Brazil may remove restrictions on the trade of introduced species such as this American bullfrog.

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Brazil naturalizes non-native species

Brazil's national policies are putting the country's megadiversity at risk (*1*–*3*). After passing a 2016 law that will put constraints on biodiversity research (*3*), the Ministry of Agriculture, Livestock, and Supply has taken another controversial action: A new ordinance proposes that introduced aquatic species in Brazil should be considered "native" (*4*), including invasive species in the Neotropics (*1*, *5*). Classifying introduced aquatic species as if they are indigenous to Brazil could potentially cause even more introductions and lead to the loss of ecosystem services and functions, as well as traditional knowledge about native species (*6*). Moreover, Brazil shares some large river basins (such as Paraguai, Paraná, and Amazon) with other countries. Therefore, Brazil will become a major source of non-native species for other countries in South America. The rate of introductions in Brazil will likely outpace the research investigating their negative effects (*1*, *3*).

This is not the first time that political decisions have tried to categorize non-native species as native. In 2009, the Brazilian Congress proposed a law that intended to "naturalize by decree" several non-native fishes to foster aquaculture development (*5*). The most recent ordinance is based on a 2016 law that considers introduced species with established populations as part of the Brazilian genetic heritage. Non-native species such as the Malaysian giant prawn (*Macrobrachium rosenbergii*), African catfish (*Clarias gariepinus*), and American bullfrog (*Lithobates catesbeianus*) have established populations in some localities (*7*), and the approval of this new ordinance will permit their free trade and rearing across Brazil.

This retrogression conflicts with several Aichi Biodiversity Targets, especially the one related to the prevention, control, or eradication of non-native species (*8*). Brazil harbors the most diverse aquatic biota in the world (*9*), and it is imperative that local authorities take appropriate measures that value and preserve native biodiversity. Basic research and knowledge produced by scientists (*10*) should play a vital role in these decisions.

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Free satellite data key to conservation

Biodiversity is in crisis, with extinction rates orders of magnitude higher than background levels (*1*). Underfunded conservationists need to target their limited resources effectively. Over the past decade, satellite remote sensing has revolutionized our ability to monitor biodiversity globally, and is now used routinely, especially by nongovernmental organizations, to detect changes, set priorities, and target conservation action. The U.S. Geological Survey (USGS) unlocked high-resolution Landsat data in 2008 (*2*), making data available online (*3*), and the Copernicus program from the European Commission subsequently made their data available as well (*4*). These resources have been instrumental to biodiversity research. Assessments of environmental changes such as deforestation are now readily available. The current spatial and spectral resolution of Landsat

data make them appropriate to many conservation applications, and although they are not always ideal, pragmatic researchers with limited resources use them regularly. Conservationists have already called for these data to remain free (*5*). Consequently, the news that USGS may charge for data (*6*) is deeply troubling.

USGS has recently convened an advisory committee to determine whether users would be prepared to pay for increased spectral and spatial resolution images (*7*). Requiring users to pay would put these images beyond the reach of conservationists. It would halt time-series analyses that have been useful in monitoring the effects of climate change, land-cover change, and ocean surfaces, likely hindering the achievement of the Sustainable Development Goals (*8*). We urge the USGS to reconsider their position and continue to provide data from the Landsat program freely to all users.

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Funding agencies can prevent harassment

Harassment and lack of physical safety in fieldwork and laboratories exists across a range of disciplines (*1*, *2*). Editorials and #MeToo stories have recently highlighted that research is often conducted under "macho" conditions in which harassment, bullying, and unsafe work environments are common (*3*, *4*). In response, codes of conduct for researcher safety are on the rise (*3*, *5*). However, national research funds, private funding organizations, and monitoring agencies rarely require that the recipients of their grants implement codes of conduct or safety standards (*2*). Opportunities for cultural change should rest not only with individual scientists, teams, and professional societies. Funding agencies should share the responsibility.

The cost of ensuring researcher safety should be part of the overall budget, and predefined safety standards should prevent situations in which harassment could occur (*2*). For example, when companies or institutions need scientists to do contracted monitoring work, bidding prices often determine whom they select. Unless funding agencies require safety standards, such bidding prices will always favor low-cost solutions that neglect safety. As another example, when principal investigators (PIs) write applications, they should budget for training and counseling to prevent and address harassment. Such measures would be more widespread if funding agencies acknowledged them.

Funding agencies have the power to participate in changing the culture by requiring codes of conduct for acceptable behavior from their grant recipients. Forcing researchers and companies to incorporate safety standards into grant proposals and assignment bids will increase awareness about harassment and stressful working environments. Only through full support from the broad spectrum of players involved in science will it be possible to create an inclusive and responsible culture that ensures safe workspaces.

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TECHNICAL COMMENT ABSTRACTS

Comment on "Designing river flows to improve food security futures in the Lower Mekong Basin"

John G. Williams

Sabo *et al.* (Research Articles, 8 December 2017, p. 1270) use sophisticated analyses of flow and fishery data from the Lower Mekong Basin to design a "good" hydrograph that, if implemented by planned hydropower dams, would increase the catch by a factor of 3.7. However, the hydrograph is not implementable, and, if it were, it would devastate the fishery. Further, the analyses are questionable.
Full text: dx.doi.org/10.1126/science.aat1225

Comment on "Designing river flows to improve food security futures in the Lower Mekong Basin"

Ashley S. Halls and Peter B. Moyle

The designer flow regime proposed by Sabo *et al.* (Research Articles, 8 December 2017, p. 1270) to support fisheries in the Lower Mekong Basin fails to account for important ecological, political, and economic dimensions. In doing so, they indicate that dam impacts can be easily mitigated. Such an action would serve to increase risks to food and livelihood futures in the basin.
Full text: dx.doi.org/10.1126/science.aat1989

Response to Comments on "Designing river flows to improve food security futures in the Lower Mekong Basin"

G. W. Holtgrieve, M. E. Arias, A. Ruhi, V. Elliott, So Nam, Peng Bun Ngor, T. A. Räsänen, J. L. Sabo

Sabo *et al.* presented an empirically derived algorithm defining the socioecological response of the Tonle Sap Dai fishery in the Cambodian Mekong to basin-scale variation in hydrologic flow regime. Williams suggests that the analysis leading to the algorithm is flawed because of the large distance between the gauge used to measure water levels (hydrology) and the site of harvest for the fishery. Halls and Moyle argue that Sabo *et al.*'s findings are well known, and contend that the algorithm is not a comprehensive assessment of sustainability. We argue that Williams' critique stems from a misunderstanding about our analysis; further clarification of the analysis is provided. We regret not citing more of the work indicated by Halls and Moyle, yet we note that our empirical analysis provides additional new insights into Mekong flow-fishery relationships.
Full text: dx.doi.org/10.1126/science.aat1477

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G. M. Buchanan, A. E. Beresford, M. Hebblewhite, F. J. Escobedo, H. M. De Klerk, P. F. Donald, P. Escribano, L. P. Koh, J. Martínez-López, N. Pettorelli, A. K. Skidmore, Z. Szantoi, K. Tabor, M. Wegmann and S. Wich

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