015; online edn, Oxford Law Pro).
[125] United Nations Convention on Jurisdictional Immunities of States and Their Property, G.A. Res. 59/38, U.N. Doc. A/RES/59/38, art. 2(2) (Dec. 2, 2004).
[126] *Claim Against the Empire of Iran*, 45 Int'l L. Rep. 57, 57–82 (1972).
[127] Daniel Gaukrodger, *Foreign State Immunity and Foreign Government Controlled Investors*, OECD Working Papers on International Investment, No. 2010/02, at 19 (OECD Publ'g, Paris 2010).
[128] *Ethiopian Airlines v. Ganesh Narain Saboo*, 2011 (8) SCC 539, ¶¶ 17–18.
[129] Hazel Fox and Philippa Webb, *The Law of State Immunity* 367, 614 (Rev. and Updated 3d ed., Oxford Int'l L. Library 2015; online edn, Oxford Law Pro).
[130] *Guevara v. Republic of Peru*, 468 F.3d 1289, 3 (11th Cir. 2006); *Republic of Argentina v. Weltover, Inc.*, 504 U.S. 607, 7 (1992); *Saudi Arabia v. Nelson*, 507 U.S. 349, 356 (1993).

¶62. The application of the commercial activity exception depends on whether the impugned activity can only be performed by a sovereign.[131] The standard for commercial activity is broad; the acts of the Argentinian government with respect to Central Bank bonds have been characterized as commercial activity under the FSIA.[132] Even the promise of a reward for fugitive information by a government, or manipulating the market has been categorized as a commercial activity.[133]

¶63. While formally a non-profit, SAP is managed by a private corporation generating over 120 million USD annually through fees paid by visitors.[134] Only the additional revenue that visitors pay to see the RP is used for further breeding and upkeep.[135] Its activities are of a private nature. It performs no public function of sovereign importance.[136] On the application of the principles of commercial exception, SAP performs commercial activities.

[131] *Guevara*, 468 F.3d at 3; *Weltover*, 504 U.S. at 7.
[132] *Weltover*, 504 U.S. at 4.
[133] *Guevara*, 468 F.3d at 10.
[134] R¶34.
[135] R¶35.
[136] *MOL, Inc. v. Peoples Republic of Bangladesh*, 736 F.2d 1326, 1329 (9th Cir. 1984).

CONCLUSION AND PRAYER FOR RELIEF

Anecoyon respectfully requests this Honorable Court to adjudge and declare that:

1. Ridus violated prior informed consent obligations under CBD and NP;
2. Anecoyon's refusal to consent is consistent with CBD objectives;
3. DSI used for de-extinction constitutes biotechnology;
4. Sidney Animal Park must contribute to the Cali Fund under Decision 16/2.

Respectfully submitted,

AGENTS FOR THE APPLICANT