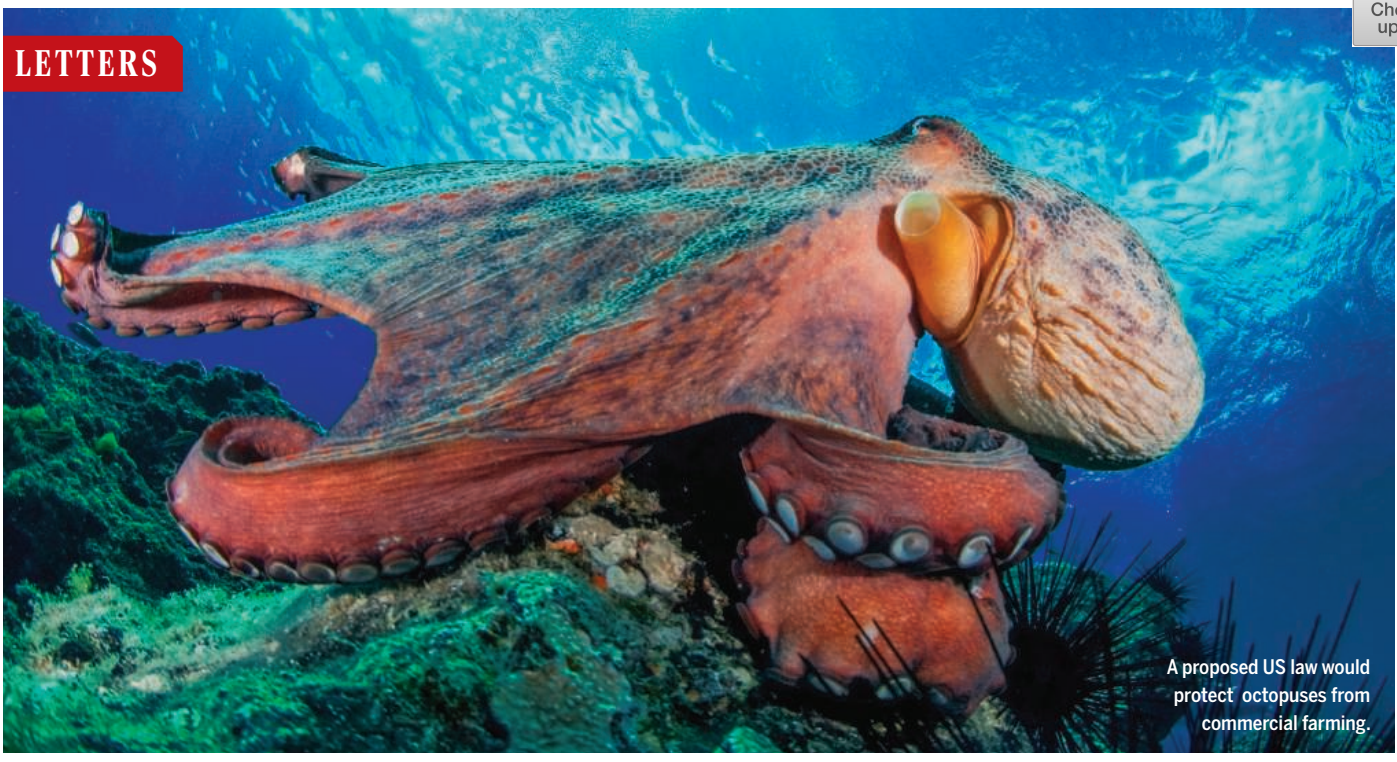
LETTERS



A proposed US law would protect octopuses from commercial farming.

Edited by **Jennifer Sills**

Retraction

On 26 October 2018, *Science* published the Report "A room-temperature single-photon source based on strongly interacting Rydberg atoms" by F. Ripka *et al.* (*1*). During a recent internal reevaluation of the data (unrelated to the Erratum posted in 2020), the authors detected mistakes in data filtering and the calculation of the size of the error bars in Fig. 3. In a corrected evaluation, the available data are not significant and do not support the conclusions of the paper. The correlation functions $g^{(2)}(0)$ shown in Fig. 3 do not show a significant deviation from 1. As a result, the authors are retracting the Report. All authors agree to the Retraction and thank Max Mäusezahl, Felix Moumtsilis, and Alexander Döring for pointing out the errors in the evaluation.

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Support US OCTOPUS Act to keep octopuses wild

Commercial octopus farming is incapable of meeting welfare requirements, unsustainable, and unnecessary for sustenance (*1*, *2*). Although no commercial octopus farms currently exist, a Spanish seafood company plans to build one in the Canary Islands for *Octopus vulgaris* (*3*). In March, the US state of Washington banned octopus farming. Similar legislation has been introduced in California and Hawai'i (*3*). Now, the federal government is proposing action. The US Congress should pass the OCTOPUS Act, a federal law that would prohibit commercial octopus aquaculture in the United States and the import of commercially farmed octopus or octopus products (*4*).

O. vulgaris, the species featured in the award-winning documentary *My Octopus Teacher*, lives in the intertidal zone and is capable of problem-solving and play (*5*). Octopuses have a large and distributed nervous system, use tools, sense light with their whole body, and taste the world as they touch it (*6*). *O. vulgaris* is capable of bipedal walking (*7*).

This species is not suited for a life in a controlled, sterile, and monotonous environment with set diets and regimented feeding schedules. *O. vulgaris* individuals reared in a basic environment that likely mimics that of commercial production became withdrawn, exhibiting behaviors similar to when they are in situations of hostility and conflict (*8*). High-welfare commercial farming of octopuses has been deemed "currently impossible" (*2*).

Octopuses are carnivorous and require animals such as crabs, squids, and hake in their diet. Ecologists have advised against farming aquatic carnivores since the 1970s (*9*), given that the practice puts more pressure on wild fish for feed (*10*). *O. vulgaris* are picky eaters who prefer live prey and show strong preferences in captivity about food "presentation" (*11*). There is no scientific evidence that farmed octopuses will eat readily available food, such as discards or bycatch from fisheries or processors.

The main drivers for an octopus market are increasing exotic meat demand and rising disposable income (*12*) rather than a need to address food insecurity. Satisfying luxury markets does not justify the substantial threats that octopus farms would pose to animal welfare and marine ecosystems.

The US Congress should support the OCTOPUS Act of 2024 (*4*) and prevent the inevitable negative consequences of octopus farming by passing the law. Octopuses and the oceans will be healthier if *O. vulgaris* stays wild.

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Alabama's attack on DEI hinders STEM teaching

Plans to dismantle structures that support diversity, equity, and inclusion (DEI) are in motion across higher education in the United States. In March, Alabama passed Senate Bill 129, which prohibits educators from "compelling [students to] assent" to "divisive concepts" in higher education (*1*). This bill will negatively affect faculty and students, especially those from marginalized groups.

S.B. 129 will discourage faculty in the state from discussing sensitive topics at the intersection of science and society, a key element of teaching inclusively (*2*). Inclusive teaching practices substantially reduce systemic barriers and provide access to educational opportunities for marginalized students (*3*–*5*). Inclusive teaching is especially important in undergraduate classrooms that teach science, technology, engineering, and math (STEM), in which many identities are systemically excluded (*6*).

According to S.B. 129, topics are "divisive" when they assign fault, blame, or bias to students based on their identities; suggest that students, by virtue of their identities, are inherently racist or sexist; or ask students to accept a sense of guilt based on their identities. Although not listed explicitly in the bill, examples of "divisive" topics explored in STEM classes as part of inclusive teaching may include activities that acknowledge medical and environmental racism, the historical reality of eugenics, and the exclusion of certain identities and backgrounds in science under the guise of meritocracy (*7*, *8*). STEM instructors who introduce these topics do so not to assign blame, but rather to place science in a historical and social context (*9*), something the bill does not prohibit. However, it is unclear who determines what is "divisive" or historically accurate.

Alabama is the ideal venue to host such discussions. In Tuskegee, the site of a famously unethical US Public Health Service research study (*10*), Tuskegee University now houses the nation's first bioethics center (*11*). Alabama's problematic history of exploitation and suffering in the name of scientific discovery, and the resulting distrust in public health that persists in communities, is crucial context for medical and epidemiology students. Many of Alabama's Black residents are descendants of enslaved people, and biology students should understand the scientific flaws inherent in grouping people by race. Physics and mathematics students should learn how Annie Easley, a Black woman and Alabama native, was never formally recognized despite playing a critical role in the Space Race.

Long before the spread of anti-DEI legislation, instructors across the United States were reluctant to teach these important topics (*9*), fearing public and professional pushback. Although teaching these topics remains legal, S.B. 129 will intimidate, rather than support, university faculty striving to make their teaching more inclusive. This chilling effect will likely further decrease instructors' willingness to teach topics that are critical for fostering scientifically literate and critically conscious citizens (*12*). Education researchers should monitor the scale and scope of the impacts of anti-DEI laws on instructor teaching decisions, a task that will require large-scale coordinated research efforts.

As members of the STEM education research community, we call on Alabama's instructors to engage with equitable teaching strategies and lean into topics at the intersection of science and society. Faculty members should foster classroom communities of care and respect by creating norms for constructive discussions among students. We encourage all instructors to embrace inclusive teaching practices, which remain legal. Discussing the historical and societal context in which science exists is not a divisive act.

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ERRATA

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