

**UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA
Fort Pierce Division**

Civil Action No.: 2:19-cv-14353

**CENTER FOR BIOLOGICAL
DIVERSITY,**

Plaintiff,

v.

DAVID BERNHARDT, in his official
capacity as Secretary of the U.S. Department
of the Interior, and **U.S. FISH AND
WILDLIFE SERVICE,**

Defendants.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. Plaintiff Center for Biological Diversity (Center) challenges the U.S. Fish and Wildlife Service's (Service) unlawful decision to deny Endangered Species Act (ESA) protection to the Florida Keys mole skink (Skink), a severely imperiled, island-dwelling lizard that is steadily losing what remains of its limited habitat to urban development and rising seas. When added to myriad threats ranging from predation to genetic isolation, the Skink faces swift and foreseeable extinction.

2. The Service's own findings show that sea level rise will inundate half of the Skink's already diminished habitat in the Florida Keys by 2060 and more than three-quarters by the end of the century. Increasingly intense storms fueled by global climate change will exacerbate these losses, drowning the Florida Keys with storm surges and floods.

3. In addition to climate change, human development and other threats imperil the Skink's existence. The Skink's coastal and upland forest habitats are prime locations for housing developments, hotels, and businesses capitalizing on the scenic views and the island lifestyle. This development is projected to cover all vacant land in the Keys as early as 2060, and brings with it increased beach activity, pollution, pesticides, road mortality, predation by feral animals, and people who wish to collect the Skink, all of which threaten the lizard's existence.

4. Without the most basic necessity—a place to exist—the Skink is condemned to extinction, yet the Service concluded that listing the Skink as endangered or threatened under the ESA was not warranted. The Service ignored the Skink's stark reality and assumed without basis that it will spontaneously adapt as its habitat slips below the sea. Rather than making a reasoned decision based on the law and facts before it, the Service ignored the ESA's basic directives, disregarded the best available science, and arrived at an arbitrary and unlawful “not warranted” finding in an apparent bid to comply with a recently adopted regional quota for preventing or removing protections for imperiled species.

5. Consequently, Plaintiff brings this action against David Bernhardt, Secretary of the U.S. Department of the Interior, and the U.S. Fish and Wildlife Service to remedy the Service's violations of the ESA, 16 U.S.C. §§ 1531–1544, and the Administrative Procedure Act (APA), 5 U.S.C. § 706(2). Specifically, Plaintiff challenges the Service's determination that listing the Florida Keys mole skink as endangered or threatened under the ESA is not warranted. *See Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions to List 25 Species as Endangered or Threatened Species*, 82 Fed. Reg. 46,618, 46,637–39 (Oct. 5, 2017).

6. Plaintiff requests that this Court declare the Service has violated the ESA and the APA. Plaintiff also seeks an order vacating and remanding the Service's “not warranted”

decision and providing a timeline for a new listing determination for the Florida Keys mole skink that applies the proper legal and scientific standards. Such relief is necessary to afford the Florida Keys mole skink the full protections of the law, which it is entitled to and needs to survive and recover from impending extinction.

JURISDICTION AND VENUE

7. This Court has jurisdiction over this action under Section 11(g) of the ESA, 16 U.S.C. § 1540(g) and 28 U.S.C. § 1331 (federal question).

8. Venue in this Court is proper according to 28 U.S.C. § 1391(e) and 16 U.S.C. § 1540(g)(3)(A) because Defendants are officers and employees of the United States acting in their official capacity and a substantial part of the violations giving rise to the claim occurred in this judicial district. Venue is proper in this Division according to Local Rule 3.1 because the county of origin is in this Division. The Service's South Florida Ecological Services Field Office in Indian River County had a primary role in preparing the listing decision for the Florida Keys mole skink.

PARTIES

9. Plaintiff Center for Biological Diversity is a national, nonprofit conservation organization that works through science, law, and policy to protect imperiled species and their habitats. The Center has more than 67,000 active members across the country. It is incorporated in California and headquartered in Tucson, Arizona, with offices throughout the United States, including Arizona, California, Colorado, Florida, Hawai'i, Idaho, Minnesota, Nevada, New

York, North Carolina, Oregon, Vermont, Washington, and Washington, D.C., and in Mexico.

The Center brings this action on behalf of itself and its members.

10. Center members and staff are concerned with the conservation of imperiled species like the Florida Keys mole skink and have an interest in the effective implementation of the ESA to protect those species. They derive scientific, aesthetic, recreational, educational, and spiritual benefits from the Florida Keys mole skink and habitat vital to its survival. The Center has members who spend time in the Skink's habitat and attempt to observe them in the wild. For instance, one of the Center's members has observed the Skink on the island of Bahia Honda, which is one of six major islands that has the sandy habitat the Skink needs to survive. The Center's members have ongoing interest in the species and its habitat and have concrete future plans to visit the Skink's habitat in the future.

11. The Center and its members also have a procedural interest in the Service's compliance with its legal obligations under the ESA, and suffer procedural injury from the Service's failure to comply with these obligations.

12. The Center's and its members' recreational, educational, professional, aesthetic, spiritual, moral, and procedural interests have been and will continue to be harmed by Defendants' actions. The relief sought would redress those injuries.

13. Defendant David Bernhardt is the Secretary of the Interior. As Secretary of the Interior, he has the ultimate responsibility to administer and implement the provisions of the ESA regarding the Florida Keys mole skink, and to comply with all other federal laws applicable to the U.S. Department of the Interior. Plaintiff sues Defendant Bernhardt in his official capacity.

14. Defendant U.S. Fish and Wildlife Service is a federal agency within the Department of the Interior. The Secretary of the Interior has delegated his authority to administer

the ESA to the Service for non-marine wildlife. 50 C.F.R. § 402.01(b). This authority encompasses proposed and final listing decisions for the Florida Keys mole skink.

STATUTORY AND REGULATORY BACKGROUND

Endangered Species Act

15. The ESA “represent[s] the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). Its purpose is to “provide a program for the conservation of . . . endangered species and threatened species” and “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. § 1531(b). The ESA requires that “all Federal departments and agencies . . . seek to conserve endangered species and threatened species and . . . utilize their authorities in furtherance of the purposes” of the ESA. *Id.* § 1531(c)(1); *see also id.* § 1536(a)(1) (“The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act.”).

16. Congress entrusts special duties to the Secretary of the Department of the Interior to administer the ESA, *id.* § 1532(15), and the Secretary has delegated its ESA duties to the Service. 50 C.F.R. § 402.01(b).

Listing and Protections

17. The ESA directs the Service to add species it determines are endangered or threatened to a list of federally endangered and threatened species, a process known as “listing.” 16 U.S.C. § 1533(a).

18. A species is “endangered” if it “is in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6). A species is “threatened” if it is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its

range.” *Id.* § 1532(20). The definition of “species” includes “subspecies” and “distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature.” *Id.* § 1532(16).

19. The ESA does not define “foreseeable future.” A 2009 opinion from the Department of Interior’s Office of the Solicitor directs the Service to interpret “foreseeable future” consistent with its ordinary meaning. It also directs the Service to use the best available scientific data that is specific to the particular threat the Service considers in its “foreseeable future” analysis.

20. Section 4 of the ESA establishes a detailed notice-and-comment rulemaking procedure that the Service must follow when adding, removing, or reclassifying the status of species listed as threatened or endangered. *Id.* § 1533.

21. In making listing determinations, the Service must assess five categories of threats, also known as “listing factors”: “(A) the present or threatened destruction, modification or curtailment of [a species’] habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; [and] (E) other manmade or natural factors affecting the species’ continued existence.” *Id.* § 1533(a)(1).

22. If a species meets the definition of “endangered” or “threatened” because of “any one or a combination of” these five listing factors, the Service must list the species. 50 C.F.R. § 424.11(c); 16 U.S.C. § 1533(a)(1).

23. The ESA mandates that the Service make listing determinations “solely on the basis of the best scientific and commercial data available,” 16 U.S.C. § 1533(b)(1)(A), which “may include, but are not limited to scientific or commercial publications, administrative reports,

maps or other graphic materials, information received from experts on the subject, and comments from interested parties.” 50 C.F.R. § 424.13.

24. The Service may not consider any “possible economic or other impacts of [a listing] determination” when making listing decisions. *Id.* § 424.11(b).

25. The requirement that the Service rely on the “best scientific and commercial data available,” 16 U.S.C. § 1533(b)(1)(A) (emphasis added), means that the Service cannot require scientific certainty that a species is endangered or threatened. Congress intended that the Service act before a species is driven to the brink of extinction. *See* H.R. Rep. No. 412, 93d Cong., 1st Sess. 5 (1973) (“In the past, little action was taken until the situation became critical and the species was dangerously close to total extinction. This legislation provides us with the means of preventive action.”) (remarks of Rep. Clausen); *id.* (“By heeding the warnings of possible extinction today, we will prevent tomorrow’s crisis.”) (remarks of Rep. Gilman).

26. Once the Service lists a species, the species receives an array of procedural and substantive protections under the ESA that successfully slow and reverse the trend toward extinction and set the species on the road to recovery. For example, ESA Section 4 requires the Service to designate “critical habitat,” defined as areas “essential to the conservation of the species,” and to engage in recovery planning. 16 U.S.C. §§ 1533(a)(3), (f); 1532(5). Section 7(a)(2) requires all federal agencies to consult with the Service to ensure their actions are not “likely to jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification” of a listed species’ critical habitat. *Id.* § 1536(a)(2). Section 9(a)(1)(B) makes it unlawful to “take” endangered species, which means no person can harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect these species without first receiving authorization from the Service. *Id.* § 1538. These comprehensive protections constitute an

effective “program for the conservation of . . . endangered species and threatened species” that Congress contemplated, *id.* § 1531(b), and are essential to the overall survival and recovery—*i.e.*, conservation—of endangered and threatened species. *See* 50 C.F.R. § 424.02 (explaining that conservation “methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation”).

Listing Petitions

27. A species does not receive the ESA’s substantive protections unless the Service lists it as endangered or threatened. Thus, listing is the crucial first step in the ESA’s system of species protections.

28. Any interested person can initiate the listing process by filing a petition with the Service to list a species as endangered or threatened. 16 U.S.C. § 1533(b)(3)(A); 50 C.F.R. § 424.14(a).

29. Upon receiving a petition to list a species, the Service has 90 days to determine whether the petition “presents substantial scientific or commercial information indicating that the potential action may be warranted.” 16 U.S.C. § 1533(b)(3)(A); 50 C.F.R. § 424.14(h)(1). This determination is known as a “90-day finding.”

30. If the Service makes a positive 90-day finding in response to a petition, it must conduct a “status review” of the species. 16 U.S.C. § 1533(b)(1)(A); 50 C.F.R. § 424.14(h)(2). During the status review, the Service publishes a notice and invites comment on a species’ status, which provides the basis for a listing determination. The Service may look beyond information presented in the listing petition or its own files during the status review. 50 C.F.R. § 424.13.

31. Based on the results of the status review, the Service must make one of three findings within 12 months of receipt of the petition, known as a “12-month finding”: (1) the petitioned action is “warranted”; (2) the petitioned action is “not warranted”; or (3) the petitioned action is warranted, but the Service’s issuance of a proposed rule is presently “precluded because of other pending proposals to list, delist, or change the listed status of species” and the agency is making “[e]xpeditious progress” to list, delist, or change the listed status of qualified species (known as “warranted but precluded”). 16 U.S.C. § 1533(h)(2)(i)–(iii).

32. If the Service issues a 12-month finding that listing the species is “warranted,” it must publish a proposed rule to list the species as endangered or threatened in the Federal Register. *Id.* § 1533(b)(5). Within one year of publishing a proposed rule to list a species, the Service must issue a final rule listing the species and designating critical habitat for it. *Id.* § 1533(a)(3), (b)(6)(A), (C).

33. If the Service issues a 12-month finding that listing the species is “not warranted,” that finding is a final agency action subject to judicial review. *Id.* § 1533(b)(3)(C)(ii).

Administrative Procedure Act

34. Under the APA, a reviewing court “shall hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

35. While the ESA provides for judicial review of a “not warranted” 12-month finding, 16 U.S.C. § 1540(g), the APA governs the standard and scope of judicial review. 5 U.S.C. §§ 701–706.

FACTUAL BACKGROUND

The Florida Keys Mole Skink and Its Disappearing Coastal Habitat

The Florida Keys Mole Skink and Its Reliance on Dry, Sandy Coastlines in the Keys

36. The Florida Keys mole skink (*Plestiodon egregius egregius*) is a shiny, brown lizard with dark and light stripes, stubby legs, and a brilliant reddish pink tail.

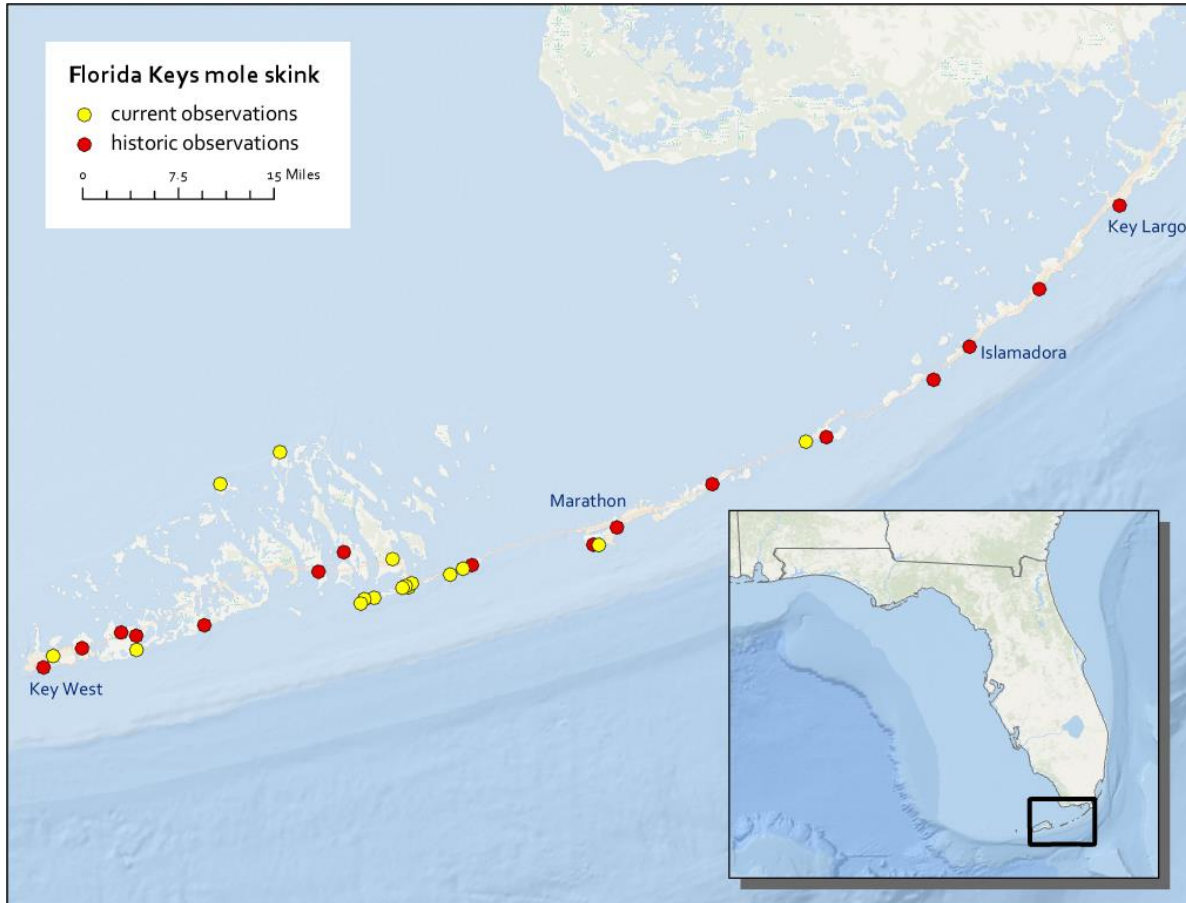


Jonathan Mays, Florida Fish and Wildlife Conservation Commission,
Fish and Wildlife Research Institute

37. One of five subspecies of mole skink in Florida, the Florida Keys mole skink is known only from its namesake islands. Its Latin name *egregius* roughly translates to “standing out from the flock,” which reflects its beauty and distinctiveness. Yet this eye-catching lizard spends most of its life in sandy hiding places under rocks, leaf-litter, and tidal wrack (the dead seaweed and debris that fringe coastlines).

38. The Skink is isolated from mainland Florida and limited to the low-lying chain of small, ancient coral reef islands in the Florida Keys. Once ranging from the northernmost island of Key Largo southwest to the Dry Tortugas, recent sightings documented by the Service indicate the Skink now inhabits about half of that area, irregularly scattered across locations from

Long Key to Key West. The map of the Florida Keys below shows historic Skink observations (before 2014) in red and current observations (from 2014 to 2017) in yellow. The Dry Tortugas, which historically supported Skinks, are about 70 miles west of Key West.



39. The Skink is absent from many historical locations and from islands with exceptional habitat where scientists would expect to find them. Most recent sightings of Florida Keys mole skink (104 of 127 sightings) are from only one beach on Big Pine Key.

40. The Florida Keys mole skink is not known to swim, and Skink populations on different islands are relatively isolated from one another. In fact, individual Skink populations are so isolated that they are genetically distinct, with little or no connectivity or interbreeding between them.

41. The Florida Keys mole skink lives just above sea level, 50 to 80 centimeters (20 to 31 inches) above the mean high-water line, in a narrow strip of coastline that provides dry sandy soils, coastal debris, and access to coastal forest hammock, all of which it needs to survive.

42. The Skink needs dry, loose sand to “swim” through the landscape protected from the elements. Female Skinks dig their nests in the dry, sandy soil between April and June, and then actively tend their nests by licking, turning, and protecting their eggs from predators. If their nests are disturbed or submerged, and these essential behaviors halted or interrupted, the eggs may not develop. The Skink’s reproductive success is likely limited by the availability of this dry, sandy soil.

43. Few areas in the Florida Keys—approximately 340 to 472 acres total—provide the type of sandy soils the Skink needs to survive. These soils are mainly on six islands: Lower Matecumbe, Long Key, Boot Key, Bahia Honda, Big Pine, and Key West.

44. The Skink also needs nearby coastal hammock habitat and debris in the tidal wrack to hunt insect prey and maintain ideal body temperature. Because it is “cold-blooded,” the Skink depends on air and soil temperature to regulate its core body temperature. Cover from sand, debris, and vegetation in the coastal hammock help the Skink maintain its narrow thermal range of 78.8 to 93.2 degrees Fahrenheit (°F). It is unlikely to survive higher temperatures.

45. Because of the Florida Keys mole skink’s small population size, limited habitat, climate change, and other growing threats, in 2010 the Florida Fish and Wildlife Conservation Commission found the Skink is imminently at risk of extinction and listed it as “threatened” under Florida state law.

*The Inundation and Loss of Coastal Habitat as Global Climate Warms
and Sea Level Rises*

46. The best available scientific data are clear that rising sea levels are engulfing the Florida Keys mole skink's dry, sandy, coastal habitat, and will continue to do so at an exponential rate as sea level rise accelerates.

47. The Service projects that by 2060 under a "business as usual" scenario where measures to address climate change are not implemented nationally or globally, sea level rise will inundate 44% of the Skink's coastal forest hammock habitat and 50% of its suitable sandy soil. Along the same trend, the Service projects that by 2100 the Skink will lose 74% of its habitat and 78% of sandy soils to rising seas.

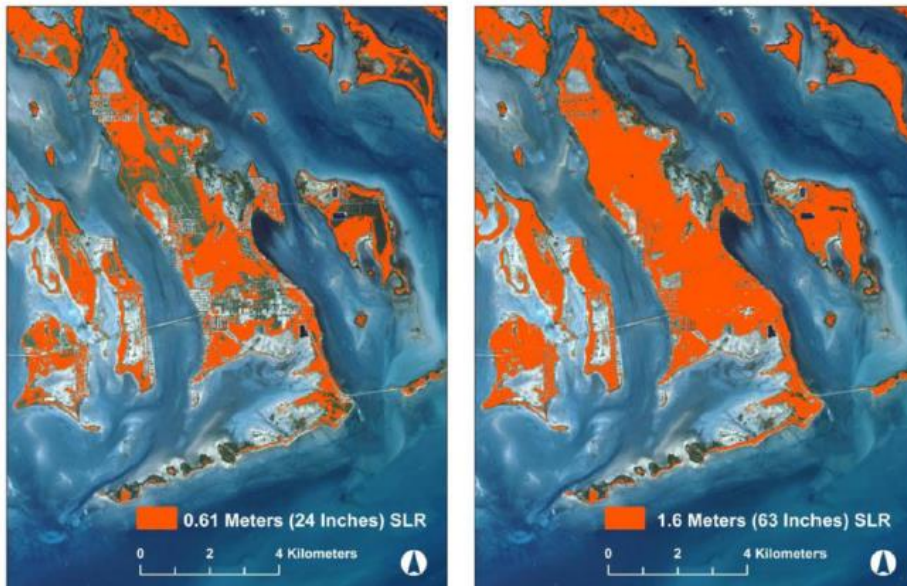
48. By 2060, under a "business as usual" scenario, the Service projects sea level will rise 0.71 meters (28 inches, 2.3 feet) in South Florida. As illustrated in orange in the Service's map below, this sea level would inundate the majority of Long Key, one of the Skink's six mainstay islands.



49. By 2100, under a “business as usual” scenario, the Service projects sea level will rise 1.6 meters (63 inches, 5.25 feet). As illustrated in orange in the Service’s map below, this sea level would inundate nearly all of Long Key.



50. Big Pine Key, another important island for the Skink and the location of most of the recent Skink sightings, would likewise be largely inundated by the sea level rise at the Service’s 2060 and 2100 projections (0.71 meters and 1.6 meters, respectively).



51. All future scenarios predict the Skink will continue to lose habitat through 2100.

52. These projections are devastating for the Skink, but even so, they are optimistic because they do not account for the best scientific data that was available to the Service—the National Oceanic and Atmospheric Administration’s 2017 Global and Regional Sea Level Rise Scenarios for the United States (2017 NOAA Scenarios)—which demonstrate that sea level rise rates are accelerating and are approximately 15% higher than the projections the Service relied on when forecasting habitat inundation for the Skink.

53. According to the 2017 NOAA Scenarios, under a “business as usual” scenario, sea level in Florida will rise 2.5 meters (8.2 feet) by 2100. Relying on outdated science instead of the best *available* science, the Service only considered the impact of seas rising up to 1.6 meters (5.25 feet), which would inundate 74% of the Skink’s suitable habitat and 71% of the sandy soils. An additional 0.9 meters (2.95 feet) would inundate even more of the Skink’s dwindling habitat.

54. The Service’s projections, which form the basis for its decision not to protect the subspecies, also do not account for the complex shifts driven by climate change, such as reduced access to fresh water, dramatic habitat transformations that render habitat unsuitable for the Skink, and human relocation into higher elevation Skink habitat as rising seas push all living things to compete for refuge on higher ground. The competition for dry land will be particularly impactful on Lower Matecumbe, Big Pine, and Key West, all of which have occupied Skink habitat and significant human development.

55. Because the Skink lives on keys of different size, elevation, and location, sea level rise is likely to threaten different parts of the subspecies’ range to different degrees at different rates. Sea level rise will generally affect the Lower Keys before the Upper Keys; however, local

elevation and topography also influence each key's vulnerability to rising seas. For instance, the Service's data shows that Big Pine Key in the Middle Keys—one of the six main islands supporting the Skink—is currently more vulnerable to early-stage sea level rise than Key West in the Lower Keys. Consequently, Skink populations in some parts of the Skink's range are at greater risk of extinction at an earlier time than others.

56. The Service has found, based on the best available scientific data, that sea level rise will continue to progress and adversely impact the Florida Keys mole skink's dry, sandy, coastal habitat until measures are put in place to address the underlying cause of climate change: greenhouse gas emissions. It has also found that there are no regulatory mechanisms currently in place, globally or regionally, to curb greenhouse gas emissions. Thus it is not possible to reverse or slow the current trend of sea level rise.

57. The Service failed to identify any scientifically supported method the Florida Keys mole skink could employ to survive sea level rise.

*The Adverse Impacts of Climate Change, Development, and Other Stressors
on the Florida Keys Mole Skink*

58. The best available scientific data show that climate change, sea level rise, and other stressors will work cumulatively and synergistically to negatively impact the Florida Keys mole skink.

59. In addition to sea level rise, the Service acknowledges that climate change causes severe weather events, increased storm surge, and changes in precipitation and temperature, which independently and cumulatively affect both the Florida Keys mole skink and its habitat. Storm surge augmented by higher sea level inundates soils with saltwater and compacts the sand, which prevents the Skink from digging nests and burrowing. Storm surge also washes away groundcover that supports prey for the Skink.

60. The Service also projects that extreme heat events will increase in Florida, putting the Skink at risk of overheating and dying.

61. While climate change and sea level rise present the most alarming threat to the Skink, habitat destruction for human development is also a significant historical and ongoing threat. The Skink inhabits the same coastal beach berm and hammock habitat that is desirable for residential and commercial development. Development impacts are currently most acute on Key West and Big Pine Key, two of the six main islands with occupied Skink habitat; however, the Service acknowledges that all vacant land in the Florida Keys could be consumed by development as early as 2060.

62. Human development also acts synergistically with sea level rise to threaten the Florida Keys mole skink's existence. As sea level rises, the Skink is subjected to a phenomenon called "coastal squeeze," which occurs when human development blocks the landward migration of wildlife and, as sea level rises, wildlife is "squeezed" out of existence. Because human populations and development already cover much of the coastal and upland areas of the Keys, the Skink has few areas of unoccupied dry land to migrate toward as sea level rises.

63. Other stressors contributing to the Skink's declines include disruptive human activities in Skink habitat such as recreation and beach-raking for aesthetic purposes, road mortality, pollution, pesticides, overcollection, and predation by feral animals and fire ants. Many of these stressors are related to the presence of humans and will threaten the Skink and its habitat exponentially as human population grows and available land is lost to rising seas, causing even greater interface between human and Skink populations.

64. The Skink is also exceptionally vulnerable to ongoing and future stressors because of its small populations, small geographic range, and genetic isolation. An estimated 6 to

20 Skink populations remain in the wild. The Service found that current surveys failed to document the Skink on many keys where it was once found, including keys with high-quality habitat where experts would expect to find them. These survey records span only half of the Skink's historic range, with most records (104 of 127) coming from one beach on one island, which indicates that remaining populations occupy an even smaller area that is more susceptible to extinction from a stochastic event such as a major hurricane. Because Skink populations on different islands are isolated, inbreeding and reduced genetic diversity elevate their extinction risk.

65. ESA protections would help the Skink survive each of these stressors—and their combined impacts—through habitat protections and focused recovery planning.

The Service's Decision Not to Protect the Florida Keys Mole Skink Under the ESA

66. On April 20, 2010, the Center petitioned the Service to list the Florida Keys mole skink as threatened or endangered under the ESA. The Service had previously identified the Skink as a candidate for protection decades before in 1982 but failed to protect the subspecies despite mounting threats.

67. The Center comprehensively substantiated its petition with scientific information showing that climate change, sea level rise, and development are major threats to the subspecies. The Center also catalogued threats from overcollection for the exotic pet trade. The Center's petition explained there are no regulatory mechanisms in place that can adequately address these and future threats.

68. In a September 27, 2011 90-day finding, the Service agreed that listing the Florida Keys mole skink as endangered or threatened may be warranted based on four out of five listing factors: (1) present or threatened habitat destruction, modification, or curtailment of its habitat or

range; (2) overutilization; (3) inadequacy of existing regulatory mechanisms; and (4) other natural or manmade factors. 76 Fed. Reg. 59,836, 59,860, 59,862 (Sept. 27, 2011).

69. The Service specifically emphasized the threat from “sea level rise and increased storm intensity resulting from global climate change,” which may be “magnified . . . by . . . human population growth.” *Id.* at 58,855.

70. Following its 90-day finding, the Service initiated a status review to determine whether listing the Florida Keys mole skink under the ESA was warranted. *Id.*

71. In April 2016, the Service’s Southeast Region adopted what it called a “Wildly Important Goal” to meet a predetermined quota to delist, downlist, or deny listing protections to thirty species by the end of fiscal year 2017 (hereinafter, Preclusion Quota).

72. In furtherance of the Preclusion Quota, the Service employed various strategies to substantiate delisting, downlisting, or denying listing to species, including the Skink. The Service also shifted priorities in furtherance of the Preclusion Quota.

73. The Service counted the Florida Keys mole skink toward the 30-species quota for 2017, along with nearly a dozen other species to which it had also denied ESA protections.

74. On October 5, 2017, following a legal settlement with the Center for missing the ESA’s listing decision deadline, the Service published its 12-month finding for the Florida Keys mole skink. In its 12-Month Finding, the Service concluded that listing the Skink is not warranted because it is not endangered or threatened throughout all of its range or in a significant portion of its range. 82 Fed. Reg. 46,618, 46,639 (Oct. 5, 2017) (12-Month Finding).

75. The Service also prepared a “Species Status Assessment Report for the Florida Keys Mole Skink (*Plestiodon egregius egregius*)” (SSA) which purported to provide a basis for the Service’s 12-Month Finding. *Id.* at 46,639.

76. In the 12-Month Finding, the Service reached the baffling conclusion that the Keys “experienced sea-level rise, climate-change-associated factors, and development . . . with no indication that these factors are acting on the subspecies,” *id.*, which was in direct conflict with its own earlier findings and the best available scientific data that demonstrate “sea-level rise; climate-change-associated shifts in rainfall, temperature, and storm intensities; and development . . . account for indirect and direct effects at some level to all life stages and the habitat and soils across the subspecies’ range,” *id.* at 46,639, as well as scientific data showing the Skink has already disappeared from a substantial portion of its habitat.

77. The Service also failed to provide a rational explanation for its “not warranted” finding when it expected sea level rise will inundate up to 44% of the Skink’s suitable habitat and 50% of its suitable soils by 2060, in addition to myriad other threats caused by climate change and other human activities. *Id.*

78. And although the Service admits more recent and accurate climate data were available, it instead used outdated data when estimating how much Skink habitat will be inundated by sea level rise, thereby failing to account for a projected 15% additional increase in sea level rise rates.

79. Even though the Service had reliable sea level rise forecasts through the end of the century (to the year 2100), it explicitly ignored those forecasts by defining “foreseeable future” for climate-change threats to the year 2060. *Id.* at 46,638. The Service stated that it based its 12-Month Finding on this truncated timeframe because of “too much uncertainty” beyond the year 2060, even though the forecasts already existed, sea levels were projected to continue rising under all scenarios, and there were no existing regulatory mechanisms in place to reverse the projected climate trends. *Id.*

80. In addition, the Service readily assumed—without scientific basis or explanation—that the Skink could adapt to sea level rise and storm events by, for instance, rafting from inundated islands to dry land on floating debris.

81. While sea level rise is a significant threat, the Service’s projections predicted habitat inundation only. *Id.* at 46,638. The Service otherwise ignored or dismissed myriad cumulative impacts of climate change on the Florida Keys mole skink in its 12-Month Finding, including the combined impact of devastating storms, flooding, increasing drought, rising temperatures, increased precipitation, coastal squeeze, human migration in response to sea level rise, reduced or no access to fresh water, and stochastic events such as storm surges and flooding events. *Id.* at 46,638–39. The Service did not explain how it arrived at a “not warranted” finding when these significant cumulative effects put the Skink at grave risk of extinction.

82. In the absence of data on population trends for the Skink, the assessment focused on the existence of suitable habitat as a proxy for determining population trends. Given that standard, the Service failed to explain how it arrived at its finding that the Skink was not endangered or threatened, *id.* at 46,639, when projections for available suitable habitat based on inundation alone trend consistently downward at an accelerating rate until little to no habitat remains in the foreseeable future.

83. The Service also concluded that the Skink would remain viable despite future threats because it “demonstrates resiliency, redundancy, and representation to sustain it beyond the near term,” *id.* at 46,639; however, the Service failed to provide a rational explanation for this conclusion, as the Service’s records show there are very few Skink populations that are vulnerable because they are distributed over a very small geographic area, are genetically isolated, and face multiple threats.

84. Although the Service mentioned development as a “primary stressor” to the Skink in the 12-Month Finding, it failed to explain how the subspecies did not warrant listing when historic and ongoing human development imminently threatens what remains of its limited habitat. *Id.* at 46,638–39. In fact, the Service had projections that all vacant land could be consumed by development as early as 2060, but it incongruously concluded in the 12-Month Finding that development would not endanger or threaten the Skink because “the subspecies has persisted on multiple Keys with human development and activities over time.” *Id.* at 46,639.

85. The Service’s 12-Month Finding failed to mention—let alone assess—threats from disruptive human activity in the Skink’s coastal habitat, road mortality, pollution, pesticides, overcollection, predation, and the lack of regulatory mechanisms to address those threats.

86. Although the Service included token mention of the five ESA listing factors in the 12-Month finding, *id.* at 46,638, it entirely failed to analyze all five listing factors in either the 12-Month Finding or the SSA. The 12-Month Finding explicitly mentions “Factor A” once, *id.* at 46,639, but glaringly fails to analyze Factors B through E, which include overutilization, disease or predation, inadequacy of regulatory mechanisms, and other manmade or natural factors affecting the species’ continued existence. *See* 16 U.S.C. § 1533(a)(1).

87. Symptomatic of the missing five factor analysis is the Service’s failure to assess the incremental, combined, and synergistic impact of all the threats facing the Skink. For example, the Service failed to explain how it could find that listing the Skink is not warranted when the subspecies will lose most of its habitat to sea level rise alone by the end of the century (Factor A) and there are no regulatory mechanisms in place to stop or reverse the accelerating threat from sea level rise (Factor D).

88. The Service also failed to apply the ESA’s definitions of endangered and threatened when determining the Skink did not warrant listing. Instead of determining whether the Skink was “in danger of extinction” or “likely to become endangered” throughout all or a significant portion of its range as the ESA requires, 16 U.S.C. § 1532(6), (20), the Service applied a single arbitrary standard—that because at least some Skinks and some of their habitat still exist at present, and at least some habitat may exist in the future, the subspecies will persist in the future. *Id.* at 46,639. In addition to flouting the ESA’s legal requirements, this conclusion ignored the best available scientific data that reflects past and ongoing declines and predicts climate impacts of greater intensity in the future.

89. The Service did not consider whether to list the Skink because it is endangered or threatened in a significant portion of its range. Instead, the Service assessed “any apparent geographic concentrations of potential threats” and concluded that it “did not find that there was a concentration of threats in a particular area that would cause the subspecies to [be endangered or threatened] throughout any portion of its range.” *Id.* Aside from applying the wrong standard, the Service’s finding ignored the fact that the Skink is endangered or threatened in a significant portion of its range by sea level rise, particularly in low-lying areas.

PLAINTIFF’S CLAIMS FOR RELIEF

First Claim for Relief

Violations of the ESA: Failure to Use the Best Scientific Data Available

90. The Center re-alleges and incorporates by reference all the allegations set forth in this Complaint as though fully set forth below.

91. The Service’s must rely “solely on the best scientific and commercial data available” when determining whether a species is threatened or endangered. 16 U.S.C. § 1533(b)(1). The ESA requires only the best data *available*, not the best hoped-for data. This

standard applies to all available scientific data regarding threats to the Skink and its ability to contend with those threats. The Service must then draw rational conclusions between the data before it and the decision it makes. 5 U.S.C. § 706(2)(A).

92. In truncating its analysis to 2060 despite having forecasts to 2100, with all forecasts showing continued loss of habitat to rising seas, the Service failed to follow the best available science.

93. More broadly, the Service failed to provide a rational explanation for its finding that the Skink is not endangered or threatened when sea level rise will inundate half of the Skink's habitat by 2060 and nearly all of it by 2100.

94. The Service arbitrarily concluded that sea level rise is not currently impacting the Skink while at the same time finding that sea level rise and climate change associated impacts affect the Skink at all life stages and across all of its range.

95. The Service also arbitrarily assumed that the Skink can adapt to and survive rising seas, which was not supported by the best available science before the agency.

96. The Service also failed to base its decision in the 12-Month Finding on the best available scientific data when it relied on outdated projections to estimate how much habitat the Skink would lose to sea level rise instead of using the 2017 NOAA Scenarios, which were before the agency at the time it made its decision and predicted that sea level will rise at an accelerated rate (approximately 15% faster), resulting in even more habitat being inundated at an earlier, foreseeable time.

97. The Service arbitrarily discounted, without explanation, threats from disruptive human activities, road mortality, predation, pollution, pesticides, and overcollection by assuming they would not change over time, despite the fact that the severity of these threats are directly

related to growing development on small islands that are becoming increasingly smaller as sea level rises.

98. The Service also arbitrarily concluded that the Florida Keys mole skink will be resilient in the face of future threats because it occupies or potentially occupies habitat across its range, which is contrary to the best available scientific data that demonstrate the Skink has not been observed in a large portion of its range, including places with suitable habitat where scientists would expect to find them. This conclusion is also contrary to the best available scientific data showing that the Skink's small populations and small areas of suitable habitat make it extremely vulnerable to climate change and other stressors.

99. The Service also assumed—without scientific basis—that the Skink's status is stable and that it can adapt to sea level rise and storm events when it found that the Skink will survive climate change, sea-level rise, and other anthropogenic threats.

100. The Service relied on uncertainty to deny the Skink protection as endangered or threatened rather than affording the benefit of the doubt to the subspecies.

101. Upon information and belief, the Service denied the Skink protections as endangered or threatened in furtherance of its Preclusion Quota rather than basing its decision on the best scientific data available.

102. Accordingly, the Service's 12-Month Finding violates the ESA, 16 U.S.C. § 1533(b)(1)(A); 50 C.F.R. § 424.11, and is arbitrary, capricious, an abuse of discretion, and not in accordance with law, under the judicial review standards of the APA, 5 U.S.C. § 706(2)(A).

Second Claim for Relief

Violation of the ESA: Unlawful Foreseeable Future Analysis

103. The Center re-alleges and incorporates by reference all the allegations set forth in this Complaint as though fully set forth below.

104. The ESA requires the Service to list the Florida Keys mole skink as “endangered” if it is “in danger of extinction throughout all or a significant portion of its range,” and “threatened” if it is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6), (20). The foreseeable future includes a range of time for which forecasts are possible and which reasonable people would rely on in making decisions. The definition of foreseeable future must be based solely on the “best scientific and commercial data *available*,” not the best scientific data the Service aspires to have. 16 U.S.C. § 1533(b)(1)(A) (emphasis added). Thus, the Service cannot require scientific certainty in defining the foreseeable future.

105. In its 12-Month Finding, the Service limited “foreseeable future” for threats from climate change to the year 2060; however, the Service’s own best available scientific data on climate change project sea level rise and other climate change-related impacts through the year 2100.

106. The Service’s interpretation and analysis of the foreseeable future for threats to the Florida Keys mole skink from climate change is inconsistent with the plain meaning of “foreseeable” and agency guidance on how the Service should interpret and apply the foreseeable future analysis. It is also contrary to the best scientific data available.

107. Therefore, the Service’s 12-Month Finding violates the ESA, 16 U.S.C. §§ 1532(6), (20), 1533(b)(1)(A), and is arbitrary, capricious, an abuse of discretion, and not in accordance with law, under the judicial review standards of the APA, 5 U.S.C. § 706(2)(A).

Third Claim for Relief

Violation of the ESA: Failure to Consider the Five Listing Factors

108. The Center re-alleges and incorporates by reference all the allegations set forth in this Complaint as though fully set forth below.

109. The ESA requires the Service to base its determination of whether to list the Florida Keys mole skink on five statutory factors: “(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.” 16 U.S.C. § 1533(a)(1). If any one or a combination of the factors causes the species to be endangered or threatened, the Service must provide the full protection of the Act and list it.

110. The Service failed to consider the ESA’s five requisite listing factors in its 12-Month Finding for the Skink. Had the Service lawfully reviewed all five listing factors, those factors would have dictated that the Service list the Skink. For example, factors (A) and (D) alone—habitat degradation and loss to development, sea level rise, and other climate-change-related impacts paired with inadequate regulatory mechanisms to stop or reverse that loss—warrant listing the Skink. Consequently, the Service disregarded the individual, combined, and synergistic impacts of the threat factors when determining whether the Skink is endangered or threatened.

111. Therefore, the Service’s listing decision violates the ESA, 16 U.S.C. § 1533(a)(1), and is arbitrary, capricious, and not in accordance with law, under the judicial review standards of the APA, 5 U.S.C. § 706(2)(A).

Fourth Claim for Relief

Violation of the ESA: Failure to Lawfully Analyze Whether the Florida Keys Mole Skink Is Threatened or Endangered in a Significant Portion of Its Range

112. The Center re-alleges and incorporates by reference all the allegations set forth in this Complaint as though fully set forth below.

113. The ESA requires the Service to determine whether species are endangered or threatened. 16 U.S.C. § 1533(a)(1). An “endangered” species is one that is “in danger of extinction throughout all *or a significant portion of its range*,” *id.* § 1532(6) (emphasis added), and a “threatened” species as one that is “likely to become an endangered species within the foreseeable future throughout all *or a significant portion of its range*,” *id.* § 1532(20) (emphasis added).

114. The Service found that the Florida Keys mole skink will lose up to 50% of its habitat by 2060 and up to 78% by 2100 but never explained why this area does not qualify as a significant portion of the subspecies’ range.

115. The Service unlawfully avoided determining whether the Skink was threatened or endangered throughout a significant portion of its range by looking for a “concentration of threats in a particular area,” which is contrary to the ESA’s statutory requirements and irrelevant to determining whether a portion of the Skink’s range is significant.

116. Furthermore, the Service’s finding that there is no concentration of threats is arbitrary, capricious, and contrary to the best scientific data available because the Service’s own modeling demonstrates that the threats from sea level rise are concentrated in significant portions of the Skink’s range, particularly in low-lying areas.

117. Consequently, the Service’s 12-Month Finding violates the ESA, 16 U.S.C. §§ 1532, 1533, and is arbitrary, capricious, and not in accordance with law, under the judicial review standards of the APA, 5 U.S.C. § 706(2)(A).

Fifth Claim for Relief

Violation of the ESA: Failure to Apply the ESA's Definitions of Endangered and Threatened

118. The Center re-alleges and incorporates by reference all the allegations set forth in this Complaint as though fully set forth below.

119. The ESA requires the Service to determine whether species are endangered or threatened. 16 U.S.C. § 1533(a)(1). An “endangered” species is one that is “in danger of extinction throughout all or a significant portion of its range,” *id.* § 1532(6), and a “threatened” species as one that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range,” *id.* § 1532(20).

120. Instead of determining whether the Skink meets the ESA's definitions of “endangered” or “threatened,” the Service based its “not warranted” determination on the fact that some Skinks and some of their habitat still exist at present, and that some skinks may exist in the future. This determination is contrary to the ESA's requirements because it ignores the statutory definitions of endangered and threatened. It also unlawfully collapses the standards for “endangered” and “threatened,” effectively requiring the species to be in danger of extinction or extinct to warrant listing, thereby precluding the possibility that the species could meet the listing standard for a threatened species. The Service's finding is also arbitrary, capricious, and contrary to the best available science informing the Skink's risk of extinction at present and in the foreseeable future.

121. Consequently, the Service's 12-Month Finding violates the ESA, 16 U.S.C. §§ 1532, 1533, and is arbitrary, capricious, and not in accordance with law, under the judicial review standards of the APA, 5 U.S.C. § 706(2)(A).

Sixth Claim for Relief

Violations of the APA: Arbitrary and Unlawful Decisionmaking

122. Under the APA, a reviewing court “shall hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Id.* § 706(2)(A).

123. The Service failed to provide a rational explanation for its finding that the Skink is not endangered or threatened when sea level rise will inundate half of the Skink’s habitat by 2060 and nearly all of it by 2100.

124. The Service arbitrarily concluded that sea level rise is not currently impacting the Skink while at the same time finding that sea level rise and climate change associated impacts affect the Skink at all life stages and across all of its range.

125. The Service also arbitrarily assumed that the Skink can adapt to and survive rising seas, which was not supported by the best available science before the agency.

126. The Service arbitrarily discounted, without explanation, threats from disruptive human activities, road mortality, predation, pollution, pesticides, and overcollection by assuming they would not change over time, despite the fact that the severity of these threats are directly related to growing development on small islands that are becoming increasingly smaller as sea level rises.

127. The Service also arbitrarily concluded that the Florida Keys mole skink will be resilient in the face of future threats because it occupies or potentially occupies habitat across its range, which is contrary to the best available scientific data that demonstrate the Skink has not been observed in a large portions of its range, including places with suitable habitat where scientists would expect to find them.

128. The Service treated scientific uncertainty in an arbitrary and inconsistent manner, paying special attention to uncertainty to discount scientific projections regarding climate change and sea level rise beyond 2060 while simultaneously ignoring uncertainty about the Skink's current population status and how it will react to stressors, to assume that the Skink will be resilient against future threats from climate change and sea level rise.

129. The Service based its "not warranted" determination on the fact that some Skinks and some of their habitat still exist at present, and that some skinks may exist in the future. This determination is arbitrary, capricious, and contrary to the best available science informing the Skink's risk of extinction at present and in the foreseeable future.

130. The Service's finding that there is no concentration of threats is arbitrary and capricious because the Service's own modeling demonstrates that the threats from sea level rise are concentrated in significant portions of the Skink's range.

131. Consequently, the Service's 12-Month Finding is arbitrary, capricious, and not in accordance with law, in violation of the APA, 5 U.S.C. § 706(2)(A).

REQUEST FOR RELIEF

WHEREFORE, Plaintiff prays that this Court:

- (1) Issue a declaratory judgment that Defendants are in violation of the ESA and APA as alleged herein;
- (2) Declare unlawful and set aside the Service's 12-Month Finding on the Center's listing petition for the Florida Keys mole skink;
- (3) Remand the 12-Month Finding to Defendants with a timeline to conduct a new 12-Month Finding for the Florida Keys mole skink consistent with the law;

- (4) Award Plaintiff its attorneys' fees and costs pursuant to 16 U.S.C. § 1540(g)(4);
and
- (5) Grant Plaintiff such other relief as the Court deems just and proper.

DATED: September 23, 2019

Respectfully submitted,

/s/ Elise Pautler Bennett

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