IN THE INTERNATIONAL COURT OF JUSTICE

AT THE PEACE PALACE

THE HAGUE, THE NETHERLANDS

THE CASE CONCERNING QUESTIONS RELATING TO PRIOR INFORMED CONSENT AND BENEFIT SHARING IN THE CONTEXT OF DE-EXTINCTION

ANECOYON

(APPLICANT)

v.

RIDUS

(RESPONDENT)

MEMORIAL FOR THE APPLICANT

30th Annual Stetson International Environmental Moot Court Competition

2025-2026

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CBD	Convention of Biological Diversity
NP	Nagoya Protocol
COP	Conference of Parties
CITES	Convention on International Trade of Endangered Species
ICJ	International Court of Justice
PCIJ	Permanent Court of International Justice
Art	Article
¶	Paragraph
OECD	Organisation of Economic Co-operation and Development
ABS	Access and Benefit Sharing
MAT	Mutually Agreed Terms
PIC	Prior Informed Consent
SNMNH	Smithsonian National Museum of Natural History
w.r.t	With respect to
DSI	Digital Sequence Information
AHTEG	Ad Hoc Technical Expert Group

QUESTIONS PRESENTED

46A: whether Ridus's conduct complied with or violated the PIC provisions of the CBD and the Nagoya Protocol, to the extent they are applicable; and

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 Nagoya Protocol; and

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 Applicant, Anecoyon, and the Respondent, Ridus, by an application pursuant to Article 40 (1) of the Statute of the International Court of Justice, submitted a Special Agreement concerning questions relating to PIC and benefit sharing in the context of de-extinction. On 14 July 2025, the parties jointly transmitted a copy of the Special Agreement to the Registrar of the ICJ, of which the Registrar acknowledged receipt on 28 July 2025. The parties undertake to accept the judgment of this court as final and binding and shall execute it in its entirety and in good faith.

STATEMENT OF FACTS

Anecoyon and Ridus became independent neighboring states in 1914. In 1901, the best-preserved fossil of the Royal Panther was found in Anecoyon. In 2009, the Anecoyon loaned it to Ridus for 20 years for "education and scientific research" purposes. Ridus extracted its DNA to create a reference genome and a rewilding project, announcing this in September 2020. Anecoyon objected as Ridus did not take their PIC. This led to a series of diplomatic exchanges, with Ridus asserting that PIC was not required, and Anecoyon emphasising that Ridus had not taken PIC. In December 2023, Anecoyon passed a law prohibiting the use of its genetic resources and their derivatives. Ridus returned the fossil but continued sequencing, and contracted Sahal's Co. to resurrect the Royal Panther, which did so by implanting the genetically engineered placenta in host cougars to produce Ixchel and Itzamna. Ridus kept them in Sidney Animal Park, where revenue generated by charging visitors was used to take care of them. Anecoyon called out Ridus publicly to ensure that Sidney Animal Park contributes 0.1% of its annual revenue to the Cali Fund, as the financial threshold of Decision 16/12 was satisfied. In response, Ridus's Minister of Foreign Affairs stressed in a press conference that CBD Decision 16/2 is not applicable as the panthers are not biotechnology, and that they were not profiting from but rather protecting nature. The minister's aide, Dr. T'Challa contended that Decision 16/2 only encourages commercial users of DSI to contribute; the Park is not classified as a DSI user, and its activities do not fall within sectors that benefit from DSI use, and the de-extinction project is aimed at non-commercial environmental rewilding. Anecoyon countered that any entity generating at least USD 130 million annually is engaged in commercial use, as per Decision 16/2.

SUMMARY OF ARGUMENTS

46A: Ridus failed to satisfy obligation to seek PIC of Anecoyon, triggered under both CBD and NP before utilisation of the fossil in 2020, as fossil was Anecoyon's genetic resource.

46B: Anecoyon's refusal to give access was not contrary to CBD objectives, as the objectives are w.r.t. extant species. Even if they were applicable, the refusal was in line with the precautionary approach.

47A: The use of DSI for engineering the Royal Panther fits the CBD/N definition of biotechnology. Synthetic biology techniques used (e.g. CRISPR editing) re-materialized the DSI, making its use subject to ABS obligations.

47B: The Park benefits economically from DSI utilisation by exhibiting the panthers, increasing tourism and branding. It qualifies as a downstream user and indirect beneficiary per CBD Decision 16/2 and engages in commercial activity

ARGUMENTS

46A: whether Ridus's conduct complied with or violated the PIC provisions of the CBD and the Nagoya Protocol, to the extent they are applicable;

As per Article 15(5) CBD and Article 6(1) NP, which have been ratified by both states, access to genetic resources for their utilisation requires PIC of the Party providing such resources, that is, the country of origin. Hence, Ridus had an obligation to seek PIC before utilising the fossil (Anecoyon's genetic resource)

I. Utilisation of fossil requires PIC as it is Anecoyon's genetic resource

The fossil was found in Anecoyon territory as its geologic and climatic conditions favoured its preservation. After Anecoyon's establishment, its Ministry of Natural Resources kept the fossil preserved for 95 years. This counts as ex situ conservation under CBD Article 9. Anecoyon, by lending the fossil, became the supplier, making it the Country providing genetic resources whose PIC is necessary because Anecoyon is the country of origin as per CBD art.2.

CBD Art 2 defines "Genetic resources" as “genetic material of actual or potential value”. “Genetic material" means “any material of plant, animal, microbial or other origin containing functional units of heredity”, i.e. DNA.[1] Since Ridus extracted DNA from the fossil[2], it is a genetic material and a genetic resource, as Ridus itself deemed it to have "actual or potential value" by extracting it to create a reference genome for a de-extinction project, which Ridus used to generate revenue.[3] As observed by Tvedt,[4] the reference to “potential” value broadens the scope to cover future uses.[5]

[1] L. GLOWKA ET AL., A GUIDE TO THE CONVENTION ON BIOLOGICAL DIVERSITY (IUCN Envtl. Pol’y & L. Paper, No. 30, 1994).
[2] Record, ¶ 16.
[3] Record ¶ 34.
[4] Peter Johan Schei & Morten Walløe Tvedt, *Genetic Resources, Access and Benefit-Sharing: An Introduction to the Legal Framework* 30–33 (IUCN Envtl. Pol'y & L. Paper No. 68, 2010).
[5] SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY, Synthetic Biology: Updated Document for Consideration by the Subsidiary Body on Scientific, Technical and Technological Advice, CBD Technical Series No. 82 (2023).

None of the COP decisions asserts that only living organisms are genetic resources. COP 13 Decision XIII/16 addressed digital sequences disembodied from living material, illustrating that Parties have recognised that the obligations under the Convention extend beyond living matter. Accessing the DSI, too, is subject to Anecoyon's consent, as owning biological material includes owning its constituent elements.[6] The ICJ has also shown support for evolving interpretation[7] and consideration of scientific knowledge (*Kasikili/Sedudu Island).*[8] As per Frank Irikefe, a literal reading of the CBD undermines ABS because genetic sequences can be used without accessing physical resources or agreements.[9] COP Decision 14/20 also acknowledges this.[10]

[6] Santiago Carrizosa et al. eds., *Accessing Biodiversity and Sharing the Benefits: Lessons from Implementing the Convention on Biological Diversity* 13 (IUCN Envtl. Pol'y & L. Paper No. 54, 2004).
[7] Legal Consequences for States of the Continued Presence of South Africa in Namibia*,* Advisory Opinion, I.C.J. Pleadings, Vol. X, at 19 (1971).
[8] Kasikili/Sedudu Island (Botswana/Namibia), Judgment, 1999 I.C.J. Rep. 1045, 1060 (Dec. 13).
[9] Viviana Muñoz Tellez, *A Fair Solution for Access and Sharing of Benefits of Digital Sequence Information? Decision for the CBD COP in November 2024*, SouthViews No. 275 (South Centre, Oct. 4, 2024), at 3.
[10] CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Decision 14/20: Digital Sequence Information on Genetic Resources, CBD (Nov. 30, 2018).

Some CBD parties regulate the access and use of DSI as part of their access and benefit-sharing frameworks.[11] As per Muller, genetic resources can be converted into a non-physical, informational form, with their original value intact.[12] This information may qualify as its derivative,[13] and excluding it from the ABS regime might result in digital misappropriation.[14]

The fossil and not the transboundary species itself is the genetic resource. Article 11(1) NP applies only when the populations of a species in territories of different states share the specific genetic/biochemical characteristics.[15] Scientifically, animal genetic resources of the same species may have variations even within the same breed.[16] Had these been the same, Ridus could have used one of the fossils found in its own territory.[17] Moreover, the provision also concerns living populations, not fossils.

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[11] CONVENTION ON BIOLOGICAL DIVERSITY, Digital Sequence Information on Genetic Resources: Draft Recommendation Submitted by the Co-Chairs, CBD (Dec. 5, 2022); M. A. Bagley et al., *Fact-Finding Study on How Domestic Measures Address Benefit-Sharing Arising from Commercial and Non-Commercial Use of Digital Sequence Information on Genetic Resources and Address the Use of Digital Sequence Information on Genetic Resources for Research and Development*. (2020).

[12] S.P. Soplín & M.R. Müller, *The Development of an International Regime on Access to Genetic Resources and Fair and Equitable Benefit Sharing in a Context of New Technological Developments* 1 (IUCN, Gland & Bonn 2009).

[13] Emilie Morgera, Efthimia Tsioumani & Matthias Buck, *Unraveling the Nagoya Protocol: A Commentary on the Nagoya Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity* 65 (Brill Nijhoff, 2015).

[14] E. Karger, *Study on the Use of Digital Sequence Information on Genetic Resources in Germany in the Project "Scientific and Technical Support on Implementing the Nagoya Protocol – Part 1: Digital Sequence Information and ABS"* 1, 10 (UFOPLAN 2017 F&E-Vorhaben, FKZ 3517810100) (2018).

[15] B. Greiber et al., *Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing* 134 (IUCN, 2012).

[16] Tom Dedeurwaerdere et al., *Global Scientific Research Commons under the Nagoya Protocol*, in *The Nagoya Protocol in Perspective* 419 (E. Morgera, M. Buck & E. Tsioumani eds., Brill/Martinus Nijhoff 2012).

[17] Record ¶ 6.

II. The loan agreement doesn't evidence PIC as required

Even in 2009,[18] Article 15(5) applied, which provides that national governments have the right to regulate access to genetic resources under their jurisdiction, as the two States had not agreed to the contrary.

The protocol is also applicable as a treaty provision may apply to situations that began before the treaty became operational but continued to exist even after it entered into force.[19] Extracting the DNA for the DSI-based research, genome sequencing, and de-extinction is accessing the genetic resource for utilisation. As per OECD, *'utilisation of genetic resources'* includes bioinformatics, covering digital management and storage of genetic sequences. The subsequent acts in 2022 deviated from the purpose consented to via the loan agreement, triggering a PIC obligation, making Ridus's utilisation unlawful despite Ridus's lawful physical possession.[20] Under the NP Art 2(c), such acts are regarded as "utilizations" and require their own PIC and MAT under its Article 6(1). Article 15(1) CBD reinforces States' sovereign right to regulate access on MAT, which were clearly absent for de-extinction.

[18] Record ¶ 15.
[19] Ben Urata & Jackie McArthur, 'Article 28 of the VCLT: Non-retroactivity of Treaties' in GENERAL INTERNATIONAL LAW IN INTERNATIONAL INVESTMENT LAW: A COMMENTARY (Andreas Kulick & Michael Waibel eds., OUP, 2024).
[20] *See supra,* note 15.

Following *Nuclear Tests*[21], the Court must look beyond the formal statement by Anecoyon and ascertain their 'true object and purpose' in light of diplomatic[22] exchanges which consistently refused utilisation.[23] Despite Anecoyon's legislation prohibiting the use of its genetic resources for de-extinction,[24] Ridus continued to do so.[25] The CBD art 7, requiring monitoring at different checkpoints, itself recognises utilisation as an ongoing process. The idea of continuing character of acts has also been recognised in the *United States Diplomatic and Consular Staff in Tehran* by the ICJ and in ILC articles on State Responsibility. Following Art. 14(2), such acts are governed by law at the time of the act rather than inception, as long as the state remains bound by the obligation. Continuing obligations have also been accepted in environmental law jurisprudence by the ICJ.[26]

[21] Nuclear Tests (Austl. v. Fr.), Judgment, 1974 I.C.J. 253, ¶ 30.
[22] Record, ¶ 16.
[23] Record, ¶ 18.
[24] Record, ¶ 24.
[25] Record, ¶ 27.
[26] Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, 2010 I.C.J. Rep. 14, ¶ 161.

By continuing the genome sequence, Ridus infringed the CBD's principle of state sovereignty over natural resources[27] (also codified in UNGA Resolution 1803 (XVII)). As per the Corfu Channels case, States must not knowingly allow their territory to be used for acts contrary to the rights of other States[28]. The principle has been repeatedly upheld by the ICJ and has even been treated as one of the essential principles of contemporary international law with erga omnes by ICJ judges,[29] and is recognised as customary law.[30] Some scholars consider that it may be regarded as a jus cogens,[31] and if such a view is accepted, then the contention by Ridus that the loan agreement constituted consent can be crumbled as Article 53 VCLT provides that any treaty provision contrary to a jus cogens would be void.

Nonetheless, the loan agreement is not capable of amounting to PIC for 2020 onwards utilisation.

[27]Stockholm Declaration on the Human Environment, princ. 21, U.N. Conference on the Human Environment, Stockholm, Swed., June 16–20, 1972; Rio Declaration on Environment and Development, princ. 2, U.N. Conference on Environment and Development, Rio de Janeiro, Braz., June 3–14, 1992.

[28] Corfu Channel (U.K. v. Alb.), Merits, 1949 I.C.J. Rep. 4, 22 (Apr. 9).

[29] East Timor (Portugal v. Austl.), Judgment, 1995 I.C.J. Rep. 90, 142, 197–99, 204 (separate opinion of Judge Weeramantry), 264, 270, 276 (dissenting opinion of Judge Skubiszewski).

[30] Case Concerning Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. Rep. 168; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Rep. 226.a.

[31]Ricardo Pereira & Orla Gough, *Permanent Sovereignty over Natural Resources in the 21st Century: Natural Resource Governance and the Right to Self-Determination of Indigenous Peoples under International Law*, 14 Melbourne J. Int'l L. 1 (2013).

The Museum, seeking the fossil on loan for *'the purposes of education and scientific research'*,[32] had opened a wing devoted to the history of the Panthera.[33] Given the purpose, physical possession could not have been understood to allow biotechnological research for a de-extinction project not disclosed back then.[34] OECD's Manual[35] and different states' ABS regimes distinguish between types of research. Museums generally conduct basic research without commercial intent on genetic resources, as recognised by the SNMNH.[36] Research with commercial intent generally triggers PIC and MAT requirements, as also affirmed by NP Art 15(3)(e).

The Bonn Guidelines, endorsed by Decision VII/19,[37] provided that permitted uses are clearly stipulated and further PIC should be required for any changes to these. PIC requires appropriate information[38] as to the purpose and risks, which was not given by Ridus. Hence, the consent under the loan agreement cannot be presumed to be PIC for de-extinction.[39] Under CBD and Nagoya, primarily consent must come from the State providing the genetic resources, not hunter-local communities like Panthera.

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[32] Record ¶ 15.
[33] Clarifications ¶ 11.
[34] Vienna Convention on the Law of Treaties, art. 31, May 23, 1969, 1155 U.N.T.S. 331.
[35] Caroline von Kries & Gerd Winter, *Defining Commercial and Non-Commercial Research and Development under the Nagoya Protocol and in Other Contexts* (2015).
[36] Smithsonian Nat'l Museum of Natural History, *The Policy on Access to the Collections of the National Museum of Natural History* (Smithsonian Inst., rev. ed. 20XX).
[37] *Convention on Biological Diversity, Decision VII/19, Access and Benefit-Sharing, COP 7, Feb. 9–20, 2004.*
[38] Oviedo Convention, art. 5, Apr. 4, 1997, E.T.S. No. 164.
[39] Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croatia v. Serbia), Judgment, I.C.J. 1, Feb. 3, 2006.

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

I. CBD objectives are with respect to extant species.

On an ordinary construction of words, it is apparent that the objectives of CBD (provided in Article 1) are with respect to extant species. The Convention provides that ex-situ conservation (Art 9) measures should support in-situ measures (Art 8). The genetic resource accessed is the fossil, hence it is to be treated as one that parties are obligated to conserve, and not the royal panther species. Art 9(c)[40] refers to measures for conserving and recovering threatened and not extinct species. So, de-extinction does not count as conservation. Moreover, Art 9(a) CBD specifies that ex-situ conservation should preferably be in the country of origin of the genetic resource, which is Anecoyon. Since, Anecoyon MNR had it for years in preserved condition, there is little point in duplicating the efforts.

II. Even if the matter is covered, the refusal is justified.

The precautionary principle, a customary norm also included in CBD's preamble, clarifies that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing effective preventive measures.[41] COP Decisions (XI/11, XII/24, XIII/17) urge Parties to adopt this.[42] Following this, states may refuse access to genetic resources. Moreover, the encouragement to facilitate access in Art 15.2 CBD is also confined to

[40] Convention on Biological Diversity art. 9(c), June 5, 1992, 1760 U.N.T.S. 79.
[41] Rio Declaration on Environment and Development, princ. 15, U.N. Doc. A/CONF.151/26 (Vol. I) (1992).
[42] CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Decision XI/11: The Strategic Plan for the Convention on Biological Diversity 2011–2020, CBD (Oct. 2012); CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Decision XII/24: The Nagoya Protocol on Access and Benefit-Sharing, CBD (Oct. 2014); CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Decision XII/24: The Nagoya Protocol on Access and Benefit-Sharing, CBD (Oct. 2014).

'environmentally sound uses'. What constitutes environmentally sound use is determined by the Party supplying the genetic resource,[43] and the de-extinction project is not viewed by Anecoyon as such, as clarified by its diplomatic note.[44] Ridus conducted the EIA on its own, without involving Anecoyon, and its findings are not transparent. Its subjective conclusion that the project will have "overall net positive benefits" does not negate the likelihood of adverse impacts, and isn't accepted by Anecoyon adopting the precautionary principle.[45] As per the European Commission's Communication,[46] this principle forms a general principle of international law. Further, following the principle of preventive action,[47] States must prevent or reduce activities likely to cause or risk damage to the environment. *Gabcíkovo–Nagymaros* and *Trail Smelter* affirm the need for vigilance due to the irreversible nature of environmental damage.[48]

De-extinction is not a common project, and may have unknown ecological risks as well as threats to existing species. Article 8(g) CBD and the Cartagena Protocol[49] also acknowledge that LMOs resulting from biotechnology are likely to have adverse environmental impacts. The cougars in which the placenta was implanted are LMOs.[50] Biotechnology enables gene flow from one species into the genome of another, risking genetic homogenization, which can result in critical loss of biodiversity.

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[43] Glowka et al., *supra* note 1.
[44]Record ¶ 18.
[45] Case E-3/00, EFTA Surveillance Authority v. Norway, 2001, 2 C.M.L.R. 47.
[46] European Comm'n, *Communication from the Commission on the Precautionary Principle*, COM (2000) 1 final (Feb. 2, 2000).
[47] PHILIPPE SANDS & JACQUELINE PEEL, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW (4TH ED. 2018).
[48] Gabčíkovo-Nagymaros Project (Hung. v. Slovk.), Judgment, 1997 I.C.J. Rep. 7, ¶ 140.
[49] Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Jan. 29, 2000, 2226 U.N.T.S. 208.
[50] Record ¶ 31.

The CBD article 8(h) also requires parties to prevent the introduction of, control or eradicate those alien species that threaten ecosystems, habitats or species. These may lead to adverse impacts, especially since there are no natural predators, parasites or diseases to control these animals. Since the royal panthers are predators from 6000 years ago, and not of this time, their reintroduction risks them becoming predators of other species, destroying/degrading habitat and transmitting disease and parasites (IUCN, UNEP & WWF, 1980).[51]

Thus, the refusal was a lawful exercise of precaution and environmental protection consistent with Articles 14 and Article 3 CBD.

Even otherwise, ABS regimes often include provisions asserting the right to deny access[52] as access remains conditional, subject to mutually agreed terms (MAT) and PIC from the provider Party.[53] There was no term in the loan agreement for benefits flowing to Anecoyon as affirmed in the Clarification 13; Ridus's unilateral use of the genetic resources infringes this objective. Hence, Anecoyon is justified in consistently refusing access.

47A: Whether, as an initial matter, DSI used for de-extinction activities is "biotechnology" for purposes of the CBD and the Nagoya Protocol

I. DSI is a genetic resource/derivative for the application of biotechnology.

Biotechnology means "any technological application that uses biological systems, *living organisms, or derivatives thereof,* to make or modify products or processes for specific use."[54]Whereas, DSI is a DNA/RNA represented in the form of sequences of letters that carries

[51] Glowka et al., *supra* note 1.
[52] *Environment Protection and Biodiversity Conservation Act, 1999* (Cth) s 301 (Austl.).
[53] CBD, *supra* note 40, at art. 19(2).
[54] CBD, *supra* note 40, at art. 2.

the "genetic information" and "information" means the determination of sequence usually, in the nucleic acid or amino acid protein.[55] Therefore, DSI derived from fossils[56] should be functionally treated in the same manner as their physical counterparts and considered a genetic resource under the CBD and NP, because sequencing and genetic manipulation in laboratories allow such digital information to "re-materialize" as a genetic resource in every sense of the term.[57]

CBD commissioned Study 1, further reinforces that "genetic elements which do not encode proteins (such as promotors) may have a natural functional role in transcription, translation or biosynthesis and *on this basis may be considered an inherent part of the underlying genetic resource, such that it would be illogical to distinguish between coding and non coding sequences*." This appreciation of non-coding sequences fits them within subject matter that qualify as DSI.[58] Moreover, the fact that a material is a genetic resource may also be determined on the basis of the intended use.[59] A biological material is a genetic resource, if the aim is to exploit its genetic composition or other units of heredity, rather than its physical properties.[60] Therefore, it was the Royal Panther's genetic units in the DSI exploited, without which the de-extinction project could not have proceeded. Qualifying DSI of equal "value"[61] as the original genetic resource. Value is

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55 HOUSSEN W., SARA R., & JASPARS M., Digital Sequence Information on Genetic Resources: Concept, Scope and Current Use, CBD (2020), at 40.
[56] Record ¶ 16.
[57] E. Tsioumani et al., Summary of the Seventh Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture: 30 October–3 November 2017, 9(691) ENB (2017).
[58] According to one definition considered in Study 1, "NSD [nucleotide sequence data] include non-coding and coding sequences, regulatory sequences, conserved sequences, genes that encode specific traits, DNA without known function and 'junk DNA'".
[59] CBD WG-ABS, Report of the Meeting of the Group of Technical and Legal Experts on Concepts, Terms, Working Definitions and Sectoral Approaches, CBD (2008), at 6.
[60] NORDIC COUNCIL OF MINISTERS, Access and Rights to Genetic Resources, CBD (2003), at 14.
[61] CBD, *supra* note 40, at art. 2(j).

not eroded simply because they are stored and accessed in a digital form. Indeed, without value, there would be no desire to access and utilise it.

Additionally, there is a broad agreement across CBD Parties that even if DSI is deemed to fall outside the definition of "genetic resource," DSI produced from the utilization of a genetic resource could still be subject to benefit-sharing.[62] A derivative defined as "a naturally occurring biochemical compound resulting from genetic expression . . . *even if it does not contain functional units of heredity*"[63], arises precisely through this utilisation. On the basis of this definition, it is observed that "functional" could refer both to the genetic structure per se and to the information encapsulated in the DNA sequence that can be screened and transferred electronically and become functional in a new, digital form.[64] Arguably, the phrase *"or derivatives thereof"* is deliberately broad, intended to capture not just whole organisms but biological substances or informational byproducts of living things for biotechnological purposes. In that light, it is argued that 'the biological origin rather than the biological form [of the information] matters' for falling under the definition of the derivative.[65] That being said, the information originally came from a biological resource[66], its later form—physical DNA or digital sequence, does not change its status under the definition of a derivative inherently connected with a genetic resource.

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62 *See supra* note 11 at 11.

63 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, art. 2(e), Oct. 29, 2010, 1760 U.N.T.S. 82

64 Morten W. Tvedt and Peter J. Schei, "*The Term 'Genetic Resources': Flexible and Dynamic While Providing Legal Certainty?,*" in GLOBAL GOVERNANCE OF GENETIC RESOURCES: ACCESS AND BENEFIT SHARING AFTER THE NAGOYA PROTOCOL 20–21, (2014)

65 *See supra* note 64

66 CBD, *supra* note 40, at art. 2(b).

To ensure such adaptability, terms are presumed to have an evolutionary meaning where it requires taking into account subsequent changes of technical, legal, or economic nature or where that term is of such a general character it necessitates taking into consideration changing situations.[67] Scientific terms like "genetic resources", "utilisation of genetic resource," and "derivative" did not intend to fix its meaning and thereby potentially ground their future obligations on outmoded or falsified scientific concepts, but intended the terms to connote obligations keyed to the evolving meaning.[68] The real essence of evolutionary interpretation is to ensure that a convention and its protocols effectively achieves its object and purpose, having regard to changes in circumstances and developments.

II. Utilisation of DSI for CRISPR Genome Editing is Biotechnology

Biotechnology uses . . . derivatives to *make or modify products or processes for specific use,* and utilisation[69] refers to research and development through the application of biotechnology.

In this context, DSI serves as the raw input: it enables the application of biotechnology (through CRISPR and DNA-synthesis tools) to modify a living cougar's genome to resemble that of the extinct Royal Panther.

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[67] INTERNATIONAL LAW COMMISSION, The Study Group on Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, Finalized by Martti Koskenniemi, UN Doc. A/CN.4/L.682, 58th Sess. (2006), at 16.; Dispute Regarding Navigational and Related Rights (Costa Rica v Nicaragua) [2009] ICJ Rep 213.

[68] Janos Arato, Subsequent Practice and Evolutive Interpretation: Techniques of Treaty Interpretation over Time and Their Diverse Consequences, 20 IILJ Emerging Scholars Papers 21 (2011).

[69] *See supra* note, 63 at Article 2(c) NP.

In *Association for Molecular Pathology et al. v Myriad Genetics*, U.S. Supreme Court observed that genetic information is what makes a genetic material valuable for biotechnological research.[70] Accordingly, the engineering-based redesign known as synthetic biology is what enables the effective utilisation of DSI.[71] This technical mechanization primarily substantiates the technological application used to make "Ixchel" and "Itzamna". Even the genome editing procedure, has been acknowledged within the confines of CBD and its protocols as synthetic biology.

Decision XIII/17 adopted at COP-13 notes that the AHTEG on Synthetic Biology presents an operational definition of the field as "a further development and new dimension of modern biotechnology"[72] that combines science, technology, and engineering to facilitate the understanding, design, redesign, manufacture and modification of genetic materials, organisms, and biological systems. This express recognition places synthetic biology squarely within the scope of biotechnology as understood under the CBD and its Protocols.[73]

This contention is supported by the principle of "systemic integration," embodied in Article 31(3) (c) of the VCLT, which views international law as a system. It demands to consider "useful and relevant ongoing work or practices" under international instruments and organisations provided that they are supportive of and do not run counter to the objectives of the Convention and this Protocol'. Relevantly, Article 4(3) of the NP requires the Protocol to be implemented in harmony

[70] Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013).
[71] F.I. Akpoviri, S.N. Baharum & Z.A. Zainol, Digital Sequence Information and the Access and Benefit-Sharing Obligation of the Convention on Biological Diversity, 17 *Nanoethics* 1, 11 (2023).
[72] Article 3, Cartagena Protocol on Biosafety (2000).
[73] CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Synthetic Biology, Thirteenth Meeting, Cancun, Mexico, Decision COP XIII/17, CBD (2016), at 1.

with other international instruments relevant to it. This evolutionary approach is necessary to align the CBD with scientific progress and ensure its continuing relevance.

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.

I. Whether the Sidney Animal Park is a user of DSI on genetic resources for purposes of CBD Decision 16/2.

Anecoyon submits that Sidney Animal Park qualifies as a user of DSI engaged in commercial activity for the purposes of Decision 16/2. The Park falls within the sectors of animal and plant breeding and biotechnology listed in Enclosure I of the Decision. It houses Ixchel and Itzamna, the engineered Royal Panthers, and raises them in line with Ridus's long-term plan to introduce "second and succeeding generations" of these animals into a protected area as part of a rewilding project. The agreement between Ridus and the Park requires the Park to "care and provide habitat," which makes clear that the animals are being maintained with breeding in mind. The Park also fits within the biotechnology sector because it commercially relies on organisms produced through DSI-enabled genome engineering, as already demonstrated in section 47A.

Decision 16/2 recognises that these sectors may benefit directly or indirectly from the use of DSI in their commercial activities, and that indirect beneficiaries include entities that gain economic or operational advantages from outcomes enabled by the utilisation of DSI.[74] To understand that

[74] CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY, Sixteenth Meeting: Digital Sequence Information on Genetic Resources, CBD (Oct. 21–Nov. 1, 2024).

utilisation, Article 2(c) of the Nagoya Protocol is instructive. [75] It defines utilisation as research and development on the genetic or biochemical composition of genetic resources, and the negotiating history shows that this was intended to be broad and technologically flexible, capturing digital and synthetic techniques.[76] The Commentary further explains that utilisation turns on the biological origin of the information, not the format in which it is handled. On this basis, Salols Co utilised Anecoyon's DSI when it reconstructed the Royal Panther genome. The Park obtained animals that exist only because that DSI was used, and it earned about two million dollars in additional revenue following their arrival. It has also built its public identity around them as the "home of the resurrected Royal Panther." Even though the Park did not perform the sequencing or genome work itself, it benefits directly from DSI utilisation and falls within the users contemplated by Decision 16/2. This formulation ensures that the multilateral mechanism captures the full DSI value chain and prevents benefit-sharing from being avoided through outsourcing or digitalisation.

Article 5 of the Nagoya Protocol reinforces this interpretation. Article 5(1) confirms that benefit-sharing obligations apply not only to the initial research and development but also to "subsequent applications and commercialization." The Commentary describes utilisation as a continuous chain, in which downstream actors are part of the process even if they did not carry out the upstream research.[77] By exhibiting, marketing and monetising the engineered panthers, Sidney Animal Park is operating within this downstream phase of utilisation and is therefore subject to the corresponding benefit-sharing framework.

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[75] *See supra,* note 13.
[76] Frison, Christine and Tsioumani, Elsa, *Access and Benefit Sharing and Digital Sequence Information: Unravelling the Knot,* in ACCESS AND BENEFIT SHARING OF GENETIC RESOURCES, INFORMATION AND TRADITIONAL KNOWLEDGE, 122 (Routledge, 2022).
[77] Morgera et al., *supra* note 55, at 127.

II. Whether the Sidney Animal Park is engaged in commercial activity covered by a sector currently listed in CBD Decision 16/2.

Anecoyon submits that Sidney Animal Park is engaged in commercial activity for the purposes of Decision 16/2, even though Ridus characterises it as a "non-profit." Ridus draws an analogy to CITES, suggesting that zoos are generally considered non-commercial entities under CITES Resolution 5.10 (Rev. COP19). This analogy is misplaced. The Resolution uses the term "generally". However, the use of the word generally here shows the classification is not absolute, and depends on the actual activities undertaken, not the label attached to the institution.

Furthermore, In international ABS law, commerciality turns on profit generation, not profit distribution. A non-profit label cannot neutralise activities that generate substantial revenue from the utilisation of DSI derived outputs.[78] Otherwise, States could shelter domestic institutions from benefit-sharing duties and frustrate the CBD's core philosophy of equitable benefit-sharing. Interpreted under Articles 31 and 32 of the Vienna Convention, the ABS regime aims to prevent precisely such benefit localisation by ensuring that advantages derived from genetic resources circulate across Parties, including non-profit entities abroad.

This approach is consistent with COP guidance, which calls for a broad understanding of "commercial purposes," meaning that any activity not wholly and exclusively non-commercial is treated as commercial. Under this standard, the Park's activities are clearly commercial. It charges admission fees, promoted the engineered Royal Panthers as a flagship attraction, and earned

[78] Morgera et al., *supra* note 55, at 130.

roughly two million dollars in additional revenue following their arrival. Reinvesting some of this income into caring for the panthers does not transform the activity into non-commercial research. Those expenses maintain the very animals that draw paying visitors.

Ridus's suggestion that the Park is engaged in "nature, preservation, and restoration" is too broad to alter this analysis. Although the long-term goal of the de-extinction initiative is environmental restoration and future rewilding, the present reality is that the Park is using the engineered panthers as a revenue-generating attraction. Until the animals are actually reintroduced into the wild, their function at the Park remains commercial.

Article 5(2), though an intra-State obligation, provides additional interpretative support. The Commentary notes that Article 5 presupposes State regulation of private actors because benefits arising from utilisation "will most likely be obtained from private users." In Ridus, communities traditionally connected to Panthera now reside exclusively within its territory. Ridus has already granted these communities free access to the Park to view the engineered panthers. Such access is meaningful only if utilisation and subsequent commercial application have occurred; otherwise, there would be no benefit for Ridus to distribute internally. By extending this benefit, Ridus implicitly recognises both the commercial nature of the Park's activities and the need to regulate them under ABS principles. Once Ridus accepts that benefits have arisen and require internal distribution, it must correspondingly regulate the private actor generating those benefits.

This logic aligns with the structure of the multilateral mechanism under Decision 16/2. The UN Multi-Partner Trust Fund Office, administrator of the Cali Fund, expressly states that the mechanism was created to capture private-sector contributions arising from commercial DSI use.

Recognising the Park as a user is therefore necessary if Ridus is to meet its expectations under both the Protocol and Decision 16/2.

Article 8(a) further warns that non-commercial projects may evolve into commercial intent and cautions against allowing such transitions to escape ABS regulation. The Park exemplifies this risk: it outsourced all scientific steps to Salols Co. yet monopolised the revenue-generating stage of utilisation, thereby circumventing the ABS system entirely. Excluding such downstream commercialisation from the scope of Decision 16/2 would defeat the object of the Protocol and undermine the multilateral fund designed to capture benefits from private-sector DSI use.

III. Ridus must abide with the multilateral mechanism of benefit-sharing.

In light of the understanding of the principle of mutual supportiveness, it is argued that Article 4(2) of the NP limits Parties' international law-making discretion by requiring that they exert good-faith efforts to negotiate and conclude new instruments with a view to clarifying the relationship with the Protocol and ensuring that the objectives of the CBD and the Protocol on achieving fair and equitable benefit-sharing among States are respected. This includes contributing to multilateral mechanism on the fair and equitable sharing benefits arising from the use of DSI on genetic resource/derivative. The Kumming- Montreal Global Biodiversity Framework includes a specific target(Target 13) calling for benefits arising from the use of genetic resources and DSI to be increased significantly by 2030. COP Decision 16/2 is enacted to ensure practical contribution to the Cali Fund. Ridus adopted the voluntary Cali Fund obligation. In effect, decisions of the COP, constitute subsequent practice establishing agreement on the interpretation of relevant CBD rules of benefit sharing. It thus becomes increasingly difficult for Ridus to defend an approach that

goes against an internationally recognized best practice, particularly when it has actively engaged in intergovernmental negotiations and eventually consented to the distillation of these best practices.

CONCLUSION (PRAYER FOR RELIEF)

A humbly prays that after deliberating this honorable court:

1. DECLARE that Ridus breached its obligation to seek Anecoyon's PIC, AND

2. DECLARE that Ridus breached its benefit sharing obligations

AND/OR

DECLARE any other remedy that this honorable court deems fit.

Respectfully submitted,

Agents of Applicant