

[TEAM NO. 83]

IN THE INTERNATIONAL COURT OF JUSTICE

AT THE PEACE PALACE

THE HAGUE, THE NETHERLANDS



QUESTIONS RELATING TO

PRIOR INFORMED CONSENT AND BENEFIT SHARING

IN THE CONTEXT OF DE-EXTINCTION

(ANECOYON V. RIDUS)

ANECOYON

(APPLICANT)

V.

RIDUS

(RESPONDENT)

MEMORIAL FOR THE APPLICANT

30th Annual Stetson International Environmental Moot Court Competition

2025-2026

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LIST OF ABBREVIATIONS

Cartagena Protocol	Cartagena Protocol on Biosafety to the Convention on Biological Diversity
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Convention of the Parties
CRISPR	Clustered Regularly Interspaced Short Palindromic Repeats
DNA	Deoxyribonucleic Acid
DSI	Digital sequence information
EIA	Environmental impact assessment
Espoo Convention	Convention on Environmental Impact Assessment in a Transboundary Context
GRSD	Genetic Resource Sequence Data
ICC	International Chamber of Commerce
ICJ	International Court of Justice
ISIC	International Standard Industrial Classification
IUCN	International Union for Conservation of Nature
MAT	Mutually agreed terms
MLM	Multilateral mechanism
Nagoya Protocol	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity
OECD	Organization for Economic Co-operation and Development
PIC	Prior Informed Consent
RNA	Ribonucleic Acid
SAP	Sidney Animal Park
UNEP	United Nations Environment Programme
VCLT	Vienna Convention on the Law of Treaties
¶	Paragraph
R	Record
C	Clarifications to the Record

QUESTIONS PRESENTED

I. whether Ridus's conduct complied with or violated the prior informed consent provisions of the CBD and the Nagoya Protocol, to the extent they are applicable.

II. whether Anecoyon's refusal to consent based on its objections to de-extinction is counter to the CBD's objectives.

III. Whether, as an initial matter, DSI used for de-extinction activities is biotechnology, for purposes of the CBD and the Nagoya Protocol.

IV. 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

In accordance with Article 40(1) of the *Statute of the International Court of Justice*, Anecoyon and Ridus transmitted a Special Agreement to the Registrar of the Court on 14 July 2025. The Special Agreement provided that the Parties agreed to the jurisdiction of the Court and would not dispute the Court's jurisdiction in written or oral proceedings. Per the Special Agreement, the Parties submitted questions to the Court regarding both procedural and substantive issues. The Registrar of the Court notified the Parties on 28 July 2025, of receipt of these questions and of entry of the case of Questions Relating to Prior Informed Consent and Benefit Sharing in the Context of De-Extinction (Anecoyon v. Ridus) into the Court's General List.

STATEMENT OF FACTS

Anecoyon and Ridus are neighboring sovereign States located on the Passager Peninsula[R, 1], separated by the Incilius River[R, 2]. Both were formerly provinces of the Kingdom of Mammuthus until its dissolution in 1914[R, 2]. Anecoyon is a lower-middle-income State with a population of 10 million,[R, 3] while Ridus is a high-income State with a population of 55 million[R, 4].

The Royal panther (*Puma roynali*) once inhabited territories now belonging to Anecoyon and Ridus but went extinct approximately 6,000 years ago due to overhunting by the Blytheae people, ancestors of the Indigenous Panthera[R, 7]. The best-preserved fossil specimen was found in Anecoyon in 1901[R, 15]. Owing to geological conditions, Anecoyon retains most of the species' intact genetic remains[R, 6].

In 2009, Anecoyon's Ministry of Natural Resources loaned its Royal panther fossil to the National Museum of Ridus for educational and scientific research purposes for twenty years[R, 15]. In 2020, the Museum extracted DNA from the fossil and initiated a "de-extinction" project to recreate the Royal panther and reintroduce it into protected areas in Ridus[R, 16]. The Museum, a State organ, carried out this project under government authority[R, 17].

Anecoyon objected through diplomatic notes, claiming it was the country of origin of the genetic resource under Article 6 of the Nagoya Protocol and that its prior informed consent (PIC)

was required[R, 18]. Ridus replied that the fossil was loaned before the Nagoya Protocol entered into force and thus the Protocol could not apply retroactively[R, 19].

Negotiations between the Parties failed. In 2023, Anecoyon passed national legislation prohibiting the use of its genetic resources for de-extinction purposes and demanded the return of the fossil[R, 26]. Although Ridus returned the fossil, it continued the sequencing and rewilding program[R, 27,36]. Two genetically engineered panthers, Ixchel and Itzamna, were born in December 2024 and are kept in the privately run but state-supervised Sidney Animal Park[R, 32]. The Park charges admission fees and advertises the existence of these revived panthers as a tourist attraction, generating substantial revenue exceeding USD 130 million annually.[R, 36,42]

Anecoyon contends that the utilization of the fossil's DNA without its PIC violates the CBD and Nagoya Protocol[R, 18,20,22], while Ridus maintains that its conduct was lawful[R, 19,21], that de-extinction furthers biodiversity restoration, and that the fossil's DNA is a transboundary resource not exclusively owned by Anecoyon[R, 21].

After unsuccessful diplomatic exchanges, Anecoyon and Ridus signed a Special Agreement on 14 July 2025 to submit their differences to the International Court of Justice.

SUMMARY OF ARGUMENTS

Firstly, Ridus's extraction and sequencing of DNA from the Royal panther fossil constituted "access to genetic resources for utilization," triggering the mandatory PIC requirement under the CBD and the Nagoya Protocol. Anecoyon, as the provider State where the fossil was excavated, retains sovereign rights to regulate such "access". Ridus failed to obtain any authorization from Anecoyon. The circumstances that Ridus may rely upon as evidence of consent do not meet the PIC requirement. The 2009 loan agreement did not address genetic use. The 2024 consultation with the Panthera communities was a form of social endorsement lacking both legal authority. Besides, the Protocol is applicable to the loan agreement. Even if Ridus argues that the Protocol does not have the binding force, the issue of retroactivity can be resolved based on the rule on application of treaties to continuous performance acts.

Second, Anecoyon's refusal to consent based on its objections to de-extinction is consistent with the CBD's objectives of conservation of biological diversity and sustainable use of its components. Even if Anecoyon's refusal restricted access, it is not counter to the objectives of the Convention, because Anecoyon has the sovereign right to its genetic resources. By contrast, Ridus's insufficient EIA violates the objectives of the CBD both substantively and in terms of its procedure.

Third, DSI used for de-extinction activities is biotechnology for purposes of the CBD and the Nagoya Protocol. It involves using living organisms to make products for de-extinction,

conforming to the definition of biotechnology in terms of “use living organisms” and “to make products for specific use”, and accordingly constitutes biotechnology for purposes of the CBD and the Nagoya Protocol.

Lastly, the Sidney Animal Park is a user of DSI on genetic resources for purposes of CBD Decision 16/2 because it meets the commercial characteristic of “user” of DSI, and it is explicitly listed under the sectors of use of DSI on genetic resources. The Sidney Animal Park is engaged in commercial activity covered by a sector currently listed in the Decision and it meets the financial threshold. Finally, Ridus’s refusal to require the park to voluntarily contribute to the Cali Fund violates its good faith obligation.

MAIN ARGUMENTS

I. RIDUS' CONDUCT VIOLATED THE PRIOR INFORMED CONSENT PROVISIONS OF THE CBD AND THE NAGOYA PROTOCOL, TO THE EXTENT THEY ARE APPLICABLE.

A. Ridus's conduct violated the prior informed consent provisions of the CBD and the Nagoya Protocol

In 2020, Ridus extracted DNA from the Royal panther fossil, thereby accessing genetic resources for utilization. Under the CBD, “genetic material” means any material of animal, plant, microbial or other origin containing functional units of heredity, and “genetic resources” means genetic material of actual or potential value.¹ The Royal panther's DNA therefore qualifies as a genetic resource. This conduct triggered the mandatory prior informed consent (PIC) requirement under the CBD and the Nagoya Protocol. Ridus failed to obtain the PIC from Anecoyon's competent authority, breaching both treaties and violating Anecoyon's sovereign rights over natural resources.

Based on the record, the actions that could be similar to obtaining PIC are the 2024 consultations with the Panthera communities and the 2009 loan agreement consultations with the Panthera. The former is a social agreement rather than a legal one and lacks a traditional

¹ Convention on Biological Diversity, art. 2, June 5, 1992, 1760 U.N.T.S. 79, [hereinafter CBD].

knowledge connection to the species; the loan's purpose did not address genetic use. Therefore, Ridus failed to obtain PIC and violated its obligations under the CBD and the Nagoya Protocol.

1. Ridus's Conduct Violated the Mandatory PIC Requirement and Sovereign Rights over natural resources

1.1 Ridus's Conduct Triggered and Violated the Mandatory PIC Obligation

The Royal panther fossil, excavated in 1901 within Anecoyon's sovereign territory, was loaned in 2009 by its Ministry of Natural Resources for limited scientific and educational purposes [R,15]. On 16 September 2020, the National Museum of Ridus announced that it had extracted DNA from the fossil and intended to generate the DSI for a de-extinction and rewilding project [R,20]. However, this contrasts with the purposes of education and scientific research, constituting an "access" to genetic resources under the CBD.

The CBD and Nagoya Protocol provides that access to genetic resources is subject to the PIC of the providing State's national government.² The guide to CBD further emphasizes that PIC also obliges the user to disclose how and by whom the genetic resource will be used.³

The Guidebook of Nagoya Protocol interprets the term "access" by reference to "utilization," which includes research on the composition of genetic resources, including

² CBD art. 15(5)Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity, art. 6(1), Oct. 29, 2010, 10 I.L.M. 58 [hereinafter Nagoya Protocol].

³ International Union for Conservation of Nature [IUCN], A Guide to the Convention on Biological Diversity, IUCN EPLP No. 83, p. 81 (2003) [hereinafter Guide to the CBD].

derivatives such as DNA.⁴ According to this interpretation, the mere intent to carry out such research is sufficient to trigger access obligations under Article 6 of the CBD.⁵ In this case, the borrowing of the fossil for education and scientific research did not constitute an “access” under the CBD. Ridus’s plan to create DSI and species reintroduction reflected a utilitarian purpose. Further, the extracting of DNA from the fossil further constituted an access under the Protocol.

[R,20]

Once access for utilization occurs, the obligation to obtain PIC from the provider State becomes mandatory under Article 6(1).⁶ The Guidebook to the Protocol emphasizes that this obligation is not discretionary. Unless the provider State expressly waives PIC..⁷ Mere silence, ambiguity, or administrative inaction does not waive this sovereign right.⁸ In *Pulp Mills on the River Uruguay*, ICJ affirmed that States must notify and consult before undertaking activities that may affect shared environmental interests. This principle establishes PIC is mandatory.⁹

Furthermore, PIC is not satisfied in this case. As clarified in the Protocol’s Guidebook, the provider State certifies its PIC through the issuance of an official permit of access,¹⁰ and such a permit is recognized in practice as evidence that access has occurred in accordance with the

⁴ International Union for Conservation of Nature [IUCN], *An Explanatory Guide to the Nagoya Protocol on Access to Genetic Resources and Benefit-Sharing*, IUCN EPLP No. 83, at 97 (2012).

⁵ *Id.*, p. 96-97.

⁶ *Id.*, p. 95.

⁷ *Id.*, p. 96.

⁸ *Id.*

⁹ *Pulp Mills on the River Uruguay (Arg. v. Uru.)*, Judgment, 2010 I.C.J. 14, ¶¶101-205 (Apr. 20).

¹⁰ Guide to the CBD, p. 95.

State's consent.¹¹ In present case, Anecoyon never issued any permit authorizing DNA extraction or genomic research.

In summary, Ridus's DNA extraction and planned genomic utilization triggered the obligation to obtain PIC under the Protocol. This obligation is mandatory and Ridus failed to obtain such consent from Anecoyon's state authority.

1.2 Ridus Violated Anecoyon's Sovereign Rights over Natural Resources.

In 2020, the National Museum of Ridus extracted and sequenced DNA from the fossil [R, 16]. The National Museum of Ridus, identified as a State organ, its conduct is attributable to Ridus[R,17].¹² Under of the CBD,¹³ PIC is an exercise of State sovereignty over natural resources,¹⁴ as affirmed by the Conference of the Parties in Decision 16/2¹⁵. This Protocol acknowledges sovereign rights over genetic resources, their authority to regulate access, and clarifies the connection between sovereignty and access to genetic resources.¹⁶

¹¹ *Id.*, p. 105.

¹² Articles on Responsibility of States for Internationally Wrongful Acts, G.A. Res. 56/83, Annex, U.N. Doc. A/RES/56/83, art. 4 (Dec. 12, 2001) [hereinafter ARSIWA].

¹³ Secretariat of the Convention on Biological Diversity, Introduction to Access and Benefit-Sharing (ABS): Revised Info-Kit, p. 5 (2012) [hereinafter Secretariat of the CBD].

¹⁴ CBD art. 15(1).

¹⁵ Conference of the Parties to the CBD, Decision 16/2: Digital Sequence Information on Genetic Resources, U.N. Doc. CBD/COP/DEC/16/2 (Nov. 1, 2024), p. 2, ¶ 1 [hereinafter CBD Decision 16/2].

¹⁶ Guide to the CBD, p. 97.

Accordingly, the obligation to obtain PIC constitutes an exercise of the sovereign rights, Ridus violate Anecoyon's sovereign rights over natural resources and breach the CBD and the Nagoya Protocol.

2. Anecoyon is the Provider State of the Genetic Resource

The Royal panther fossil was excavated in 1901 within Anecoyon's territory and loaned in 2009 by its Ministry of Natural Resources[R,15]. The CBD grants States sovereign rights over their natural resources and requires that access to genetic resources need the provider State's PIC.¹⁷ The CBD defines "country providing genetic resources" as the State where the resource was actually collected, not where the species originally existed.¹⁸ The specimen used by Ridus was excavated exclusively in Anecoyon; other potential finds in Ridus do not affect its status as the provider state.

Accordingly, the fossil and its DNA originated in situ under Anecoyon's jurisdiction, making Anecoyon the provider State within the meaning of Article 15 CBD.¹⁹

3. Indigenous Approval Does Not Constitute Prior Informed Consent

3.1 Indigenous Approval Is Not State-Level Authorization

¹⁷ CBD, art. 15(1).

¹⁸ Guide to the CBD, pp. 45-46.

¹⁹ CBD, art. 15.

In August 2024, Ridus consulted with leaders of the Panthera communities within its territory, who expressed support for the de-extinction project. [R, 28]

The Panthera people, descendants of the Blytheae who overhunted the Royal panther into extinction, retain no cultural, scientific, or genetic link to the species and have no legal authority to consent on behalf of Anecoyon. [R, 7, 16] Nagoya Protocol addresses access to traditional knowledge associated with genetic resources and requires approval of Indigenous and local communities only when such knowledge is directly related to the genetic resource.²⁰ As the Panthera people possess no traditional knowledge of the Royal panther, their approval cannot constitute PIC under the Nagoya Protocol.

The Nagoya Protocol requires that access to genetic resources for utilization needs the PIC of the provider State's competent state authority.²¹ Similarly, the CBD Secretariat also clarifies this point²² In this case, the consultations conducted with the Panthera communities could, at most, represent a form of social or cultural approval, rather than a legal one.

In *Chennells v. Hoodia Bioproducts (South Africa)*, the court held that although the San people had consented to the commercial use of their traditional knowledge, such consent was insufficient without authorization from the State²³ The court emphasized that community consent represents “social legitimacy” rather than “legal entitlement,” and that only the State can

²⁰ *Id.*, art. 7.

²¹ Nagoya Protocol, art. 6(1).

²² Secretariat of the CBD, p. 5.

²³ *Chennells v. Hoodia Bioproducts (S. Afr.)*, Judgment, 2013 L. Env't & Dev. J. 163, ¶¶ 42–45 (2013).

grant PIC under the CBD.²⁴ Similarly, in *Maya Indigenous (Belize)*, the Maya communities objected to the government’s authorization of resource exploitation on their lands. Although the court recognized their cultural and territorial rights, the UNEP noted that PIC must still be granted by the competent state authorities.²⁵ The study concluded that community consultation is an ethical and procedural requirement, but it “does not override the sovereign decision-making powers of the State.” Accordingly, while the Panthera communities’ ethical endorsement may support social acceptability, Anecoyon’s consent can not be absent.

Thus, Ridus’s consultation with the Panthera people cannot constitute PIC, violating the Nagoya Protocol.²⁶

3.2 Indigenous Approval Has No Retroactive Effect

Even the consultation with Indigenous communities could be viewed by Ridus as a form of consent, it has no retroactive effect. The CBD Secretariat has emphasized that retroactive or substitute consent is legally ineffective.²⁷ In August 2024, Ridus conducted consultations with leaders of the Panthera communities within its territory—nearly four years after the National Museum of Ridus had already extracted the Royal panther DNA [R, 16, 28]. Such ex post consultation cannot satisfy the “prior” nature of consent required under the Nagoya Protocol and therefore fails to constitute PIC.²⁸

²⁴ *Id.*

²⁵ *Maya Indigenous Communities (Belize)*, in UNEP, Study on Prior Informed Consent and Traditional Knowledge, U.N. Doc. UNEP/CBD/WG8J/4/INF/9, ¶¶ 27-30 (2005).

²⁶ Nagoya Protocol, art. 6(1).

²⁷ Secretariat of the Convention on Biological Diversity, Study to Identify Specific Cases for Which It Is Not Possible to Grant or Obtain Prior Informed Consent, pp. 11-12 (2020).

²⁸ Nagoya Protocol, art. 6(1).

4. The Loan Agreement Does Not Contain Authorization for Genetic Extraction or De-extinction Research

Ridus later claimed that its subsequent extraction and sequencing of the fossil’s DNA, and the de-extinction project, were implicitly covered under the loan’s purpose [R, 16, 20]. On this basis, Ridus did not obtain any additional consent from Anecoyon before accessing and utilizing the genetic material [R, 22].

Under the Vienna Convention on the Law of Treaties (VCLT), the terms of an instrument must be interpreted in good faith, according to their ordinary meaning and in light of its object and purpose.²⁹ The 2009 loan agreement authorized the National Museum of Ridus to use the Royal panther fossil solely “for educational and scientific research purposes” [R,15]. That agreement did not refer to DNA extraction, genome sequencing, or de-extinction. By using the fossil for these purposes in 2020, Ridus exceeded the scope of consent originally granted [R, 16]. “Scientific research” cannot reasonably include biotechnology or genetic re-creation of extinct species. Ridus’s extensive interpretation of the loan agreement violates both the CBD and the Protocol.³⁰

In *Whaling in the Antarctic*, the ICJ held that a State’s claim of acting “for purposes of scientific research” must be assessed objectively, by examining whether the implementation

²⁹ Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331, art. 31(1) [hereinafter VCLT].

³⁰ CBD, art. 1, 8-12.

genuinely serve that purpose.³¹ Although Japan invoked scientific aims, the Court found its whaling program primarily commercial. Similarly, Ridus’s invocation of the loan agreement’s “scientific research” clause cannot justify post-hoc genome extraction and de-extinction efforts that go beyond the loan’s original educational intent.

Therefore, the loan agreement did not address Ridus’s later extraction and utilization of the fossil’s DNA, thus violating the CBD and the Protocol.

B. The Nagoya Protocol is fully applicable to Ridus.

1. Ridus’s use of the DNA occurs after the Protocol was signed.

The focus of the Protocol lies in the utilization rather than the acquisition of the genetic resources. Although the acquisition took place before the protocol was signed, the use of the DNA in the de-extinction project meets the definition of “utilization” [R20], which occurs after the Protocol’s signing. Thus, the Protocol is applicable to Ridus without mentioning whether it is retroactive to the loan agreement or not.

2. Continuous acts can be exceptional for the non-retroactivity of treaties.

Even if Ridus argues that the Protocol does not have the binding force, the issue of retroactivity can be resolved based on the rule on application of treaties to continuous

³¹ *Whaling in the Antarctic (Austl. v. Japan: N.Z. intervening)*, Judgment, 2014 I.C.J. 226, ¶¶ 70–85 (Mar. 31).

performance acts. Though the general rule is that “treaties shall not have retroactive effect”.³² However, there are at least two exceptions based on international law: common intentions³³ and continuous acts.³⁴ Besides, it is also possible to be exceptional based on customary international law. In this case, Ridus’s continuous acts can be exceptional for the non-retroactive rule.

If an act starts before and continues after entering into force of the treaty, the part of the act that occurs after the time shall be bound by the treaty. Ridus’s use of the DNA borrowed from Anecoyon is continuous after the loan agreement and the Protocol was signed. Thus, all the relevant treaties are applicable, regardless of retroactivity between the treaties and the loan.

Even Ridus argues that the Protocol does not have retroactivity to the loan agreement [R,19]. Anecoyon can still refuse Ridus’s request by invoking the rules governing the binding force of treaties for continuous acts under customary international law. The argument of Ridus that the loan agreement \has no retroactivity [R,19] cannot be established.

II. ANECOYON’S REFUSAL TO CONSENT BASED ON ITS OBJECTIONS TO DE-EXTINCTION IS NOT COUNTER TO THE OBJECTIVES OF THE CONVENTION ON BIOLOGICAL DIVERSITY

A. Anecoyon’s refusal to consent is not counter to the objectives of the CBD

³² VCLT, art. 28.

³³ *Id.*

³⁴ Yearbook of the International Law Commission, 1966, vol. II, at 211, U.N. Doc. A/CN.4/186 & Add.1-7, p. 212, ¶ 3 (1967).

1. Anecoyon’s refusal to consent is consistent with the objective of conservation of biodiversity.

The CBD aims to conserve biological diversity and promote sustainable use of its components.³⁵ According to the definition of “biological diversity” under the CBD,³⁶ rather than the sum of all the species, biodiversity is comprised of three levels: the genetic variation within species, the richness of species and the diversity of ecosystems.³⁷ These levels are linked to each other, thereby contributing to the functioning and stability of the whole ecosystem.³⁸ For this reason, the emphasis of the conservation of biodiversity is laid upon the protection of the ecosystem as a whole rather than one single species. Moreover, biodiversity has been decreasing globally at a rate “faster than at any time in human history”.³⁹ It is widely accepted by the CBD contracting parties that halting and reversing biodiversity loss is the most crucial goal.⁴⁰ States

³⁵ CBD, art 1.

³⁶ *Id.*, art. 2.

³⁷ Guide to the CBD, p. 16.

³⁸ Felix Ekardt et al., “Legally binding and ambitious biodiversity protection under the CBD, the global biodiversity framework, and human rights law” 35 *Environmental Sciences Europe* 80, p. 83 (2023).

³⁹ Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the intergovernmental science-policy platform on biodiversity and ecosystem services, p. 10 (2019, IPBES Secretariat, Bonn).

⁴⁰ Conference of the Parties to the CBD Decision VI/26: Strategic Plan for the Convention on Biological Diversity, U.N. Doc. CBD/COP/6/20/Add.1, annex I (Apr.19, 2002); Secretariat of the CBD, *The Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets, Strategic Goal A, B* (2010); Kunming-Montreal Global Biodiversity Framework, Decision of the Conference of Parties to the CBD, Section B, U.N. Doc. CBD/COP/15/L.25 (Dec. 18, 2022).

should stop the extinction of species by preserving the existing ecosystem, instead of resurrecting the long-extinct ones.

In a similar case, scientists resurrected the *dire wolf*, which vanished 10000 years ago, using CRISPR technology. Study shows that once released, they could significantly disrupt the local populations that have evolved without this apex predator. This could lead to changes in the nutritional intake of herbivores and in prey availability for competing carnivores.⁴¹ Also, the surrogate animals used in the breeding process suffered from tissue damage and post-operative pain.⁴²

In the present case, Anecoyon refused to grant consent because the de-extinction project will have negative effects on the protection of the ecosystem. The Royal panthers have been extinct for 6000 years [R, 7]. As predators, the panthers will pose enormous threats to the local species and the ecosystem in the upcoming rewilding program. Also, the resurrecting process involved the American cougar as the surrogate animal [R, 31], which is detrimental to the well-being of the animal. Thus, de-extinction runs counter to the protection of the whole ecosystem.

In summary, Anecoyon's objection to de-extinction is consistent with the conservation of biological diversity because it prevents the potential harm to the ecosystem.

⁴¹ Alexandre Azevedo & Manuel Magalhães-Sant'Ana, "Reviving the Dire Wolf? A Case Study in Welfare Ethics, Legal Gaps, and Ontological Ambiguity", p. 15, *Animals* 1839, 9 (2025).

⁴² *Id.*, p. 8.

2. Anecoyon's refusal to consent is consistent with the objective of sustainable use.

According to the CBD, sustainable use refers to the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.⁴³ Based on IUCN's draft Guidelines, the use of a particular species is likely to be sustainable if it does not reduce the future use potential or impair the long-term viability of the target population, the supporting and dependent ecosystems and other species.⁴⁴ This interpretation implies that the definition considers the interrelationship within species and is highly ecosystem-oriented.

In the present case, Ixchel and Itzamna are human-reared in the park, indicating that they have been socialized to humans and lack contact with prey [R, 33]. This could result in poor social, hunting and parenting skills.⁴⁵ Due to genetic modification, health issues such as immune dysfunction may arise later in the panther's life.⁴⁶ They pose enormous threats to the panthers' survival. Moreover, the animals are treated as part of a tourist attraction [R, 34]. This use is intrinsically commercialized, without focusing on preserving or sustainably using existing native species.

⁴³ CBD, art 2.

⁴⁴ Guide to the CBD, p. 57.

⁴⁵ Naomi. R. Latham & G.J. Mason, "Maternal Deprivation and the Development of Stereotypic Behaviour", 100 *Appl. Anim. Behav. Sci.* 84, pp. 84-108 (2008).

⁴⁶ C.G. Van Reenen, T.H. Meuwissen, H. Hopster, K. Oldenbroek, T.H. Kruij & H.J. Blokhuis, "Transgenesis May Affect Farm Animal Welfare: A Case for Systematic Risk Assessment," 79 *J. Anim. Sci.* 1763, pp. 1763-1779 (2001).

For this reason, the de-extinction project fails to sustainably use the components of biological diversity. Anecoyon's refusal is consistent with the objective of sustainable use.

B. Ridus' insufficient EIA violates the objectives of the CBD.

1. The EIA conducted by Ridus is substantially insufficient.

The CBD provides that states must undertake an environmental impact assessment (EIA) whenever an activity poses a risk of significant transboundary harm.⁴⁷ Also, the IUCN Guidelines require that any reintroduction be preceded by rigorous risk assessment and ecological feasibility analysis.⁴⁸ Furthermore, Appendix II of the Espoo Convention requires that an EIA report describe the proposed activity, reasonable alternatives, the likely environmental impacts, mitigation measures, and a non-technical summary.⁴⁹

In the present case, Ridus' project employed gene editing of cougar cells and implantation into living cougars [R, 31]. This introduced serious risks of genetic introgression into existing *Puma concolor* populations. Meanwhile, multiple subspecies of *Puma concolor*—including *P. c. coryi* (the Florida panther), *P. c. cougar*, and *P. c. costaricensis*—are listed under CITES Appendix I and designated as endangered under the U.S. Endangered Species Act.⁵⁰

⁴⁷ CBD, art. 14.

⁴⁸ International Union for Conservation of Nature/Species Survival Commission [IUCN/SSC], Guidelines for Reintroductions and Other Conservation Translocations, pp. 6–7 (2013).

⁴⁹ Convention on Environmental Impact Assessment in a Transboundary Context, Appendix, II art. 2(2), Feb. 25, 1991, 1989 U.N.T.S. 309 [hereinafter Espoo Convention].

⁵⁰ CITES Animals Committee, Consideration of Proposals for Amendment of Appendices I and II (Prop. 2017/1) 4; U.S. Fish & Wildlife Serv., Florida Panther Recovery Plan (2013).

Consequently, employing a species that includes Appendix I subspecies for experiment is not environmentally neutral but rather harmful to the conservation of endangered species. This indicates that Ridus' EIA ignored foreseeable risks to other species and the environment into which the panther will be released.

Therefore, Ridus' EIA was substantively deficient and contravenes the CBD's objectives of conservation and sustainable use of biological diversity.

2. The EIA conducted by Ridus is insufficient in terms of its procedure.

According to the Espoo Convention, a standardized EIA requires that the party of origin notify the potentially affected party, consult with it on the scope of the assessment, allow for public participation, communicate the results before making a final decision, and undertake post-project analysis to monitor actual impacts.⁵¹

Although Ridus claims to have conducted an EIA before the de-extinction project [C, 1], the procedure it followed fails to meet the Espoo standards. The Record shows no evidence that Ridus consulted Anecoyon, the neighboring state likely to be affected. Nor did Ridus solicit Anecoyon's input on the scope of the assessment or share technical documentation of potential ecological impacts. Ridus also failed to ensure public participation, e.g., Anecoyon's citizens and environmental experts. Moreover, Ridus never implemented a plan for post-project monitoring.

⁵¹ Espoo Convention, art. 3, 4, 6, 7.

In summary, the procedure of Ridus' EIA is legally insufficient and violates the obligations under the Espoo Convention and the CBD's objectives.

III. DSI USED FOR DE-EXTINCTION ACTIVITIES IS BIOTECHNOLOGY FOR PURPOSES OF THE CBD AND THE NAGOYA PROTOCOL.

As defined in the CBD, biotechnology means “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.”⁵² The same definition is used in the Nagoya protocol.⁵³ In the present case, DSI used for de-extinction activities involves using living organisms to make products for the de-extinction project, conforming to the definition of biotechnology in terms of “use living organisms” and “to make products for specific use”, and accordingly constitutes biotechnology for purposes of the CBD and the Nagoya Protocol.

A. The use of DSI for de-extinction activities includes the use of living organisms.

DSI is defined by the Cali Fund Guide as the digital representation of genetic material, such as DNA and RNA sequences, enabling rapid analysis and comparison of genetic data.⁵⁴ Thus, the use of DSI can be referred to as the use of digital genetic material like DNA and RNA.

The resurrection process included the comparison of the DSI of the Royal panther and the

⁵² CBD, art. 2.

⁵³ Nagoya Protocol, art. 2.

⁵⁴ Guide to the Cali Fund: Sharing the Benefits of Genetic Data from Nature, at 1, adopted by the Parties to the Convention on Biological Diversity at COP 16, p. 4, Cali (Oct. 21-Nov. 1, 2024).

DSI of the North American cougar, genetic engineering of North American cougar cells to resemble traits of the Royal panther with CRISPR technology, and finally the implantation of the resulting placenta in a host cougar [R,31]. Furthermore, the key practice lied in the genetic engineering where DNA looked like North American cougar would be cut and paste in the place the DNA looked like Royal panther.⁵⁵ The use of DSI in the process consisted in the “cut and paste” CRISPR technology.⁵⁶

Living organism defined in the Cartagena Protocol on Biosafety means “any biological entity capable of transferring or replicating genetic material”.⁵⁷ North American cougar cells and placenta-hosting cougar are within the scope. Considering that North American cougar cells have been compared and genetically engineered [R,31], the use of DSI includes the use of living organisms. Therefore, the use of DSI for de-extinction activities is consistent with “technological application that uses living organisms” as defined in the CBD and the Nagoya Protocol.

B. DSI is used to make products for de-extinction activities as a specific use.

1. Resurrected Royal panthers are products made for de-extinction activities.

The CBD obligates parties to “regulate, manage or control the risks associated with the use

⁵⁵ Colossal Biosciences, The Making of the Colossal Dire Wolves-World's First De-Extinction, available at https://www.youtube.com/watch?v=F5uCuOwK_VE.

⁵⁶ Elizabeth Karger, Pierre du Plessis & Hartmut Meyer, Digital Sequence Information on Genetic Resources (DSI): An Introductory Guide for African Policymakers and Stakeholders, p. 17, ABS Capacity Development Initiative (2019).

⁵⁷ Cartagena Protocol on Biosafety to the Convention on Biological Diversity, art. 3, Jan. 29, 2000, 2226 U.N.T.S. 208 [hereinafter Cartagena Protocol].

and release of living modified organisms resulting from biotechnology...”⁵⁸ On that basis, biotechnological application “to make or modify products for specific use”⁵⁹ as defined in the CBD and the Nagoya Protocol involves making living modified organisms. A living modified organism is defined in the Cartagena Protocol on Biosafety as “any living organism that possesses a novel combination of genetic material...”⁶⁰ Since the Royal panthers were genetically engineered, they possess such a novel combination of genetic material. For this reason, resurrected Royal panthers are living modified organisms and therefore products made for de-extinction activities.

Moreover, the resurrected Royal panthers are products made for de-extinction, for they are made through technology, not a natural birth. There are 20 edits to 15 genes [C,8] in the CRISPR process. The resurrected Royal panthers were developed from cells of similar species that were genetically edited to resemble its traits [R,31], not the natural cells of Royal panther. In this way, the resurrected Royal panthers are products of de-extinction activities, the substitutes representing the extinct form.⁶¹

⁵⁸ CBD, art. 8(g).

⁵⁹ CBD, art. 2; Nagoya Protocol, art. 2.

⁶⁰ Cartagena Protocol, art. 3.

⁶¹ IUCN SSC Guiding Principles on Creating Proxies of Extinct Species for Conservation Benefit, version 1.0, p. 5 (2016).

2. De-extinction activity is a specific use of biotechnology under the CBD and the Nagoya Protocol.

There is a wide array of biotechnology applications, and the OECD biotechnology classifications list “DNA-The coding” as an area of biotechnology use.⁶² Biotechnologies included in this area involve DNA sequencing, gene probes and genetic modification.⁶³ The de-extinction project contained the application of DNA sequencing and genetic modification [R,28,31] and thus is one of the specific uses of biotechnology.⁶⁴

Furthermore, de-extinction activity is the application of synthetic biology, which falls within the scope of biotechnology.⁶⁵ In a sub-working group on biotechnology, with regard to the question of a description of biotechnology, some delegations preferred a definition more closely related to modern biotechnology.⁶⁶ For this reason, the CBD has the intention of including the concept of modern biotechnology within its scope. As new techniques for modifying genetic information continue to evolve, the scope of biotechnology will keep expanding. The CBD addressed modern biotechnology through its supplementary agreement, the

⁶² Organization for Economic Co-operation and Development [OECD], OECD Biotechnology Statistics-2006, Brigitte van Beuzekom & Anthony Arundel eds., OECD Publishing, p. 140 (2006).

⁶³ *Id.*

⁶⁴ International Organization for Standardization [ISO], ISO Technical Committee ISO/TC 276 (Biotechnology)-Biotechnology: Published 41 Standards | Developing 46 Projects (ISO, Geneva, 2024), ¶ 2, available at <https://www.iso.org/committee/4514241.html>.

⁶⁵ Secretariat of the Convention on Biological Diversity, Synthetic Biology, Part I: Potential Impacts of Synthetic Biology on Biological Diversity, CBD Technical Series No. 82, p. 8 (2015).

⁶⁶ Ad Hoc Working Group of Experts on Biological Diversity, Sub-Working Group on Biotechnology, Final Report of the Sub-Working Group on Biotechnology, Nairobi, 14–17 Nov. 1990, U.N. Doc. UNEP/Bio.Div/SWGB.1/5/Rev.1, p. 3 (Nov. 28, 1990).

Cartagena Protocol.⁶⁷ Thus, modern biotechnology is included in biotechnology under the CBD. Because the Nagoya Protocol does not change the definition of biotechnology found in the CBD,⁶⁸ the biotechnology under the Protocol likewise encompasses modern biotechnology. A related concept, synthetic biology, is a further development and new dimension of modern biotechnology,⁶⁹ and its present status in the CBD discussions is that it falls within the CBD's broad definition of "biotechnology".⁷⁰ Since de-extinction of extinct animals is listed as an issue in synthetic biology by a multidisciplinary ad hoc technical expert group of the CBD,⁷¹ de-extinction activity is in the field of synthetic biology and therefore biotechnology.

IV. SIDNEY ANIMAL PARK IS A USER OF DSI ON GENETIC RESOURCES FOR PURPOSES OF CBD DECISION 16/2 AND IT IS ENGAGED IN COMMERCIAL ACTIVITY COVERED BY A SECTOR CURRENTLY LISTED IN CBD DECISION 16/2

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

⁶⁷ Cartagena Protocol, art. 3.

⁶⁸ Guide to the Nagoya Protocol, at 85.

⁶⁹ Convention on Biological Diversity, Subsidiary Body on Scientific, Technical and Technological Advice, Synthetic Biology, Note by the Executive Secretary, U.N. Doc. UNEP/CBD/SBSTTA/20/8, p. 4, ¶ 25 (Mar. 8, 2016).

⁷⁰ Felicity Keiper & Ana Atanassova, Regulation of Synthetic Biology: Developments Under the Convention on Biological Diversity and Its Protocols, 8 Front. Bioeng. Biotechnol. 310, p. 10 (2020).

⁷¹ Considerations on Synthetic Biology Pursuant to Decision 15/31, Note by the Secretariat, U.N. Doc. CBD/SYNBIO/AHTEG/2023/1/2, p. 21 (15 June 2023).

1. Sidney Animal Park is a “user” by meeting its commercial characteristics and CBD Decision 16/2

Pursuant to CBD Decision 16/2, although it didn't explicitly define what “user” of DSI is, it lists some characteristics of “user” as entities that use DSI and must share benefits.⁷² Also, it mentions that users in sectors can directly or indirectly benefit from DSI in their commercial activities and should contribute part of their profits or revenue to the global fund.⁷³

In this case, the Sidney Animal Park profits from animals created using DSI and charges visitors to observe them. Further, it has approximately one million visitors, which generates revenue of 130 million USD annually. This indirectly benefited from DSI. Thus the park meets the commercial characteristics of “user” of DSI under the CBD Decision 16/2.

Also, in the International Chamber of Commerce (ICC)'s view, it states that “ ICC proposes using the term ‘Genetic Resource Sequence Data’ (GRSD) instead of ‘Digital Sequence Information’ (DSI)”. In its following discussion, it states that “ Open access to and use of GRSD for advancing research and development creates huge benefits, from both commercial and non-commercial”.⁷⁴

In this case, the park used DSI-generated panthers to gain benefit by exhibiting them [R,34]. Also, since the DSI information is made public by Ridus, the park therefore has access to DSI information [R,28].

⁷² CBD Decision 16/2, ¶ 3.

⁷³ *Id.*

⁷⁴ International Chamber of Commerce, Digital Sequence Information and Benefit Sharing p. 3, ¶ 2 (2019).

2. The Park is listed within the sectors that benefited from the use of DSI

CBD Decision 16/2 Enclosure I lists relevant sectors such as (d) Animal and plant breeding. Also, the summary of COP16 notes that “the final decision was further amended to add animal and plant breeding to the indicative list of sectors that may directly or indirectly benefit from DSI use.”⁷⁵

Additionally, the ABS Focal Point newsletter (Netherlands) states that “Zoo breeding programmes for conservation or maintaining populations are considered within the “animal breeding” scope in a general sense, which is a possible utilization of DIS.”⁷⁶

The park provided habitat and fed the animals by using the profit from the DSI product [R,45]. Thus the park is a “user” of DSI which is included in breeding sectors under the CBD Decision 16/2.

⁷⁵ Summary Report, 16 October-1 November 2024, 2024 United Nations Biodiversity Conference -SBI 5/CBD COP 16/CP-MOP 11/NP-MOP 5, ¶ 7, U.N. Doc. (Nov. 1, 2024).

⁷⁶ ABS Focal Point Newsletter, Examples of Activities Not Considered to Be Utilisation ¶ 6 (Neth.).

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

1. Sidney Animal Park’s commercial activity is covered by a sector currently listed in CBD Decision 16/2.

CBD Decision 16/2 set out an indicative list of sectors that may benefit directly or indirectly from the use of digital sequence information on genetic resources, which includes (d) Animal and plant breeding.⁷⁷

The park falls within the category of (d) Animal and plant breeding listed in CBD Decision 16/2 because its main functions include maintaining and exhibiting DSI animals.[R,34] Further, the park has a long-term plan of breeding program for other de-extinction species.[R,36] This is (d) Animal and plant breeding in CBD Decision 16/2.

Furthermore, the CBD Decision 16/2 didn’t give an explicit definition of “ commercial activity.”, but according to the Foreign Sovereign Immunities Act at 28 U.S.C.§1603(d), a commercial activity means: “either a regular course of commercial conduct or a particular commercial transaction or act.”⁷⁸ In the United Nations Convention on Jurisdictional Immunities of States and Their Property Article 2(1)(c)(iii), “commercial transaction” means any other contract or transaction of a commercial, industrial, trading or professional nature, but not including a contract of employment of persons.⁷⁹

⁷⁷ CBD Decision 16/2, Annex ¶ 3.

⁷⁸ Foreign Sovereign Immunities Act (FSIA), p. 28, U.S.C.§1603(d)).

⁷⁹ Convention on Jurisdictional Immunities of States and Their Property, annex, art. 2(1)(c)(iii),

In this case, the Park sells access to panthers' attraction and has approximately one million visitors, which generates revenue of 130 million USD annually. Thus, the ticket selling is a transaction of a commercial under the UNCSI 2(1)(c)(iii) which belongs to commercial activity.

2. Sidney Animal Park meets the financial threshold under the CBD Decision 16/2.

The CBD Decision 16/2 sets financial limits as entities that exceed at least two out of three thresholds as “total assets 20 million USD, sales 50 million USD, profit 5 million USD averaged over the preceding three years should contribute” [R, 37].

In the park, approximately one million visitors visit the Park annually, and the base ticket is USD 119 with an additional USD 40 charged to observe the panthers [R, 34]. Therefore, the Park met the determined financial threshold of the CBD COP 16/2.

Conclusion

Anecoyon requests the Court to adjudge that: (1) Ridus's conduct violated the prior informed consent provisions of the CBD and the Nagoya Protocol, to the extent they are applicable; and (2) Anecoyon's refusal to consent based on its objections to de-extinction is not counter to the CBD's objectives; and (3) DSI used for de-extinction activities is "biotechnology", for purposes of the CBD and the Nagoya Protocol; and (4) the Sidney Animal Park is a user of DSI on genetic resources for purposes of CBD Decision 16/2 and is engaged in commercial activity covered by a sector currently listed in CBD Decision 16/2.

Respectfully submitted,

Agents of Applicant