



Presidência da República
Casa Civil
Subchefia para Assuntos Jurídicos

LEI Nº 13.123, DE 20 DE MAIO DE 2015.

[Mensagem de veto](#)

[\(de inciso II do § 1º e § 4º do art. 225 da Constituição\)](#)
[\(de Decreto nº 2.519, de 1998\)](#)

[Presidência](#)

Regulamenta o inciso II do § 1º e o § 4º do art. 225 da Constituição Federal, o Artigo 1, a alínea *j* do Artigo 8, a alínea *c* do Artigo 10, o Artigo 15 e os §§ 3º e 4º do Artigo 16 da Convenção sobre Diversidade Biológica, promulgada pelo Decreto nº 2.519, de 16 de março de 1998; dispõe sobre o acesso ao patrimônio genético, sobre a proteção e o acesso ao conhecimento tradicional associado e sobre a repartição de benefícios para conservação e uso sustentável da biodiversidade; revoga a Medida Provisória nº 2.186-16, de 23 de agosto de 2001; e dá outras providências.

A PRESIDENTA DA REPÚBLICA Faço saber que o Congresso Nacional decreta e eu sanciono a seguinte Lei:

CAPÍTULO I

DISPOSIÇÕES GERAIS

Art. 1º Esta Lei dispõe sobre bens, direitos e obrigações relativos:

I - ao acesso ao patrimônio genético do País, bem de uso comum do povo encontrado em condições **in situ**, inclusive as espécies domesticadas e populações espontâneas, ou mantido em condições **ex situ**, desde que encontrado em condições **in situ** no território nacional, na plataforma continental, no mar territorial e na zona econômica exclusiva;

II - ao conhecimento tradicional associado ao patrimônio genético, relevante à conservação da diversidade biológica, à integridade do patrimônio genético do País e à utilização de seus componentes;

III - ao acesso à tecnologia e à transferência de tecnologia para a conservação e a utilização da diversidade biológica;

IV - à exploração econômica de produto acabado ou material reprodutivo oriundo de acesso ao patrimônio genético ou ao conhecimento tradicional associado;

V - à repartição justa e equitativa dos benefícios derivados da exploração econômica de produto acabado ou material reprodutivo oriundo de acesso ao patrimônio genético ou ao conhecimento tradicional associado, a conservação e uso sustentável da biodiversidade;

VI - à remessa para o exterior de parte ou do todo de organismos, vivos ou mortos, de espécies animais, vegetais, microbianas ou de outra natureza, que se destine ao acesso ao patrimônio genético; e

Federal Law N° 13.123/2015 - new legal framework concerning Brazilian biodiversity

Mattos Filho, Veiga Filho, Marrey Jr e Quiroga Advogados



MATTOS FILHO > Mattos Filho, Veiga Filho,
Marrey Jr e Quiroga Advogados

Brazil | June 19 2015

Brazil is the most biologically diverse country in the world. According to the United Nations Organization, it is ranked as one of the world's top mega-diverse countries and second only to Indonesia in terms of species. Brazil has six terrestrial biomes and three large marine ecosystems. Currently, there are approximately 103,870 known animal species and another 43,020 known plant species in the country; these numbers represent 70% of the world's catalogued animal and plant species.^[1] Brazil's rich biodiversity allows the country to produce a wide variety of plant, animal and microbe based food, drugs, cosmetics, fibers and building materials.

After more than a decade since the enactment of Provisional Measure No. 2,186/2001 ("MP"), the Brazilian Biodiversity Law, (Federal Law No. 13,123/2015), was signed by President Dilma Roussef on May 20, 2015. Industries, including the pharmaceuticals, chemical, personal care, cosmetics, horticulture, agricultural

The FNRB was created by the new law and is under the jurisdiction of the Brazilian Ministry of the Environment. The FNRB will receive part of the funds generated from the exploitation of genetic resources and associated traditional knowledge. Small companies and suppliers are exempt from having to share their profits.

Pursuant to the new law, companies that exploit genetic heritage are required to make a one-off payment to the FNRB of an amount equivalent to 1% (one per cent.) of their annual net sales revenue that results from the sale of a final product or materials derived from genetic resources. However, the new law contemplates the reduction of the amount payable to FNRB if companies in the same sector collectively sign an agreement with the government to reduce such payment, in which case the law authorizes a reduction of up to 0.1 (point one per cent.) of the annual net sales revenue.

The new law permits companies involved in utilizing traditional knowledge and communities that retain such knowledge to engage in free negotiations as to the sharing of benefits deriving from the exploitation of such knowledge.

Notwithstanding the innovations introduced by the Brazilian Biodiversity Law, IBAMA and private entities are currently discussing this law and more detailed regulations are expected to provide further clarification of the law. For example, FNBR's activities and the electronic registration system stipulated in the new law need to be further regulated. We are closely monitoring these discussions and will update our clients accordingly.

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Mattos Filho, Veiga Filho, Marrey Jr e Quiroga Advogados - Lina Pimentel Garcia, Viviane Otsubo

LETTERS

Brazil's government attacks biodiversity

Flávio Alicino Bockmann^{1,*}, Miguel Trefaut Rodrigues², Tiana Kohsldorf¹, Lorian Cobra Straker¹, Taran Grant², Mário César...

+ See all authors and affiliations

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EDITORIAL NOTE

Brazilian legislation on genetic heritage harms Biodiversity Convention goals and threatens basic biology research and education

RUY JOSÉ V. ALVES¹, MARCELO WEKSLER², JOÃO A. OLIVEIRA³, PAULO A. BUCKUP², JOSÉ P. POMBAL JR.³, HÉLCIO R.G. SANTANA³, ADRIANO LÚCIO PERACCHI⁴, ALEXANDER W.A. KELLNER⁵, ALEXANDRE ALEIXO⁶, ALFREDO RICARDO L. BONINO⁷, ALZIRA MARIA P. DE ALMEIDA⁸, ANA LUISA ALBERNAZ⁶, CAMILA C. RIBAS⁹, CARLA ZILBERBERG¹⁰, CARLOS EDUARDO V. GRELE¹⁰, CARLOS FREDERICO D. DA ROCHA¹¹, CARLOS JOSÉ E. LAMAS¹², CÉLIO FERNANDO B. HADDAD¹³, CIBELE R. BONVICINO¹⁴, CYNTHIA P.A. PRADO¹⁵, DANIELA O. DE LIMA¹⁶, DENISE C. ROSSA-FERES¹⁷, FABRÍCIO R. DOS SANTOS¹⁸, FÁTIMA REGINA G. SALIMENA¹⁹, FERNANDO A. PERINI¹⁸, FLÁVIO A. BOCKMANN²⁰, FRANCISCO LUÍS FRANCO²¹, GISELE M.L. DEL GIUDICE²², GUARINO R. COLLI²³, IMA CÉLIA G. VIEIRA⁶, JADER MARINHO-FILHO²³, JANE M.C.F. WERNECK³, JORGE A.D. DOS SANTOS²², JORGE LUIZ DO NASCIMENTO²⁴, JORGE LUIZ NESSIMIAN¹⁰, JOSÉ LUIS P. CORDEIRO²⁵, KLEBER DEL CLARO²⁶, LEANDRO O. SALLES², LILIAN CASATTI¹⁷, LUCIA HELENA R. PY-DANIE¹⁹, LUÍS FÁBIO SILVEIRA¹², LUÍS FELIPE TOLEDO²⁷, LUIZ F. DE OLIVEIRA³, LUIZ ROBERTO MALABARBA²⁸, MARCELO D. DA SILVA¹², MÁRCIA S. COURI²⁹, MÁRCIO R.C. MARTINS³⁰, MARCOS D.S. TAVARES¹², MARCOS EDUARDO G. SOBRAL³¹, MARCUS VINÍCIUS VIEIRA¹⁰, MARIA DE LOURDES A. OLIVEIRA³, MÁRIO CÉSAR C. DE PINNA³², MICHAEL J.G. HOPKINS⁹, MIRCO SOLÉ³³, NAÉRCIO A. MENEZES¹², PAULO PASSOS², PAULO SERGIO D'ANDREA³, PEDRO C.E.A. PINTO⁷, PEDRO L. VIANA⁶, PETER M. TOLEDO³⁴, ROBERTO E. DOS REIS³⁵, ROBERTO VILELA³, ROGÉRIO P. BASTOS³⁶, ROSANE G. COLLEVATTI³⁶, RUI C. SILVA¹⁰, SANTIAGO C. FISHER³⁵ and ULISSES CARAMASCHI³

Beginning in November 2018, Brazilian legislation regulating access to genetic heritage and associated traditional knowledge will cause a bureaucratic collapse of Biodiversity research in Brazil. Law number 13.123/2015 and Decree 8772/2016 impose severe barriers to basic and applied research, and to international cooperation by introducing mandatory registry of research access to native organisms in Brazil. This legal framework was meant to improve governmental control over systems of biotechnology research using genetic material and associated chemical compounds, which are central points of the Nagoya Protocol (CBD 2011) and the Convention on Biological Diversity (CBD 1992, 2012). However, the requirements imposed by the mandatory registry of research in the new National System for Governance of Genetic Heritage and Associated Traditional Knowledge (SisGen), the system of Material Transfer Agreements (MTAs), and the need to record access to organismal data prior to publication of scientific results or exportation of specimens for scientific research are technically impracticable and not part of the Nagoya Protocol or CBD. These systems have already begun to compromise biodiversity studies and training of human resources in biological sciences, which depend on international partnerships. Biological collections and laboratories based in Brazil will cease to function due to the high operational costs and legal impediments affecting

Correspondence to: Ruy José Valka Alves

E-mail: ruyvalka@mn.ufrj.br

Between 2006 and 2015, CGen (the Brazilian Genetic Resources Council) Resolution 21/2006 exempted basic research in evolution, identification of organisms, epidemiology, and organization of scientific collections from the requirements of prior licensing and data registration for accessing the so-called genetic heritage. The resolution did not exempt researchers from several other licensing and mandatory data registration systems, such as the scientific specimens collecting system (SisBio), export licenses, CITES registration of endangered species, ethical requirements, sanitary vigilance approvals, and permits for scientific expeditions, but was a much-needed respite from the bureaucratic burden imposed by the Government. Most significant among these systems are the permit procedures for collecting of specimens, which already requires complex reporting in the SisBio database. Despite the redundancy of these multiple control systems, the new law revoked CGen Resolution 21/2006 in 2015.

The imposed bureaucracy is also retroactive and demands all biology-related research since November 2015 to be regularized by November 2018, and that noncompliant institutions will be liable to substantial fines. The requirement to register hundreds of thousands, and possibly millions, of accesses to organisms will paralyze the functioning of hundreds of laboratories based in Brazilian universities and research institutes. It is worth noting that most basic science researchers in Brazil lack the technical assistance necessary to comply with the new data recording requirements. Long hours, possibly days or months, which are now dedicated to research, curation of collections, and teaching will be deviated to the filling of electronic forms.





To illustrate the burden imposed by the new requirements, based on an estimate of the amount of time necessary to register the DNA sequences of Brazilian organisms with data deposited in GenBank since November 2015 (query: Brasil|Brazil NOT Homo sapiens; release date >11/2015; 683.353 sequences) in the current system, Brazilian scientists would spend a total of 7,116 days filling online forms (using a conservative estimate of 5 minutes per entry, working 8 hours a day in front of a computer). This example deals with a single molecular database. Metagenomic studies imply thousands of accessions per sampling. Systematic and inventory research often involve hundreds to thousands of sampled individuals housed in various collections in Brazil and abroad. Compulsory inclusion of all this data into any database prior to publication is a massive waste of time and resources, considering the very fact that the data will be published.

We are currently describing less than half the number of species that become extinct every year. In 2009, the formally described species of the world amounted to about 1.9 million species, with 297,897 plants, 98,998 fungi, 64,788 chordates and 1,359,365 invertebrates and 66,307 microorganisms (Chapman 2009). Arthropods may comprise 80-90% of all species of terrestrial macroorganisms (Stork 2010) and 85-95% of arthropods, invertebrates and microorganisms have yet to be named and described (Hollingsworth 2017). By 2016, the World flora had approximately 374,000 described and accepted plant species, and about 2,000 new species were described annually, with Australia, Brazil, China and New Guinea being the largest contributors (Christenhusz and Byng 2016). These authors noted that the numbers of new plant species being described were declining due to reduction in financial and scientific support for fundamental natural history studies. In Brazil this decline is yet to come and this productive phase is at the brink of collapse due to adverse biodiversity legislation.

If we need to know our planet's species to protect them, we are certainly not doing enough and governmental bureaucracy in Brazil is certainly not helping. The current legal framework has already begun to compromise biodiversity studies, activities of natural history collections, and international cooperation. Minimally, in compliance with Article 8 of the Nagoya Protocol, Brazilian authorities should exempt non-commercial biodiversity research from unnecessary bureaucratic burden through legal mechanisms equivalent to the former CGen Resolution 21/2006.



Diversification with gene flow and niche divergence in a lizard species along the South American “diagonal of open formations”

Emanuel M. Fonseca¹  | Marcelo Gehara² | Fernanda P. Werneck³  | Flávia M. Lanna¹  | Guarino R. Colli⁴ | Jack W. Sites Jr⁵ | Miguel T. Rodrigues⁶ | Adrian A. Garda⁷ 

¹Programa de Pós-Graduação em Ecologia, Universidade Federal do Rio Grande do Norte, Natal, Brazil

²Department of Herpetology, American Museum of Natural History, New York, NY

³Coordenação de Biodiversidade, Programa de Coleções Científicas Biológicas, Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Brazil

⁴Departamento de Zoologia, Universidade de Brasília, Brasília, Brazil

⁵Department of Biology and Bean Life Science Museum, Brigham Young University, Provo, UT

⁶Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, São Paulo, Brazil

⁷Departamento de Botânica e Zoologia, Centro de Biociências, Universidade Federal do Rio Grande do Norte, Natal, Brazil

Correspondence

Emanuel Masiero da Fonseca, Programa de

Abstract

Aim: To assess the effects of historical events on the tempo and mode of diversification of the lizard *Polychrus acutirostris* along the South American diagonal of open formations (DOF).

Location: Caatinga and Cerrado biomes in Brazil.

Methods: We sequenced fragments of one mtDNA and three nuDNA genes of 68 individuals from 33 localities. We used population assignment methods to assess genetic structure and estimate lineage boundaries. Next, we estimated lineage relationships, intraspecific diversity, environmental niche similarity and demographic history. Finally, we tested 12 diversification scenarios using an approximate Bayesian computation (ABC) approach.

Results: We recovered three non-overlapping, geographically structured lineages corresponding to Caatinga, north-east Cerrado and south-west Cerrado, with the major divergence event dating to the Late Neogene. We also recovered a complex scenario of divergence associated with gene flow and niche divergence.

Main conclusions: We show a complex history of diversification along the South