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CONSERVATION

Species protection will take more than rule reversal

Key improvements are needed for implementation of the Endangered Species Act

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Species are disappearing at an alarming rate, with global estimates of about a million species facing extinction (1). The Endangered Species Act (ESA), the primary—and often only—means in the United States to prevent extinctions, is justly celebrated as perhaps the strongest model for endangered species protection worldwide. Since its adoption, however, the ESA has faced unabated controversy, because it can restrict economic activities and because its implementation often appears inconsistent.

With the explicit goal of reducing “unnecessary regulatory burdens,” the Trump administration in 2019 finalized the most comprehensive changes in over two decades to the regulations that implement the ESA (2). Some of the changes will make it harder to protect species and their habitats; none will directly further the Act’s goal of recovering species. For example, the changes limit the government’s ability to protect habitat that species need to adapt to climate change (3) and make it harder for the public to hold the federal government accountable for activities that further imperil species (4). Opposition to the changes was swift and ardent among many environmentalists, scientists, and the public. Opposition to the administration’s changes, however, should not overshadow the need for improvements to how the ESA is administered to make it more effective. Simply revoking recent changes will not solve these

underlying problems.

Without deeper reforms to address underlying problems, implementation of the ESA by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (“the Services”) will remain ad hoc and insufficiently explained (5). This ambiguity invites political intervention that undercuts species protection and public confidence in ESA decisions, triggers litigation that is costly for all parties, and polarizes the law. Finding solutions to these problems could lead to broad bipartisan initiatives to stem biodiversity loss and to increase funding for the ESA by reauthorizing the law.

DEFINING THE “FORESEEABLE FUTURE”

One of the controversial revisions pertains to how the Services determine the “foreseeable future,” which is used to decide whether species merit listing as “threatened” under the ESA. The law recognizes two levels of threat; species may be “endangered,” that is, presently in danger of extinction, or “threatened,” which means likely to become endangered in the “foreseeable future.” The ESA protects both categories of species. In 2009, the Services first articulated their understanding of the term “foreseeable future,” declaring that it covers the timeframe over which predictions of the extent of threats and their impact on species are “reliable” (6). The new regulations provide that the foreseeable future “extends only so far into the future as the Services can reasonably determine that both the future threats and the species’ responses to those threats are likely.” The agencies’ explanation “clarifies” that “likely” means “more likely than

not.” Thus, whether this new definition will change established practice turns on the difference, if any, between whether predictions of the future are “reliable” or “likely.” The Services claim there is no difference, while many environmentalist see an intent to ignore climate change impacts on species (7).

Whatever the linguistic change means, the underlying problem of inconsistent and inadequately explained treatment of the foreseeable future remains. The Services have applied strikingly different interpretations to species facing similar threats. When NMFS listed the Arctic ringed seal (*Phoca hispida hispida*) in 2012, for example, it estimated the threat of reduced sea ice and snow cover out to the year 2100, stating that it was able to “reliably” forecast ~90 years into the future based on models of how global greenhouse gas levels would affect the Arctic environment (8). But when FWS declined to list the Pacific walrus (*Odobenus rosmarus divergens*) in 2017 in the face of similar threats, it limited its evaluation to 2060 because it considered any conclusions beyond that date to be “based on speculation, rather than reliable prediction” (9). The Services did not articulate any difference in the natural histories of the seal or walrus that could justify this difference. The State of Alaska has petitioned NMFS to remove the Arctic ringed seal from the endangered species list based in part on this discrepancy (10).

Courts and researchers also have expressed concerns about inconsistencies or arbitrariness in how FWS has interpreted the “foreseeable future” (11, 12). For example, when a court rejected FWS’s listing of the northern long-

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1 eared bat (*Myotis septentrionalis*) as
2 threatened instead of endangered,
3 the agency didn't dispute that its
4 evaluation of threats, which
5 extended only 8-13 years into the
6 future, was an irrational approach to
7 interpreting the foreseeable future
8 (13). The new foreseeable future
9 definition does not fix these
10 problems, but neither will restoring
11 the prior one.

12 What is required is consistency
13 and transparency. That will come
14 only if the Services issue guidance
15 that will both hold them accountable
16 and explain the principles that
17 motivate their decisions. Such
18 guidance should ensure, for
19 example, that projections about both
20 the geophysical aspects of climate
21 change and their effects on species
22 are consistent across comparable
23 situations. Once NMFS concluded
24 that the extent of sea ice loss was
25 reliably foreseeable to 2100, any
26 conflicting decisions should explain
27 why that conclusion was wrong or
28 why it merits revision in light of new
29 data. Sea ice loss may affect each
30 species differently, but the Services
31 should clearly explain the evidence
32 for these varied effects and the
33 justification for differential
34 treatment. If the response of a
35 species to a particular environmental
36 change is more uncertain than the
37 responses of other species to the
38 same change, that, too, should be
39 explained.

40 **EXPLAINING DISCRETION**

41 The key protections of section 9
42 of the ESA apply only to endangered
43 species, not threatened species.
44 Protections include restrictions on
45 importing endangered species into
46 the United States, trafficking in them
47 or their parts, and harming or
48 harassing endangered animal
49 species by other means, including
50 habitat destruction. For threatened
51 species, Congress gave the Services
52 the authority to decide on a species-
53 by-species basis which protections to
54 apply. FWS has long extended by
55 default the full protections of section
56 9 to all threatened species, while
57 retaining discretion to modify those
58 protections on a species-by-species
59 basis through a special rule issued
under section 4(d) of the ESA. The

recent regulatory revisions withdrew
those default protections for future
listings, requiring FWS to issue a 4(d)
rule whenever it seeks to extend any
protection to those species and
aligning the agency's approach with
that of NMFS, which has never
extended default protection to all
threatened species. Despite this
reversal in FWS policy, the agency is
still able to offer threatened species
as many or as few protections as it
deems necessary for conservation—
as has always been the case.

The problem is that the Services
have never issued clear guidance on
how they will exercise this discretion,
nor have they adequately explained
their choices. Under the ESA, the
Services "may" offer threatened
species none, some, or all of the
section 9 protections. In the context
of agricultural activities, for example,
FWS offered the Gunnison sage-
grouse (*Centrocercus minimus*) full
protections. By contrast, the 4(d)
rule for the related lesser prairie-
chicken (*Tympanuchus*
pallidicinctus) exempted all routine
agriculture on cropland maintained
in cultivation (14). The agency may
have had valid reasons for this
discrepancy, but they have never
been publicly explained their
decisions. Exemptions in 4(d) rules
thus often appear as ad hoc
decisions influenced by political
pressure to minimize regulatory
impacts of listing a species. This
concern can trigger litigation from
conservation groups, resulting in
further controversy and expenditure
on lawsuits.

The Services should develop
policy that resolves key issues
pertaining to protection of
threatened species through 4(d)
rules. That policy should directly
address the question they have long
ducked: what protections meet the
ESA's standard of being "necessary
and advisable" to conserve
threatened species? Having a policy
that states the relevant principles
would limit the Services' tendency to
bow to political pressures, creating
an ad hoc patchwork of protections.
It could also help assure landowners
that voluntary efforts at conservation
will not bring a heavy regulatory
crackdown. At a minimum, activities

that would undercut a species'
recovery should be regulated
through 4(d) rules, while activities
that promote recovery should be
strongly considered for exemption.
An example is the recent 4(d) rule
for the Louisiana pine snake
(*Pituophis ruthveni*), which exempts
forestry activities that improve the
snake's habitat but regulates
intensive mechanical forestry
practices that can degrade that
habitat (15). Second, the Services
should commit to finalizing the
protections a threatened species
needs when it is listed, unless there
is substantial uncertainty about
whether the protections will benefit
the species. By addressing these and
other basic issues, the agencies can
help ensure that protections for
threatened species are adequate
and predictable.

GROWING CHALLENGES, NEW APPROACHES

The improvements above focus on
issues addressed in the recent
rulemaking and that can be
addressed without legislation, but
other reforms also deserve priority.
For example, in 2016 FWS developed
a plan to address its backlog of
decisions on whether to list hundreds
of species under the ESA. FWS will
need to diligently implement the
plan to reduce litigation over delayed
listing decisions, something it has so
far failed to do partly because of
political intervention. A new
regulatory and funding package for
working with private landowners to
conserve imperiled species, including
dedicated staffing for ESA voluntary
conservation initiatives and tax
benefits for easements and
donations of private land for rare-
species conservation, would unlock
recovery opportunities for many
species that rely on private lands.
Conservation on federal lands could
benefit from legal incentives for
federal agencies to carry out actions
that go beyond the minimum
required by the ESA, such as
rewarding agencies with greater
management flexibility when they
help a species exceed its recovery
milestones. A new wildlife data and
technology initiative could bring ESA
implementation into the 21st century

1 by taking advantage of open and
2 machine-readable data, remote
3 sensing data, and other
4 technological innovations to help
5 monitor species and their habitats.
6 Such advances offer some of the
7 best opportunities to understand
8 how climate change will affect the
9 nearly 2,400 species protected by
10 the ESA.

11 To keep pace with our
12 biodiversity crisis, the ESA will need
13 to go well beyond the status quo. Let
14 the current controversy over the
15 revised regulations serve as the
16 starting point to finding meaningful
17 solutions and having deeper
18 discussions of what must be done to
19 conserve imperiled species in the
20 United States and elsewhere. The
21 passage of the Great American
22 Outdoors Act reminds us that
23 conservation can still be a bipartisan
24 issue. The reforms we suggest could
25 help bring us closer to consensus on
26 the ESA.

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