Congress enacted the Endangered Species Act in 1973 to protect species at risk of extinction. Congress viewed species extinction as an urgent threat requiring urgent, decisive action. The result was a bipartisan law designed to apply scientific knowledge and expertise to managing the threats to U.S. species. While the Act has been controversial, and characterized as extreme among property-rights advocates and right-wing and libertarian advocacy organizations, it has stood the test of time so far. Efforts to amend the Act to make it less effective have failed. Because they haven't succeeded in amending the law to weaken it, groups opposed to robust implementation of the law turned to the courts long ago. They now have an opportunity to dramatically curtail the effectiveness of the Act, if they can get the U.S. Supreme Court to adopt their arguments that the Act's habitat protections must be interpreted far more narrowly than in the past. Last week, our Frank G. Wells Environmental Law Clinic filed an amicus (friend of the Court) brief on behalf of a group of world-class scientists, arguing that the Court shouldn't do that, and instead should keep the longstanding, science-based interpretation of the Act's approach to designating critical habitat.

The Supreme Court granted review of the Fifth Circuit Court of Appeals' opinion in this case, Weyerhaeuser v. U.S. Fish & Wildlife Service, earlier this year. In its opinion, the Fifth Circuit held that the Fish & Wildlife Service properly designated "critical habitat" for the Dusky Gopher Frog, based on evidence that that habitat was necessary for species survival and recovery. Included in the critical habitat is currently unoccupied habitat whose restoration was found by the Service to be not only possible, but necessary for the survival and recovery of the species. Because the primary cause of species endangerment is habitat loss, recovering and restoring degraded habitat is a necessary tool under the Act. Without it, many species could not recover and would inevitably go extinct. Critical habitat designation is important because it requires all federal agencies to ensure the protection of that habitat when those agencies undertake or approve activities that might harm it. Critical habitat may be designated on private land, but it generally doesn't affect the uses of that land unless those uses require federal agency approval.

As part of reviewing whether the Service acted appropriately here, the Court will be reviewing an important overarching legal issue: whether, and under what circumstances, agencies may consider degraded, unoccupied habitat with the potential to be restored to be "habitat" under the Act. In a larger sense, what's at stake here is whether federal agencies and courts should take Congress at its word when it says agencies should apply scientific principles in implementing its statutes. Interestingly, the U.S Department of Justice, representing the Fish and Wildlife Service in the case, has kept defending the agency's action despite the Trump administration's general hostility to environmental regulation, and

filed a well-reasoned and strong brief in support of the agency's action.

Our Clinic's brief argues that the Court should rely on science, and that the science here is clear: The Fish & Wildlife Service, and our courts, must view habitat broadly, as it did in this case, for Congress's mandate under the Act to be properly implemented. We're fortunate to be representing a world-class group of experts in biology, ecology, and related fields, including Stuart Pimm, E.O. Wilson, three MacArthur "genius" grant recipients, my colleague Prof. Brad Shaffer of UCLA's Department of Ecology and Evolutionary Biology and Institute of the Environment and Sustainability, and nine other scientists with impeccable qualifications. Two of our clinic students, Jen Garlock and Heejin Hwang, worked on the brief with me. (Court rules don't seem to provide a means to give them official credit, but it's important to acknowledge the students' significant contribution to this brief.)

Here's some factual and procedural background on the case from The Center for Biological Diversity, which intervened in this case to support the critical habitat designation (brief available here):

> The dusky gopher frog (*Rana sevosa*) is a warty, dark-colored frog with ridges on the sides of its back. When picked up, these frogs cover their eyes with their forefeet, possibly to protect their faces until predators taste their bitter skin secretions and release them. Gopher frogs spend most of their lives underground in burrows created by gopher tortoises — hence their name.
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> Once prevalent in Louisiana, Mississippi and Alabama, dusky gopher frogs are nearly extinct. More than 98 percent of longleaf pine forests — upon which the frog and many other rare animals depend — have been destroyed. Fire suppression, drought, pesticides, urban sprawl, highway construction and the decline of gopher tortoises have made this frog so rare it now lives in only a few small Mississippi ponds, with only one pond showing consistent frog reproduction.
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> In response to a Center lawsuit, the Fish and Wildlife Service listed the gopher frog as a federally endangered species in 2001. The lawsuit and advocacy by the Center also prompted the 2012 critical habitat designation at issue in the Supreme Court case. Additionally, in response to legal advocacy by the Center and Gulf Restoration Network, the agency released a final recovery plan for the frogs in 2015.

Various supporters of the way the Fifth Circuit applied the law in this case filed ten amicus briefs in support of the position of the U.S. Department of Justice and the Center for Biological Diversity that the Service followed the law in designating critical habitat. Among these briefs were one by Hope Babcock and her team at the Georgetown Institute for Public Representation, on behalf 26 legal scholars with expertise in environmental and administrative law, and a brief by my colleague Stuart Banner, representing landowners who support a broad view of habitat under the Act. Many interest groups, including libertarian and right-wing think tanks and trade associations, filed briefs in support of the petitioners. (All the briefs in the case are available here, on the SCOTUSBlog page for the case.) The parties' briefs raise other issues, including whether a court may even review the Fish & Wildlife Service's administrative decision not to exclude a particular area from critical habitat, and whether the petitioner landowner in the case has standing to sue given the remote and speculative prospect that the action here will harm it.

Our brief focuses on the importance of using a scientific understanding of habitat to guide interpretation of the Act. The Supreme Court petitioner urges the Court to employ a dictionary definition that would–in its view–exclude what the petitioner calls "uninhabitable land." This interpretation might seem at first blush to have common sense behind it. But upon closer scrutiny, this claim defies the clear mandate of Congress: that federal agencies ensure that the Act do the best job of promoting the survival and recovery of endangered species, and employ science in interpreting the Act (specifically including the critical habitat designation process). Scientists have found that habitat varies significantly in quality and suitability over both space and time, and can change slowly or dramatically in response to both human disturbance and natural events. Moreover, even within a small area at a single moment, habitat is typically heterogeneous and varying in quality in its features and resources to support species.

Thus, habitat within a species' historic range often needs human intervention and active management, including restoration, to facilitate the species' survival and recovery. Because Congress has commanded that science, and not lay understanding, underpin the implementation of the Act, leading scientists believe the word "habitat" necessarily must be interpreted with these principles in mind. A 1995 National Research Council report, *Science and the Endangered Species Act*, provided a comprehensive view of these issues, and fully supports our view. Here's how our brief lays out the argument:

> Courts and federal agencies should employ a scientific understanding of habitat, not a dictionary definition, to conserve endangered species and fulfill Congress's mandates under the Endangered Species Act ("ESA" or "Act"). Habitat loss and

> degradation are the leading causes of species endangerment in North America. Congress commanded that the Fish and Wildlife Service use the "best scientific data available" in designating critical habitat to address species endangerment. To implement Congress's mandate, the Service must interpret the concept of habitat broadly, applying two core principles when it evaluates what habitat is necessary for species conservation. First, habitat is both spatially variable and temporally dynamic. Second, habitat must be understood broadly to evaluate effectively and accurately species' needs. As corollaries to these principles, several concepts are key: a proper understanding of habitat requires a landscape-scale view; habitats vary in quality, suitability, and location; an area need not be currently occupied or suitable to be essential for the long-term survival of a species; and habitat areas are capable of being restored to more suitable conditions. A definition of habitat that is limited to areas that are currently ideal for a species fails to account for the fact that habitat may vary in quality over space and time. Planning must account for this principle to ensure an endangered species has room not only to survive, but also to recover.
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> In light of these principles and the important role critical habitat plays in species recovery, the Act requires that the Service include areas essential to species conservation, even where those areas are unoccupied or need restoration. Without landscape scale planning and the ability to designate of a broad range of habitat, including restorable habitat, as critical habitat, the Service cannot fulfill Congress's mandates under the Act. For these reasons, we conclude unequivocally that the Act requires an inclusive understanding of habitat. Petitioner's narrow unscientific interpretation would fail to provide for the survival and recovery of endangered species, ignoring Congress's plain mandate. To "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," 16 U.S.C. § 1531(b), using the "best scientific data available," courts and agencies must understand critical habitat to encompass all areas essential to that species' recovery.

This case illustrates a larger question that is at the center of today's disputes over the proper role of courts in interpreting statutory provisions. "Textualists" like the late Justice Antonin Scalia believe the meaning of the words in a statute, as commonly understood at the time of enactment, should govern statutory interpretation in all or most cases. According to most self-described textualists, the commonly-understood meanings of words should determine their interpretation regardless of context, changed circumstances, legislative history materials, or other clues that could guide statutory interpretation (unless

the word is specifically defined in the statute).

Reasonable people can differ about whether and when a "textualist" approach to statutory interpretation is warranted or necessary, and what, precisely, it means to be "textualist." But where Congress made application of expertise central to implementing a statute, the extreme version of textualism becomes especially difficult to justify. This case provides a clear illustration of the problem. A textualist might–as the petitioner in this case does–rely on dictionaries or other similar sources for the common, publicly-understood meaning of a word such as "habitat." But at the same time, Congress specifically stated that science should guide agency decisionmaking under the Endangered Species Act, and when designating critical habitat in particular. Consequently, it's a stretch, to say the least, to argue that Congress intended that the opinions of dictionary editors (or everyday citizens, assuming the dictionary accurately reflects general usage), rather than scientists, govern the meaning of a scientific term of art whose interpretation is necessary to implement the law. The effect of using a dictionary definition would be to render the law ineffective, or to create arbitrary, non-science-based outcomes. Congress could not have intended that.

The Court will set this case for argument in the upcoming term, starting in October 2018, and will issue a decision sometime before the end of June 2019.

[Revision for breaking news: This will be the very first case argued in the Supreme Court this coming year, on Monday, October 1, 2018!]