



Edited by **Jennifer Sills**

Brazil's government attacks biodiversity

To address the rapid and massive loss of biodiversity worldwide, scientific research must inform agile decision-making. The political leaders of Brazil, the country with the planet's greatest biological wealth (1), continue to undermine this goal. In 2001, citing the laudable objective of preventing biopiracy, the government created the Genetic Heritage Management Council (CGen) (2), making established biodiversity research activities illegal overnight by imposing severe limitations on access and shipment of specimens and samples. After 5 years of pressure from the academic community, the government finally resolved to exempt several areas of basic research from the restrictive policy (3). Now, after severe budget cuts (4, 5) and legal maneuvers directly affecting biodiversity (6), the Brazilian Federal Government has reversed its position once again with the so-called New Law on Biodiversity (7, 8), striking a potentially fatal blow to biodiversity.

Disguised as a milestone of progress for scientific research and endorsed by some scientific sectors (9), this law constitutes a monumental setback. According to the law, which is retroactive to 2000 or 2015, depending on the area of research (8), and technically applies to researchers at both Brazilian and foreign institutions (10), virtually every research activity on Brazilian biodiversity—even nongenetic studies in taxonomy, ecology, physiology, and behavior—must be registered in the National System of Genetic Resource

Management and Associated Traditional Knowledge (SisGen), which was created to assist the CGen. The deadline for meeting these draconian rules is 5 November 2018 (9, 11). Failure to comply, including the unregistered dissemination of scientific results, even if based only on public databases like GenBank or previously published data or results, will result in heavy fines (7). A lecture given by the coordinator of the Academic Sectoral Board of the CGen, titled “How not to be fined,” highlights the punitive spirit of the law (10). Paradoxically, commercial activities involving Brazilian biota, such as export of ornamental fishes, plants, grains, and other marketable products, remain unaffected by the law (7).

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The pumpkin toadlet is just one example of the diverse fauna endemic to Brazil.

If not repealed or substantially overhauled, this Byzantine labyrinth of unnecessary demands and threats will decimate scientific research on Brazilian biodiversity by requiring scientists to divert an inordinate amount of already limited resources from research to the time-consuming process of registering every specimen, DNA sequence, photograph, and any other observation of Brazilian biodiversity before publication, presentation at scientific meetings, or dissemination to media outlets. Scientists must take back the reins of their own activities by demanding that the Brazilian government implement laws that facilitate international collaboration and encourage biodiversity research instead of stifling it. Otherwise, a substantial part of the world's biodiversity and its benefits may silently vanish behind a wall of bureaucracy.

Flávio Alicino Bockmann,^{1*} Miguel Trefaut Rodrigues,² Tiana Kohlsdorf,¹ Lorian Cobra Straker,¹ Taran Grant,² Mário César Cardoso de Pinna,³ Fernando Luis Medina Mantelatto,¹ Aléssio Datovo,³ José Perez Pombal Jr.,⁴ John Campbell McNamara,¹ Eduardo Andrade Botelho de Almeida,¹ Wilfried Klein,¹ Annie Schmaltz Hsiou,¹ Milton Groppo,¹ Ricardo Macedo Corrêa e Castro,¹ Dalton de Souza Amorim¹

¹Department of Biology, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, SP 14040-901, Brazil.

²Department of Zoology, Instituto de Biociências, Universidade de São Paulo, São Paulo, SP 05508-090, Brazil. ³Museu de Zoologia da Universidade de São Paulo, São Paulo, SP 04263-000, Brazil.

⁴Department of Vertebrates, Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ 20940-040, Brazil.

*Corresponding author.

Email: fabockmann@ffclrp.usp.br

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