Stephanie Parent (OR Bar No. 925908)*
Center for Biological Diversity
P.O. Box 11374
Portland, OR 97211-0374
(971) 717-6404
sparent@biologicaldiversity.org

Jonathan Evans (CA Bar No. 247376)
Center for Biological Diversity
1212 Broadway Street, Suite 800
Oakland, CA 94612
(510) 844-7100 ext. 318
jevans@biologicaldiversity.org

Attorneys for Plaintiffs
*Admitted *pro hac vice*

IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

OAKLAND DIVISION

CENTER FOR ENVIRONMENTAL HEALTH, a non-profit organization, **CENTER FOR BIOLOGICAL DIVERSITY**, a non-profit organization, and **CALIFORNIANS FOR PESTICIDE REFORM**, a non-profit organization, Plaintiffs, v. **ANDREW WHEELER**, in his official capacity as the Acting Administrator of the U.S. Environmental Protection Agency, **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**, **UNITED STATES FISH AND WILDLIFE SERVICE,** and **RYAN ZINKE,** in his official capacity as Secretary of the Department of Interior, Defendants, and **CROPLIFE AMERICA**, Intervenor-Defendant.	Case No. 4:18-CV-03197-SBA **SECOND AMENDED AND SUPPLEMENTAL COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

ED_005325D_00000157-00001

INTRODUCTION

1. This action challenges the failures of Defendants Andrew Wheeler, Acting Administrator of the Environmental Protection Agency, the United States Environmental Protection Agency (collectively "EPA"), the United States Fish and Wildlife Service ("Service"), and Ryan Zinke, Secretary of the Department of Interior, to comply with substantive and procedural duties of Section 7 of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536(a)(2), concerning the registration, reregistration, or registration review of pesticide products containing malathion.

2. Each Federal agency has a mandatory, substantive duty to ensure that any action it authorizes "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of designated critical habitat. 16 U.S.C. § 1536(a)(2). To satisfy this substantive duty, each agency has a procedural duty to consult with the Service or the National Marine Fisheries Service ("NMFS," collectively, "Services") if its action "may affect" endangered or threatened species or their critical habitat. *Id.*; 50 C.F.R. § 402.14.

3. For decades, EPA has failed to comply with its substantive and procedural ESA duties when it registers pesticides. In 2011, EPA and the Departments of the Interior, Commerce, and Agriculture requested that the National Academy of Sciences convene a committee of independent experts to evaluate EPA's and the Services' approaches for assessing the effects of pesticide registrations on endangered and threatened species and their critical habitats. Following the 2013 report by the National Academy of Sciences, EPA and the Services agreed upon an approach for the interagency consultation process required by the ESA for pesticide registration actions.

4. In 2014, EPA and the Services reported to Congress on their agreed approach to conduct nationwide ESA consultations on the effects of pesticide registrations. EPA and the Services agreed to complete the first nationwide consultations on malathion, chlorpyrifos, and diazinon. EPA and the Services agreed to provide a draft biological opinion for malathion to the public by May 2017 and to complete consultation by December 2017.

5. Once Scott Pruitt was appointed to head EPA, the Federal government's agreed approach to address the substantive and procedural ESA duties stalled. In April 2017, shortly after

ED_005325D_00000157-00002

Pruitt became EPA Administrator, the manufacturer of pesticide products containing malathion, Dow AgroSciences, contacted EPA and the Service to urge them to halt the nationwide ESA consultation process for malathion, among other pesticides.

6. Malathion is an organophosphate insecticide used as an active ingredient in pesticide products designed to kill insects systemically and on contact. Organophosphates are a class of chemicals that are neurotoxins that inhibit normal brain and muscle function in exposed organisms. Organophosphates are used widely as insecticides and have also been developed as nerve agents used in chemical warfare. Malathion has been found by the World Health Organization's International Agency for Research on Cancer to be "probably carcinogenic to humans." Malathion is currently used on a wide variety of food, feed, and non-food crops across the country.

7. EPA has already determined that registered uses of malathion, as described on pesticide product labels, are likely to adversely affect 1,778 species of amphibians, birds, fish, invertebrates, mammals, plants, and reptiles that are protected under the ESA. This determination, in a Biological Evaluation, initiated the formal consultation process with the Service under the ESA.

8. The Service determined that the registered uses of malathion, as described on pesticide product labels, are likely to jeopardize the continued existence of certain endangered or threatened species in an October 2017 draft Biological Opinion.

9. Yet, Defendants did not move expeditiously to ensure the registered uses of malathion will not drive any species to extinction or adversely modify critical habitat. In November 2017, EPA and the Service agreed to indefinitely extend the time period for completing the consultation on the effects of malathion on threatened and endangered species and their critical habitats. In October 2018, EPA and the Service agreed to delay the consultation to March 2021. Meanwhile, EPA continues to allow the same registered uses of malathion pesticide products and has registered new products containing malathion.

10. This lawsuit challenges the failures of EPA and the Service to complete the required ESA consultation process and to satisfy substantive duties to ensure that registrations of uses of pesticide products containing malathion do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat of

ED_005325D_00000157-00003

these species. 16 U.S.C. § 1536(a)(2). The agencies' delay of completion of the consultation to March 2021 lacks a lawful or rational basis and, therefore, is arbitrary, capricious, or otherwise not in accordance with the ESA, or, in the alternative, is unlawful withholding or unreasonable delay of agency action in violation of and as set for in the APA. Finally, EPA has violated the ESA by making irreversible and irretrievable commitments of resources by maintaining registrations, reregistering, and registering pesticide products containing malathion after initiating consultation because such products are likely to adversely affect ESA-protected species and their critical habitats. 16 U.S.C. § 1536(d). This lawsuit seeks an order declaring that EPA and the Service have violated the law, vacating the registrations of the pesticide products at issue until EPA and the Service comply with the law, ordering dates certain to comply with the law, and other relief.

JURISDICTION AND VENUE

11. This Court has jurisdiction pursuant to 16 U.S.C. § 1540(g) (ESA), 5 U.S.C. § 702 (Administrative Procedure Act), 7 U.S.C. § 136n(a) (Federal Insecticide, Fungicide, and Rodenticide Act), and 28 U.S.C. § 1331 (federal question).

12. This Court has the authority to issue the requested declaratory and injunctive relief pursuant to 16 U.S.C. § 1540(g) (ESA), 5 U.S.C. §§ 701-706 (Administrative Procedure Act), and 28 U.S.C. §§ 2201-02 (declaratory and injunctive relief).

13. Plaintiffs provided Defendants and the Secretary of the U.S. Department of Commerce with written notice of Plaintiffs' intent to file this suit more than sixty days prior to the commencement of this action. This written notice is attached as Exhibit A to this Complaint.

14. Defendants have not remedied their violations of the law in response to Plaintiffs' written notice.

15. EPA did not provide notice, opportunity for public comment, or any form of public hearing for the challenged pesticide product registrations identified below.

16. The requested relief would redress the harm to Plaintiffs and their members caused by the EPA and Service failures to comply with the ESA.

17. Venue lies in this Court pursuant to 28 U.S.C. § 1391(e) as one or more Plaintiffs reside in this judicial district and no real property is involved. In addition, under 16 U.S.C. § 1540(g)(3)(A),

ED_005325D_00000157-00004

this lawsuit may be brought in this judicial district because Defendants' violations of the ESA have occurred in this district: EPA registered the pesticide products at issue in this case for use in this district, as well as across the country.

INTRADISTRICT ASSIGNMENT

18. Pursuant to Civil Local Rules 3-2(c) and 3-2(d), this action is properly assigned to either the San Francisco or Oakland Division of this Court because Plaintiffs reside in and maintain offices in Alameda County.

PARTIES

19. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY is a non-profit corporation with offices in Oakland, Joshua Tree, Los Angeles, and Petaluma, California; Denver, Colorado; Portland, Oregon; Tucson and Flagstaff, Arizona; Seattle, Washington; Minneapolis and Duluth, Minnesota; Washington, D.C; Honolulu, Hawaii; St. Petersburg, Florida; Pomona, New York; Richmond, Vermont; and La Paz, Mexico. The Center for Biological Diversity is actively involved in species and habitat protection issues throughout the United States, including the U.S. territories, as well as outside of the United States and works to secure protections for all species hovering on the brink of extinction. The Center has worked for over twenty five years to secure protections under the Endangered Species Act for wildlife threatened with extinction. The Center for Biological Diversity has approximately 63,000 members that live throughout the United States, including in Oakland and San Francisco.

20. Plaintiff CENTER FOR ENVIRONMENTAL HEALTH is an Oakland, California based non-profit organization that helps protect the public from toxic chemicals and promotes business products and practices that are safe for public health and the environment. The Center for Environmental Health works in pursuit of a world in which all people live, work, learn, and play in healthy environments.

21. Plaintiff, CALIFORNIANS FOR PESTICIDE REFORM is a non-profit, statewide coalition, headquartered in Oakland, California, whose mission is to protect public health, improve environmental quality and support a sustainable and just agricultural system by building a diverse movement across California to change statewide and local pesticide policies and practices. Founded in 1996, CPR is made up of more than 190 member organizations across California, including public

ED_005325D_00000157-00005

health, children's health, educational and environmental advocates, clean air and water organizations, health practitioners, environmental justice groups, labor organizations, farmers, and sustainable agriculture advocates, all interested in shifting the way pesticides are used in California. CPR engages thousands of community members around California through our organizational members.

22. Members of Plaintiffs' organizations regularly work in, reside in, visit, observe, recreate, and otherwise enjoy areas across the nation that may be impacted by the pesticide products containing malathion at issue and intend to continue doing so in the future. Plaintiffs' members regularly derive professional, aesthetic, spiritual, recreational, economic, conservation, educational, and other benefits from the endangered and threatened species that live in these areas, and may be impacted by the pesticide products containing malathion at issue, and intend to continue doing so in the future. The physical and mental health of Plaintiffs' members is also affected by the use of pesticide products containing malathion. The list of species that are likely adversely affected by the pesticide products at issue is included as Appendix C to the written notice of intent to file this suit, attached as Exhibit A. The interests of Plaintiffs' members in the species and areas impacted by pesticides products containing malathion are and will be directly, adversely, and irreparably affected by Defendants' violations of the law. Registration actions of the pesticide products containing malathion at issue without complying with Section 7 of the ESA harms and increases the risks of harm to species intended to be protected by the ESA. Plaintiffs' members will continue to be harmed by Defendants' unlawful actions until and unless this Court provides the relief prayed for in this Complaint.

23. For example, one or more of Plaintiffs' members regularly visit and recreate in the Willamette Valley of Oregon hoping to observe and photograph endangered Fender's blue butterfly (*Icaricia icarioides fenderi*) and intend to continue to do so in the future. They are very concerned about the harm to the Fender's blue butterfly from using insecticides that contain malathion. One or more of the pesticide products containing malathion at issue are registered for use on many of the crops grown in the Willamette Valley, including grapes, berries, tree fruits, nuts, wheat, oats, and hops. EPA has already determined that registration of pesticide products containing malathion is likely to adversely affect the Fender's blue butterfly.

ED_005325D_00000157-00006

24. Plaintiffs' organizations have suffered injuries as a result of Defendants actions and inactions. Actions by the EPA and the Service have frustrated the missions of the organizations to reduce the threat of malathion to the endangered species, the environment, and public health. For example, the mission of the Center for Biological Diversity is species and habitat protection and work to achieve ESA safeguards for those species. Plaintiffs have had to spend resources to counteract the failures of the EPA and the Service to ensure compliance with the ESA regarding pesticide registrations. Plaintiffs Center for Biological Diversity have authored a series of reports detailing how EPA's failure to comply with the ESA regarding pesticides, including malathion, harmed endangered species; submitted comments to government agencies and the public about the need for protecting ESA listed species from pesticides; issued press releases regarding the failure of government agencies to comply with the ESA regarding pesticide registrations; provided expertise to the public regarding techniques to reduce the negative effects of malathion; and tracked agency compliance with the use and registration of malathion in relation to the ESA and endangered species.

25. Defendant ANDREW WHEELER is sued in his official capacity as the Acting Administrator of EPA. Under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), the EPA Administrator is the federal official responsible for the registration of pesticides. The EPA Administrator is also responsible for ensuring that pesticide registration actions comply with the ESA, ultimately to ensure that agency actions do not jeopardize the survival and recovery of species protected by the ESA, or destroy or adversely affect their critical habitat.

26. Defendant ENVIRONMENTAL PROTECTION AGENCY is an agency of the United States Government. EPA is the federal agency responsible for registration of pesticides under FIFRA. EPA is also responsible for ensuring that pesticide registration actions comply with the ESA, ultimately to ensure that agency actions do not jeopardize the survival and recovery of species protected by the ESA, or destroy or adversely affect their critical habitat.

27. Defendant UNITED STATES FISH AND WILDLIFE SERVICE is an agency of the United States Government within the Department of Interior. Under the ESA, the Service is the federal agency responsible for consulting with federal agencies to ensure that agency actions do not jeopardize

ED_005325D_00000157-00007

the survival and recovery of species protected by the ESA, or destroy or adversely affect their critical habitat.

28. Defendant RYAN ZINKE is sued in his official capacity as the Secretary of the Department of Interior. As the Secretary of the Department of Interior Ryan Zinke has responsibility, oversight, and control over all agencies within the Department of Interior, including the United States Fish and Wildlife Service. The Secretary of the Department of Interior has further responsibility to ensure that all federal agencies are achieving their statutory obligations, including under the ESA, and has the ability to delegate authority to implement laws and policies within the agencies of the Department of the Interior.

LEGAL BACKGROUND

I. The Endangered Species Act

29. Congress enacted the ESA, in part, to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved . . . [and] a program for the conservation of such endangered species and threatened species . . . ." 16 U.S.C. § 1531(b). The Supreme Court observed that "[t]he plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost," and that in passing the law, Congress "intended endangered species to be afforded the highest of priorities." *Tenn. Valley Auth. v. Hill*, 437, U.S. 153, 174, 184 (1978).

30. Under Section 7 of the ESA, all federal agencies shall "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species . . . ." 16 U.S.C. § 1536(a)(2). This is a substantive duty.

31. The ESA requires an interagency consultation process to assist federal agencies in complying with their substantive Section 7(a)(2) duty to guard against jeopardy to listed species or destruction or adverse modification of critical habitat. This is a procedural duty. An agency must initiate consultation under Section 7 whenever its action "may affect" a listed species or critical habitat. 50 C.F.R. § 402.14(a). If the proposed action "may affect" and is "likely to adversely affect" listed species or their critical habitat, the federal agency must initiate formal consultation with the Service. 50

ED_005325D_00000157-00008

C.F.R. § 402.14(c). If the action agency determines that an action "may affect," but is "not likely to adversely affect" the listed species or its critical habitat and the Service concurs in writing with that determination, the agency does not have to undergo formal consultation. 50 C.F.R. § 402.13.

32. The "effects of the action" are defined to include the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. 50 C.F.R. § 402.02. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. *Id.*

33. The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. 50 C.F.R. § 402.02.

34. The action area, based on the effects of the action, must aggregate all potential effects of the action. The consultation must be comprehensive and inclusive to ensure the consultation addresses all endangered or threatened species that may be affected by the proposed action. The impact of the proposed action is evaluated in a comprehensive context, thus minimizing the chance that a biological opinion will fail to account adequately for the impact of any related threat to listed species.

35. In fulfilling the consultation process agencies "shall use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). "The obvious purpose of the [best available science requirement] is to ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise." *Bennett v. Spear*, 520 U.S. 154, 176 (1997). Because "the best scientific data available does not mean the best scientific data possible" it also allows decision making in the face of scientific uncertainty to protect the environment. *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 602 (9th Cir. 2014) (internal quotations omitted).

36. Section 7(d) of the ESA, 16 U.S.C. § 1536(d), provides that once a federal agency initiates consultation on an action under the ESA, the agency "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section." The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain

ED_005325D_00000157-00009

in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to the species or adverse modification of its critical habitat.

37. The result of formal consultation is the Service issues a biological opinion.

38. If the Service concludes in its biological opinion that a proposed action is not likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat, but may result in "incidental take" of such species, the Service determines whether to authorize the take of listed species through the issuance of an incidental take statement. 16 U.S.C. § 1536(b)(4). An incidental take statement must: (1) specify the impact of the incidental take on the listed species; (2) specify "reasonable and prudent measures" the agency considers necessary to minimize that impact; and (3) set forth mandatory terms and conditions. *Id.*

39. If the Service concludes in its biological opinion that a proposed action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat, the Service will propose reasonable and prudent alternatives, if any, that would avoid the jeopardy or destruction or adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(h)(3). If the Service concludes in its biological opinion that a proposed action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat, the federal agency authorizing the action must decide how to satisfy its substantive duty to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species . . . ." 16 U.S.C. § 1536(a)(2).

II. The Federal Insecticide, Fungicide, and Rodenticide Act

40. EPA is responsible for the oversight of pesticide registration and use in the United States. Specifically, the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") charges EPA with registration, review, and ongoing oversight of chemicals for use as insecticides, herbicides, fungicides, rodenticides, fumigants, and other pesticides (collectively "pesticides") in the United States. 7 U.S.C. §§ 136-136y.

ED_005325D_00000157-00010

41. Under FIFRA, a pesticide generally may not be sold or used in the United States unless it has an EPA registration for that particular use. 7 U.S.C. § 136a(a). EPA must register pesticide active ingredients and individual pesticide products offered for distribution or sale. 7 U.S.C. § 136a(a); 40 C.F.R. § 152.15.

42. To register a pesticide, EPA must determine, among other things, that the pesticide's uses will not cause "unreasonable adverse effects on the environment." 7 U.S.C. § 136a(c)(5).

43. EPA has the authority to restrict the use of a registered pesticide through conditions on the approved pesticide label or conditions applicable to the registration. 7 U.S.C. §§ 136a(c)(5)-(7), (d); 40 C.F.R. § 152.115(c).

44. EPA has the authority to change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide use. 7 U.S.C. §§ 136d(b), (c); *see also* 40 C.F.R. Part 154 (Special Review Procedures).

45. A FIFRA registration is a license describing the terms and conditions under which the product can be legally distributed, sold, and used.

46. When EPA registers a pesticide product it provides the label to the registrant. In general, the pesticide product can be sold and used without further EPA action.

FACTUAL BACKGROUND

47. On December 12, 2007, EPA, the Service, and NMFS agreed that, for purposes of ESA consultation, the EPA pesticide registration action to consult upon is the "authorization for use or uses described in labeling of a pesticide product containing a particular pesticide ingredient." EPA and the Service frequently state: "The label is the law."

48. EPA and the Service have long had difficulty in implementing the ESA's consultation requirements when registering pesticides under FIFRA. In order to address this deficiency, in 2011, EPA and the Departments of the Interior, Commerce and Agriculture requested that the National Academy of Sciences convene a committee of independent experts to examine topics pertaining to tools and approaches for assessing the effects of proposed FIFRA pesticide registration actions on endangered and threatened species and their critical habitats.

ED_005325D_00000157-00011

49. In 2013, the National Academy of Sciences issued a report ("2013 Academy of Sciences Report") detailing the best approaches to be taken by federal agencies in assessing the risk of pesticides under the ESA. Specifically, the report recommended that the agencies should improve communication and use a common approach to risk assessment that addresses problem formulation, exposure analysis, effects analysis, and risk characterization.

50. Following the 2013 Academy of Sciences Report, EPA, the Service, and NMFS held five interagency workshops between August 2013 and September 2016 to develop the technical analyses included in the Biological Evaluations. During these workshops, EPA and the Service reached agreement on information required in the Biological Evaluation to support development of the Biological Opinion. During one or more workshops, the types of available pesticide usage data were presented and discussed.

51. The EPA, the Service, and NMFS also held five outside stakeholder workshops and at least two conference calls with stakeholder workshop participants between November 2013 and June 2016. Stakeholder workshop discussions included a forum for stakeholders to present scientific and technical feedback on the 2013 Academy of Sciences Report, interim approaches, evaluation of geospatial information on species and crop location, refinements to reduce the number of species affected, the description of the Federal action consulted upon, and mapping pesticide use patterns.

52. EPA, the Service, and NMFS also gave numerous technical presentations at meetings and conferences of Intervenor CropLife America, the American Chemical Society, and the Society of Environmental Toxicology and Chemistry between 2014 and 2016. One presentation concerned the use of California Pesticide Use Report data in a national-scale assessment.

53. In 2014, EPA, the Service, and NMFS represented to Congress that they intended to address ESA obligations for pesticide registrations "by conducting nationwide scale effects determinations" and that the agencies worked with litigants "to align lawsuits so that the agencies could focus on national level consultations on all ESA-listed species rather than focus on single species, or a small subset of species in smaller geographical areas." EPA and the Services agreed to complete the first nationwide consultations on pesticide products containing malathion, chlorpyrifos, and diazinon.

ED_005325D_00000157-00012

54. In 2014, EPA began to prepare its Biological Evaluation ("BE") to determine the effects of approximately 96 actively–registered pesticide products containing malathion.

55. On April 11, 2016, EPA provided notice that its draft BE for the registration review of all uses of malathion was available for public comment until June 10, 2016. 81 Fed. Reg. 21341 (Apr. 11, 2016).

56. The action area is defined by identifying pesticide use areas *(i.e.,* the pesticide use footprint) based on currently registered labeled uses *(i.e.,* the proposed action). In the BE EPA defined the action area as "the actual and *potential* use of the pesticide and areas where that use could result in effects" (emphasis added). In addition, the action area includes a footprint that extends beyond the use sites to incorporate off-site transport including pesticide spray drift and runoff.

57. In its April 2016 public notice of availability of the draft BE of all uses of malathion, EPA stated: 1) the interim scientific methods used in these draft biological evaluations were developed collaboratively with the Services and as recommended by the April 2013 Academy of Sciences report; and 2) "[a]s part of this effort, the U.S. Department of Agriculture has provided expertise on crop production and pesticide uses and assistance with the use of the National Agricultural Statistics Service Cropland Data Layer to help define the footprint of agricultural use patterns;" and 3) the final Biological Evaluation "will be refined based on the public comments received on the draft biological evaluations as well as input from an ESA stakeholder workshop planned for the summer of 2016." 81 Fed. Reg. 21342.

58. In a September 2016 interagency workshop, agencies, including EPA and the Service, discussed the types of available pesticide usage data and agreed to work together to determine the most appropriate use of these data in the Step 3 analyses. "Step 3" is the Service's determinations of jeopardy or no jeopardy to species and adverse modification or no adverse modification to designated critical habitat contained in the Service's Biological Opinion. If the Service determines the action consulted on is likely to cause jeopardy, it proposes Reasonable and Prudent Alternatives ("RPAs").

59. As a result of interagency workshops, EPA and the Service reached agreement on geospatial data to define pesticide use areas for agricultural and non-agricultural use patterns.

ED_005325D_00000157-00013

60. On January 17, 2018, EPA responded to public comments that the analysis should consider actual usage data, rather than authorized uses as described on product labels, by stating that "[t]he Agencies are exploring ways of incorporating usage data into the Step 3 process as part of the RPA [Reasonable and Prudent Alternative] and RPM [Reasonable and Prudent Measures] discussion."

61. On January 18, 2017, EPA transmitted the BE to the Services to initiate the formal consultation process under Section 7(a)(2) of the ESA for species and critical habitat within each of the Services' respective jurisdictions. EPA determined that registered uses of malathion as authorized on pesticide labels are *likely to adversely affect* 1,778 of the total species analyzed (97% of species) and 784 of the total critical habitats analyzed (98% of critical habitat). Estimated actual use of pesticide products containing malathion was included in EPA's draft and final Biological Evaluations.

62. EPA and the Services had agreed to complete the biological opinions on the nationwide consultations on the adverse effects of registered uses of pesticide products containing malathion, chlorpyrifos, and diazinon by December 2017. EPA and the Services further agreed to provide the draft biological opinions on malathion, chlorpyrifos, and diazinon to the public in May 2017 and to provide a 60-day period to comment on those draft biological opinions.

63. In April 2017, Dow AgroSciences, CropLife, and others requested that EPA withdraw the biological evaluations for malathion, chlorpyrifos, and diazinon and requested that the Services stop work on their biological opinions for these three pesticides.

64. The Service did not provide a draft biological opinion on the effects of pesticide products containing malathion, chlorpyrifos, or diazinon to the public in May 2017, nor has it done so as of the date of the filing of this Second Amended and Supplemental Complaint. Upon information and belief, the Service was prepared to provide a draft biological opinion on the effects of pesticide products containing malathion, chlorpyrifos, or diazinon to the public in June 2017. EPA did not provide a draft biological opinion on the effects of pesticide products containing malathion, chlorpyrifos, or diazinon to the public in May 2017, nor has it done so as of the date of the filing of this Supplemental and Amended Complaint.

65. As of October 17, 2017, or earlier, the Service had completed a draft Biological Opinion on the effects of malathion as authorized for registered uses of malathion, as described on pesticide

ED_005325D_00000157-00014

product labels (October 2017 draft Biological Opinion). The Service planned to transmit the Biological Opinion to EPA in mid- to late-October 2017. The Service expected EPA to provide public notice that the draft Biological Opinion was available for a 60-day public comment period.

66. In the October 2017 draft Biological Opinion, the Service determined that the use of malathion authorized by EPA, as defined by pesticide labels, is likely to jeopardize the continued existence of certain endangered or threatened species. The Service determined that the authorized uses of malathion may cause direct effects of mortality and sublethal direct effects to listed species. The Service determined that the authorized use of malathion for mosquito adulticide is likely to cause direct effects of high mortality to invertebrates over 100% of their range due to lack of label restrictions. For other taxa, direct effects were more limited, but the Service expected indirect effects. The Service determined that authorized uses of malathion could result in indirect effects to species that consume invertebrates (insectivorous species). The Service determined endangered or threatened plants would experience indirect effects due to loss of pollinators. The majority of endangered and threatened plants are pollinated by insects.

67. The October 2017 draft Biological Opinion included Reasonable and Prudent Alternatives ("RPAs") that would avoid jeopardy to species and destruction or adverse modification of critical habitat through reasonable modifications to how and where the three pesticides are used. The RPAs in the October 2017 draft Biological Opinion include revising malathion pesticide label language: to restrict pesticide usage in localized areas where certain listed species occur; to eliminate areas where pesticides are not anticipated to be used; to establish or increase buffers to reduce spray drift into areas where listed species may occur; and to improve required pesticide application equipment.

68. The Service anticipated working with Registrants and EPA between the draft and final Biological Opinion to address changes to some of the labels. The Service expected such efforts to result in refinements to the description of the proposed action and would likely address the overlap concerns for many of the listed species. In the absence of such changes to the description of the action, the Service must consult on the broad language of the labels as they are currently written.

ED_005325D_00000157-00015

69. The Service provided a briefing on its October 2017 draft Biological Opinion to Deputy Secretary of the Interior David Bernhardt in October 2017.

70. On November 14, 2017, the Service sought an indefinite extension of the consultation period for pesticide products containing malathion (and chlorpyrifos and diazinon). The stated reason for the indefinite extension is the Service's request for a "revised effects analysis" that reflects "actual use" of the pesticide products, including extrapolation where data does not exist or cannot be obtained, predictions of effects from future usage, and elimination of geographic areas where use of the pesticide products is not likely.

71. On November 17, 2017, EPA consented to the Service's request for an indefinite extension of time. EPA refused to provide a revised Biological Evaluation with a revised effects analysis. Instead, EPA treated the Service's request as a request for additional information and indicated it would take EPA about six months to extract use information from product labels and develop usage statistics.

72. On December 17, 2017, the Service clarified to EPA that the Service "will consider any additional information on use or usage that serves to inform the description of the action area or the effects analysis to supplement" the final Biological Evaluations.

73. The Service did not complete the biological opinion on the nationwide consultation on the adverse effects of registered uses of pesticide products containing malathion (or chlorpyrifos or diazinon) by December 2017. As of the date of this Amended Complaint, EPA and the Service have not completed consultation concerning registration of pesticide products containing malathion (or chlorpyrifos or diazinon).

74. NMFS transmitted its completed final biological opinion to EPA on December 29, 2017. NMFS analyzed 77 listed species and 50 critical habitats within its jurisdiction and concluded that EPA's authorization of uses of pesticide products containing malathion is likely to jeopardize the existence of 38 listed species and adversely modify 37 critical habitats.

75. On January 31, 2018, Administrator Pruitt and Secretaries Zinke and Ross entered a Memorandum of Agreement that establishes an interagency working group that appears to scrap years

ED_005325D_00000157-00016

of previous discussions, analyses, decisions, and commitments concerning compliance with the ESA for pesticide registration actions.

76. On March 28, 2018, EPA summarized all available estimates of pesticide usage data for malathion, nationally and by state, to "inform assumptions about how malathion is used in the United States" at the state-level. EPA determined that "usage data at smaller levels may not be statistically valid due to reduced sample size" and that the presented data may underestimate the maximum yearly usage. From 2011 to 2015, EPA estimates 1 million pounds of malathion were used on agricultural crops on average each year and 1.7 million pounds was used annually on non-agricultural sites, primarily for mosquito control.

77. On October 15, 2018, the Service requested that EPA consent to an extension of the consultation period for malathion to April 2020 for a draft biological opinion and to March 2021 for a final biological opinion. The Service stated "additional time is required to review the available use and usage data, assess whether it can be further refined at a more granular scale, and incorporate such data in our effects analysis." The Service stated the data efforts will more accurately reflect "those effects that are reasonably certain to occur to ESA-listed species and critical habitat as a result of re-registering malathion."

78. On October 17, 2018, EPA consented to the extension to March, 2021 for a final biological opinion on the effects of EPA's authorized uses of malathion.

79. On October 23, 2018, FMC Corporation consented to the extension to March, 2021 for a final biological opinion on malathion. On or about October 25, 2018, Loveland Products, Inc. consented to the extension to March, 2021 for a final biological opinion on malathion. On or about October 26, 2018, Drexel Chemical Company consented to the extension to March, 2021 for a final biological opinion on malathion.

80. On October 26, 2018, through counsel, Defendants informed Plaintiffs that the consultation had been extended to March 2021.

81. On October 30, 2018, EPA and the Service moved to dismiss the First Amended Complaint, ECF No. 18 (filed July 25, 2018), claiming that "legal concerns were raised" that the

ED_005325D_00000157-00017

Service must analyze data on actual use of malathion-containing products at a refined spatial scale, to analyze the indirect effects that are "reasonably certain to occur" to listed species."

82. EPA must register and authorize pesticides before they can be used. EPA has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, malathion could not be used and could not negatively impact the listed species named in the written notice of intent to bring this suit, attached as Exhibit A.

83. Since initiating consultation in January 2017, EPA has maintained registrations, reregistered and registered pesticide products containing malathion. Upon information and belief, EPA has not changed, cancelled, restricted, or suspended any of the registrations of pesticide products containing malathion for purposes of mitigating the likely adverse effects on endangered and threatened species and their critical habitats.

84. EPA registered or reregistered the following products containing malathion in Table 1 below:

Table 1: Malathion Product Registrations Product Name	Date	EPA Reg. Number	Action
DREXEL MALATHION ULV INSECTICIDE	3/9/2014	19713-288	Reregistration
DREXEL MALATHION 50% EMULSIFIABLE	9/19/2014	19713-330	Reregistration
MALATHION 96.5%	3/19/2014	19713-402	Reregistration
DREXEL MALATHION ULV 96.5%	3/19/2014	19713-540	Reregistration
FYFANON ULV	11/22/2016	279-3539	Reregistration
FYFANON ULV AG INSECTICIDE	7/30/2012	279-3540	Reregistration
CHEMINOVA MALATHION 57% LOW VOC	2/21/2013	279-3587	Registration
Malathion 851 g/L + Gamma-Cyhalothrin 12.8 g/L EC	2/23/2015	279-3598	Registration
Fyfanon EW Insecticide	7/6/2017	279-3622	Registration
UNICORN MALATHION SPRAY 1	10/23/2012	28293-123	Reregistration
MALATHION 50% SPRAY	9/13/2012	33955-394	Reregistration

ED_005325D_00000157-00018

MALATHION 50% EC	9/20/2012	4-99	Reregistration
BONIDE A COMPLETE FRUIT TREE SPRAY	10/2/2012	4-122	Reregistration
BONIDE MALATHION INSECT SPRAY	10/23/2012	4-412	Reregistration
FYFANON TECHNICAL	3/14/2017	4787-5	Reregistration
FYAFANON MALATHION INSECTICIDE	8/29/2012	5905-196	Reregistration
FYFANON 8 LB. EMULSION	6/6/2012	5905-250	Reregistration
MALATHION 5 EC	9/27/2012	66330-220	Reregistration
SA-50 MALATHION 50% E.C.	1/25/2013	829-282	Reregistration
PRENTOX 5 LB. MALATHION SPRAY	2/10/2017	89459-36	Reregistration
MALATHION 5	9/20/2012	9779-5	Reregistration

85. Pesticide registration actions trigger EPA's duties under Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2).

86. Each of the product registration actions in paragraph 84, Table 1: Malathion Product Registrations (Table 1), authorizes the use of that pesticide product in accordance with its approved label. EPA approves the pesticide label as a part of the registration.

87. The product registration actions in Table 1, variously, authorize the use of the products on mosquito control and a wide variety of agricultural food and feed crops, including (but not limited to) berries, beans, peas, peaches, wheat, barley, oats, rice, corn, squash, cucumbers, tomatoes, broccoli, cabbage, potatoes, pastures, and alfalfa. In addition, EPA's product registrations and reregistrations in paragraph 84 authorize the use of products on cotton, ornamental plants and trees, non-crop areas, wasteland, and roadsides, among other uses. These pesticide products can be used wherever these crops are grown or where roadsides and wastelands exist.

88. The pesticide products in Table 1 can be sold and used without further EPA action.

89. The EPA has detailed the likely adverse effects of its registration review of the pesticide products containing malathion in its January 2017 Biological Evaluation, determining that approximately 1,771 species within the Service's jurisdiction are likely adversely affected and 734 designated critical habitats within the Service's jurisdiction are likely adversely affected. *See* Exhibit A, Appendix C.

ED_005325D_00000157-00019

FIRST CLAIM FOR RELIEF

EPA and the Service Violations of the Endangered Species Act, 16 U.S.C. § 1536(a)(2)

90. All allegations set forth above in this Complaint are incorporated herein by reference.

91. EPA initiated the consultation process with the Service regarding registration review of pesticide products containing malathion, including the pesticide products listed in paragraph 84, in January 2017 when it submitted its Biological Evaluation determining that continued registrations of products containing malathion are likely to adversely affect numerous species and their critical habitats protected under the ESA.

92. EPA retains discretionary involvement and control over malathion, and this discretion can be used for the benefit of ESA protected species and their critical habitats.

93. EPA's initiation of consultation on its registration review of pesticide products containing malathion does not satisfy EPA's procedural and substantive Section 7(a)(2) duties to ensure that its past registrations and reregistrations of pesticide products containing malathion, do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

94. To the extent that EPA's initiation of consultation on its registration review of pesticide products containing malathion is considered initiation of consultation on EPA's past registration and reregistration actions, EPA has not satisfied its substantive Section 7(a)(2) duties and EPA and the Service have not satisfied their procedural duties to ensure "in consultation with and with the assistance of" the Service, that EPA's registrations and reregistrations of pesticide products containing malathion do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

95. EPA is violating and will continue to violate its procedural and substantive Section 7(a)(2) duties and, to the extent EPA initiated consultation on past registration actions by initiating consultation on registration review, EPA and the Service are violating and will continue to violate procedural Section 7(a)(2) duties until such time that EPA and the Service: a) complete consultation on registrations and reregistration or registration review of pesticide products containing malathion, including those listed in paragraph 84; b) implement any actions, as necessary, as a result of completion

ED_005325D_00000157-00020

of the consultation to avoid jeopardy to species or to avoid destruction or adverse modification of critical habitat; and c) implement any actions, as necessary, as a result of completion of the consultation to avoid unlawful take of species.

96. EPA's failures to complete the actions listed in paragraph 95 constitute violations of the ESA and its implementing regulations, and are arbitrary, capricious, or otherwise not in accordance with law as set forth in the APA. 16 U.S.C. § 1536(a)(2); 5 U.S.C. § 706.

SECOND CLAIM FOR RELIEF

EPA and the Service Agreement to Extend Consultation to March 2021 is Arbitrary, Capricious or Otherwise Not in Accordance with the Endangered Species Act

97. All allegations set forth above in this Complaint are incorporated herein by reference.

98. EPA's and the Service's extension of the consultation period to March 2021 without a lawful or rational basis or explanation of why actual use data, or extrapolations or predictions of actual use, are now necessary to complete consultation constitutes violations of the ESA and its implementing regulations, and is arbitrary, capricious, or otherwise not in accordance with law as set forth in the APA. 16 U.S.C. § 1536(a)(2); 16 U.S.C. § 1536(b)(1); 50 C.F.R. §§ 402.14(e), (f); 5 U.S.C. § 706.

99. As early as 2007, EPA and the Service agreed that, for purposes of ESA consultation, the EPA pesticide registration action to consult upon is the "authorization for use or uses described in labeling of a pesticide product containing a particular pesticide ingredient."

100. In the October 2017 draft Biological Opinion, the Service determined that the use of malathion authorized by EPA, as defined by pesticide labels, is likely to jeopardize the continued existence of certain endangered or threatened species. The Service determined there are direct effects to species, in particular invertebrates. The Service determined there would be indirect effects to insectivorous species and plants that rely on insects for pollination.

101. The malathion pesticide products, as EPA authorized for use as defined on the labels, continue to be sold and used in the United States.

102. The extension of the consultation period for more than three years after the Service determined in the October 2017 draft Biological Opinion that the authorized and ongoing use of malathion is likely to jeopardize certain species is arbitrary, capricious or otherwise not in accordance

ED_005325D_00000157-00021

with the ESA mandates that federal agencies apply institutionalized caution to conserve endangered and threatened species and that the Service develop Reasonable and Prudent Alternatives to avoid jeopardy.

103. EPA and the Service have been discussing the technical analyses for the consultation since at least 2014 through interagency workshops, stakeholder workshops, and frequent interagency conference calls. EPA and the Service specifically discussed the utility of usage data and determined it could be useful to implement Reasonable and Prudent Alternatives. In other words, where the authorized use, as defined on the labels, is likely to jeopardized endangered or threatened species, modification of the labels to restrict or eliminate the use, could avoid jeopardy.

104. As early as 2016, EPA and the Service agreed the action area is defined by identifying pesticide use areas *(i.e.,* the pesticide use footprint) based on currently registered labeled uses *(i.e.,* the proposed action), including areas affected by off-site transport through pesticide spray drift and runoff. EPA has defined the action area as "the actual and potential use of the pesticide and areas where that use could result in effects".

105. Now that the Service has determined that the authorized uses of malathion, as defined by the pesticide labels, are likely to cause jeopardy to endangered or threatened species, the Service, with EPA's agreement, has sought several more years to attempt to refine data and revise its Biological Opinion.

106. The Service is unlawfully manipulating the consultation process to avoid its duty to complete a Biological Opinion that includes Reasonable and Prudent Alternatives to avoid jeopardy to species from the proposed action.

107. After years of interagency discussions and agreement on what constitutes the proposed action, what constitutes direct and indirect effects, and what constitutes the action area, the Service and EPA have failed to explain their change in positions on these issues, rendering the extension of the consultation period to March 2021 arbitrary, capricious, or otherwise not in accordance with the ESA mandates that federal agencies apply institutionalized caution to conserve endangered and threatened species and that the Service develop Reasonable and Prudent Alternatives to avoid jeopardy. The extension of the consultation period to March 2021, based on a stated need for time to "review the available use and usage data, assess whether it can be further refined at a more granular scale, and

ED_005325D_00000157-00022

incorporate such data in our effects analysis", is arbitrary, capricious, or otherwise not in accordance with the Endangered Species Act.

108. For these reasons, individually and collectively, the Court should set aside the extension of the consultation period in accordance with the APA, 5 U.S.C. § 706(2), and provide further relief as set forth below.

109. In the alternative, for these same reasons, EPA's and the Service's extension of the consultation period to March 2021 and failure to complete consultation on EPA's registration of the uses, as described by product labels, of pesticide products containing malathion without a lawful or rational explanation why actual use data, or extrapolations or predictions of actual use, are now necessary to complete consultation, knowing that current authorized uses of pesticides containing malathion are likely to jeopardize the continued existence of endangered or threatened species, constitutes unlawful withholding or unreasonable delay of agency action in violation of and as set for in the APA. 5 U.S.C. § 555(b); 5 U.S.C. § 706(1).

THIRD CLAIM FOR RELIEF

EPA Violation of the Endangered Species Act, 16 U.S.C. § 1536(d)

110. All allegations set forth above in this Complaint are incorporated herein by reference.

111. EPA initiated consultation with the Services regarding registration review of pesticide products containing malathion in January 2017 when it submitted its Biological Evaluation determining that registrations of products containing malathion are likely to adversely affect numerous species and their critical habitats protected under the ESA.

112. Despite initiation of consultation and its own determinations that registrations of pesticide products containing malathion are likely to adversely affect numerous species and their critical habitats, EPA maintained the registrations of these same pesticide products and continued to reregister and register pesticide products containing malathion.

113. EPA's maintenance of registrations, reregistrations, and registrations of pesticide products containing malathion after initiation of consultation is an irreversible and irretrievable commitment of resources that has the effect of foreclosing the implementation of reasonable and prudent alternative measures that would ensure the agencies meet their substantive duties under Section

ED_005325D_00000157-00023

7(a)(2) of the ESA. This constitutes a violation of the ESA and its implementing regulations, and is arbitrary, capricious, and otherwise not in accordance with law as set forth in the APA. 16 U.S.C. § 1536(a)(2); 16 U.S.C. § 1536(d); 5 U.S.C. § 706.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court enter judgment providing the following relief:

1. Declare that EPA is violating substantive and procedural duties in Section 7(a)(2) of the ESA and the Service is violating procedural duties in Section 7(a)(2) of the ESA by failing to complete consultation on registrations of pesticide products containing malathion, including those listed in paragraph 84, and, further, that EPA is violating its substantive and procedural duties in Section 7(a)(2) of the ESA by failing to implement any actions, as necessary, to avoid jeopardy to species or to avoid destruction or adverse modification of critical habitat and by failing to implement any actions, as necessary, to avoid unlawful take of species;

2. Declare that EPA's and the Service's extension of the consultation on the registration of pesticide products containing malathion to March 2021 is not based on a lawful or rational explanation, and, therefore, violates the ESA and its implementing regulations, and is arbitrary, capricious, or otherwise not in accordance with law, or, in the alternative, that EPA and the Service are unlawfully withholding or unreasonable delaying agency action;

3. Declare that EPA is violating Section 7(d) of the ESA by maintaining registrations, reregistering, and registering pesticide products containing malathion after initiating consultation;

4. Order the dates certain by which: a) EPA and the Service shall complete consultation on registrations of pesticide products containing malathion, including those listed in paragraph 84; b) EPA shall implement any actions, as necessary, as a result of completion of the consultation to avoid jeopardy to species or to avoid destruction or adverse modification of critical habitat; and c) EPA shall implement any actions, as necessary, as a result of completion of the consultation to avoid unlawful take of species;

5. Vacate EPA's registrations or reregistrations of pesticide products containing malathion, or order other interim mitigation measures to ensure the protection of endangered and threatened

ED_005325D_00000157-00024

species and their critical habitat, until EPA and the Service complete consultation and EPA implements any necessary alternatives or measures to comply with the substantive duties in Section 7 of the ESA;

6. Award Plaintiffs their costs and reasonable attorneys' fees; and

7. Grant Plaintiffs such additional and further relief as the Court may deem just and appropriate.

Respectfully submitted this 27th day of November 2018,

/s/ Stephanie Parent
Stephanie M. Parent (OR Bar No. 925908)
Center for Biological Diversity
PO Box 11374
Portland, OR 97211-0374
(971) 717-6404
sparent@biologicaldiversity.org

Jonathan Evans (Cal Bar No. 247376)
Center for Biological Diversity
1212 Broadway Street, Suite 800
Oakland, CA 94612
(510) 844-7100 ext. 318
jevans@biologicaldiversity.org

ED_005325D_00000157-00025

Exhibit A

March 20, 2018

Sent via Email and Certified Mail Return Receipt Requested

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1101A
Washington, DC 20460
Pruitt.scott@Epa.gov

Ryan Zinke, Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240
exsec@ios.doi.gov

Greg Sheehan, Acting Director
U.S. Fish and Wildlife Service
1849 C Street, NW
Washington, DC 20240
Jim_Kurth@fws.gov

Wilbur L. Ross, Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, DC 20230
WLRoss@doc.gov

Chris Oliver, Assistant Administrator
NOAA Fisheries
1315 East-West Highway
Silver Spring, MD 20910
Chris.W.Oliver@noaa.gov

Re: Notice of Intent to Sue for Violations of the Endangered Species Act Concerning Registration of Pesticide Products Containing Malathion

Dear Administrator Pruitt and Secretary Zinke:

On behalf of the Center for Biological Diversity, Center for Environmental Health, and Californians for Pesticide Reform (collectively, "Center"), this letter provides notice of intent to sue the U.S. Environmental Protection Agency ("EPA") and the U.S. Fish and Wildlife Service ("FWS") for violations of Sections 7 and 9 of the Endangered Species Act ("ESA"), 16 U.S.C § 1536, 1538 and the ESA Interagency Cooperation Regulations, 50 C.F.R. Part 402. This notice is provided pursuant to Section 11(g) of the ESA, 16 U.S.C. § 1540(g).

Specifically, EPA is in violation of ESA Section 7(a)(2), 16 U.S.C. § 1536(a)(2), Section 7(d), 16 U.S.C. § 1536(d), and Section 9, 16 U.S.C. § 1538. EPA and FWS are both in violation of Section 7(b)(1), 16 U.S.C. § 1536(b)(1) and their conservation duties imposed by ESA Section 7(a)(1), 16 U.S.C. § 1536(a)(1).

Center for Biological Diversity ("Center") is a national, non-profit, conservation organization with more than 1.5 million members and online activists dedicated to protecting diverse native species and habitats through science, policy, education, and law. Center members and staff actively are working to identify rusty patched bumblebees and are working to protect their habitat from pesticides and habitat destruction.

Center for Environmental Health is an Oakland, California based non-profit organization that helps protect the public from toxic chemicals and promotes business products and practices that are safe for public health and the environment. The Center for Environmental Health works in pursuit of a world in which all people live, work, learn, and play in healthy environments.

Californians for Pesticide Reform is a non-profit, statewide coalition, headquartered in Oakland, California, whose mission is to protect public health, improve environmental quality and support a sustainable and just agricultural system by building a diverse movement across California to change statewide and local pesticide policies and practices. Founded in 1996, CPR is made up of more than 190 member organizations across California, including public health, children's health, educational and environmental advocates; clean air and water organizations; health practitioners; environmental justice groups; labor organizations; farmers; and sustainable agriculture advocates; all interested in shifting the way pesticides are used in California. CPR engages thousands of community members around California through our organizational members.

FACTS

EPA has authorized the distribution, sale, and use of pesticide products containing malathion by registering or reregistering them pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"). EPA registers pesticide products for certain uses. EPA registered pesticide products containing malathion to allow their use on a wide variety of agricultural food and feed crops, including (but not limited to) berries, beans, peas, peaches, wheat, barley, oats, rice, corn, squash, cucumbers, tomatoes, broccoli, cabbage, potatoes, pastures, and alfalfa. In addition, EPA's authorizations allow the use of products containing malathion on cotton, ornamental plants and trees, non-crop areas, wasteland, and roadsides, among other uses. EPA's authorizations of the use of pesticide products containing malathion are not geographically limited. In other words, these pesticide products can be used wherever these and other crops are grown or the roadsides and wastelands exist.

EPA is aware that products containing malathion have the potential to harm numerous listed endangered and threatened species. In 2006, EPA concluded that the use of malathion "could potentially harm all taxa of threatened and endangered animals."[1]

---

[1] *See* U.S. Envt'l Prot. Agency, *Biological Evaluation for Malathion ESA Assessment* ch. 1, app. 1-1, at B1 (PF) - 1 (2016) [hereinafter "BE"] (referencing U.S. Envt'l Prot. Agency, EPA 738-R-06-030, *Reregistration Eligibility Decision (RED) for Malathion* 59–60 (2006) [hereinafter "Malathion RED"],

In 2014, EPA, FWS, and the National Marine Fisheries Service ("NMFS") represented to Congress that EPA intended to address its ESA obligations for pesticide registrations "by conducting nationwide scale effects determinations" and that it worked with litigants "to align lawsuits so that the agencies could focus on national level consultations on all ESA-listed species rather than focus on single species, or a small subset of species in smaller geographical areas."[2] The agencies agreed to complete nationwide consultations on the adverse effects of chlorpyrifos, diazinon, and malathion by December 2017.[3]

In 2014, EPA began to prepare its Biological Evaluation ("BE") to determine the effects of approximately 96 actively–registered pesticide products containing malathion.[4] EPA determined that malathion is *likely to adversely affect* 1,778 of the total species analyzed (97%)[5] and 784 of the total critical habitats analyzed (98%).[6] In January, 2017, EPA transmitted the BE to FWS and NMFS to initiate formal consultation under Section 7(a)(2) of the ESA for species and critical habitat within each of the Services' respective jurisdictions.

On December 29, 2017, NMFS transmitted its completed final biological opinion ("NMFS BiOp") to EPA.[7] NMFS analyzed 77 listed species and 50 critical habitats within its jurisdiction and concluded that EPA's authorization of uses of pesticide products containing malathion is likely to jeopardize the existence of 38 listed species and adversely modify 37 critical habitats.[8] The NMFS BiOp included Reasonable and Prudent Alternatives ("RPAs") to avoid jeopardy and adverse

---

available at https://archive.epa.gov/pesticides/reregistration/web/pdf/malathion-red-revised.pdf), https://www.epa.gov/endangered-species/biological-evaluation-chapters-malathion-esa-assessment.

[2] U.S. Envt'l Prot. Agency et al., *Interim Report to Congress on Endangered Species Act Implementation in Pesticide Evaluation Programs* 2, 21 (2014) [hereafter "*Interim Report*"], *available at* https://www.epa.gov/sites/production/files/2015-07/documents/esareporttocongress.pdf.

[3] *Id.* at 11–12; *see also* Order Granting Stipulation Amending Settlement 2-3, *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, No. 3:11-cv-05108-JSW (N.D. Cal. Feb. 14, 2014), ECF No. 87 (revising settlement to allow nationwide consultations).

[4] *See generally* BE ch. 1, app. 1-2 (List of Current Malathion Registrations).

[5] EPA determined that, of the total species analyzed, malathion is *likely to adversely affect* 39 species of amphibians, 219 species of aquatic invertebrates, 98 species of birds, 188 species of fish, 87 species of mammals, 959 species of plants, 48 species of reptiles, and 147 species of terrestrial invertebrates. *Executive Summary* to BE, at iv.

[6] EPA determined that, of the total critical habitats analyzed, malathion is *likely to adversely affect* the critical habitats of 25 species of amphibians, 75 species of aquatic invertebrates, 31 species of birds, 106 species of fish, 27 species of mammals, 459 species of plants, 17 species of reptiles, and 44 species of terrestrial invertebrates. *Executive Summary* to BE, at iv.

[7] *See generally* Nat'l Marine Fisheries Serv., *Biological Opinion on the Environmental Protection Agency's Reregistration of Pesticides containing Chlorpyrifos, Diazinon, and Malathion* (2017) [hereinafter "NMFS BiOp"], *available at* https://repository.library.noaa.gov/view/noaa/16997.

[8] *Executive Summary* to NMFS BiOp, at i.

modification of critical habitat.[9] EPA has not taken any action to implement the RPAs. Reportedly, Administrator Pruitt is pushing the agencies to revisit the biological opinion. On January 31, 2018, Administrator Pruitt and Secretaries Zinke and Ross entered a Memorandum of Agreement that establishes an interagency working group that appears to scrap decades of discussions and analyses and starts over by purporting to analyze ESA and FIFRA statutes and regulations that have existed for years.

FWS did not transmit its biological opinion to EPA by the end of 2017. Instead, in mid-November, FWS and EPA agreed to an indefinite extension of the consultation period.[10] The stated reason for the indefinite extension is FWS's request for a "revised effects analysis" that reflects "actual use" of the pesticide products, including extrapolation where data does not exist or cannot be obtained, predictions of effects from future usage, and elimination of geographic areas where use of the pesticide products is not likely, even though EPA has authorized the use there.[11] Despite the fact that EPA determined malathion products are likely to adversely affect hundreds of endangered and threatened species or their critical habitat, EPA and FWS have not completed consultation for pesticide products containing malathion nor taken other steps to mitigate the impacts on ESA–listed species.

ESA VIOLATIONS

1. EPA is in violation of Section 7(a)(2).

EPA's pesticide product registration actions trigger EPA's duty to comply with Section 7 of the Endangered Species Act ("ESA"). 16 U.S.C. § 1536(a)(2); *Ctr. for Biological Diversity v. EPA*, 847 F.3d 1075, 1091-93 (9th Cir. 2017). Appendix A to this letter is a list of 23 recent EPA actions registering or reregistering pesticide products contain malathion that triggered EPA's Section 7 duties. EPA retains discretionary authority and control over these pesticide product registrations. EPA has failed to comply with the substantive and procedural requirements of Section 7 of the ESA.

Section 7(a)(2) of the ESA mandates that "[e]ach federal agency *shall…insure* that any action authorized, funded, or carried out by such agency…is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2) (emphasis added). The substantive duty to "insure" against jeopardy is a "rigorous" one. *Sierra Club v. Marsh*, 816 F.2d 1376, 1385 (9th Cir. 1987) *abrogated on other grounds*. "To 'insure' something…means to make certain, to secure, to guarantee (some thing, event, etc.)." *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 666–67 (2007) (internal quotations omitted). To assist the agencies in complying with their substantive duty, Section 7(a)(2) imposes a separate, procedural duty to consult with the expert wildlife agencies, either FWS or NMFS.

---

[9] *See* NMFS BiOp ch. 26 at 26-2 to -24.
[10] *Nw. Ctr. for Alternatives to Pesticides*, No. 07-cv-1791-RSL, at Exhibits (Nov. 24, 2017), ECF No. 55-2 (Nov. 14, 2017 letter from FWS to EPA) and ECF No. 55-3 (Nov. 17, 2017 letter from EPA to FWS).
[11] *Id.* at ECF No. 55-2.

EPA initiated consultation in January 2017 when it submitted it's BE on the effects of the pesticide products containing malathion to FWS and NMFS. However, initiation of consultation does not satisfy EPA's section 7 duties. *Salmon Spawning & Recovery All. v. Gutierrez*, 545 F.3d 1220, 1227 (9th Cir. 2008) (substantive duty "is separate from an agency's responsibility to comply with the procedures required by § 7," such that "even if an action agency has satisfied the ESA's consultation requirements, a court may conclude that the agency has not complied with its substantive duty to avoid jeopardy" (citing *Defs. of Wildlife v. EPA*, 420 F.3d 946, 957 (9th Cir. 2005), *overruled on other grounds by Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644 (2007)).

EPA is violating its Section 7(a)(2) duty to insure that its registrations of pesticide products containing malathion are not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat and ESA implementing regulations in the following respects:

a) Species and critical habitats within NMFS jurisdiction

NMFS determined that EPA's registrations of pesticide products containing malathion are likely to jeopardize the continued existence of 38 listed species and adversely modify 37 critical habitats,[12] yet EPA has not insured that its registration actions insure they are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats, including but not limited to the following failures. EPA has not: 1) taken any action to implement the Reasonable and Prudent Alternatives; 2) determined whether and in what manner to proceed to comply with its substantive Section 7(a)(2) duty to insure against likely jeopardy to listed species or adverse modification or destruction of designated critical habitat as required by 50 C.F.R. § 402.15(a); or 3) notified NMFS of its final decision on the action (registrations of these pesticide products containing malathion) as required by 50 C.F.R. § 402.15(a). In fact, it has been reported that Administrator Pruitt will ask NMFS to reconsider its Biological Opinion, rather than take steps to insure the use of these pesticide products does not push these species into extinction or adversely modify their critical habitats. Appendix B to this letter is a list of the species whose existence NMFS determined likely will be jeopardized by the use of malathion and the critical habitats that NMFS determined likely will be adversely modified or destroyed by the use of malathion.

b) Species and critical habitats within FWS jurisdiction

EPA determined in the BE that its registrations of pesticide products containing malathion are likely to adversely affect 1,778 listed species and 784 of designated critical habitats, most of which are the subject of ESA consultation with FWS.[13] It is probable that it is FWS's biological opinion that EPA's registrations of pesticide products containing malathion are likely to jeopardize the continued existence of some listed species and adversely modify some critical habitats within FWS's jurisdiction, yet EPA and FWS agreed to indefinitely extend the consultation on a legally irrelevant and arbitrary

[12] *Executive Summary to* NMFS BiOp at i.
[13] Approximately 1,771 species and 734 designated critical habitats formally consulted upon are within FWS's jurisdiction.

basis. In the meantime, the pesticide products that EPA registered are still being used without any mitigation to insure they are not likely to jeopardize the continued existence of the listed species or adversely modify designated critical habitat. Appendix C to this letter is a list of the species and critical habitats within FWS jurisdiction that EPA determined are likely adversely affected by the use of malathion.

FWS claimed, and EPA agreed, that it was necessary to analyze actual use and predicted future usage and eliminate from the analysis geographic areas where the pesticides have not been used or is not likely to be used.[14] The given reason for indefinitely extending the consultation period ignores that, in 2007 EPA and the Services agreed that "the Federal action for EPA's FIFRA registration actions is defined as the 'authorization for use or uses described in labeling of a pesticide product containing a particular pesticide ingredient.'"[15] This is consistent with the legal definition of the "action" consulted upon and the direct effects of the action, i.e, where ever the products are authorized for use, they may be used there. 50 C.F.R. § 402.02. Basing the consultation on current actual pesticide use or speculation on where they may be used in the future will not encompass the entire scope of the action that must be consulted upon. If the agencies wish to limit the scope of the action, EPA must do so through pesticide product label amendments.

The stated reason for indefinitely extending the consultation also ignores that EPA already included the best available actual and estimated usage information in the BE.[16] As EPA explained, "usage data can be informative for characterization and exploration of mitigation options."[17] In other words, if EPA wants to mitigate to avoid jeopardy to species or adverse modification of their critical habitat, it can take steps to limit its authorizations of pesticide products containing malathion to avoid adverse effects on listed species or their critical habitats, such as geographic or other limitations on use.

EPA's agreement to delay completion of consultation with FWS or take any steps to mitigation the adverse effects of its registrations of pesticides containing malathion violates EPA's its duties under Section 7(a)(2) of the ESA.

In sum, EPA cannot abrogate its duty to insure that its registrations of pesticides containing malathion are not likely to jeopardize the existence of listed species or adversely modify their critical habitat. *See Pyramid Lake Paiute Tribe of Indians v. U.S. Dept. of Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990) ("[a] federal agency cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species"); *Stop H-3 Ass'n v. Dole*, 740 F.2d 1442, 1460 (9th Cir. 1984); *see also*

---

[14] Letter from Gary Frazer of EPA to Marietta Echeverria of EPA (Nov. 14, 2017); Letter from Marietta Echeverria to Gary Frazer (Nov. 17, 2017).
[15] BE ch. 1, at 1-5 n.3; *see also* U.S. Envt'l Prot. Agency, *Interim Approaches for National-Level Pesticide Endangered Species Act Assessments Based on the Recommendations of the National Academy of Sciences April 2013 Report*, *available at* https://www.epa.gov/sites/production/files/2015-07/documents/interagency.pdf.
[16] BE ch. 1 at 1-26 to -28.
[17] *Id.* at 1-26.

Nat'l Wildlife Fed. v. Coleman, 529 F.2d 359, 369 (5th Cir. 1976) ("the federal agency involved must determine whether it has taken all necessary action to insure that its actions will not jeopardize the continued existence of" a listed species or critical habitat).

2. EPA and FWS are in violation of Section 7(b)(1).

EPA and FWS also violated ESA Section 7(b)(1) and implementing regulations when they agreed to indefinitely extend the consultation on pesticide products containing malathion.

First, EPA and FWS cannot mutually agree to extend the consultation because they did not notify the license applicants, in this case the registrants of pesticide products containing malathion, in writing of the reasons why a longer consultation period is required, the information required to complete consultation, and the estimated date on which consultation will be completed, nor did the agencies obtain the consent of the applicants before the close of the statutory consultation period in violation of ESA Section 7(b)(1)(B)(i) and (ii). 16 U.S.C. § 1536(b)(1)(B)(i) and (ii).

Second, even if an applicant it not involved, the agencies cannot agree to indefinite extensions of the consultation period. "If an applicant is not involved, the Service and a Federal agency may mutually agree to extend the consultation *for a specific period of time*." 50 C.F.R. § 402.014(e) (emphasis added). As the ESA Consultation Handbook explains "[t]he consultation timeframe cannot be 'suspended,'" and "[e]xtensions should not be indefinite[] and should specify a schedule for completing the consultation."[18]

3. EPA and FWS are in violation of their conservation duties in Section 7(a)(1).

Section 7(a)(1) of the ESA requires federal agencies to "utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threated species listed" under the Act. 16 U.S.C. § 1536(a)(1). Section 7(a)(1) "contains a congressional directive that agencies must act affirmatively in the interest of listed species." *Pyramid Lake Palute Tribe of Indians,* 898 F.2d at 1417; *see also Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 181–183 (1978) (noting that the final version of the ESA "carefully omitted" phrases such as "insofar as is practicable and consistent with the [agency's] primary purposes," which might have qualified an agency's responsibility"). A program carried out the purpose of "conservation" brings a listed species to the point of recovery and delisting. 16 U.S.C. § 2532(3). Furthermore, federal agencies do not meet satisfy their Section 7(a)(1) duties when their conservation measures are insignificant and "do[] not, or [are] not reasonably likely to, conserve [listed] species." *Fla. Key Deer v. Paulison*, 522 F.3d 1133, 1446–1447 (11th Cir. 2008). An agency's conservation efforts may be so ineffective that they amount to "total inaction" and violate Section 7(a)(1). *Id.*

---

[18] U.S. Fish & Wildlife Serv., Nat'l Marine Fisheries Serv., *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act* 4-7 (1998) [hereinafter "Consultation Handbook"], *available at* https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf.

Here, the EPA and FWS have violated their conservation duties under Section 7(a)(1) by failing to complete consultation on pesticide products containing malathion and failing to implement mitigation to avoid jeopardizing the existence of species within FWS jurisdiction or avoid adversely modifying their critical habitat. To satisfy its Section 7(a)(1) duties, EPA and FWS must use "all methods and procedures [] necessary" to bring listed species to recovery. 16 U.S.C. § 1532(3). Here, the agencies clearly did not use *all* necessary methods and procedures to promote conservation when they failed to complete consultation and comply with substantive duties imposed by Section 7(a)(2). Although EPA initiated consultation with FWS the agencies have yet to complete their consultation. The agencies' consultation to date has had no effect on EPA's registrations of malathion pesticides and amount to what is essentially "total inaction." Therefore, EPA and FWS violated their Section 7(a)(1) duties because they did not use all methods and procedures within their authority to act in a way that resulted in a significant impact that served the purpose of conservation.

4. EPA is in violation of its duties under Section 7(d).

ESA Section 7(d) further prohibits federal agencies from "mak[ing] any irreversible or irretrievable commitment of resources" after consultation if doing so would "forclos[e] the formulation or implementation of any reasonable and prudent alternatives which would avoid violating [S]ection 7(a)(2)." 16 U.S.C. 1536(d); 50 C.F.R. § 402.09; *Nat. Res. Def. Council v. Houston*, 146 F.3d 1118, 1128 (9th Cir. 1998). This prohibition applies in addition Section 7(a)(2) and remains in effect until EPA satisfies its consultation requirements. 50 C.F.R. § 402.09. Section 7(d) is not permissive, it is restrictive. It bolsters the duties and limitations in Section 7(a)(2) by prohibiting federal agencies from taking actions or committing resources that could violate Section 7(a)(2)'s substantive requirements while the agency is still in the process of consulting.

EPA's registration and re-registration of pesticide products containing malathion that may harm listed species before completing proper consultation violates ESA Section 7(d) because EPA's actions constitute an irreversible and irretrievable commitment of resources not in compliance with Section 7(a)(2). By registering and re-registering malathion pesticide products, and thus permitting their use, EPA made an irreversible and irretrievable commitment of resources subject to the restrictions of Section 7(d). Section 7(d) forbids federal agencies from making such commitments if they have the potential to violate Section 7(a)(2) or interfere with preventing violations of Section 7(a)(2). As discussed above, EPA's actions are not consistent with its Section 7(d) duties because by registering and re-registering malathion pesticide products EPA is enabling the use of products that pose a harm to numerous listed species and their critical habitats. Furthermore, EPA's actions also violated EPA's Section 7(d) duty to avoid actions that would result in violations, or prevent the avoidance of violations, of Section 7(a)(2).

5. EPA is in violation of Section 9.

EPA is also subject ESA Section 9 which prohibits all activities that cause or constitute a "take" or an endangered species. 16 U.S.C. § 1538(a)(1)(B), (C); 50 C.F.R. § 17.11(h). Congress intended the ESA Section 9 "take" provision to apply in the "broadest possible manner to include every conceivable way" a person could harm or kill listed species and their habitats. *See* se. Rep. No.

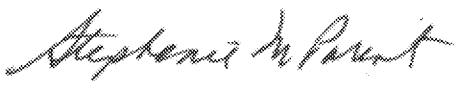
307, 93rd Cong., 1st Sess. 1, *reprinted in* 1973 U.S. Code Cong. & Admin. News 2989, 2995. ESA "take" includes killing, injuring, harming, or harassing listed species. 16 U.S.C. § 1532(19). For the purposes of Section 9 "take," "harm" includes "an[y] act which actually kills or injures wildlife," including "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3; *see also Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 695–700 (1995).

EPA's registration of pesticide products containing malathion constitutes illegal take of the listed species that NMFS concluded are placed in jeopardy.[19] The Incidental Take Statement does not shield EPA from Section 9 liability because EPA has not implemented the RPA or any other measures to avoid likely jeopardy to these listed species. EPA's registration of pesticide products containing malathion authorize the use of products that not only "take" species in violation of Section 9, but are likely to jeopardize their very existence. Consequently, each of EPA's registrations of pesticide products containing malathion constitutes a taking in violation of ESA Section 9.

CONCLUSION

We would prefer to resolve this matter without the need for litigation within the 60-day timeframe. If you would like to discuss this opportunity, or if you have any questions, please contact me. However, if EPA and FWS do not act to correct the violations described in this letter, the Center will pursue litigation.

Sincerely,



Stephanie M. Parent
Senior Attorney
Center for Biological Diversity

[19] NMFS BiOp ch. 25, at 25-2 to -4 tbl.1.

Appendix A

Product Name	Date	EPA Reg. Number	Action
DREXEL MALATHION ULV INSECTICIDE	3/9/2014	19713-288	Reregistration
DREXEL MALATHION 50% EMULSIFIABLE	9/19/2014	19713-330	Reregistration
MALATHION 96.5%	3/19/2014	19713-402	Reregistration
DREXEL MALATHION ULV 96.5%	3/19/2014	19713-540	Reregistration
FYFANON ULV	11/22/2016	279-3539	Reregistration
FYFANON ULV AG INSECTICIDE	7/30/2012	279-3540	Reregistration
CHEMINOVA MALATHION 57% LOW VOC	2/21/2013	279-3587	Registration
Malathion 851 g/L + Gamma-Cyhalothrin 12.8 g/L EC	2/23/2015	279-3598	Registration
Fyfanon EW Insecticide	7/6/2017	279-3622	Registration
UNICORN MALATHION SPRAY 1	10/23/2012	28293-123	Reregistration
MALATHION 50% SPRAY	9/13/2012	33955-394	Reregistration
MALATHION Z21 FOGGING CONCENTRATE	2/13/2012	3862-28	Reregistration
MALATHION 50% EC	9/20/2012	[4-99]	Reregistration
BONIDE A COMPLETE FRUIT TREE SPRAY	10/2/2012	4-122	Reregistration
BONIDE MALATHION INSECT SPRAY	10/23/2012	4-412	Reregistration
FYFANON TECHNICAL	3/14/2017	4787-5	Reregistration
FYAFANON MALATHION INSECTICIDE	8/29/2012	5905-196	Reregistration
FYFANON 8 LB. EMULSION	6/6/2012	5905-250	Reregistration
MALATHION 5 EC	9/27/2012	66330-220	Reregistration
HI-YIELD 55% MALATHION	5/23/2012	7401-10	Reregistration
SA-50 MALATHION 50% E.C.	1/25/2013	829-282	Reregistration
PRENTOX 5 LB. MALATHION SPRAY	2/10/2017	89459-36	Reregistration
MALATHION 5	9/20/2012	9779-5	Reregistration

Appendix B: NMFS Species Determinations

Common Name	*Scientific Name*	Species Jeopardy Call	Critical Habitat Adverse Modification Call
Atlantic Sturgeon, Carolina DPS	*Acipenser oxyrinchus desotoi*	Jeopardy	Adverse Modification
Atlantic Sturgeon, Chesapeake Bay DPS	*Acipenser oxyrinchus desotoi*	Jeopardy	Adverse Modification
Atlantic Sturgeon, Gulf of Maine DPS	*Acipenser oxyrinchus desotoi*	Jeopardy	Adverse Modification
Atlantic Sturgeon, New York Bight DPS	*Acipenser oxyrinchus desotoi*	Jeopardy	Adverse Modification
Atlantic Sturgeon, South Atlantic DPS	*Acipenser oxyrinchus desotoi*	Jeopardy	Adverse Modification
Chinook Salmon, California coastal ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Central Valley spring-run ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Puget Sound ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook salmon, Lower Columbia River ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Sacramento River winter-run ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Snake River fall-run ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Snake River spring/summer run	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Upper Columbia River spring run	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chinook Salmon, Upper Willamette River ESU	*Oncorhynchus tshawytscha*	Jeopardy	Adverse Modification
Chum Salmon, Columbia River ESU	*Oncorhynchus keta*	Jeopardy	Adverse Modification
Chum Salmon, Hood Canal summer-run ESU	*Oncorhynchus keta*	Jeopardy	Adverse Modification
Coho Salmon, Central California coast ESU	*Oncorhynchus kisucth*	Jeopardy	Adverse Modification
Coho Salmon, Lower Columbia River ESU	*Oncorhynchus kisucth*	Jeopardy	Adverse Modification

Coho Salmon, Oregon coast ESU	*Oncorhynchus kisucth*	Jeopardy	Adverse Modification
Coho Salmon, S. Oregon and N. California coasts ESU	*Oncorhynchus kisucth*	Jeopardy	Adverse Modification
Eulachon, Pacific Smelt, southern	*Thaleichthys pacificus*	Jeopardy	Adverse Modification
Green Sturgeon, Southern DPS	*Acipenser medirostris*	Jeopardy	Adverse Modification
Killer whale, Southern Resident DPS	*Orcinus orca*	Jeopardy	Adverse Modification
Shortnote Sturgeon	*Acipenser brevirostrum*	Jeopardy	
Smalltooth sawfish, U.S. DPS	*Pristis pectinata*	Jeopardy	
Sockeye Salmon, Ozette Lake ESU	*Oncorhynchus nerka*	Jeopardy	Adverse Modification
Sockeye salmon, Snake River ESU	*Oncorhynchus nerka*	Jeopardy	Adverse Modification
Steelhead, California Central Valley ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Central California coast ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Lower Columbia River ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Middle Columbia River ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Northern California ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Puget Sound ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Snake River Basin ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, South-Central California coast ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Southern California ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Upper Columbia River ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification
Steelhead, Upper Willamette River ESU	*Oncorhynchus mykiss*	Jeopardy	Adverse Modification

Appendix C: FWS Species Determinations

Common Name	Scientific Name	Species Effects Determination	Critical Habitat Effects Determination
'Akoko	*Euphorbia halemanui*	LAA	LAA
'Awiwi	*Kadua cookiana*	LAA	LAA
(=Na`ena`e) lo`ulu	*Pritchardia hardyi*	LAA	NA
(=Native yellow hibiscus) ma`o hau hele	*Hibiscus brackenridgei*	LAA	LAA
[no common name] Beetle	*Rhadine exilis*	LAA	LAA
[no common name] Beetle	*Rhadine infernalis*	LAA	LAA
[Unnamed] pomace fly	*Drosophila aglaia*	LAA	LAA
[Unnamed] pomace fly	*Drosophila hemipeza*	LAA	LAA
[Unnamed] pomace fly	*Drosophila heteroneura*	LAA	LAA
[Unnamed] pomace fly	*Drosophila montgomeryi*	LAA	LAA
[Unnamed] pomace fly	*Drosophila mulli*	LAA	LAA
[Unnamed] pomace fly	*Drosophila musaphilia*	LAA	LAA
[Unnamed] pomace fly	*Drosophila obatai*	LAA	LAA
[Unnamed] pomace fly	*Drosophila ochrobasis*	LAA	LAA
[Unnamed] pomace fly	*Drosophila substenoptera*	LAA	LAA
[Unnamed] pomace fly	*Drosophila tarphytrichia*	LAA	LAA
`Ahinahina	*Argyroxiphium sandwicense ssp. macrocephalum*	LAA	LAA
`Ahinahina	*Argyroxiphium sandwicense ssp. sandwicense*	LAA	NA
`Aiakeakua popolo	*Solanum sandwicense*	LAA	LAA
`Aiea	*Nothocestrum breviflorum*	LAA	LAA
`Aiea	*Nothocestrum latifolium*	LAA	NA
`Aiea	*Nothocestrum peltatum*	LAA	LAA
`Akoko	*Euphorbia celastroides var. kaenana*	LAA	LAA
`Akoko	*Euphorbia deppeana*	LAA	LAA
`Akoko	*Euphorbia eleanoriae*	LAA	LAA
`Akoko	*Euphorbia haeleeleana*	LAA	LAA
`Akoko	*Euphorbia herbstii*	LAA	LAA
`Akoko	*Euphorbia kuwaleana*	LAA	LAA
`Akoko	*Euphorbia remyi var. kauaiensis*	LAA	LAA
`Akoko	*Euphorbia remyi var. remyi*	LAA	LAA
`Akoko	*Euphorbia rockii*	LAA	LAA
`aku	*Cyanea tritomantha*	LAA	NA
`Ala `ala wai nui	*Peperomia subpetiolata*	LAA	LAA

`Anaunau	*Lepidium arbuscula*	LAA	LAA
`Anunu	*Sicyos albus*	LAA	LAA
`Anunu	*Sicyos macrophyllus*	LAA	NA
`Awikiwiki	*Canavalia molokaiensis*	LAA	LAA
`Awikiwiki	*Canavalia napaliensis*	LAA	LAA
`Awikiwiki	*Canavalia pubescens*	LAA	LAA
`Ena`ena	*Pseudognaphalium (=Gnaphalium) sandwicensium var. molokaiense*	LAA	NA
`Oha wai	*Clermontia drepanomorpha*	LAA	LAA
`Oha wai	*Clermontia lindseyana*	LAA	LAA
`Oha wai	*Clermontia oblongifolia ssp. brevipes*	LAA	LAA
`Oha wai	*Clermontia oblongifolia ssp. mauiensis*	LAA	LAA
`Oha wai	*Clermontia peleana*	LAA	LAA
`Oha wai	*Clermontia pyrularia*	LAA	LAA
`Oha wai	*Clermontia samuelii*	LAA	LAA
`Ohe	*Joinvillea ascendens ascendens*	LAA	NA
`Ohe`ohe	*Polyscias gymnocarpa*	LAA	LAA
A`e	*Zanthoxylum dipetalum var. tomentosum*	LAA	LAA
A`e	*Zanthoxylum hawaiiense*	LAA	LAA
A`e	*Zanthoxylum oahuense*	LAA	LAA
Aboriginal Prickly-apple	*Harrisia (=Cereus) aboriginum (=gracilis)*	LAA	NA
Acuna Cactus	*Echinomastus erectocentrus var. acunensis*	LAA	NA
Akekee	*Loxops caeruleirostris*	LAA	LAA
akiapolaau	*Hemignathus wilsoni*	LAA	NA
Akikiki	*Oreomystis bairdi*	LAA	LAA
aku aku	*Cyanea platyphylla*	LAA	LAA
Alabama (=inflated) heelsplitter	*Potamilus inflatus*	LAA	NA
Alabama beach mouse	*Peromyscus polionotus ammobates*	LAA	LAA
Alabama canebrake pitcher-plant	*Sarracenia rubra ssp. alabamensis*	LAA	NA
Alabama cave shrimp	*Palaemonias alabamae*	LAA	NA
Alabama cavefish	*Speoplatyrhinus poulsoni*	LAA	LAA

Alabama lampmussel	*Lampsilis virescens*	LAA	NA
Alabama lampmussel, Alabama Experimental Population	*Lampsilis virescens*	LAA	NA
Alabama leather flower	*Clematis socialis*	LAA	NA
Alabama moccasinshell	*Medionidus acutissimus*	LAA	LAA
Alabama pearlshell	*Margaritifera marrianae*	LAA	LAA
Alabama red-belly turtle	*Pseudemys alabamensis*	LAA	NA
Alabama streak-sorus fern	*Thelypteris pilosa var. alabamensis*	LAA	NA
Alabama sturgeon	*Scaphirhynchus suttkusi*	LAA	LAA
Alameda whipsnake (=striped racer)	*Masticophis lateralis euryxanthus*	LAA	LAA
Alamosa springsnail	*Tryonia alamosae*	LAA	NA
Alani	*Melicope adscendens*	LAA	LAA
Alani	*Melicope balloui*	LAA	LAA
Alani	*Melicope christophersenii*	LAA	LAA
Alani	*Melicope degeneri*	LAA	LAA
Alani	*Melicope haupuensis*	LAA	LAA
Alani	*Melicope hiiakae*	LAA	LAA
Alani	*Melicope knudsenii*	LAA	LAA
Alani	*Melicope lydgatei*	LAA	LAA
Alani	*Melicope makahae*	LAA	LAA
Alani	*Melicope mucronulata*	LAA	LAA
Alani	*Melicope munroi*	LAA	LAA
Alani	*Melicope ovalis*	LAA	LAA
Alani	*Melicope pallida*	LAA	LAA
Alani	*Melicope paniculata*	LAA	LAA
Alani	*Melicope puberula*	LAA	LAA
Alani	*Melicope quadrangularis*	LAA	NA
Alani	*Melicope reflexa*	LAA	LAA
Alani	*Melicope saint-johnii*	LAA	LAA
Alani	*Melicope zahlbruckneri*	LAA	LAA
Aleutian shield fern	*Polystichum aleuticum*	LAA	NA
Altamaha Spinymussel	*Elliptio spinosa*	LAA	LAA
Amargosa niterwort	*Nitrophila mohavensis*	LAA	LAA
Amargosa vole	*Microtus californicus scirpensis*	LAA	LAA
Amber darter	*Percina antesella*	LAA	LAA
American burying beetle	*Nicrophorus americanus*	LAA	NA

American burying beetle, Southwestern Missouri Experimental Population	*Nicrophorus americanus*	LAA	NA
American chaffseed	*Schwalbea americana*	LAA	NA
American crocodile	*Crocodylus acutus*	LAA	LAA
American hart's-tongue fern	*Asplenium scolopendrium var. americanum*	LAA	NA
Anastasia Island beach mouse	*Peromyscus polionotus phasma*	LAA	NA
Alabama lampmussel, Alabama Experimental Population	*Procaris hawaiana*	LAA	NA
Anchialine pool shrimp	*Vetericaris chaceorum*	LAA	NA
Anthony's riversnail	*Athearnia anthonyi*	LAA	NA
Anthony's riversnail, Alabama Experimental Population	*Athearnia anthonyi*	LAA	NA
Anthony's riversnail, French Broad River and Holston River, TN Experimental Population	*Athearnia anthonyi*	LAA	NA
Anthricinan yellow-faced bee	*Hylaeus anthracinus*	LAA	NA
Antioch Dunes evening-primrose	*Oenothera deltoides ssp. howellii*	LAA	LAA
Apache trout	*Oncorhynchus apache*	LAA	NA
Apalachicola rosemary	*Conradina glabra*	LAA	NA
Aplokating-palaoan	*Psychotria malaspinae*	LAA	NA
Appalachian elktoe	*Alasmidonta raveneliana*	LAA	LAA
Appalachian monkeyface (pearlymussel)	*Quadrula sparsa*	LAA	NA
Appalachian monkeyface (pearlymussel), French Broad River and Holston River, TN Experimental Population	*Quadrula sparsa*	LAA	NA
Applegate's milk-vetch	*Astragalus applegatei*	LAA	NA
Arapahoe snowfly	*Arsapnia arapahoe*	LAA	NA
Arizona Cliffrose	*Purshia (=Cowania) subintegra*	LAA	NA
Arizona hedgehog cactus	*Echinocereus triglochidiatus var. arizonicus*	LAA	NA
Arizona Treefrog	*Hyla wrightorum*	LAA	NA
Arkansas darter	*Etheostoma cragini*	LAA	NA
Arkansas fatmucket	*Lampsilis powellii*	LAA	NA

Arkansas River shiner	*Notropis girardi*	LAA	LAA
Armored snail	*Pyrgulopsis (=Marstonia) pachyta*	LAA	NA
Arroyo (=arroyo southwestern) toad	*Anaxyrus californicus*	LAA	LAA
Ash Meadows Amargosa pupfish	*Cyprinodon nevadensis mionectes*	LAA	LAA
Ash Meadows blazingstar	*Mentzelia leucophylla*	LAA	LAA
Ash Meadows gumplant	*Grindelia fraxinipratensis*	LAA	LAA
Ash Meadows ivesia	*Ivesia kingii var. eremica*	LAA	LAA
Ash meadows milk-vetch	*Astragalus phoenix*	LAA	LAA
Ash Meadows naucorid	*Ambrysus amargosus*	LAA	LAA
Ash Meadows speckled dace	*Rhinichthys osculus nevadensis*	LAA	LAA
Ash Meadows sunray	*Enceliopsis nudicaulis var. corrugata*	LAA	LAA
Ash-grey paintbrush	*Castilleja cinerea*	LAA	LAA
Ashy dogweed	*Thymophylla tephroleuca*	LAA	NA
Asplenium-leaved diellia	*Diellia erecta*	LAA	LAA
Assimulans yellow-faced bee	*Hylaeus assimulans*	LAA	NA
Atlantic salmon	*Salmo salar*	LAA	LAA
Atlantic salt marsh snake	*Nerodia clarkii taeniata*	LAA	NA
Atlantic sturgeon, Carolina DPS	*Acipenser oxyrinchus oxyrinchus*	LAA	NA
Atlantic sturgeon, Chesapeake Bay DPS	*Acipenser oxyrinchus oxyrinchus*	LAA	NA
Atlantic sturgeon, Gulf of Maine DPS	*Acipenser oxyrinchus oxyrinchus*	LAA	NA
Atlantic sturgeon, New York Bight DPS	*Acipenser oxyrinchus oxyrinchus*	LAA	NA
Atlantic sturgeon, South Atlantic DPS	*Acipenser oxyrinchus oxyrinchus*	LAA	NA
Attwater's greater prairie-chicken	*Tympanuchus cupido attwateri*	LAA	NA
Audubon's crested caracara	*Polyborus plancus audubonii*	LAA	NA
Aupaka	*Isodendrion hosakae*	LAA	LAA
Aupaka	*Isodendrion laurifolium*	LAA	LAA
Aupaka	*Isodendrion longifolium*	LAA	LAA
Austin blind Salamander	*Eurycea waterlooensis*	LAA	LAA
Autumn Buttercup	*Ranunculus aestivalis (=acriformis)*	LAA	NA
Avon Park harebells	*Crotalaria avonensis*	LAA	NA

Awiwi	*Centaurium sebaeoides*	LAA	LAA
Baker's larkspur	*Delphinium bakeri*	LAA	LAA
Bakersfield cactus	*Opuntia treleasei*	LAA	NA
Banbury Springs limpet	*Lanx sp.*	LAA	NA
Band-rumped storm-petrel	*Oceanodroma castro*	LAA	NA
Bariaco	*Trichilia triacantha*	LAA	NA
Barneby reed-mustard	*Schoenocrambe barnebyi*	LAA	NA
Barneby ridge-cress	*Lepidium barnebyanum*	LAA	NA
Barton Springs salamander	*Eurycea sosorum*	LAA	NA
Bartram's hairstreak Butterfly	*Strymon acis bartrami*	LAA	LAA
Bay checkerspot butterfly	*Euphydryas editha bayensis*	LAA	LAA
Bayou darter	*Etheostoma rubrum*	LAA	NA
Beach jacquemontia	*Jacquemontia reclinata*	LAA	NA
Beach layia	*Layia carnosa*	LAA	NA
Bear Valley sandwort	*Arenaria ursina*	LAA	LAA
Beautiful goetzea	*Goetzea elegans*	LAA	NA
Beautiful pawpaw	*Deeringothamnus pulchellus*	LAA	NA
Beautiful shiner	*Cyprinella formosa*	LAA	LAA
Bee Creek Cave harvestman	*Texella reddelli*	LAA	NA
Behren's silverspot butterfly	*Speyeria zerene behrensii*	LAA	NA
Ben Lomond spineflower	*Chorizanthe pungens var. hartwegiana*	LAA	NA
Ben Lomond wallflower	*Erysimum teretifolium*	LAA	NA
Berenghenas halomtano	*Solanum guamense*	LAA	NA
Berry Cave salamander	*Gyrinophilus gulolineatus*	LAA	NA
Big Bend gambusia	*Gambusia gaigei*	LAA	NA
Big Pine partridge pea	*Chamaecrista lineata keyensis*	LAA	NA
Big Sandy crayfish	*Cambarus callainus*	LAA	NA
Big Spring spinedace	*Lepidomeda mollispinis pratensis*	LAA	LAA
Big-leaved crownbeard	*Verbesina dissita*	LAA	NA
Birdwing pearlymussel	*Lemiox rimosus*	LAA	NA
Birdwing pearlymussel, Alabama Experimental Population	*Lemiox rimosus*	LAA	NA
Birdwing pearlymussel, French Broad River and Holston River, TN Experimental Population	*Lemiox rimosus*	LAA	NA
Black Abalone	*Haliotis cracherodii*	LAA	LAA
Black clubshell	*Pleurobema curtum*	LAA	NA

Black lace cactus	*Echinocereus reichenbachii var. albertii*	LAA	NA
Black mudalia	*Elimia melanoides*	LAA	NA
Black pine snake	*Pituophis melanoleucus lodingi*	LAA	NA
Black spored quillwort	*Isoetes melanospora*	LAA	NA
Black warrior (=Sipsey Fork) Waterdog	*Necturus alabamensis*	LAA	NA
Black-capped Vireo	*Vireo atricapilla*	LAA	NA
Black-footed ferret	*Mustela nigripes*	LAA	NA
Black-footed ferret, Experimental Population	*Mustela nigripes*	LAA	NA
Blackburn's sphinx moth	*Manduca blackburni*	LAA	LAA
Blackline Hawaiian damselfly	*Megalagrion nigrohamatum nigrolineatum*	LAA	LAA
Blackside dace	*Phoxinus cumberlandensis*	LAA	NA
Bliss Rapids snail	*Taylorconcha serpenticola*	LAA	NA
Blodgett's silverbush	*Argythamnia blodgettii*	LAA	NA
Blowout penstemon	*Penstemon haydenii*	LAA	NA
Blue Ridge goldenrod	*Solidago spithamaea*	LAA	NA
Blue shiner	*Cyprinella caerulea*	LAA	NA
Bluemask (=jewel) Darter	*Etheostoma sp.*	LAA	NA
Bluetail mole skink	*Eumeces egregius lividus*	LAA	NA
Blunt-nosed leopard lizard	*Gambelia silus*	LAA	NA
Bocaccio	*Sebastes paucispinis*	LAA	NA
Bog (=Muhlenberg) turtle	*Clemmys muhlenbergii*	LAA	NA
Bone Cave harvestman	*Texella reyesi*	LAA	NA
Bonytail chub	*Gila elegans*	LAA	LAA
Borax Lake chub	*Gila boraxobius*	LAA	LAA
Boulder darter	*Etheostoma wapiti*	LAA	NA
Boulder darter, Shoal Creek Experimental Population	*Etheostoma wapiti*	LAA	NA
Boulder star coral	*Orbicella franksi*	LAA	NA
Boyds maiden fern	*Cyclosorus boydiae*	LAA	NA
Bracted twistflower	*Streptanthus bracteatus*	LAA	NA
Bradshaw's desert-parsley	*Lomatium bradshawii*	LAA	NA
Brady pincushion cactus	*Pediocactus bradyi*	LAA	NA
Braken Bat Cave Meshweaver	*Cicurina venii*	LAA	NLAA
Braun's rock-cress	*Arabis perstellata*	LAA	LAA
Braunton's milk-vetch	*Astragalus brauntonii*	LAA	LAA
Britton's beargrass	*Nolina brittoniana*	LAA	NA
Brooksville bellflower	*Campanula robinsiae*	LAA	NA

Bruneau Hot springsnail	*Pyrgulopsis bruneauensis*	LAA	NA
Buena Vista Lake ornate Shrew	*Sorex ornatus relictus*	LAA	LAA
Bull Trout	*Salvelinus confluentus*	LAA	LAA
Bull Trout, Clackamas River sub-basin Experimental Population	*Salvelinus confluentus*	LAA	NA
Bunched arrowhead	*Sagittaria fasciculata*	LAA	NA
Bunched cory cactus	*Coryphantha ramillosa*	LAA	NA
Burke's goldfields	*Lasthenia burkei*	LAA	NA
Butte County meadowfoam	*Limnanthes floccosa ssp. californica*	LAA	LAA
Cahaba shiner	*Notropis cahabae*	LAA	NA
California clapper rail	*Rallus longirostris obsoletus*	LAA	NA
California condor	*Gymnogyps californianus*	LAA	LAA
California condor, Arizona, Nevada, Utah Experimental Population	*Gymnogyps californianus*	LAA	NA
California freshwater shrimp	*Syncaris pacifica*	LAA	NA
California jewelflower	*Caulanthus californicus*	LAA	NA
California least tern	*Sterna antillarum browni*	LAA	NA
California Orcutt grass	*Orcuttia californica*	LAA	NA
California red-legged frog	*Rana draytonii*	LAA	LAA
California seablite	*Suaeda californica*	LAA	NA
California taraxacum	*Taraxacum californicum*	LAA	LAA
California tiger Salamander, Central California DPS	*Ambystoma californiense*	LAA	LAA
California tiger Salamander, Santa Barbara County DPS	*Ambystoma californiense*	LAA	LAA
California tiger Salamander, Sonoma County DPS	*Ambystoma californiense*	LAA	LAA
Calistoga allocarya	*Plagiobothrys strictus*	LAA	NA
Callippe silverspot butterfly	*Speyeria callippe callippe*	LAA	NA
Canada Lynx	*Lynx canadensis*	LAA	LAA
canary rockfish	*Sebastes pinniger*	LAA	LAA
Canby's dropwort	*Oxypolis canbyi*	LAA	NA
Canelo Hills ladies'-tresses	*Spiranthes delitescens*	LAA	NA
Capa rosa	*Callicarpa ampla*	LAA	NA
Cape Fear shiner	*Notropis mekistocholas*	LAA	LAA
Cape Sable seaside sparrow	*Ammodramus maritimus mirabilis*	LAA	LAA
Cape Sable Thoroughwort	*Chromolaena frustrata*	LAA	LAA
Carolina heelsplitter	*Lasmigona decorata*	LAA	LAA

Carolina northern flying squirrel	*Glaucomys sabrinus coloratus*	LAA	NA
Carson wandering skipper	*Pseudocopaeodes eunus obscurus*	LAA	NA
Carter's mustard	*Warea carteri*	LAA	NA
Carter's panicgrass	*Panicum fauriei var. carteri*	LAA	LAA
Carter's small-flowered flax	*Linum carteri carteri*	LAA	LAA
Casey's June Beetle	*Dinacoma caseyi*	LAA	LAA
Catalina Island mountain-mahogany	*Cercocarpus traskiae*	LAA	NA
Cave crayfish	*Cambarus aculabrum*	LAA	NA
Cave crayfish	*Cambarus zophonastes*	LAA	NA
Cebello halumtano	*Bulbophyllum guamense*	LAA	NA
Chapin Mesa milkvetch	*Astragalus schmolliae*	LAA	NA
Chapman rhododendron	*Rhododendron chapmanii*	LAA	NA
Cheat Mountain salamander	*Plethodon nettingi*	LAA	NA
Cherokee darter	*Etheostoma scotti*	LAA	NA
Chihuahua chub	*Gila nigrescens*	LAA	NA
Chinese Camp brodiaea	*Brodiaea pallida*	LAA	NA
Chipola slabshell	*Elliptio chipolaensis*	LAA	LAA
Chiricahua leopard frog	*Rana chiricahuensis*	LAA	LAA
Chisos Mountain hedgehog Cactus	*Echinocereus chisoensis var. chisoensis*	LAA	NA
Chittenango ovate amber snail	*Succinea chittenangoensis*	LAA	NA
Choctaw bean	*Villosa choctawensis*	LAA	LAA
Choctawhatchee beach mouse	*Peromyscus polionotus allophrys*	LAA	LAA
Chorro Creek bog thistle	*Cirsium fontinale var. obispoense*	LAA	NA
Chucky Madtom	*Noturus crypticus*	LAA	LAA
Chupacallos	*Pleodendron macranthum*	LAA	NA
Chupadera springsnail	*Pyrgulopsis chupaderae*	LAA	LAA
Clara Hunt's milk-vetch	*Astragalus clarianus*	LAA	NA
Clay phacelia	*Phacelia argillacea*	LAA	NA
Clay reed-mustard	*Schoenocrambe argillacea*	LAA	NA
Clay-Loving wild buckwheat	*Eriogonum pelinophilum*	LAA	LAA
Clay's hibiscus	*Hibiscus clayi*	LAA	LAA
Clear Creek gambusia	*Gambusia heterochir*	LAA	NA
Clifton Cave beetle	*Pseudanophthalmus caecus*	LAA	NA
Clover lupine	*Lupinus tidestromii*	LAA	NA
Clover Valley speckled dace	*Rhinichthys osculus oligoporus*	LAA	NA

Clubshell	*Pleurobema clava*	LAA	NA
Clubshell, Alabama Experimental Population	*Pleurobema clava*	LAA	NA
Coachella Valley fringe-toed lizard	*Uma inornata*	LAA	LAA
Coachella Valley milk-vetch	*Astragalus lentiginosus var. coachellae*	LAA	LAA
Coastal California gnatcatcher	*Polioptila californica californica*	LAA	LAA
Coastal dunes milk-vetch	*Astragalus tener var. titi*	LAA	NA
Cobana negra	*Stahlia monosperma*	LAA	NA
Cochise pincushion cactus	*Coryphantha robbinsiorum*	LAA	NA
Coffin Cave mold beetle	*Batrisodes texanus*	LAA	NA
Cokendolpher Cave Harvestman	*Texella cokendolpheri*	LAA	LAA
Colorado Butterfly plant	*Gaura neomexicana var. coloradensis*	LAA	LAA
Colorado hookless Cactus	*Sclerocactus glaucus*	LAA	NA
Colorado pikeminnow (=squawfish)	*Ptychocheilus lucius*	LAA	LAA
Colorado pikeminnow (=squawfish), Salt and Verde River drainages, AZ Experimental Population	*Ptychocheilus lucius*	LAA	NA
Columbia Basin Pygmy Rabbit	*Brachylagus idahoensis*	LAA	NA
Columbian white-tailed deer	*Odocoileus virginianus leucurus*	LAA	NA
Colusa grass	*Neostapfia colusana*	LAA	LAA
Comal Springs dryopid beetle	*Stygoparnus comalensis*	LAA	LAA
Comal Springs riffle beetle	*Heterelmis comalensis*	LAA	LAA
Comanche Springs pupfish	*Cyprinodon elegans*	LAA	NA
Conasauga logperch	*Percina jenkinsi*	LAA	LAA
Conejo dudleya	*Dudleya abramsii ssp. parva*	LAA	NA
Conservancy fairy shrimp	*Branchinecta conservatio*	LAA	LAA
Contra Costa goldfields	*Lasthenia conjugens*	LAA	LAA
Contra Costa wallflower	*Erysimum capitatum var. angustatum*	LAA	LAA
Cook's holly	*Ilex cookii*	LAA	NA
Cook's lomatium	*Lomatium cookii*	LAA	LAA
Cooke's koki`o	*Kokia cookei*	LAA	LAA
Cooley's meadowrue	*Thalictrum cooleyi*	LAA	NA

Cooley's water-willow	*Justicia cooleyi*	LAA	NA
Coosa moccasinshell	*Medionidus parvulus*	LAA	LAA
Copperbelly water snake	*Nerodia erythrogaster neglecta*	LAA	NA
Coyote ceanothus	*Ceanothus ferrisae*	LAA	NA
Cracking pearlymussel	*Hemistena lata*	LAA	NA
Cracking pearlymussel, Alabama Experimental Population	*Hemistena lata*	LAA	NA
Cracking pearlymussel, French Broad River and Holston River, TN Experimental Population	*Hemistena lata*	LAA	NA
Crenulate lead-plant	*Amorpha crenulata*	LAA	NA
Crested honeycreeper	*Palmeria dolei*	LAA	LAA
Crimson Hawaiian damselfly	*Megalagrion leptodemas*	LAA	LAA
Cui-ui	*Chasmistes cujus*	LAA	NA
Culebra Island giant anole	*Anolis roosevelti*	LAA	LAA
Cumberland bean (pearlymussel)	*Villosa trabalis*	LAA	NA
Cumberland bean (pearlymussel), Alabama Experimental Population	*Villosa trabalis*	LAA	NA
Cumberland bean (pearlymussel), French Broad River and Holston River, TN Experimental Population	*Villosa trabalis*	LAA	NA
Cumberland darter	*Etheostoma susanae*	LAA	LAA
Cumberland elktoe	*Alasmidonta atropurpurea*	LAA	LAA
Cumberland monkeyface (pearlymussel)	*Quadrula intermedia*	LAA	NA
Cumberland monkeyface (pearlymussel), Alabama Experimental Population	*Quadrula intermedia*	LAA	NA
Cumberland monkeyface (pearlymussel), French Broad River and Holston River, TN Experimental Population	*Quadrula intermedia*	LAA	NA
Cumberland pigtoe	*Pleurobema gibberum*	LAA	NA
Cumberland rosemary	*Conradina verticillata*	LAA	NA
Cumberland sandwort	*Arenaria cumberlandensis*	LAA	NA
Cumberlandian combshell	*Epioblasma brevidens*	LAA	LAA

Cumberlandian combshell, Alabama Experimental Population	*Epioblasma brevidens*	LAA	NA
Cumberlandian combshell, French Broad River and Holston River, TN Experimental Population	*Epioblasma brevidens*	LAA	NA
Curtis pearlymussel	*Epioblasma florentina curtisii*	LAA	NA
Cushenbury buckwheat	*Eriogonum ovalifolium var. vineum*	LAA	LAA
Cushenbury milk-vetch	*Astragalus albens*	LAA	LAA
Cushenbury oxytheca	*Oxytheca parishii var. goodmaniana*	LAA	LAA
Cylindrical lioplax (snail)	*Lioplax cyclostomaformis*	LAA	NA
Dakota Skipper	*Hesperia dacotae*	LAA	LAA
Dark pigtoe	*Pleurobema furvum*	LAA	LAA
Davis' green pitaya	*Echinocereus viridiflorus var. davisii*	LAA	NA
DeBeque phacelia	*Phacelia submutica*	LAA	LAA
Decurrent false aster	*Boltonia decurrens*	LAA	NA
Del Mar manzanita	*Arctostaphylos glandulosa ssp. crassifolia*	LAA	NA
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	LAA	NA
Delta green ground beetle	*Elaphrus viridis*	LAA	LAA
Delta smelt	*Hypomesus transpacificus*	LAA	LAA
Deltoid spurge	*Chamaesyce deltoidea ssp. deltoidea*	LAA	NA
Deseret milk-vetch	*Astragalus desereticus*	LAA	NA
Desert dace	*Eremichthys acros*	LAA	LAA
Desert pupfish	*Cyprinodon macularius*	LAA	LAA
Desert tortoise	*Gopherus agassizii*	LAA	LAA
Desert yellowhead	*Yermo xanthocephalus*	LAA	LAA
Devils Hole pupfish	*Cyprinodon diabolis*	LAA	NA
Devils River minnow	*Dionda diaboli*	LAA	LAA
diamond Darter	*Crystallaria cincotta*	LAA	LAA
Diamond Head schiedea	*Schiedea adamantis*	LAA	NA
Diamond Tryonia	*Pseudotryonia adamantina*	LAA	LAA
Diminutive Amphipod	*Gammarus hyalleloides*	LAA	LAA
Dromedary pearlymussel	*Dromus dromas*	LAA	NA

Dromedary pearlymussel, Alabama Experimental Population	*Dromus dromas*	LAA	NA
Dromedary pearlymussel, French Broad River and Holston River, TN Experimental Population	*Dromus dromas*	LAA	NA
Dudley Bluffs bladderpod	*Lesquerella congesta*	LAA	NA
Dudley Bluffs twinpod	*Physaria obcordata*	LAA	NA
Dusky gopher frog	*Rana sevosa*	LAA	LAA
Duskytail darter	*Etheostoma percnurum*	LAA	NA
Duskytail darter, French Broad River and Holston River, TN Experimental Population	*Etheostoma percnurum*	LAA	NA
Duskytail darter, Tellico Rover, TN Experimental Population	*Etheostoma percnurum*	LAA	NA
Dwarf Bear-poppy	*Arctomecon humilis*	LAA	NA
Dwarf iliau	*Wilkesia hobdyi*	LAA	LAA
Dwarf lake iris	*Iris lacustris*	LAA	NA
Dwarf naupaka	*Scaevola coriacea*	LAA	NA
Dwarf wedgemussel	*Alasmidonta heterodon*	LAA	NA
Dwarf-flowered heartleaf	*Hexastylis naniflora*	LAA	NA
Eastern indigo snake	*Drymarchon corais couperi*	LAA	NA
Eastern Massasauga (=rattlesnake)	*Sistrurus catenatus*	LAA	NA
Eastern prairie fringed orchid	*Platanthera leucophaea*	LAA	NA
Easy yellow-faced bee	*Hylaeus facilis*	LAA	NA
El Dorado bedstraw	*Galium californicum ssp. sierrae*	LAA	NA
El Segundo blue butterfly	*Euphilotes battoides allyni*	LAA	NA
Elfin tree fern	*Cyathea dryopteroides*	LAA	NA
Elfin-woods warbler	*Dendroica angelae*	LAA	LAA
Elkhorn coral	*Acropora palmata*	LAA	LAA
Encinitas baccharis	*Baccharis vanessae*	LAA	NA
Erubia	*Solanum drymophilum*	LAA	NA
Etonia rosemary	*Conradina etonia*	LAA	NA
Etowah darter	*Etheostoma etowahae*	LAA	NA
Eulachon	*Thaleichthys pacificus*	LAA	LAA
Eureka Dune grass	*Swallenia alexandrae*	LAA	NA

Eureka Valley evening-primrose	*Oenothera avita ssp. eurekensis*	LAA	NA
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	LAA	LAA
Everglades bully	*Sideroxylon reclinatum ssp. austrofloridense*	LAA	NA
Ewa Plains `akoko	*Euphorbia skottsbergii var. skottsbergii*	LAA	LAA
Fadang	*Cycas micronesica*	LAA	NA
Fanshell	*Cyprogenia stegaria*	LAA	NA
Fanshell, French Broad River and Holston River, TN Experimental Population	*Cyprogenia stegaria*	LAA	NA
Fassett's locoweed	*Oxytropis campestris var. chartacea*	LAA	NA
Fat pocketbook	*Potamilus capax*	LAA	NA
Fat threeridge (mussel)	*Amblema neislerii*	LAA	LAA
Fender's blue butterfly	*Icaricia icarioides fenderi*	LAA	LAA
Few-flowered navarretia	*Navarretia leucocephala ssp. pauciflora (=N. pauciflora)*	LAA	NA
Fickeisen plains cactus	*Pediocactus peeblesianus fickeiseniae*	LAA	NA
Finelined pocketbook	*Lampsilis altilis*	LAA	LAA
Finerayed pigtoe	*Fusconaia cuneolus*	LAA	NA
Finerayed pigtoe, Alabama Experimental Population	*Fusconaia cuneolus*	LAA	NA
Finerayed pigtoe, French Broad River and Holston River, TN Experimental Population	*Fusconaia cuneolus*	LAA	NA
Fish Slough milk-vetch	*Astragalus lentiginosus var. piscinensis*	LAA	LAA
Flat pebblesnail	*Lepyrium showalteri*	LAA	NA
Flat pigtoe	*Pleurobema marshalli*	LAA	NA
Flat-spired three-toothed Snail	*Triodopsis platysayoides*	LAA	NA
Flattened musk turtle	*Sternotherus depressus*	LAA	NA
Fleshy owl's-clover	*Castilleja campestris ssp. succulenta*	LAA	LAA
Fleshy-fruit gladecress	*Leavenworthia crassa*	LAA	LAA
Florida bonamia	*Bonamia grandiflora*	LAA	NA
Florida bonneted bat	*Eumops floridanus*	LAA	NA
Florida brickell-bush	*Brickellia mosieri*	LAA	LAA

Florida bristle fern	*Trichomanes punctatum ssp. floridanum*	LAA	NA
Florida golden aster	*Chrysopsis floridana*	LAA	NA
Florida grasshopper sparrow	*Ammodramus savannarum floridanus*	LAA	NA
Florida leafwing Butterfly	*Anaea troglodyta floridalis*	LAA	LAA
Florida panther	*Puma (=Felis) concolor coryi*	LAA	NA
Florida perforate cladonia	*Cladonia perforata*	LAA	NA
Florida pineland crabgrass	*Digitaria pauciflora*	LAA	NA
Florida prairie-clover	*Dalea carthagenensis floridana*	LAA	NA
Florida salt marsh vole	*Microtus pennsylvanicus dukecampbelli*	LAA	NA
Florida scrub-jay	*Aphelocoma coerulescens*	LAA	NA
Florida semaphore Cactus	*Consolea corallicola*	LAA	NA
Florida skullcap	*Scutellaria floridana*	LAA	NA
Florida torreya	*Torreya taxifolia*	LAA	NA
Florida ziziphus	*Ziziphus celata*	LAA	NA
Fluted kidneyshell	*Ptychobranchus subtentum*	LAA	LAA
Flying earwig Hawaiian damselfly	*Megalagrion nesiotes*	LAA	NA
Fosberg's love grass	*Eragrostis fosbergii*	LAA	LAA
Foskett speckled dace	*Rhinichthys osculus ssp.*	LAA	NA
Fountain darter	*Etheostoma fonticola*	LAA	LAA
Fountain thistle	*Cirsium fontinale var. fontinale*	LAA	NA
Four-petal pawpaw	*Asimina tetramera*	LAA	NA
Fragile tree snail	*Samoana fragilis*	LAA	NA
Fragrant prickly-apple	*Cereus eriophorus var. fragrans*	LAA	NA
Franciscan manzanita	*Arctostaphylos franciscana*	LAA	LAA
Fremont County rockcress	*Boechera pusilla*	LAA	NA
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	LAA	LAA
Friendly Ground-Dove	*Gallicolumba stairi*	LAA	NA
Fringed campion	*Silene polypetala*	LAA	NA
Frisco buckwheat	*Eriogonum soredium*	LAA	NA
Frisco clover	*Trifolium friscanum*	LAA	NA
Frosted Flatwoods salamander	*Ambystoma cingulatum*	LAA	LAA
Furbish lousewort	*Pedicularis furbishiae*	LAA	NA
Fuzzy pigtoe	*Pleurobema strodeanum*	LAA	LAA
Gambel's watercress	*Rorippa gambellii*	LAA	NA
Garber's spurge	*Chamaesyce garberi*	LAA	NA

Garrett's mint	*Dicerandra christmanii*	LAA	NA
Gaviota Tarplant	*Deinandra increscens ssp. villosa*	LAA	LAA
Gentian pinkroot	*Spigelia gentianoides*	LAA	NA
Gentner's Fritillary	*Fritillaria gentneri*	LAA	NA
Georgetown Salamander	*Eurycea naufragia*	LAA	LAA
Georgia pigtoe	*Pleurobema hanleyianum*	LAA	LAA
Georgia rockcress	*Arabis georgiana*	LAA	LAA
Giant garter snake	*Thamnophis gigas*	LAA	NA
Giant kangaroo rat	*Dipodomys ingens*	LAA	NA
Gierisch mallow	*Sphaeralcea gierischii*	LAA	LAA
Gila chub	*Gila intermedia*	LAA	LAA
Gila topminnow (incl. Yaqui)	*Poeciliopsis occidentalis*	LAA	NA
Gila trout	*Oncorhynchus gilae*	LAA	NA
Godfrey's butterwort	*Pinguicula ionantha*	LAA	NA
Golden coqui	*Eleutherodactylus jasperi*	LAA	LAA
Golden orb	*Quadrula aurea*	LAA	NA
Golden Paintbrush	*Castilleja levisecta*	LAA	NA
Golden sedge	*Carex lutea*	LAA	LAA
Golden-cheeked warbler (=wood)	*Dendroica chrysoparia*	LAA	NA
Goldline darter	*Percina aurolineata*	LAA	NA
Gonzales tryonia	*Tryonia circumstriata (=stocktonensis)*	LAA	LAA
Gopher tortoise, Eastern Population	*Gopherus polyphemus*	LAA	NA
Gopher tortoise, Western Population	*Gopherus polyphemus*	LAA	NA
Government Canyon Bat Cave Meshweaver	*Cicurina vespera*	LAA	LAA
Government Canyon Bat Cave Spider	*Neoleptoneta microps*	LAA	LAA
Gowen cypress	*Cupressus goveniana ssp. goveniana*	LAA	NA
Gray bat	*Myotis grisescens*	LAA	NA
Gray wolf, Endangered Population	*Canis lupus*	LAA	NA
Gray wolf, Experimental Population	*Canis lupus*	LAA	NA
Gray wolf, Threatened Population	*Canis lupus*	LAA	LAA

Green blossom (pearlymussel)	*Epioblasma torulosa gubernaculum*	LAA	NA
Green pitcher-plant	*Sarracenia oreophila*	LAA	NA
Green sea turtle	*Chelonia mydas*	LAA	NA
Green sea turtle	*Chelonia mydas*	LAA	NA
Green sea turtle	*Chelonia mydas*	LAA	NA
Green sea turtle	*Chelonia mydas*	LAA	NA
Green sea turtle	*Chelonia mydas*	LAA	LAA
Green sea turtle	*Chelonia mydas*	LAA	NA
green sturgeon	*Acipenser medirostris*	LAA	LAA
Greenback Cutthroat trout	*Oncorhynchus clarki stomias*	LAA	NA
Greene's tuctoria	*Tuctoria greenei*	LAA	LAA
Grizzly bear	*Ursus arctos horribilis*	LAA	NA
Grotto Sculpin	*Cottus specus*	LAA	NA
Guadalupe fescue	*Festuca ligulata*	LAA	NA
Guadalupe fur seal	*Arctocephalus townsendi*	LAA	NA
Guajon	*Eleutherodactylus cooki*	LAA	LAA
Guam kingfisher	*Todiramphus cinnamominus*	LAA	LAA
Guam rail	*Rallus owstoni*	LAA	NA
Guam rail, Experimental Population	*Rallus owstoni*	LAA	NA
Guam tree snail	*Partula radiolata*	LAA	NA
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	LAA	NA
Gulf grouper	*Mycteroperca jordani*	LAA	NA
Gulf moccasinshell	*Medionidus penicillatus*	LAA	LAA
Gulf sturgeon	*Acipenser oxyrinchus (=oxyrhynchus) desotoi*	LAA	LAA
Gunnison sage-grouse	*Centrocercus minimus*	LAA	LAA
Guthrie's (=Pyne's) ground-plum	*Astragalus bibullatus*	LAA	NA
Guyandotte River crayfish	*Cambarus veteranus*	LAA	NA
Gypsum wild-buckwheat	*Eriogonum gypsophilum*	LAA	LAA
Ha`iwale	*Cyrtandra crenata*	LAA	NA
Ha`iwale	*Cyrtandra dentata*	LAA	LAA
Ha`iwale	*Cyrtandra filipes*	LAA	LAA
Ha`iwale	*Cyrtandra giffardii*	LAA	LAA
Ha`iwale	*Cyrtandra hematos*	LAA	NA
Ha`iwale	*Cyrtandra kaulantha*	LAA	LAA
Ha`iwale	*Cyrtandra limahuliensis*	LAA	LAA
Ha`iwale	*Cyrtandra munroi*	LAA	LAA
Ha`iwale	*Cyrtandra oenobarba*	LAA	LAA

Ha`iwale	*Cyrtandra oxybapha*	LAA	LAA
Ha`iwale	*Cyrtandra polyantha*	LAA	LAA
Ha`iwale	*Cyrtandra sessilis*	LAA	LAA
Ha`iwale	*Cyrtandra subumbellata*	LAA	LAA
Ha`iwale	*Cyrtandra tintinnabula*	LAA	LAA
Ha`iwale	*Cyrtandra viridiflora*	LAA	LAA
Haha	*Cyanea acuminata*	LAA	LAA
Haha	*Cyanea asarifolia*	LAA	LAA
Haha	*Cyanea asplenifolia*	LAA	LAA
Haha	*Cyanea calycina*	LAA	LAA
Haha	*Cyanea copelandii ssp. copelandii*	LAA	NA
Haha	*Cyanea copelandii ssp. haleakalaensis*	LAA	LAA
haha	*Cyanea crispa*	LAA	LAA
Haha	*Cyanea dolichopoda*	LAA	LAA
Haha	*Cyanea dunbarii*	LAA	LAA
haha	*Cyanea duvalliorum*	LAA	LAA
Haha	*Cyanea eleeleensis*	LAA	LAA
Haha	*Cyanea glabra*	LAA	LAA
Haha	*Cyanea grimesiana ssp. grimesiana*	LAA	LAA
Haha	*Cyanea grimesiana ssp. obatae*	LAA	LAA
Haha	*Cyanea hamatiflora ssp. carlsonii*	LAA	LAA
Haha	*Cyanea hamatiflora ssp. hamatiflora*	LAA	LAA
Haha	*Cyanea humboldtiana*	LAA	LAA
Haha	*Cyanea kolekoleensis*	LAA	LAA
Haha	*Cyanea koolauensis*	LAA	LAA
Haha	*Cyanea kuhihewa*	LAA	LAA
Haha	*Cyanea kunthiana*	LAA	LAA
Haha	*Cyanea lanceolata*	LAA	LAA
Haha	*Cyanea lobata*	LAA	LAA
Haha	*Cyanea longiflora*	LAA	LAA
Haha	*Cyanea macrostegia ssp. gibsonii*	LAA	LAA
haha	*Cyanea magnicalyx*	LAA	LAA
Haha	*Cyanea mannii*	LAA	LAA
haha	*Cyanea maritae*	LAA	LAA
Haha	*Cyanea marksii*	LAA	NA

haha	*Cyanea mauiensis*	LAA	NA
Haha	*Cyanea mceldowneyi*	LAA	LAA
haha	*Cyanea munroi*	LAA	LAA
Haha	*Cyanea obtusa*	LAA	LAA
Haha	*Cyanea pinnatifida*	LAA	LAA
Haha	*Cyanea procera*	LAA	LAA
Haha	*Cyanea recta*	LAA	LAA
Haha	*Cyanea remyi*	LAA	LAA
Haha	*Cyanea rivularis*	LAA	LAA
Haha	*Cyanea shipmanii*	LAA	LAA
Haha	*Cyanea st.-johnii*	LAA	LAA
Haha	*Cyanea stictophylla*	LAA	LAA
Haha	*Cyanea superba*	LAA	LAA
Haha	*Cyanea truncata*	LAA	LAA
Haha	*Cyanea undulata*	LAA	LAA
haha nui	*Cyanea horrida*	LAA	LAA
Hairy Orcutt grass	*Orcuttia pilosa*	LAA	LAA
Hairy rattleweed	*Baptisia arachnifera*	LAA	NA
haiwale	*Cyrtandra ferripilosa*	LAA	LAA
haiwale	*Cyrtandra nanawaleensis*	LAA	NA
Haiwale	*Cyrtandra paliku*	LAA	LAA
haiwale	*Cyrtandra wagneri*	LAA	NA
Hala pepe	*Pleomele fernaldii*	LAA	LAA
Hala pepe	*Pleomele forbesii*	LAA	LAA
Hala pepe	*Pleomele hawaiiensis*	LAA	LAA
Harper's beauty	*Harperocallis flava*	LAA	NA
Harperella	*Ptilimnium nodosum*	LAA	NA
Hartweg's golden sunburst	*Pseudobahia bahiifolia*	LAA	NA
Hau kuahiwi	*Hibiscadelphus giffardianus*	LAA	LAA
Hau kuahiwi	*Hibiscadelphus hualalaiensis*	LAA	LAA
Hau kuahiwi	*Hibiscadelphus woodii*	LAA	LAA
Hawaii akepa	*Loxops coccineus*	LAA	NA
Hawaii creeper	*Oreomystis mana*	LAA	NA
Hawaiian (='lo) Hawk	*Buteo solitarius*	LAA	NA
Hawaiian (=koloa) Duck	*Anas wyvilliana*	LAA	NA
Hawaiian bluegrass	*Poa sandvicensis*	LAA	LAA
Hawaiian common gallinule	*Gallinula chloropus sandvicensis*	LAA	NA
Hawaiian coot	*Fulica americana alai*	LAA	NA
Hawaiian gardenia (=Na`u)	*Gardenia brighamii*	LAA	NA
Hawaiian goose	*Branta (=Nesochen) sandvicensis*	LAA	NA

Hawaiian hoary bat	*Lasiurus cinereus semotus*	LAA	NA
Hawaiian monk seal	*Neomonachus schauinslandi*	LAA	LAA
Hawaiian petrel	*Pterodroma sandwichensis*	LAA	NA
Hawaiian picture-wing fly	*Drosophila differens*	LAA	LAA
Hawaiian picture-wing fly	*Drosophila digressa*	LAA	NA
Hawaiian picture-wing fly	*Drosophila neoclavisetae*	LAA	LAA
Hawaiian picture-wing fly	*Drosophila sharpi*	LAA	LAA
Hawaiian stilt	*Himantopus mexicanus knudseni*	LAA	NA
Hawaiian vetch	*Vicia menziesii*	LAA	NA
Hawaiian yellow-faced bee	*Hylaeus kuakea*	LAA	NA
Hawaiian yellow-faced bee	*Hylaeus longiceps*	LAA	NA
Hawaiian yellow-faced bee	*Hylaeus mana*	LAA	NA
Hawksbill sea turtle	*Eretmochelys imbricata*	LAA	LAA
Hay's Spring amphipod	*Stygobromus hayi*	LAA	NA
Hayun Iagu (=(Guam) Tronkon guafi (Rota))	*Serianthes nelsonii*	LAA	NA
Headwater chub	*Gila nigra*	LAA	NA
Heau	*Exocarpos luteolus*	LAA	LAA
Heavy pigtoe	*Pleurobema taitianum*	LAA	NA
Heliotrope milk-vetch	*Astragalus montii*	LAA	LAA
Heller's blazingstar	*Liatris helleri*	LAA	NA
Helotes mold beetle	*Batrisodes venyivi*	LAA	NLAA
Hermes copper butterfly	*Lycaena hermes*	LAA	NA
Hickman's potentilla	*Potentilla hickmanii*	LAA	NA
Hidden Lake bluecurls	*Trichostema austromontanum ssp. compactum*	LAA	NA
Higgins eye (pearlymussel)	*Lampsilis higginsii*	LAA	NA
Highlands scrub hypericum	*Hypericum cumulicola*	LAA	NA
Highlands tiger beetle	*Cicindelidia highlandensis*	LAA	NA
Higo Chumbo	*Harrisia portoricensis*	LAA	NA
Higuero de sierra	*Crescentia portoricensis*	LAA	NA
Hiko White River springfish	*Crenichthys baileyi grandis*	LAA	LAA
Hilaris yellow-faced bee	*Hylaeus hilaris*	LAA	NA
Hillegrand's reedgrass	*Calamagrostis hillebrandii*	LAA	LAA
Hilo ischaemum	*Ischaemum byrone*	LAA	LAA
Hinckley oak	*Quercus hinckleyi*	LAA	NA
Hine's emerald dragonfly	*Somatochlora hineana*	LAA	LAA
Hirst Brothers' Panic grass	*Dichanthelium (=Panicum) hirstii*	LAA	NA
Ho`awa	*Pittosporum napaliense*	LAA	LAA
Hoffmann's rock-cress	*Arabis hoffmannii*	LAA	NA

Hoffmann's slender-flowered gilia	*Gilia tenuiflora ssp. hoffmannii*	LAA	NA
Holei	*Ochrosia haleakalae*	LAA	NA
Holei	*Ochrosia kilaueaensis*	LAA	NA
Holmgren milk-vetch	*Astragalus holmgreniorum*	LAA	LAA
Holy Ghost ipomopsis	*Ipomopsis sancti-spiritus*	LAA	NA
Honohono	*Haplostachys haplostachya*	LAA	NA
Hoover's spurge	*Chamaesyce hooveri*	LAA	LAA
Houghton's goldenrod	*Solidago houghtonii*	LAA	NA
Houston toad	*Bufo houstonensis*	LAA	LAA
Howell's spectacular thelypody	*Thelypodium howellii spectabilis*	LAA	NA
Howell's spineflower	*Chorizanthe howellii*	LAA	NA
Huachuca springsnail	*Pyrgulopsis thompsoni*	LAA	NA
Huachuca water-umbel	*Lilaeopsis schaffneriana var. recurva*	LAA	LAA
Hualapai Mexican vole	*Microtus mexicanus hualpaiensis*	LAA	NA
Hulumoa	*Korthalsella degeneri*	LAA	LAA
Humpback chub	*Gila cypha*	LAA	LAA
Humped tree snail	*Partula gibba*	LAA	NA
Hungerford's crawling water Beetle	*Brychius hungerfordi*	LAA	NA
Hutton tui chub	*Gila bicolor ssp.*	LAA	NA
Icebox Cave beetle	*Pseudanophthalmus frigidus*	LAA	NA
Ihi	*Portulaca villosa*	LAA	NA
Ihi`ihi	*Marsilea villosa*	LAA	LAA
Illinois cave amphipod	*Gammarus acherondytes*	LAA	NA
Independence Valley speckled dace	*Rhinichthys osculus lethoporus*	LAA	NA
Indian Knob mountain balm	*Eriodictyon altissimum*	LAA	NA
Indiana bat	*Myotis sodalis*	LAA	LAA
Interrupted (=Georgia) Rocksnail	*Leptoxis foremani*	LAA	LAA
Inyo California towhee	*Pipilo crissalis eremophilus*	LAA	LAA
Ione (incl. Irish Hill) buckwheat	*Eriogonum apricum (incl. var. prostratum)*	LAA	NA
Ione manzanita	*Arctostaphylos myrtifolia*	LAA	NA
Iowa Pleistocene snail	*Discus macclintocki*	LAA	NA
Island Barberry	*Berberis pinnata ssp. insularis*	LAA	NA
Island bedstraw	*Galium buxifolium*	LAA	NA

Island malacothrix	*Malacothrix squalida*	LAA	NA
Island marble Butterfly	*Euchloe ausonides insulanus*	LAA	NA
Island phacelia	*Phacelia insularis ssp. insularis*	LAA	NA
Island rush-rose	*Helianthemum greenei*	LAA	NA
Ivory-billed woodpecker	*Campephilus principalis*	LAA	NA
Jaguar	*Panthera onca*	LAA	LAA
James spinymussel	*Pleurobema collina*	LAA	NA
Jemez Mountains salamander	*Plethodon neomexicanus*	LAA	LAA
Jesup's milk-vetch	*Astragalus robbinsii var. jesupi*	LAA	NA
Johnson's seagrass	*Halophila johnsonii*	LAA	LAA
Jollyville Plateau Salamander	*Eurycea tonkawae*	LAA	LAA
Jones Cycladenia	*Cycladenia humilis var. jonesii*	LAA	NA
June sucker	*Chasmistes liorus*	LAA	LAA
Kamakahala	*Labordia cyrtandrae*	LAA	LAA
Kamakahala	*Labordia helleri*	LAA	LAA
Kamakahala	*Labordia lydgatei*	LAA	LAA
Kamakahala	*Labordia pumila*	LAA	LAA
Kamakahala	*Labordia tinifolia var. lanaiensis*	LAA	LAA
Kamakahala	*Labordia tinifolia var. wahiawaensis*	LAA	LAA
Kamakahala	*Labordia triflora*	LAA	LAA
Kamanomano	*Cenchrus agrimonioides*	LAA	LAA
Kampua`a	*Kadua (=Hedyotis) fluviatilis*	LAA	NA
Kanab ambersnail	*Oxyloma haydeni kanabensis*	LAA	NA
Karner blue butterfly	*Lycaeides melissa samuelis*	LAA	NA
Kauai cave amphipod	*Spelaeorchestia koloana*	LAA	LAA
Kauai cave wolf or pe'e pe'e maka 'ole spider	*Adelocosa anops*	LAA	LAA
Kauai hau kuahiwi	*Hibiscadelphus distans*	LAA	NA
Kauila	*Colubrina oppositifolia*	LAA	LAA
Kaulu	*Pteralyxia kauaiensis*	LAA	LAA
Kaulu	*Pteralyxia macrocarpa*	LAA	LAA
Kearney's blue-star	*Amsonia kearneyana*	LAA	NA
Keck's Checker-mallow	*Sidalcea keckii*	LAA	LAA
Kemp's ridley sea turtle	*Lepidochelys kempii*	LAA	NA
Kendall Warm Springs dace	*Rhinichthys osculus thermalis*	LAA	NA
Kenk's amphipod	*Stygobromus kenki*	LAA	NA
Kentucky arrow darter	*Etheostoma spilotum*	LAA	NA
Kentucky cave shrimp	*Palaemonias ganteri*	LAA	LAA

Kentucky glade cress	*Leavenworthia exigua laciniata*	LAA	LAA
Kenwood Marsh checker-mallow	*Sidalcea oregana ssp. valida*	LAA	NA
Kern mallow	*Eremalche kernensis*	LAA	NA
Kern primrose sphinx moth	*Euproserpinus euterpe*	LAA	NA
Key deer	*Odocoileus virginianus clavium*	LAA	NA
Key Largo cotton mouse	*Peromyscus gossypinus allapaticola*	LAA	NA
Key Largo woodrat	*Neotoma floridana smalli*	LAA	NA
Key tree cactus	*Pilosocereus robinii*	LAA	NA
kilau	*Dryopteris glabra var. pusilla*	LAA	NA
Killer whale	*Orcinus orca*	LAA	LAA
Kincaid's Lupine	*Lupinus sulphureus ssp. kincaidii*	LAA	LAA
Kio`ele	*Kadua coriacea*	LAA	LAA
Kiponapona	*Phyllostegia racemosa*	LAA	LAA
Kirtland's Warbler	*Setophaga kirtlandii (= Dendroica kirtlandii)*	LAA	NA
Kneeland Prairie penny-cress	*Thlaspi californicum*	LAA	LAA
Knieskern's Beaked-rush	*Rhynchospora knieskernii*	LAA	NA
Knowlton's cactus	*Pediocactus knowltonii*	LAA	NA
Ko`oko`olau	*Bidens amplectens*	LAA	LAA
Ko`oko`olau	*Bidens campylotheca pentamera*	LAA	LAA
Ko`oko`olau	*Bidens campylotheca waihoiensis*	LAA	LAA
Ko`oko`olau	*Bidens conjuncta*	LAA	LAA
Ko`oko`olau	*Bidens micrantha ctenophylla*	LAA	LAA
Ko`oko`olau	*Bidens micrantha ssp. kalealaha*	LAA	LAA
Ko`oko`olau	*Bidens wiebkei*	LAA	LAA
Ko`oloa`ula	*Abutilon menziesii*	LAA	NA
Kodachrome bladderpod	*Lesquerella tumulosa*	LAA	NA
Kohe malama malama o kanaloa	*Kanaloa kahoolawensis*	LAA	LAA
Koholapehu	*Dubautia latifolia*	LAA	LAA
Koki`o	*Kokia drynarioides*	LAA	LAA
Koki`o	*Kokia kauaiensis*	LAA	LAA
Koki`o ke`oke`o	*Hibiscus arnottianus ssp. immaculatus*	LAA	LAA

Koki`o ke`oke`o	*Hibiscus waimeae ssp. hannerae*	LAA	LAA
Kolea	*Myrsine fosbergii*	LAA	NA
Kolea	*Myrsine juddii*	LAA	LAA
Kolea	*Myrsine knudsenii*	LAA	LAA
Kolea	*Myrsine linearifolia*	LAA	LAA
Kolea	*Myrsine mezii*	LAA	LAA
Kolea	*Myrsine vaccinioides*	LAA	LAA
kookoolau	*Bidens hillebrandiana ssp. hillebrandiana*	LAA	NA
Kopa	*Hedyotis schlechtendahliana var. remyi*	LAA	LAA
Kopiko	*Psychotria grandiflora*	LAA	LAA
Kopiko	*Psychotria hobdyi*	LAA	LAA
Koster's springsnail	*Juturnia kosteri*	LAA	LAA
Kral's water-plantain	*Sagittaria secundifolia*	LAA	NA
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	LAA	NA
Kuahiwi laukahi	*Plantago hawaiensis*	LAA	LAA
Kuahiwi laukahi	*Plantago princeps*	LAA	LAA
Kuawawaenohu	*Schiedea lychnoides*	LAA	LAA
Kuenzler hedgehog cactus	*Echinocereus fendleri var. kuenzleri*	LAA	NA
Kula wahine noho	*Isodendrion pyrifolium*	LAA	LAA
Kulu`i	*Nototrichium humile*	LAA	LAA
La Graciosa thistle	*Cirsium loncholepis*	LAA	LAA
Lacy elimia (snail)	*Elimia crenatella*	LAA	NA
Laguna Beach liveforever	*Dudleya stolonifera*	LAA	NA
Laguna Mountains skipper	*Pyrgus ruralis lagunae*	LAA	LAA
Lahontan cutthroat trout	*Oncorhynchus clarkii henshawi*	LAA	NA
Lake County stonecrop	*Parvisedum leiocarpum*	LAA	NA
Lakela's mint	*Dicerandra immaculata*	LAA	NA
Lakeside daisy	*Hymenoxys herbacea*	LAA	NA
Lanai sandalwood (=`iliahi)	*Santalum haleakalae var. lanaiense*	LAA	LAA
Lanai tree snail	*Partulina semicarinata*	LAA	LAA
Lanai tree snail	*Partulina variabilis*	LAA	LAA
Lane Mountain milk-vetch	*Astragalus jaegerianus*	LAA	LAA
Lange's metalmark butterfly	*Apodemia mormo langei*	LAA	NA
Langford's tree snail	*Partula langfordi*	LAA	NA
Large-flowered fiddleneck	*Amsinckia grandiflora*	LAA	LAA
Large-flowered skullcap	*Scutellaria montana*	LAA	NA

Large-flowered woolly Meadowfoam	*Limnanthes floccosa ssp. grandiflora*	LAA	LAA
Large-fruited sand-verbena	*Abronia macrocarpa*	LAA	NA
Last Chance townsendia	*Townsendia aprica*	LAA	NA
Lau `ehu	*Panicum niihauense*	LAA	LAA
Laulihilihi	*Schiedea stellarioides*	LAA	LAA
Laurel dace	*Chrosomus saylori*	LAA	LAA
Layne's butterweed	*Senecio layneae*	LAA	NA
Leafy prairie-clover	*Dalea foliosa*	LAA	NA
Least Bell's vireo	*Vireo bellii pusillus*	LAA	LAA
Least tern	*Sterna antillarum*	LAA	NA
Leatherback sea turtle	*Dermochelys coriacea*	LAA	LAA
Lee County cave isopod	*Lirceus usdagalun*	LAA	NA
Lee pincushion cactus	*Coryphantha sneedii var. leei*	LAA	NA
Leedy's roseroot	*Rhodiola integrifolia ssp. leedyi*	LAA	NA
lehua makanoe	*Lysimachia daphnoides*	LAA	LAA
Leon Springs pupfish	*Cyprinodon bovinus*	LAA	LAA
Leopard darter	*Percina pantherina*	LAA	LAA
Lesser long-nosed bat	*Leptonycteris curasoae yerbabuenae*	LAA	NA
Lewton's polygala	*Polygala lewtonii*	LAA	NA
Light-footed clapper rail	*Rallus longirostris levipes*	LAA	NA
Liliwai	*Acaena exigua*	LAA	LAA
Little Aguja (=Creek) Pondweed	*Potamogeton clystocarpus*	LAA	NA
Little amphianthus	*Amphianthus pusillus*	LAA	NA
Little Colorado spinedace	*Lepidomeda vittata*	LAA	LAA
Little Kern golden trout	*Oncorhynchus aguabonita whitei*	LAA	LAA
Littlewing pearlymussel	*Pegias fabula*	LAA	NA
Llanero Coqui	*Eleutherodactylus juanariveroi*	LAA	LAA
Lloyd's Mariposa cactus	*Echinomastus mariposensis*	LAA	NA
Lo`ulu	*Pritchardia kaalae*	LAA	NA
Lo`ulu	*Pritchardia lanigera*	LAA	NA
Lo`ulu	*Pritchardia maideniana*	LAA	NA
Lo`ulu	*Pritchardia munroi*	LAA	NA
Lo`ulu	*Pritchardia napaliensis*	LAA	NA
Lo`ulu	*Pritchardia remota*	LAA	NLAA
Lo`ulu	*Pritchardia schattaueri*	LAA	NA
Lo`ulu	*Pritchardia viscosa*	LAA	NA
Loach minnow	*Tiaroga cobitis*	LAA	LAA

Lobed Star Coral	*Orbicella annularis*	LAA	NA
Loch Lomond coyote thistle	*Eryngium constancei*	LAA	NA
Loggerhead sea turtle	*Caretta caretta*	LAA	LAA
Loggerhead sea turtle	*Caretta caretta*	LAA	NA
Lompoc yerba santa	*Eriodictyon capitatum*	LAA	LAA
longfin smelt	*Spirinchus thaleichthys*	LAA	NA
Longhorn fairy shrimp	*Branchinecta longiantenna*	LAA	LAA
Longspurred mint	*Dicerandra cornutissima*	LAA	NA
Lost River sucker	*Deltistes luxatus*	LAA	LAA
Lotis blue butterfly	*Lycaeides argyrognomon lotis*	LAA	NA
Louisiana pearlshell	*Margaritifera hembeli*	LAA	NA
Louisiana pine snake	*Pituophis ruthveni*	LAA	NA
Louisiana quillwort	*Isoetes louisianensis*	LAA	NA
Louisville Cave beetle	*Pseudanophthalmus troglodytes*	LAA	NA
Loulu	*Pritchardia bakeri*	LAA	NA
Lower Keys marsh rabbit	*Sylvilagus palustris hefneri*	LAA	NA
Lyon's pentachaeta	*Pentachaeta lyonii*	LAA	LAA
Lyrate bladderpod	*Lesquerella lyrata*	LAA	NA
Ma`oli`oli	*Schiedea apokremnos*	LAA	LAA
Ma`oli`oli	*Schiedea hawaiiensis*	LAA	NA
Ma`oli`oli	*Schiedea kealiae*	LAA	LAA
Ma`oli`oli	*Schiedea pubescens*	LAA	NA
MacFarlane's four-o'clock	*Mirabilis macfarlanei*	LAA	NA
Madison Cave isopod	*Antrolana lira*	LAA	NA
Madla's Cave Meshweaver	*Cicurina madla*	LAA	LAA
Magnificent ramshorn	*Planorbella magnifica*	LAA	NA
Maguire primrose	*Primula maguirei*	LAA	NA
Mahoe	*Alectryon macrococcus*	LAA	LAA
Makou	*Peucedanum sandwicense*	LAA	LAA
Makou	*Ranunculus hawaiensis*	LAA	NA
Makou	*Ranunculus mauiensis*	LAA	NA
Malheur wire-lettuce	*Stephanomeria malheurensis*	LAA	LAA
Mancos milk-vetch	*Astragalus humillimus*	LAA	NA
Mann's bluegrass	*Poa mannii*	LAA	LAA
Many-flowered navarretia	*Navarretia leucocephala ssp. plieantha*	LAA	NA
Mapele	*Cyrtandra cyaneoides*	LAA	LAA
Marbled murrelet	*Brachyramphus marmoratus*	LAA	LAA
Marcescent dudleya	*Dudleya cymosa ssp. marcescens*	LAA	NA

Mariana (=aga) Crow	*Corvus kubaryi*	LAA	LAA
Mariana common moorhen	*Gallinula chloropus guami*	LAA	NA
Mariana eight-spot butterfly	*Hypolimnas octocula mariannensis*	LAA	NA
Mariana fruit Bat (=Mariana flying fox)	*Pteropus mariannus mariannus*	LAA	LAA
Mariana gray swiftlet	*Aerodramus vanikorensis bartschi*	LAA	NA
Mariana wandering butterfly	*Vagrans egistina*	LAA	NA
Marin dwarf-flax	*Hesperolinon congestum*	LAA	NA
Mariposa pussypaws	*Calyptridium pulchellum*	LAA	NA
Marron bacora	*Solanum conocarpum*	LAA	NA
Marsh Sandwort	*Arenaria paludicola*	LAA	NA
Maryland darter	*Etheostoma sellare*	LAA	LAA
Masked bobwhite (quail)	*Colinus virginianus ridgwayi*	LAA	NA
Mat-forming quillwort	*Isoetes tegetiformans*	LAA	NA
Maui akepa	*Loxops ochraceus*	LAA	NA
Maui fern	*Microlepia strigosa var. mauiensis*	LAA	NA
Maui nukupuu	*Hemignathus affinis*	LAA	NA
Maui parrotbill (honeycreeper)	*Pseudonestor xanthophrys*	LAA	LAA
Maui reedgrass	*Calamagrostis expansa*	LAA	NA
Maui remya	*Remya mauiensis*	LAA	LAA
Mauna Loa (=Ka'u) silversword	*Argyroxiphium kauense*	LAA	LAA
McDonald's rock-cress	*Arabis macdonaldiana*	LAA	NA
Mead's milkweed	*Asclepias meadii*	LAA	NA
Mehamehame	*Flueggea neowawraea*	LAA	LAA
Meltwater lednian stonefly	*Lednia tumana*	LAA	NA
Menzies ballart	*Exocarpos menziesii*	LAA	NA
Menzies' wallflower	*Erysimum menziesii*	LAA	NA
Mesa Verde cactus	*Sclerocactus mesae-verdae*	LAA	NA
Metcalf Canyon jewelflower	*Streptanthus albidus ssp. albidus*	LAA	NA
Mexican flannelbush	*Fremontodendron mexicanum*	LAA	LAA
Mexican long-nosed bat	*Leptonycteris nivalis*	LAA	NA
Mexican spotted owl	*Strix occidentalis lucida*	LAA	LAA
Mexican wolf	*Canis lupus baileyi*	LAA	NA
Mexican wolf, Experimental Population	*Canis lupus baileyi*	LAA	NA
Miami Blue Butterfly	*Cyclargus (=Hemiargus) thomasi bethunebakeri*	LAA	NA

Miami tiger beetle	*Cicindelidia floridana*	LAA	NA
Miccosukee gooseberry	*Ribes echinellum*	LAA	NA
Michaux's sumac	*Rhus michauxii*	LAA	NA
Michigan monkey-flower	*Mimulus michiganensis*	LAA	NA
Micronesian megapode	*Megapodius laperouse*	LAA	NA
Minnesota dwarf trout lily	*Erythronium propullans*	LAA	NA
Mission blue butterfly	*Icaricia icarioides missionensis*	LAA	NA
Mississippi sandhill crane	*Grus canadensis pulla*	LAA	LAA
Missouri bladderpod	*Physaria filiformis*	LAA	NA
Mitchell's satyr Butterfly	*Neonympha mitchellii mitchellii*	LAA	NA
Moapa dace	*Moapa coriacea*	LAA	NA
Mohave tui chub	*Gila bicolor ssp. mohavensis*	LAA	NA
Mohr's Barbara's buttons	*Marshallia mohrii*	LAA	NA
Molokai thrush	*Myadestes lanaiensis rutha*	LAA	NA
Mona boa	*Epicrates monensis monensis*	LAA	LAA
Mona ground Iguana	*Cyclura stejnegeri*	LAA	LAA
Monito gecko	*Sphaerodactylus micropithecus*	LAA	LAA
Monterey clover	*Trifolium trichocalyx*	LAA	NA
Monterey gilia	*Gilia tenuiflora ssp. arenaria*	LAA	NA
Monterey spineflower	*Chorizanthe pungens var. pungens*	LAA	LAA
Morefield's leather flower	*Clematis morefieldii*	LAA	NA
Morro manzanita	*Arctostaphylos morroensis*	LAA	NA
Morro shoulderband (=Banded dune) snail	*Helminthoglypta walkeriana*	LAA	LAA
Mount Charleston blue butterfly	*Icaricia (Plebejus) shasta charlestonensis*	LAA	LAA
Mount Graham red squirrel	*Tamiasciurus hudsonicus grahamensis*	LAA	LAA
Mount Hermon June beetle	*Polyphylla barbata*	LAA	NA
Mountain golden heather	*Hudsonia montana*	LAA	LAA
Mountain sweet pitcher-plant	*Sarracenia rubra ssp. jonesii*	LAA	NA
Mountain yellow-legged frog, Northern California DPS	*Rana muscosa*	LAA	LAA
Mountain yellow-legged frog, Southern California DPS	*Rana muscosa*	LAA	LAA
Mountainous Star Coral	*Orbicella faveolata*	LAA	NA
Munz's onion	*Allium munzii*	LAA	LAA
Myrtle's silverspot butterfly	*Speyeria zerene myrtleae*	LAA	NA

Na`ena`e	*Dubautia herbstobatae*	LAA	LAA
Na`ena`e	*Dubautia imbricata imbricata*	LAA	LAA
Na`ena`e	*Dubautia pauciflorula*	LAA	LAA
Na`ena`e	*Dubautia plantaginea magnifolia*	LAA	LAA
Na`ena`e	*Dubautia plantaginea ssp. humilis*	LAA	LAA
Na`ena`e	*Dubautia waialealae*	LAA	LAA
Naenae	*Dubautia kalalauensis*	LAA	LAA
Naenae	*Dubautia kenwoodii*	LAA	LAA
Nani wai`ale`ale	*Viola kauaiensis var. wahiawaensis*	LAA	LAA
Nanu	*Gardenia mannii*	LAA	LAA
Nanu	*Gardenia remyi*	LAA	NA
Napa bluegrass	*Poa napensis*	LAA	NA
Narrow pigtoe	*Fusconaia escambia*	LAA	LAA
Narrow-headed gartersnake	*Thamnophis rufipunctatus*	LAA	LAA
Nashville crayfish	*Orconectes shoupi*	LAA	NA
Nassau grouper	*Epinephelus striatus*	LAA	NA
Navajo sedge	*Carex specuicola*	LAA	LAA
Navasota ladies'-tresses	*Spiranthes parksii*	LAA	NA
Neches River rose-mallow	*Hibiscus dasycalyx*	LAA	LAA
Nehe	*Lipochaeta fauriei*	LAA	LAA
Nehe	*Lipochaeta kamolensis*	LAA	LAA
Nehe	*Lipochaeta lobata var. leptophylla*	LAA	LAA
Nehe	*Lipochaeta micrantha*	LAA	LAA
Nehe	*Lipochaeta waimeaensis*	LAA	LAA
Nehe	*Melanthera tenuifolia*	LAA	LAA
Nellie cory cactus	*Coryphantha minima*	LAA	NA
Nelson's checker-mallow	*Sidalcea nelsoniana*	LAA	NA
Neosho madtom	*Noturus placidus*	LAA	NA
Neosho Mucket	*Lampsilis rafinesqueana*	LAA	LAA
Nevin's barberry	*Berberis nevinii*	LAA	LAA
New Mexican ridge-nosed rattlesnake	*Crotalus willardi obscurus*	LAA	LAA
New Mexico meadow jumping mouse	*Zapus hudsonius luteus*	LAA	LAA
Newcomb's snail	*Erinna newcombi*	LAA	LAA
Newcomb's Tree snail	*Newcombia cumingi*	LAA	LAA
Newell's Townsend's shearwater	*Puffinus auricularis newelli*	LAA	NA

Niangua darter	*Etheostoma nianguae*	LAA	LAA
Nichol's Turk's head cactus	*Echinocactus horizonthalonius var. nicholii*	LAA	NA
Nightingale reed warbler (old world warbler)	*Acrocephalus luscinia*	LAA	NA
Nioi	*Eugenia koolauensis*	LAA	LAA
Nipomo Mesa lupine	*Lupinus nipomensis*	LAA	NA
No common name	*Abutilon eremitopetalum*	LAA	LAA
No common name	*Abutilon sandwicense*	LAA	LAA
No common name	*Achyranthes mutica*	LAA	LAA
No common name	*Acropora globiceps*	LAA	NA
No common name	*Acropora jacquelinae*	LAA	NA
No common name	*Acropora retusa*	LAA	NA
No common name	*Acropora speciosa*	LAA	NA
No common name	*Adiantum vivesii*	LAA	NA
No common name	*Agave eggersiana*	LAA	LAA
No common name	*Aristida chaseae*	LAA	NA
No common name	*Asplenium dielfalcatum*	LAA	LAA
No common name	*Asplenium diellaciniatum*	LAA	NA
No common name	*Asplenium dielmannii*	LAA	LAA
No common name	*Asplenium dielpallidum*	LAA	LAA
No common name	*Asplenium fragile insulare*	LAA	LAA
No common name	*Asplenium unisorum*	LAA	LAA
No common name	*Auerodendron pauciflorum*	LAA	NA
No common name	*Bonamia menziesii*	LAA	LAA
No common name	*Calyptranthes thomasiana*	LAA	NA
No common name	*Catesbaea melanocarpa*	LAA	LAA
No common name	*Chamaecrista glandulosa var. mirabilis*	LAA	NA
No common name	*Cordia bellonis*	LAA	NA
No common name	*Cranichis ricartii*	LAA	NA
No common name	*Cyanea kauaulaensis*	LAA	NA
No common name	*Cyanea profuga*	LAA	LAA
No common name	*Cyanea purpurellifolia*	LAA	LAA
No common name	*Cyperus fauriei*	LAA	LAA
No common name	*Cyperus neokunthianus*	LAA	NA
No common name	*Cyperus pennatiformis*	LAA	LAA
No common name	*Cyrtandra gracilis*	LAA	LAA
No common name	*Cyrtandra waiolani*	LAA	LAA
No common name	*Daphnopsis hellerana*	LAA	NA
No common name	*Delissea rhytidosperma*	LAA	LAA
No common name	*Delissea undulata*	LAA	LAA

No common name	*Dendrobium guamense*	LAA	NA
No common name	*Deparia kaalaana*	LAA	NA
No common name	*Diplazium molokaiense*	LAA	LAA
No common name	*Doryopteris angelica*	LAA	LAA
No common name	*Doryopteris takeuchii*	LAA	LAA
No common name	*Elaphoglossum serpens*	LAA	NA
no common name	*Eua zebrina*	LAA	NA
No common name	*Eugenia bryanii*	LAA	NA
No common name	*Eugenia woodburyana*	LAA	NA
No common name	*Euphyllia paradivisa*	LAA	NA
No common name	*Festuca hawaiiensis*	LAA	NA
No common name	*Festuca molokaiensis*	LAA	LAA
No common name	*Geocarpon minimum*	LAA	NA
No common name	*Gesneria pauciflora*	LAA	NA
No common name	*Gonocalyx concolor*	LAA	LAA
No common name	*Gouania hillebrandii*	LAA	LAA
No common name	*Gouania meyenii*	LAA	LAA
No common name	*Gouania vitifolia*	LAA	LAA
No common name	*Hesperomannia arborescens*	LAA	LAA
No common name	*Hesperomannia arbuscula*	LAA	LAA
No common name	*Hesperomannia lydgatei*	LAA	LAA
No common name	*Ilex sintenisii*	LAA	NA
No common name	*Isopora crateriformis*	LAA	NA
No common name	*Kadua degeneri*	LAA	LAA
No common name	*Kadua haupuensis*	LAA	NA
No common name	*Kadua parvula*	LAA	LAA
No common name	*Kadua st.-johnii*	LAA	LAA
No common name	*Keysseria (=Lagenifera) erici*	LAA	LAA
No common name	*Keysseria (=Lagenifera) helenae*	LAA	LAA
No common name	*Labordia lorenciana*	LAA	NA
No common name	*Lepanthes eltoroensis*	LAA	NA
No common name	*Lepidium orbiculare*	LAA	NA
No common name	*Leptocereus grantianus*	LAA	NA
No common name	*Lipochaeta venosa*	LAA	NA
No common name	*Lobelia koolauensis*	LAA	LAA
No common name	*Lobelia monostachya*	LAA	LAA
No common name	*Lobelia niihauensis*	LAA	LAA
No common name	*Lobelia oahuensis*	LAA	LAA
No common name	*Lyonia truncata var. proctorii*	LAA	NA
No common name	*Lysimachia filifolia*	LAA	LAA
No common name	*Lysimachia iniki*	LAA	LAA

No common name	*Lysimachia lydgatei*	LAA	LAA
No common name	*Lysimachia maxima*	LAA	LAA
No common name	*Lysimachia pendens*	LAA	LAA
No common name	*Lysimachia scopulensis*	LAA	LAA
No common name	*Lysimachia venosa*	LAA	LAA
No common name	*Maesa walkeri*	LAA	NA
No common name	*Mitracarpus maxwelliae*	LAA	NA
No common name	*Mitracarpus polycladus*	LAA	NA
No common name	*Myrcia paganii*	LAA	NA
No common name	*Neraudia angulata*	LAA	LAA
No common name	*Neraudia ovata*	LAA	LAA
No common name	*Neraudia sericea*	LAA	LAA
No common name	*Nervilia jacksoniae*	LAA	NA
No common name	*Nesogenes rotensis*	LAA	NA
No common name	*Osmoxylon mariannense*	LAA	NA
no common name	*Ostodes strigatus*	LAA	NA
No common name	*Pavona diffluens*	LAA	NA
No common name	*Phyllanthus saffordii*	LAA	NA
No common name	*Phyllostegia bracteata*	LAA	LAA
No common name	*Phyllostegia brevidens*	LAA	NA
No common name	*Phyllostegia floribunda*	LAA	NA
No common name	*Phyllostegia glabra var. lanaiensis*	LAA	NA
No common name	*Phyllostegia haliakalae*	LAA	LAA
No common name	*Phyllostegia helleri*	LAA	NA
No common name	*Phyllostegia hirsuta*	LAA	LAA
No common name	*Phyllostegia hispida*	LAA	LAA
No common name	*Phyllostegia kaalaensis*	LAA	LAA
No common name	*Phyllostegia knudsenii*	LAA	LAA
No common name	*Phyllostegia mannii*	LAA	LAA
No common name	*Phyllostegia mollis*	LAA	LAA
No common name	*Phyllostegia parviflora*	LAA	LAA
No common name	*Phyllostegia pilosa*	LAA	LAA
No common name	*Phyllostegia renovans*	LAA	LAA
No common name	*Phyllostegia stachyoides*	LAA	NA
No common name	*Phyllostegia velutina*	LAA	LAA
No common name	*Phyllostegia waimeae*	LAA	LAA
No common name	*Phyllostegia warshaueri*	LAA	LAA
No common name	*Phyllostegia wawrana*	LAA	LAA
No common name	*Pittosporum halophilum*	LAA	LAA
No common name	*Pittosporum hawaiiense*	LAA	NA
No common name	*Platanthera holochila*	LAA	LAA

No common name	*Platydesma cornuta cornuta*	LAA	LAA
No common name	*Platydesma cornuta decurrens*	LAA	LAA
No common name	*Platydesma remyi*	LAA	NA
No common name	*Poa siphonoglossa*	LAA	LAA
No common name	*Polyscias bisattenuata*	LAA	LAA
No common name	*Polyscias flynnii*	LAA	LAA
No common name	*Polyscias lydgatei*	LAA	LAA
No common name	*Polyscias racemosa*	LAA	LAA
No common name	*Polystichum calderonense*	LAA	NA
No common name	*Pteris lidgatei*	LAA	LAA
No common name	*Remya kauaiensis*	LAA	LAA
No common name	*Remya montgomeryi*	LAA	LAA
No common name	*Sanicula mariversa*	LAA	LAA
No common name	*Sanicula purpurea*	LAA	LAA
No common name	*Sanicula sandwicensis*	LAA	NA
No common name	*Santalum involutum*	LAA	NA
No common name	*Schiedea attenuata*	LAA	LAA
No common name	*Schiedea diffusa ssp. macraei*	LAA	NA
No common name	*Schiedea diffusa subsp. diffusa*	LAA	NA
No common name	*Schiedea haleakalensis*	LAA	LAA
No common name	*Schiedea helleri*	LAA	LAA
No common name	*Schiedea hookeri*	LAA	LAA
No common name	*Schiedea jacobii*	LAA	LAA
No common name	*Schiedea kaalae*	LAA	LAA
No common name	*Schiedea kauaiensis*	LAA	LAA
No common name	*Schiedea laui*	LAA	LAA
No common name	*Schiedea lydgatei*	LAA	LAA
No common name	*Schiedea membranacea*	LAA	LAA
No common name	*Schiedea nuttallii*	LAA	LAA
No common name	*Schiedea obovata*	LAA	LAA
No common name	*Schiedea salicaria*	LAA	LAA
No common name	*Schiedea sarmentosa*	LAA	LAA
No common name	*Schiedea spergulina var. leiopoda*	LAA	LAA
No common name	*Schiedea spergulina var. spergulina*	LAA	LAA
No common name	*Schiedea trinervis*	LAA	LAA
No common name	*Schiedea viscosa*	LAA	LAA
No common name	*Schoepfia arenaria*	LAA	NA
No common name	*Seriatopora aculeata*	LAA	NA

No common name	*Sicyos lanceoloideus*	LAA	NA
No common name	*Silene alexandri*	LAA	LAA
No common name	*Silene hawaiiensis*	LAA	LAA
No common name	*Silene lanceolata*	LAA	LAA
No common name	*Silene perlmanii*	LAA	LAA
No common name	*Spermolepis hawaiiensis*	LAA	LAA
No common name	*Stenogyne angustifolia angustifolia*	LAA	NA
No common name	*Stenogyne bifida*	LAA	LAA
No common name	*Stenogyne campanulata*	LAA	LAA
No common name	*Stenogyne cranwelliae*	LAA	NA
No common name	*Stenogyne kaalae ssp. sherffii*	LAA	NA
No common name	*Stenogyne kanehoana*	LAA	LAA
No common name	*Stenogyne kauaulaensis*	LAA	LAA
No common name	*Stenogyne kealiae*	LAA	LAA
No common name	*Tabernaemontana rotensis*	LAA	NA
No common name	*Tectaria estremerana*	LAA	NA
No common name	*Ternstroemia subsessilis*	LAA	NA
No common name	*Tetramolopium arenarium*	LAA	NA
No common name	*Tetramolopium filiforme*	LAA	LAA
No common name	*Tetramolopium lepidotum ssp. lepidotum*	LAA	LAA
No common name	*Tetramolopium remyi*	LAA	LAA
No common name	*Tetramolopium rockii*	LAA	LAA
No common name	*Thelypteris inabonensis*	LAA	NA
No common name	*Thelypteris verecunda*	LAA	NA
No common name	*Thelypteris yaucoensis*	LAA	NA
No common name	*Tinospora homosepala*	LAA	NA
No common name	*Trematolobelia singularis*	LAA	LAA
No common name	*Tuberolabium guamense*	LAA	NA
No common name	*Varronia rupicola*	LAA	LAA
No common name	*Vernonia proctorii*	LAA	NA
No common name	*Vigna o-wahuensis*	LAA	LAA
No common name	*Viola helenae*	LAA	LAA
No common name	*Viola lanaiensis*	LAA	LAA
No common name	*Viola oahuensis*	LAA	LAA
No common name	*Wikstroemia skottsbergiana*	LAA	NA
No common name	*Wikstroemia villosa*	LAA	LAA
No common name	*Xylosma crenatum*	LAA	LAA
Noel's Amphipod	*Gammarus desperatus*	LAA	LAA
Nohoanu	*Geranium arboreum*	LAA	LAA
Nohoanu	*Geranium hanaense*	LAA	LAA

Nohoanu	*Geranium hillebrandii*	LAA	LAA
Nohoanu	*Geranium kauaiense*	LAA	LAA
Nohoanu	*Geranium multiflorum*	LAA	LAA
noonday globe	*Patera clarki nantahala*	LAA	NA
North Park phacelia	*Phacelia formosula*	LAA	NA
Northeastern beach tiger beetle	*Cicindela dorsalis dorsalis*	LAA	NA
Northeastern bulrush	*Scirpus ancistrochaetus*	LAA	NA
Northern aplomado Falcon	*Falco femoralis septentrionalis*	LAA	NA
Northern aplomado Falcon, Arizona and New Mexico Experimental Population	*Falco femoralis septentrionalis*	LAA	NA
Northern Idaho Ground Squirrel	*Urocitellus brunneus*	LAA	NA
Northern Long-Eared Bat	*Myotis septentrionalis*	LAA	NA
Northern Mexican gartersnake	*Thamnophis eques megalops*	LAA	LAA
Northern riffleshell	*Epioblasma torulosa rangiana*	LAA	NA
Northern spotted owl	*Strix occidentalis caurina*	LAA	LAA
Northern wild monkshood	*Aconitum noveboracense*	LAA	NA
Northern Wormwood	*Artemisia campestris var. wormskioldii*	LAA	NA
Oahu creeper	*Paroreomyza maculata*	LAA	NA
Oahu elepaio	*Chasiempis ibidis*	LAA	LAA
Oahu tree snail	*Achatinella abbreviata*	LAA	NA
Oahu tree snail	*Achatinella apexfulva*	LAA	NA
Oahu tree snail	*Achatinella bellula*	LAA	NA
Oahu tree snail	*Achatinella bulimoides*	LAA	NA
Oahu tree snail	*Achatinella byronii*	LAA	NA
Oahu tree snail	*Achatinella cestus*	LAA	NA
Oahu tree snail	*Achatinella concavospira*	LAA	NA
Oahu tree snail	*Achatinella curta*	LAA	NA
Oahu tree snail	*Achatinella decipiens*	LAA	NA
Oahu tree snail	*Achatinella dimorpha*	LAA	NA
Oahu tree snail	*Achatinella elegans*	LAA	NA
Oahu tree snail	*Achatinella fulgens*	LAA	NA
Oahu tree snail	*Achatinella fuscobasis*	LAA	NA
Oahu tree snail	*Achatinella juddi*	LAA	NA
Oahu tree snail	*Achatinella juncea*	LAA	NA
Oahu tree snail	*Achatinella leucorraphe*	LAA	NA
Oahu tree snail	*Achatinella lila*	LAA	NA
Oahu tree snail	*Achatinella livida*	LAA	NA

Oahu tree snail	*Achatinella lorata*	LAA	NA
Oahu tree snail	*Achatinella mustelina*	LAA	NA
Oahu tree snail	*Achatinella phaeozona*	LAA	NA
Oahu tree snail	*Achatinella pulcherrima*	LAA	NA
Oahu tree snail	*Achatinella pupukanioe*	LAA	NA
Oahu tree snail	*Achatinella rosea*	LAA	NA
Oahu tree snail	*Achatinella sowerbyana*	LAA	NA
Oahu tree snail	*Achatinella stewartii*	LAA	NA
Oahu tree snail	*Achatinella swiftii*	LAA	NA
Oahu tree snail	*Achatinella taeniolata*	LAA	NA
Oahu tree snail	*Achatinella turgida*	LAA	NA
Oahu tree snail	*Achatinella valida*	LAA	NA
Oahu tree snail	*Achatinella viridans*	LAA	NA
Oahu tree snail	*Achatinella vulpina*	LAA	NA
Oahu wild coffee (=kopiko)	*Psychotria hexandra ssp. oahuensis*	LAA	LAA
Oceanic Hawaiian damselfly	*Megalagrion oceanicum*	LAA	LAA
Ocelot	*Leopardus (=Felis) pardalis*	LAA	NA
Ochlockonee moccasinshell	*Medionidus simpsonianus*	LAA	LAA
Oha	*Delissea subcordata*	LAA	LAA
Ohai	*Sesbania tomentosa*	LAA	LAA
Ohlone tiger beetle	*Cicindela ohlone*	LAA	NA
Okaloosa darter	*Etheostoma okaloosae*	LAA	NA
Okeechobee gourd	*Cucurbita okeechobeensis ssp. okeechobeensis*	LAA	NA
Olive ridley sea turtle	*Lepidochelys olivacea*	LAA	NA
Olive ridley sea turtle	*Lepidochelys olivacea*	LAA	NA
Olua	*Hypolepis hawaiiensis var. mauiensis*	LAA	NA
Olulu	*Brighamia insignis*	LAA	LAA
Olympia pocket gopher	*Thomomys mazama pugetensis*	LAA	LAA
Opuhe	*Urera kaalae*	LAA	LAA
Orangeblack Hawaiian damselfly	*Megalagrion xanthomelas*	LAA	NA
Orangefoot pimpleback (pearlymussel)	*Plethobasus cooperianus*	LAA	NA
Orangefoot pimpleback (pearlymussel), French Broad and Holston River, TN Experimental Population	*Plethobasus cooperianus*	LAA	NA
Orangenacre mucket	*Lampsilis perovalis*	LAA	LAA

Orcutt's spineflower	*Chorizanthe orcuttiana*	LAA	NA
Oregon silverspot butterfly	*Speyeria zerene hippolyta*	LAA	LAA
Oregon spotted frog	*Rana pretiosa*	LAA	LAA
Osterhout milkvetch	*Astragalus osterhoutii*	LAA	NA
Ostler's peppergrass	*Lepidium ostleri*	LAA	NA
Otay mesa-mint	*Pogogyne nudiuscula*	LAA	NA
Otay tarplant	*Deinandra (=Hemizonia) conjugens*	LAA	LAA
Ouachita rock pocketbook	*Arkansia wheeleri*	LAA	NA
Oval pigtoe	*Pleurobema pyriforme*	LAA	LAA
Ovate clubshell	*Pleurobema perovatum*	LAA	LAA
Owens pupfish	*Cyprinodon radiosus*	LAA	NA
Owens Tui Chub	*Gila bicolor ssp. snyderi*	LAA	LAA
Oyster mussel	*Epioblasma capsaeformis*	LAA	LAA
Oyster mussel, Alabama Experimental Population	*Epioblasma capsaeformis*	LAA	NA
Oyster mussel, French Broad River and Holston River, TN Experimental Population	*Epioblasma capsaeformis*	LAA	NA
Ozark big-eared bat	*Corynorhinus (=Plecotus) townsendii ingens*	LAA	NA
Ozark cavefish	*Amblyopsis rosae*	LAA	NA
Ozark Hellbender	*Cryptobranchus alleganiensis bishopi*	LAA	NA
Pa`iniu	*Astelia waialealae*	LAA	LAA
Pacific pocket mouse	*Perognathus longimembris pacificus*	LAA	NA
Pacific sheath-tailed Bat	*Emballonura semicaudata rotensis*	LAA	NA
Pacific sheath-tailed Bat	*Emballonura semicaudata semicaudata*	LAA	NA
Pagosa skyrocket	*Ipomopsis polyantha*	LAA	LAA
Pahranagat roundtail chub	*Gila robusta jordani*	LAA	NA
Pahrump poolfish	*Empetrichthys latos*	LAA	NA
Painted rocksnail	*Leptoxis taeniata*	LAA	NA
Painted snake coiled forest snail	*Anguispira picta*	LAA	NA
Paiute cutthroat trout	*Oncorhynchus clarkii seleniris*	LAA	NA
Palapalai aumakua	*Dryopteris crinalis var. podosorus*	LAA	LAA
Pale lilliput (pearlymussel)	*Toxolasma cylindrellus*	LAA	NA

Palezone shiner	*Notropis albizonatus*	LAA	NA
Palila (honeycreeper)	*Loxioides bailleui*	LAA	LAA
Pallid manzanita	*Arctostaphylos pallida*	LAA	NA
Pallid sturgeon	*Scaphirhynchus albus*	LAA	NA
Palma de manaca	*Calyptronoma rivalis*	LAA	NA
Palmate-bracted bird's beak	*Cordylanthus palmatus*	LAA	NA
Palo colorado	*Ternstroemia luquillensis*	LAA	NA
Palo de jazmin	*Styrax portoricensis*	LAA	NA
Palo de nigua	*Cornutia obovata*	LAA	NA
Palo de ramon	*Banara vanderbiltii*	LAA	NA
Palo de rosa	*Ottoschulzia rhodoxylon*	LAA	NA
Palos Verdes blue butterfly	*Glaucopsyche lygdamus palosverdesensis*	LAA	LAA
Pamakani	*Tetramolopium capillare*	LAA	LAA
Pamakani	*Viola chamissoniana ssp. chamissoniana*	LAA	LAA
Papala	*Charpentiera densiflora*	LAA	LAA
Papery whitlow-wort	*Paronychia chartacea*	LAA	NA
Parachute beardtongue	*Penstemon debilis*	LAA	LAA
Pariette cactus	*Sclerocactus brevispinus*	LAA	NA
Parish's daisy	*Erigeron parishii*	LAA	LAA
Paudedo	*Hedyotis megalantha*	LAA	NA
Pauoa	*Ctenitis squamigera*	LAA	LAA
Pawnee montane skipper	*Hesperia leonardus montana*	LAA	NA
Pearl darter	*Percina aurora*	LAA	NA
Peck's cave amphipod	*Stygobromus (=Stygonectes) pecki*	LAA	LAA
Pecos (=puzzle =paradox) sunflower	*Helianthus paradoxus*	LAA	LAA
Pecos amphipod	*Gammarus pecos*	LAA	LAA
Pecos assiminea snail	*Assiminea pecos*	LAA	LAA
Pecos bluntnose shiner	*Notropis simus pecosensis*	LAA	LAA
Pecos gambusia	*Gambusia nobilis*	LAA	NA
Pedate checker-mallow	*Sidalcea pedata*	LAA	NA
Peebles Navajo cactus	*Pediocactus peeblesianus var. peeblesianus*	LAA	NA
Peirson's milk-vetch	*Astragalus magdalenae var. peirsonii*	LAA	LAA
Pelos del diablo	*Aristida portoricensis*	LAA	NA
Penasco least chipmunk	*Tamias minimus atristriatus*	LAA	NA
Pendant kihi fern	*Adenophorus periens*	LAA	LAA
Peninsular bighorn sheep	*Ovis canadensis nelsoni*	LAA	LAA

Penland alpine fen mustard	*Eutrema penlandii*	LAA	NA
Penland beardtongue	*Penstemon penlandii*	LAA	NA
Pennell's bird's-beak	*Cordylanthus tenuis ssp. capillaris*	LAA	NA
Perdido Key beach mouse	*Peromyscus polionotus trissyllepsis*	LAA	LAA
Persistent trillium	*Trillium persistens*	LAA	NA
Peter's Mountain mallow	*Iliamna corei*	LAA	NA
Phantom Springsnail	*Pyrgulopsis texana*	LAA	LAA
Phantom Tryonia	*Tryonia cheatumi*	LAA	LAA
Pigeon wings	*Clitoria fragrans*	LAA	NA
Pillar Coral	*Dendrogyra cylindricus*	LAA	NA
Pilo	*Hedyotis mannii*	LAA	LAA
Pilo kea lau li`i	*Platydesma rostrata*	LAA	LAA
Pima pineapple cactus	*Coryphantha scheeri var. robustispina*	LAA	NA
Pine Hill ceanothus	*Ceanothus roderickii*	LAA	NA
Pine Hill flannelbush	*Fremontodendron californicum ssp. decumbens*	LAA	NA
Pineland sandmat	*Chamaesyce deltoidea pinetorum*	LAA	NA
Pink mucket (pearlymussel)	*Lampsilis abrupta*	LAA	NA
Piping Plover	*Charadrius melodus*	LAA	LAA
Piping Plover, Great Lakes breeding Population	*Charadrius melodus*	LAA	LAA
Pismo clarkia	*Clarkia speciosa ssp. immaculata*	LAA	NA
Pitcher's thistle	*Cirsium pitcheri*	LAA	NA
Pitkin Marsh lily	*Lilium pardalinum ssp. pitkinense*	LAA	NA
Plicate rocksnail	*Leptoxis plicata*	LAA	NA
Plymouth Redbelly Turtle	*Pseudemys rubriventris bangsi*	LAA	LAA
Po`e	*Portulaca sclerocarpa*	LAA	LAA
Po`ouli (honeycreeper)	*Melamprosops phaeosoma*	LAA	NA
Point Arena mountain beaver	*Aplodontia rufa nigra*	LAA	NA
Pondberry	*Lindera melissifolia*	LAA	NA
Popolo	*Cyanea solanacea*	LAA	LAA
Popolo	*Solanum nelsonii*	LAA	NA
Popolo ku mai	*Solanum incompletum*	LAA	LAA
Poweshiek skipperling	*Oarisma poweshiek*	LAA	LAA
Prairie bush-clover	*Lespedeza leptostachya*	LAA	NA

Preble's meadow jumping mouse	*Zapus hudsonius preblei*	LAA	LAA
Presidio clarkia	*Clarkia franciscana*	LAA	NA
Presidio Manzanita	*Arctostaphylos hookeri var. ravenii*	LAA	NA
Price's potato-bean	*Apios priceana*	LAA	NA
Pu`uka`a	*Cyperus trachysanthos*	LAA	LAA
Pua `ala	*Brighamia rockii*	LAA	LAA
Puerto Rican boa	*Epicrates inornatus*	LAA	NA
Puerto Rican broad-winged hawk	*Buteo platypterus brunnescens*	LAA	NA
Puerto Rican crested toad	*Peltophryne lemur*	LAA	NA
Puerto Rican nightjar	*Caprimulgus noctitherus*	LAA	NA
Puerto Rican parrot	*Amazona vittata*	LAA	NA
Puerto Rican plain Pigeon	*Columba inornata wetmorei*	LAA	NA
Puerto Rican sharp-shinned hawk	*Accipiter striatus venator*	LAA	NA
Puerto Rico harlequin butterfly	*Atlantea tulita*	LAA	NA
Puritan tiger beetle	*Cicindela puritana*	LAA	NA
Purple amole	*Chlorogalum purpureum*	LAA	LAA
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	LAA	LAA
Purple bean	*Villosa perpurpurea*	LAA	LAA
Purple Cat's paw (=Purple Cat's paw pearlymussel)	*Epioblasma obliquata obliquata*	LAA	NA
Purple Cat's paw (=Purple Cat's paw pearlymussel), Alabama Experimental Population	*Epioblasma obliquata obliquata*	LAA	NA
Pygmy fringe-tree	*Chionanthus pygmaeus*	LAA	NA
Pygmy madtom	*Noturus stanauli*	LAA	NA
Pygmy madtom, French Broad River and Holston River, TN Experimental Population	*Noturus stanauli*	LAA	NA
Pygmy Sculpin	*Cottus paulus (=pygmaeus)*	LAA	NA
Quino checkerspot butterfly	*Euphydryas editha quino (=E. e. wrighti)*	LAA	LAA
Rabbitsfoot	*Quadrula cylindrica cylindrica*	LAA	LAA
Railroad Valley springfish	*Crenichthys nevadae*	LAA	LAA
Rattlesnake-master borer moth	*Papaipema eryngii*	LAA	NA
Ray giant manta	*Manta birostris*	LAA	NA
Ray reef manta	*Manta alfredi*	LAA	NA

Rayed Bean	*Villosa fabalis*	LAA	NA
Razorback sucker	*Xyrauchen texanus*	LAA	LAA
Red Hills salamander	*Phaeognathus hubrichti*	LAA	NA
Red Hills vervain	*Verbena californica*	LAA	NA
Red knot	*Calidris canutus rufa*	LAA	NA
Red tree vole	*Arborimus longicaudus*	LAA	NA
Red wolf	*Canis rufus*	LAA	NA
Red wolf, Experimental Population	*Canis rufus*	LAA	NA
Red-cockaded woodpecker	*Picoides borealis*	LAA	NA
Red-crowned parrot	*Amazona viridigenalis*	LAA	NA
Relict darter	*Etheostoma chienense*	LAA	NA
Relict leopard Frog	*Lithobates onca*	LAA	NA
Relict trillium	*Trillium reliquum*	LAA	NA
Reticulated flatwoods salamander	*Ambystoma bishopi*	LAA	LAA
Rice rat	*Oryzomys palustris natator*	LAA	LAA
Ring pink (mussel)	*Obovaria retusa*	LAA	NA
Ring pink (mussel), French Broad River and Holston River, TN Experimental Population	*Obovaria retusa*	LAA	NA
Ringed map turtle	*Graptemys oculifera*	LAA	NA
Rio Grande Silvery Minnow	*Hybognathus amarus*	LAA	LAA
Rio Grande Silvery Minnow, Rio Grande Experimental Population	*Hybognathus amarus*	LAA	NA
Riparian brush rabbit	*Sylvilagus bachmani riparius*	LAA	NA
Riparian woodrat (=San Joaquin Valley)	*Neotoma fuscipes riparia*	LAA	NA
Riverside fairy shrimp	*Streptocephalus woottoni*	LAA	LAA
Roan Mountain bluet	*Hedyotis purpurea var. montana*	LAA	NA
Roanoke logperch	*Percina rex*	LAA	NA
Robber Baron Cave Meshweaver	*Cicurina baronia*	LAA	LAA
Robust spineflower	*Chorizanthe robusta var. robusta*	LAA	LAA
Rock gnome lichen	*Gymnoderma lineare*	LAA	NA
Roseate tern, Caribbean Population	*Sterna dougallii dougallii*	LAA	NA

Roseate tern, Northeast Population	*Sterna dougallii dougallii*	LAA	NA
Roswell springsnail	*Pyrgulopsis roswellensis*	LAA	LAA
Rota blue damselfly	*Ischnura luta*	LAA	NA
Rota bridled White-eye	*Zosterops rotensis*	LAA	LAA
Rough Cactus Coral	*Mycetophyllia ferox*	LAA	NA
Rough hornsnail	*Pleurocera foremani*	LAA	LAA
Rough pigtoe	*Pleurobema plenum*	LAA	NA
Rough pigtoe, French Broad River and Holston River, TN Experimental Population	*Pleurobema plenum*	LAA	NA
rough popcornflower	*Plagiobothrys hirtus*	LAA	NA
Rough rabbitsfoot	*Quadrula cylindrica strigillata*	LAA	LAA
Rough-leaved loosestrife	*Lysimachia asperulaefolia*	LAA	NA
Round Ebonyshell	*Fusconaia rotulata*	LAA	LAA
Round rocksnail	*Leptoxis ampla*	LAA	NA
Round-leaved chaff-flower	*Achyranthes splendens var. rotundata*	LAA	LAA
Roundtail chub	*Gila robusta*	LAA	NA
Roy Prairie pocket gopher	*Thomomys mazama glacialis*	LAA	NA
Royal marstonia (snail)	*Pyrgulopsis ogmorhaphe*	LAA	NA
Rugel's pawpaw	*Deeringothamnus rugelii*	LAA	NA
Running buffalo clover	*Trifolium stoloniferum*	LAA	NA
Rush Darter	*Etheostoma phytophilum*	LAA	LAA
Ruth's golden aster	*Pityopsis ruthii*	LAA	NA
Sacramento Mountains thistle	*Cirsium vinaceum*	LAA	NA
Sacramento Orcutt grass	*Orcuttia viscida*	LAA	LAA
Sacramento prickly poppy	*Argemone pleiacantha ssp. pinnatisecta*	LAA	NA
Saint Francis' satyr butterfly	*Neonympha mitchellii francisci*	LAA	NA
Salado Salamander	*Eurycea chisholmensis*	LAA	LAA
Salt Creek Tiger beetle	*Cicindela nevadica lincolniana*	LAA	LAA
Salt marsh bird's-beak	*Cordylanthus maritimus ssp. maritimus*	LAA	NA
Salt marsh harvest mouse	*Reithrodontomys raviventris*	LAA	NA
San Benito evening-primrose	*Camissonia benitensis*	LAA	NA
San Bernardino bluegrass	*Poa atropurpurea*	LAA	LAA
San Bernardino Merriam's kangaroo rat	*Dipodomys merriami parvus*	LAA	LAA

San Bernardino Mountains bladderpod	*Lesquerella kingii ssp. bernardina*	LAA	LAA
San Bernardino springsnail	*Pyrgulopsis bernardina*	LAA	LAA
San Bruno elfin butterfly	*Callophrys mossii bayensis*	LAA	NA
San Clemente Island bush-mallow	*Malacothamnus clementinus*	LAA	NA
San Clemente Island indian paintbrush	*Castilleja grisea*	LAA	NA
San Clemente Island larkspur	*Delphinium variegatum ssp. kinkiense*	LAA	NA
San Clemente Island lotus (=broom)	*Acmispon dendroideus var. traskiae (=Lotus d. ssp. traskiae)*	LAA	NA
San Clemente Island woodland-star	*Lithophragma maximum*	LAA	NA
San Clemente loggerhead shrike	*Lanius ludovicianus mearnsi*	LAA	NA
San Clemente sage sparrow	*Amphispiza belli clementeae*	LAA	NA
San Diego ambrosia	*Ambrosia pumila*	LAA	LAA
San Diego button-celery	*Eryngium aristulatum var. parishii*	LAA	NA
San Diego fairy shrimp	*Branchinecta sandiegonensis*	LAA	LAA
San Diego mesa-mint	*Pogogyne abramsii*	LAA	NA
San Diego thornmint	*Acanthomintha ilicifolia*	LAA	LAA
San Fernando Valley Spineflower	*Chorizanthe parryi var. fernandina*	LAA	NA
San Francisco garter snake	*Thamnophis sirtalis tetrataenia*	LAA	NA
San Francisco lessingia	*Lessingia germanorum (=L.g. var. germanorum)*	LAA	NA
San Francisco Peaks ragwort	*Packera franciscana*	LAA	LAA
San Jacinto Valley crownscale	*Atriplex coronata var. notatior*	LAA	NA
San Joaquin adobe sunburst	*Pseudobahia peirsonii*	LAA	NA
San Joaquin kit fox	*Vulpes macrotis mutica*	LAA	NA
San Joaquin Orcutt grass	*Orcuttia inaequalis*	LAA	LAA
San Joaquin wooly-threads	*Monolopia (=Lembertia) congdonii*	LAA	NA
San Marcos gambusia	*Gambusia georgei*	LAA	LAA
San Marcos salamander	*Eurycea nana*	LAA	LAA
San Mateo thornmint	*Acanthomintha obovata ssp. duttonii*	LAA	NA

San Mateo woolly sunflower	*Eriophyllum latilobum*	LAA	NA
San Miguel Island Fox	*Urocyon littoralis littoralis*	LAA	NA
San Rafael cactus	*Pediocactus despainii*	LAA	NA
Sand flax	*Linum arenicola*	LAA	NA
Sand skink	*Neoseps reynoldsi*	LAA	NA
Sandlace	*Polygonella myriophylla*	LAA	NA
Sandplain gerardia	*Agalinis acuta*	LAA	NA
Santa Ana River woolly-star	*Eriastrum densifolium ssp. sanctorum*	LAA	NA
Santa Ana sucker	*Catostomus santaanae*	LAA	LAA
Santa Barbara Island liveforever	*Dudleya traskiae*	LAA	NA
Santa Catalina Island Fox	*Urocyon littoralis catalinae*	LAA	NA
Santa Clara Valley dudleya	*Dudleya setchellii*	LAA	NA
Santa Cruz cypress	*Cupressus abramsiana*	LAA	NA
Santa Cruz Island bush-mallow	*Malacothamnus fasciculatus var. nesioticus*	LAA	NA
Santa Cruz Island dudleya	*Dudleya nesiotica*	LAA	NA
Santa Cruz Island Fox	*Urocyon littoralis santacruzae*	LAA	NA
Santa Cruz Island fringepod	*Thysanocarpus conchuliferus*	LAA	NA
Santa Cruz Island malacothrix	*Malacothrix indecora*	LAA	NA
Santa Cruz Island rockcress	*Sibara filifolia*	LAA	NA
Santa Cruz long-toed salamander	*Ambystoma macrodactylum croceum*	LAA	NA
Santa Cruz tarplant	*Holocarpha macradenia*	LAA	LAA
Santa Monica Mountains dudleyea	*Dudleya cymosa ssp. ovatifolia*	LAA	NA
Santa Rosa Island Fox	*Urocyon littoralis santarosae*	LAA	NA
Santa Rosa Island manzanita	*Arctostaphylos confertiflora*	LAA	NA
Scaleshell mussel	*Leptodea leptodon*	LAA	NA
Schaus swallowtail butterfly	*Heraclides aristodemus ponceanus*	LAA	NA
Schweinitz's sunflower	*Helianthus schweinitzii*	LAA	NA
Scioto madtom	*Noturus trautmani*	LAA	NA
Scotts Valley Polygonum	*Polygonum hickmanii*	LAA	LAA
Scotts Valley spineflower	*Chorizanthe robusta var. hartwegii*	LAA	LAA
Scrub blazingstar	*Liatris ohlingerae*	LAA	NA
Scrub buckwheat	*Eriogonum longifolium var. gnaphalifolium*	LAA	NA
Scrub lupine	*Lupinus aridorum*	LAA	NA

Scrub mint	*Dicerandra frutescens*	LAA	NA
Scrub plum	*Prunus geniculata*	LAA	NA
sea bean	*Mucuna sloanei persericea*	LAA	LAA
Seabeach amaranth	*Amaranthus pumilus*	LAA	NA
seahorse dwarf	*Hippocampus zosterae*	LAA	NA
seal Pacific harbor (1 candidate DPS)	*Phoca vitulina richardii*	LAA	NA
Sebastopol meadowfoam	*Limnanthes vinculans*	LAA	NA
Sensitive joint-vetch	*Aeschynomene virginica*	LAA	NA
Sentry milk-vetch	*Astragalus cremnophylax var. cremnophylax*	LAA	NA
shad Alabama	*Alosa alabamae*	LAA	NA
Shale barren rock cress	*Arabis serotina*	LAA	NA
Sharpnose Shiner	*Notropis oxyrhynchus*	LAA	LAA
Shasta crayfish	*Pacifastacus fortis*	LAA	NA
Sheepnose Mussel	*Plethobasus cyphyus*	LAA	NA
Shenandoah salamander	*Plethodon shenandoah*	LAA	NA
Shiny pigtoe	*Fusconaia cor*	LAA	NA
Shiny pigtoe, Alabama Experimental Population	*Fusconaia cor*	LAA	NA
Shiny pigtoe, French Board River and Holston River, TN Experimental Population	*Fusconaia cor*	LAA	NA
Shinyrayed pocketbook	*Lampsilis subangulata*	LAA	LAA
Shivwits milk-vetch	*Astragalus ampullarioides*	LAA	LAA
Short-leaved rosemary	*Conradina brevifolia*	LAA	NA
Short-tailed albatross	*Phoebastria (=Diomedea) albatrus*	LAA	NA
Short's bladderpod	*Physaria globosa*	LAA	LAA
Short's goldenrod	*Solidago shortii*	LAA	NA
Shortnose sturgeon	*Acipenser brevirostrum*	LAA	NA
Shortnose Sucker	*Chasmistes brevirostris*	LAA	LAA
Showy Indian clover	*Trifolium amoenum*	LAA	NA
Showy stickseed	*Hackelia venusta*	LAA	NA
Shrubby reed-mustard	*Schoenocrambe suffrutescens*	LAA	NA
Sicklefin redhorse	*Moxostoma sp.*	LAA	NA
Sierra Nevada bighorn sheep	*Ovis canadensis sierrae*	LAA	LAA
Sierra Nevada red fox	*Vulpes vulpes necator*	LAA	NA
Sierra Nevada Yellow-legged Frog	*Rana sierrae*	LAA	LAA
Siler pincushion cactus	*Pediocactus (=Echinocactus =Utahia) sileri*	LAA	NA

Skiff milkvetch	*Astragalus microcymbus*	LAA	NA
Slabside Pearlymussel	*Pleuronaia dolabelloides*	LAA	LAA
Slackwater darter	*Etheostoma boschungi*	LAA	LAA
Slender campeloma	*Campeloma decampi*	LAA	NA
Slender chub	*Erimystax cahni*	LAA	LAA
Slender chub, French Broad River and Holston River, TN Experimental Population	*Erimystax cahni*	LAA	LAA
Slender Orcutt grass	*Orcuttia tenuis*	LAA	LAA
Slender rush-pea	*Hoffmannseggia tenella*	LAA	NA
Slender-horned spineflower	*Dodecahema leptoceras*	LAA	NA
Slender-petaled mustard	*Thelypodium stenopetalum*	LAA	NA
Slevin's skink	*Emoia slevini*	LAA	NA
Slickspot peppergrass	*Lepidium papilliferum*	LAA	LAA
Small Kauai (=puaiohi) Thrush	*Myadestes palmeri*	LAA	NA
Small whorled pogonia	*Isotria medeoloides*	LAA	NA
Small-anthered bittercress	*Cardamine micranthera*	LAA	NA
Small's milkpea	*Galactia smallii*	LAA	NA
Smalleye Shiner	*Notropis buccula*	LAA	LAA
Smalltooth sawfish	*Pristis pectinata*	LAA	LAA
Smith's blue butterfly	*Euphilotes enoptes smithi*	LAA	NA
Smoky madtom	*Noturus baileyi*	LAA	LAA
Smoky madtom, Tellico River, TN Experimental Population	*Noturus baileyi*	LAA	LAA
Smooth coneflower	*Echinacea laevigata*	LAA	NA
Smooth pimpleback	*Quadrula houstonensis*	LAA	NA
Snail darter	*Percina tanasi*	LAA	LAA
Snake River physa snail	*Physa natricina*	LAA	NA
Snakeroot	*Eryngium cuneifolium*	LAA	NA
Sneed pincushion cactus	*Coryphantha sneedii var. sneedii*	LAA	NA
Snuffbox mussel	*Epioblasma triquetra*	LAA	NA
Socorro isopod	*Thermosphaeroma thermophilus*	LAA	NA
Socorro springsnail	*Pyrgulopsis neomexicana*	LAA	NA
Soft bird's-beak	*Cordylanthus mollis ssp. mollis*	LAA	LAA
Soft-leaved paintbrush	*Castilleja mollis*	LAA	NA
Solano grass	*Tuctoria mucronata*	LAA	LAA
Sonoma alopecurus	*Alopecurus aequalis var. sonomensis*	LAA	NA

Sonoma spineflower	*Chorizanthe valida*	LAA	NA
Sonoma sunshine	*Blennosperma bakeri*	LAA	NA
Sonora chub	*Gila ditaenia*	LAA	LAA
Sonora tiger Salamander	*Ambystoma tigrinum stebbinsi*	LAA	NA
Sonoran pronghorn	*Antilocapra americana sonoriensis*	LAA	NA
Sonoran pronghorn, Experimental Population	*Antilocapra americana sonoriensis*	LAA	NA
Sonoyta mud turtle	*Kinosternon sonoriense longifemorale*	LAA	NA
South Texas ambrosia	*Ambrosia cheiranthifolia*	LAA	NA
Southeastern beach mouse	*Peromyscus polionotus niveiventris*	LAA	NA
Southern acornshell	*Epioblasma othcaloogensis*	LAA	LAA
Southern clubshell	*Pleurobema decisum*	LAA	LAA
Southern combshell	*Epioblasma penita*	LAA	NA
Southern kidneyshell	*Ptychobranchus jonesi*	LAA	LAA
Southern mountain wild-buckwheat	*Eriogonum kennedyi var. austromontanum*	LAA	LAA
Southern pigtoe	*Pleurobema georgianum*	LAA	LAA
Southern sandshell	*Hamiota australis*	LAA	LAA
Southern sea otter	*Enhydra lutris nereis*	LAA	NA
Southwestern willow flycatcher	*Empidonax traillii extimus*	LAA	LAA
Spalding's Catchfly	*Silene spaldingii*	LAA	NA
Speckled pocketbook	*Lampsilis streckeri*	LAA	NA
Spectaclecase (mussel)	*Cumberlandia monodonta*	LAA	NA
Spectacled eider	*Somateria fischeri*	LAA	LAA
Spikedace	*Meda fulgida*	LAA	LAA
Spotfin Chub	*Erimonax monachus*	LAA	LAA
Spotfin Chub, French Broad River and Holston River, TN Experimental Population	*Erimonax monachus*	LAA	NA
Spotfin Chub, Shoal Creek Experimental Population	*Erimonax monachus*	LAA	LAA
Spotfin Chub, Tellico River, TN Experimental Population	*Erimonax monachus*	LAA	LAA
Spreading avens	*Geum radiatum*	LAA	NA
Spreading navarretia	*Navarretia fossalis*	LAA	LAA
Spring Creek bladderpod	*Lesquerella perforata*	LAA	NA
Spring pygmy sunfish	*Elassoma alabamae*	LAA	NA
Spring-loving centaury	*Centaurium namophilum*	LAA	LAA

Springville clarkia	*Clarkia springvillensis*	LAA	NA
Spruce-fir moss spider	*Microhexura montivaga*	LAA	LAA
Squirrel Chimney Cave shrimp	*Palaemonetes cummingi*	LAA	NA
St. Andrew beach mouse	*Peromyscus polionotus peninsularis*	LAA	LAA
St. Croix ground lizard	*Ameiva polops*	LAA	LAA
St. Thomas prickly-ash	*Zanthoxylum thomasianum*	LAA	NA
Star cactus	*Astrophytum asterias*	LAA	NA
Steamboat buckwheat	*Eriogonum ovalifolium var. williamsiae*	LAA	NA
Stebbins' morning-glory	*Calystegia stebbinsii*	LAA	NA
Steller's Eider	*Polysticta stelleri*	LAA	LAA
Stephan's Riffle beetle	*Heterelmis stephani*	LAA	NA
Stephens' kangaroo rat	*Dipodomys stephensi (incl. D. cascus)*	LAA	NA
Stirrupshell	*Quadrula stapes*	LAA	NA
Stock Island tree snail	*Orthalicus reses (not incl. nesodryas)*	LAA	NA
Streaked Horned lark	*Eremophila alpestris strigata*	LAA	LAA
Striped newt	*Notophthalmus perstriatus*	LAA	NA
Suisun thistle	*Cirsium hydrophilum var. hydrophilum*	LAA	LAA
Suwannee moccasinshell	*Medionidus walkeri*	LAA	NA
Swamp pink	*Helonias bullata*	LAA	NA
Tan riffleshell	*Epioblasma florentina walkeri (=E. walkeri)*	LAA	NA
Tapered pigtoe	*Fusconaia burkei*	LAA	LAA
Tar River spinymussel	*Elliptio steinstansana*	LAA	NA
Tatum Cave beetle	*Pseudanophthalmus parvus*	LAA	NA
Taylor's (=whulge) Checkerspot	*Euphydryas editha taylori*	LAA	LAA
Telephus spurge	*Euphorbia telephioides*	LAA	NA
Tenino pocket gopher	*Thomomys mazama tumuli*	LAA	LAA
Tennessee yellow-eyed grass	*Xyris tennesseensis*	LAA	NA
Terlingua Creek cat's-eye	*Cryptantha crassipes*	LAA	NA
Texas ayenia	*Ayenia limitaris*	LAA	NA
Texas blind salamander	*Typhlomolge rathbuni*	LAA	NA
Texas fatmucket	*Lampsilis bracteata*	LAA	NA
Texas fawnsfoot	*Truncilla macrodon*	LAA	NA
Texas golden Gladecress	*Leavenworthia texana*	LAA	LAA
Texas Hornshell	*Popenaias popei*	LAA	NA
Texas pimpleback	*Quadrula petrina*	LAA	NA

Texas poppy-mallow	*Callirhoe scabriuscula*	LAA	NA
Texas prairie dawn-flower	*Hymenoxys texana*	LAA	NA
Texas snowbells	*Styrax texanus*	LAA	NA
Texas trailing phlox	*Phlox nivalis ssp. texensis*	LAA	NA
Texas wild-rice	*Zizania texana*	LAA	LAA
Thread-leaved brodiaea	*Brodiaea filifolia*	LAA	LAA
Three Forks Springsnail	*Pyrgulopsis trivialis*	LAA	LAA
Tiburon jewelflower	*Streptanthus niger*	LAA	NA
Tiburon mariposa lily	*Calochortus tiburonensis*	LAA	NA
Tiburon paintbrush	*Castilleja affinis ssp. neglecta*	LAA	NA
Tidewater goby	*Eucyclogobius newberryi*	LAA	LAA
Tiny polygala	*Polygala smallii*	LAA	NA
Tipton kangaroo rat	*Dipodomys nitratoides nitratoides*	LAA	NA
Tobusch fishhook cactus	*Sclerocactus brevihamatus ssp. tobuschii*	LAA	NA
Todsen's pennyroyal	*Hedeoma todsenii*	LAA	LAA
Tooth Cave ground beetle	*Rhadine persephone*	LAA	NA
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	LAA	NA
Tooth Cave Spider	*Neoleptoneta myopica*	LAA	NA
Topeka shiner	*Notropis topeka (=tristis)*	LAA	LAA
Topeka shiner, Northern Missouri Experimenal Population	*Notropis topeka (=tristis)*	LAA	NA
Triangular Kidneyshell	*Ptychobranchus greenii*	LAA	LAA
Triple-ribbed milk-vetch	*Astragalus tricarinatus*	LAA	NA
Tubercled blossom (pearlymussel)	*Epioblasma torulosa torulosa*	LAA	NA
Tubercled blossom (pearlymussel), Alabama Experimental Population	*Epioblasma torulosa torulosa*	LAA	NA
Tulotoma snail	*Tulotoma magnifica*	LAA	NA
Tumbling Creek cavesnail	*Antrobia culveri*	LAA	LAA
Turgid blossom (pearlymussel)	*Epioblasma turgidula*	LAA	NA
Turgid blossom (pearlymussel), Alabama Experimental Population	*Epioblasma turgidula*	LAA	NA
Ufa-halomtano	*Heritiera longipetiolata*	LAA	NA
Uhi uhi	*Mezoneuron kavaiense*	LAA	LAA
Uinta Basin hookless cactus	*Sclerocactus wetlandicus*	LAA	NA
Umtanum Desert buckwheat	*Eriogonum codium*	LAA	LAA

Unarmored threespine stickleback	*Gasterosteus aculeatus williamsoni*	LAA	NA
Uncompahgre fritillary butterfly	*Boloria acrocnema*	LAA	NA
Upland combshell	*Epioblasma metastriata*	LAA	LAA
Utah prairie dog	*Cynomys parvidens*	LAA	NA
Ute ladies'-tresses	*Spiranthes diluvialis*	LAA	NA
Uvillo	*Eugenia haematocarpa*	LAA	NA
Vahl's boxwood	*Buxus vahlii*	LAA	NA
Vail Lake ceanothus	*Ceanothus ophiochilus*	LAA	LAA
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	LAA	LAA
Vandenberg monkeyflower	*Diplacus vandenbergensis*	LAA	LAA
Ventura Marsh Milk-vetch	*Astragalus pycnostachyus var. lanosissimus*	LAA	LAA
Verity's dudleya	*Dudleya verityi*	LAA	NA
Vermilion darter	*Etheostoma chermocki*	LAA	LAA
Vernal pool fairy shrimp	*Branchinecta lynchi*	LAA	LAA
Vernal pool tadpole shrimp	*Lepidurus packardi*	LAA	LAA
Vine Hill clarkia	*Clarkia imbricata*	LAA	NA
Virgin Islands tree boa	*Epicrates monensis granti*	LAA	NA
Virgin River Chub	*Gila seminuda (=robusta)*	LAA	LAA
Virginia big-eared bat	*Corynorhinus (=Plecotus) townsendii virginianus*	LAA	LAA
Virginia fringed mountain snail	*Polygyriscus virginianus*	LAA	NA
Virginia round-leaf birch	*Betula uber*	LAA	NA
Virginia sneezeweed	*Helenium virginicum*	LAA	NA
Virginia spiraea	*Spiraea virginiana*	LAA	NA
Waccamaw silverside	*Menidia extensa*	LAA	LAA
Wahane	*Pritchardia aylmer-robinsonii*	LAA	NA
Walker's manioc	*Manihot walkerae*	LAA	NA
Warm Springs pupfish	*Cyprinodon nevadensis pectoralis*	LAA	NA
Warner sucker	*Catostomus warnerensis*	LAA	LAA
Washington ground squirrel	*Urocitellus washingtoni*	LAA	NA
Water howellia	*Howellia aquatilis*	LAA	NA
Watercress darter	*Etheostoma nuchale*	LAA	NA
Wawae`iole	*Huperzia (=Phlegmariurus) stemmermanniae*	LAA	NA
Wawae`iole	*Huperzia mannii*	LAA	LAA
Wawae`iole	*Huperzia nutans*	LAA	LAA
Webber Ivesia	*Ivesia webberi*	LAA	LAA

Wedge spurge	*Chamaesyce deltoidea serpyllum*	LAA	NA
Welsh's milkweed	*Asclepias welshii*	LAA	LAA
Wenatchee Mountains checkermallow	*Sidalcea oregana var. calva*	LAA	LAA
West Indian Manatee	*Trichechus manatus*	LAA	LAA
West Indian Walnut (=Nogal)	*Juglans jamaicensis*	LAA	NA
Western lily	*Lilium occidentale*	LAA	NA
Western prairie fringed Orchid	*Platanthera praeclara*	LAA	NA
Western snowy plover	*Charadrius alexandrinus nivosus*	LAA	LAA
Wheeler's peperomia	*Peperomia wheeleri*	LAA	NA
White Abalone	*Haliotis sorenseni*	LAA	NA
White birds-in-a-nest	*Macbridea alba*	LAA	NA
White bladderpod	*Lesquerella pallida*	LAA	NA
White Bluffs bladderpod	*Physaria douglasii ssp. tuplashensis*	LAA	LAA
White catspaw (pearlymussel)	*Epioblasma obliquata perobliqua*	LAA	NA
White fringeless orchid	*Platanthera integrilabia*	LAA	NA
White irisette	*Sisyrinchium dichotomum*	LAA	NA
White River spinedace	*Lepidomeda albivallis*	LAA	LAA
White River springfish	*Crenichthys baileyi baileyi*	LAA	LAA
White sedge	*Carex albida*	LAA	NA
White sturgeon	*Acipenser transmontanus*	LAA	LAA
White wartyback (pearlymussel)	*Plethobasus cicatricosus*	LAA	NA
White wartyback (pearlymussel), French Broad River and Holston River, TN Experimental Population	*Plethobasus cicatricosus*	LAA	NA
White-haired goldenrod	*Solidago albopilosa*	LAA	NA
White-rayed pentachaeta	*Pentachaeta bellidiflora*	LAA	NA
Whitebark pine	*Pinus albicaulis*	LAA	NA
Whooping crane	*Grus americana*	LAA	LAA

Whooping crane, Alabama, Arkansas, Georgia, Illinoi, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, North Carolina, Ohio, South Carolina, Tennessee,Virginia, Wisconsin, West Virginia Experimental Population	*Grus americana*	LAA	NA
Whooping crane, Colorado, Idaho, Florida, New Mexico, Utah, and Western Wyoming Experimental Population	*Grus americana*	LAA	NA
Whooping crane, Southwestern Louisiana Experimental Population	*Grus americana*	LAA	NA
Whorled Sunflower	*Helianthus verticillatus*	LAA	LAA
Wide-leaf warea	*Warea amplexifolia*	LAA	NA
Willamette daisy	*Erigeron decumbens*	LAA	LAA
Willowy monardella	*Monardella viminea*	LAA	LAA
Winged Mapleleaf	*Quadrula fragosa*	LAA	NA
Winged Mapleleaf, Alabama Experimental Population	*Quadrula fragosa*	LAA	NA
Winkler cactus	*Pediocactus winkleri*	LAA	NA
Wireweed	*Polygonella basiramia*	LAA	NA
Wood Bison	*Bison bison athabascae*	LAA	NA
Wood stork	*Mycteria americana*	LAA	NA
Woodland caribou	*Rangifer tarandus caribou*	LAA	LAA
Woundfin	*Plagopterus argentissimus*	LAA	LAA
Woundfin, Gila River drainage, Arizona, New Mexico Experimental Population	*Plagopterus argentissimus*	LAA	NA
Wright fishhook cactus	*Sclerocactus wrightiae*	LAA	NA
Wright's marsh thistle	*Cirsium wrightii*	LAA	NA
Wyoming Toad	*Bufo hemiophrys baxteri*	LAA	NA
Xantus's Murrelet	*Synthliboramphus hypoleucus*	LAA	NA
Yadon's piperia	*Piperia yadonii*	LAA	LAA
Yaqui catfish	*Ictalurus pricei*	LAA	LAA
Yaqui chub	*Gila purpurea*	LAA	LAA

Yellow blossom (pearlymussel)	*Epioblasma florentina florentina*	LAA	NA
Yellow blossom (pearlymussel), Alabama Experimental Population	*Epioblasma florentina florentina*	LAA	NA
Yellow larkspur	*Delphinium luteum*	LAA	LAA
Yellow-billed Cuckoo	*Coccyzus americanus*	LAA	LAA
Yellow-blotched map turtle	*Graptemys flavimaculata*	LAA	NA
Yellow-shouldered blackbird	*Agelaius xanthomus*	LAA	LAA
Yellowcheek Darter	*Etheostoma moorei*	LAA	LAA
yelloweye rockfish	*Sebastes ruberrimus*	LAA	LAA
Yellowfin madtom	*Noturus flavipinnis*	LAA	LAA
Yellowfin madtom, French Broad River and Holston River, TN Experimental Population	*Noturus flavipinnis*	LAA	NA
Yellowfin madtom, Holston River, VA, TN Experimental Population	*Noturus flavipinnis*	LAA	NA
Yellowfin madtom, Tellico River, TN Experimental Population	*Noturus flavipinnis*	LAA	NA
Yelm pocket gopher	*Thomomys mazama yelmensis*	LAA	LAA
Yosemite toad	*Anaxyrus canorus*	LAA	LAA
Yreka phlox	*Phlox hirsuta*	LAA	NA
Yuma clapper rail	*Rallus longirostris yumanensis*	LAA	NA
Zapata bladderpod	*Lesquerella thamnophila*	LAA	LAA
Zayante band-winged grasshopper	*Trimerotropis infantilis*	LAA	LAA
Zuni bluehead Sucker	*Catostomus discobolus yarrowi*	LAA	LAA
Zuni fleabane	*Erigeron rhizomatus*	LAA	NA