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Re: Notice of Violations of the Endangered Species Act for Failing to Complete Consultations on the Impacts of Sodium Cyanide and Sodium Fluoroacetate

On behalf of the Center for Biological Diversity, The Humane Society of the United States, The Fund for Animals, and WildEarth Guardians (collectively “Groups”), we hereby provide notice, pursuant to Section 11(g) of the Endangered Species Act (“ESA”), 16 U.S.C. § 1540(g)(2)(A)(i), that the United States Fish and Wildlife Service (“FWS”) is in violation of the ESA, 16 U.S.C. § 1536, and its implementing regulations, 50 C.F.R. §§ 402.14(e), 402.46(c)(1), for failing to complete reinitiated consultation with the U.S. Environmental Protection Agency (“EPA”) on the impacts of two of its registered pesticides on threatened and endangered species. Although not required by law, we also provide notice that FWS has unlawfully withheld or unreasonably delayed completion of these consultations in violation of the Administrative Procedure Act. 5 U.S.C. § 551, et seq.

The Center for Biological Diversity (“Center”) is a non-profit, public interest corporation with approximately 48,000 members and offices in San Francisco, Joshua Tree, and Los Angeles, California; Washington, D.C; Portland, Oregon; Minneapolis, Minnesota; Tucson, Arizona; and elsewhere in the United States. The Center and its members are dedicated to protecting diverse native species and habitats through science, policy, education, and environmental law.

WildEarth Guardians (“Guardians”) is a nonprofit conservation organization dedicated to protecting and restoring the wildlife, wild places, wild rivers, and health of the American West. Guardians has over 168,000 members and supporters, many of whom have particular interests in carnivores and other native species targeted by Wildlife Services. Headquartered in Santa Fe, New Mexico, Guardians maintains several other offices around the West, including in Missoula, Denver, Portland, Seattle and Tucson.
The Humane Society of the United States (“The HSUS”) is the nation’s largest animal protection organization, headquartered in Washington, D.C. Since its establishment in 1954, The HSUS has worked to combat animal abuse and exploitation and promote animal welfare. To this end, The HSUS strives to protect and improve the management of threatened and endangered species throughout the country and to eliminate inhumane and unsustainable methods of hunting and trapping. In particular, The HSUS works extensively to promote the conservation of native carnivores – including grizzly bears and wolves – through research, public outreach and education, advocacy, and litigation. The HSUS also works to advocate against cruel killing techniques including leg-hold traps, snares, and the use of poisons - including a campaign to promote humane, non-lethal alternatives to sodium cyanide and Compound 1080.

The Fund for Animals (“The Fund”) was founded in 1967 and works to protect animals by employing national advocacy campaigns and rescue operations, and operating a network of animal-care facilities. The Fund for Animals has a long institutional history of work to protect native carnivores from cruel killing methods by trophy hunters and government agencies. For example, The Fund was a plaintiff in a 1992 lawsuit challenging the use of lethal poisons by Animal Damage Control (the precursor agency to Wildlife Services). In 2000, the Fund founded a hotline to provide information and assistance for citizens seeking humane solutions to wildlife conflict. The Fund’s current advocacy programs focus on protecting wildlife from cruel and unsporting hunting and trapping practices, including canned hunts, the use of toxic lead shot, and the commercial trade in wildlife parts and products. The Fund is headquartered in Washington, D.C.

As explained more fully below, FWS has failed to complete reinitiated consultations regarding the effects of sodium cyanide — which is used in M-44 devices — and sodium fluoroacetate — which is used in Livestock Protection Collars. These poisons are used to kill native carnivores and are also very dangerous to non-target wildlife, including endangered and threatened species.

In 2011, EPA requested reinitiated consultation on these pesticides under Section 7 of the ESA but FWS failed to respond. The purpose of Section 7 is twofold: to ensure that agencies do not jeopardize listed species, and to minimize take that might still occur as a result of an agency action. 16 U.S.C. § 1536. By failing to complete reinitiated consultation, FWS has allowed EPA, and therefore all registered users of these products, to conduct their actions without taking reasonable measures to minimize harm to listed species. The protections previously put in place by FWS (in the 1993 Biological Opinion) are not sufficient to protect endangered species, a fact recognized by the EPA when it requested reinitiation of consultation.

The species identified by the EPA in 2011 that have been left in the lurch by FWS’s failure to complete reinitiated consultation include: grizzly bear, gray wolf, Canada lynx, bald eagle, Mexican spotted owl, and southwestern willow flycatcher. Furthermore, since 2011, additional species have been added to the list of threatened and endangered species that may be harmed by these predator-control tools.

The Groups seek to ensure that pesticides used in predator control will not jeopardize the continued survival of these endangered species or otherwise cause harm that could be avoided with appropriate mitigation.
LEGAL BACKGROUND

A. The Endangered Species Act

The ESA declares that endangered and threatened species are of “esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people.” Accordingly, the ESA establishes the “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.” The Secretaries of Commerce and Interior are charged with administering and enforcing the ESA, but have delegated this responsibility to the National Marine Fisheries Service (“NMFS”) and FWS, respectively.

Section 2(c) of the ESA provides that it is “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act.” The ESA defines “conservation” to mean “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary.”

To fulfill the substantive purposes of the ESA, federal agencies are required under section 7(a)(2) to engage in consultation with FWS (and/or NMFS) before authorizing, funding, or engaging in any “action” to insure that such actions do not “jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification of habitat of such species…determined…to be critical” (“Section 7 consultation”). Per the regulations jointly adopted by FWS and NMFS to govern Section 7 consultations (the “Joint Regulations”), EPA’s registration of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act constitutes agency “action” subject to ESA section 7(a)(2).

Under the ESA and the Joint Regulations, a federal agency is relieved of the procedural obligation to consult only if its action will have “no effect” on listed species or designated critical habitat. If an agency determines that its action “may affect” but is “not likely to adversely affect” a listed species or its critical habitat, the regulations permit “informal consultation,” during which FWS must concur in writing with the agency’s determination. If the agency determines that its action is “likely to adversely affect” a listed species or critical habitat, or if FWS does not concur with the agency’s “not likely to adversely affect” determination, the agency must engage in “formal consultation,” as outlined in 50 C.F.R. § 402.14.

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3 50 C.F.R. § 402.01(b).
5 Id. § 1532(3).
6 Id. § 1536(a)(2).
7 50 C.F.R. §§ 402.02, 402.03; see also Wash. Toxics Coal. v. Envtl. Prot. Agency, 413 F.3d 1024, 1033 (9th Cir. 2005).
8 50 C.F.R. § 402.14(a)-(b).
9 Id.
FWS is generally required to conclude formal consultations within 90 days.\(^{10}\) FWS and EPA may mutually agree to extend the consultation for a specific time period.\(^{11}\) If FWS determines that additional data would provide a better information base from which to formulate a biological opinion, the Director may request an extension of formal consultation and request that EPA obtain additional data to determine how or to what extent the action may affect listed species or critical habitat.\(^{12}\) If formal consultation is extended by mutual agreement as discussed, EPA must obtain, to the extent practicable, that data which can be developed within the scope of the extension.\(^{13}\) If no extension of formal consultation is agreed to, FWS must issue a biological opinion using the best scientific and commercial data available.\(^{14}\) Disputes regarding what constitutes the best available data or what additional data are required to complete consultations cannot be used as an indefinite excuse to defer completion of the consultation process.

Agencies must reinitiate consultation on agency actions over which the federal agency retains, or is authorized to exercise, discretionary involvement or control if:

(a) If the amount or extent of taking specified in the incidental take statement is exceeded;

(b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

(c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

(d) If a new species is listed or critical habitat designated that may be affected by the identified action.\(^{15}\)

Compliance with the Section 7 consultation process is integral to compliance with the substantive requirements of the Act -- that an agency’s action will not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat.

**B. The Federal Insecticide, Fungicide, and Rodenticide Act**

EPA regulates the distribution, sale, and application of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”).\(^{16}\) Under FIFRA, a pesticide generally may not be sold or used in the United States unless EPA has issued a registration for that particular use.\(^{17}\) Applicants

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\(^{10}\) 16 U.S.C. § 1536(b)(1)(A); 50 C.F.R. §§ 402.14(e), 402.46(c)(1).
\(^{11}\) 50 C.F.R. § 402.14(e).
\(^{12}\) 50 C.F.R. § 402.14(f).
\(^{13}\) Id.
\(^{14}\) Id. (“If no extension of formal consultation is agreed to, the Director [of FWS] will issue a biological opinion using the best scientific and commercial data available.”).
\(^{15}\) 50 C.F.R. § 402.16.
\(^{17}\) Id. § 136a(a).
for pesticide registration must demonstrate that the substance will not present “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use.”18

In 1988, Congress amended FIFRA, requiring EPA to reregister any pesticides registered before November 1, 1984.19 Eligible reregistered pesticides are issued a Reregistration Eligibility Decision (“RED”).20 As part of a RED, EPA is required to impose labeling restrictions to prevent pesticide uses from causing unreasonable health or environmental effects, including those uses that cause harm to threatened or endangered species.21

After registering or reregistering a pesticide use, EPA retains discretionary involvement and control over that registration.22 EPA must periodically review pesticide registrations every 15 years, and may only reregister a pesticide if the use of such pesticide will not result in unreasonable adverse effects on the environment.23 EPA has the authority to compel registrants to submit data necessary for a registration review.24 Additionally, registrants must submit to EPA any information about registered pesticides’ unreasonable adverse effects on the environment.25 During reregistration review, EPA may require label changes as a condition of reregistration. EPA is authorized to suspend a registration at any time if new information demonstrates that a substance presents an “unreasonable hazard to the survival of a species declared endangered or threatened” under the ESA.26 If a registrant refuses to comply with EPA’s instructions to change the labels of a pesticide, EPA may initiate cancellation proceeding under FIFRA to protect the environment from unreasonable adverse effects.

FACTUAL BACKGROUND

A. Sodium Cyanide Used in M-44 Devices

M-44s are devices containing sodium cyanide used to kill coyotes, gray foxes and red foxes and feral dogs.27 Sodium cyanide is a restricted use pesticide, and only APHIS-Wildlife Services and the following states are registered users: South Dakota, Montana, Wyoming, New Mexico, and Texas (EPA 2016a).28 Sodium cyanide is a Category 1 toxicant according to the EPA: the most acute, due to the imminent harm it poses to the environment and to humans (EPA 1994a).

M-44 cartridges deploy sodium cyanide when an animal triggers the baited device, thereby ejecting a cloud of powdered cyanide into the mouth of the animal. The sodium cyanide combines with

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18 Id. § 136(bb)(1).
19 Id. § 136a-1(a).
20 Id. § 136a-1.
21 See id.
23 7 U.S.C. § 136a(g)(1).
24 Id. § 136a(g)(2).
25 Id. § 136d(a)(2).
26 Id. §§ 136a-1(b), (g)(2)(C), (D).
28 Id. at II-73.
available moisture including saliva to make hydrogen cyanide gas, which is readily absorbed by the lungs and poisons the animal by inactivating an enzyme essential to mammalian cellular respiration.  That quickly leads to central nervous system depression, cardiac arrest, and respiratory failure (Ballantyne 1987). Sodium cyanide is highly soluble in water and highly toxic to most aquatic organisms, and as a result, M-44s capsules may not be used within 200 feet of water.

After consultation with FWS, which resulted in the 1993 Biological Opinion, EPA in 1994 issued a Reregistration Eligibility Decision (RED) pertaining to the use of sodium cyanide capsules in M-44 units (EPA 1994b). EPA concluded that the M-44 did not pose unreasonable risks to humans or the environment if used in accordance with the 26 use restrictions listed on the label plus the language determined by FWS to be needed to protect endangered species likely to be jeopardized by use of M-44 devices.

In its 1993 Biological Opinion, FWS found that any carrion-feeding animal able to activate the M-44 device is at risk. The U.S. Department of Agriculture’s Animal Damage Control program (predecessor to APHIS-Wildlife Services) recorded 103,255 animals killed by M-44’s between 1976-1986, including 4,868 non-target animals (approximately 5% of all animals killed). Non-target species identified as having been killed by M-44s included grizzly bear, black bear, mountain lion, badger, kit and swift fox, bobcat, ringtail cat, feral cat, skunk, opossum, raccoon, Russian boar, feral hog, javelina, beaver, porcupine, nutria, rabbit, vulture, raven, crow, and hawk. In addition, a California condor was found dead near the vicinity of an M-44 in 1986.

More recently, a review of the Ecological Incident Information System in 2010 shows 45 terrestrial non-target animal incidents from 1983 - 2009. The database records mortality for 26 birds, 15 dogs, ten wolves, three fox and two bear. Such verified deaths certainly underestimate the total number of non-target species impacted because the likelihood of locating the carcass of a non-target species is small, especially with respect to small birds and small mammals.

B. Sodium Fluoroacetate (Compound 1080) Used in Livestock Protection Collars

Livestock protection collars strap bladders containing the liquid poison sodium fluoroacetate (commonly known as Compound 1080) onto the necks of sheep and goats to kill depredating coyotes. Compound 1080 is a restricted use pesticide, and only APHIS-Wildlife Services and the following states are registered users: Wyoming, New Mexico, and Texas (EPA 2016b). Compound 1080 is an inhibitor of the citric acid cycle leading to general inhibition of oxidative energy

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29 1993 BiOp at II-73.
30 Id. at II-73.
31 Id. at II-73.
32 Id.
33 1993 BiOp at II-74.
34 Id. at II-74.
35 Id. at II-74.
36 Memorandum dated Sept. 20, 2010 from Valerie Wood, Biologist at the Environmental Fate and Effects Division of EPA, to Kathryn Jakob, Chemical Review Manager at EPA with attached draft “Problem Formulation for the Ecological Risk Assessment, of Sodium Cyanide (M-44)” at p. 12.
37 1993 BiOp at II-74.
38 Id. at II-79.
metabolism at the cellular level, with the central nervous system and heart most critically affected.\textsuperscript{39} Like sodium cyanide, Compound 1080 is classified by the EPA as a Category 1 toxicant (EPA 1995).

Sodium fluoroacetate is highly toxic to birds and mammals.\textsuperscript{40} The median lethal dose for 13 species of birds representing five taxonomic orders is 5.5 mg (see below, Table 1). In a test of Compound 1080’s secondary hazard, European ferrets were fed mice that had been dosed with the equivalent of 1, 2, 4, or 8 mg/kg of ferret body weight. The ferrets were given a mouse one to two hours after dosing and all the ferrets died (Hudson et al. 1984).\textsuperscript{41}

<table>
<thead>
<tr>
<th>Species Affected</th>
<th>Lethal Dose for 50% of Test Population (LD\textsubscript{50})</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 bird species (5 taxa)</td>
<td>5.5 mg/kg body mass</td>
</tr>
<tr>
<td>Black-billed magpie (carrion feeding extreme)</td>
<td>1.6 mg/kg body mass</td>
</tr>
<tr>
<td>Turkey vulture (carrion feeding extreme)</td>
<td>20 mg/kg body mass</td>
</tr>
<tr>
<td>Golden eagle</td>
<td>3.5 mg/kg body mass</td>
</tr>
<tr>
<td>11 carnivore &amp; 4 herbivore species (unnamed)</td>
<td>0.5 mg/kg body mass</td>
</tr>
<tr>
<td>Domestic dog</td>
<td>0.07 mg/kg body mass</td>
</tr>
<tr>
<td>Opossum</td>
<td>60 mg/kg body mass</td>
</tr>
<tr>
<td>Sheep, Cattle, Mule deer</td>
<td>&lt; 1 mg/kg body mass</td>
</tr>
</tbody>
</table>

Death by Compound 1080 is slow, and symptoms include convulsions, heart blockage, respiratory failure, hallucination, pain and deep nervous system depression (Eason 2006; Goncharov et al. 2006).

After consultation with FWS, which resulted in the 1993 Biological Opinion, EPA in 1995 issued a RED pertaining to the use of Compound 1080 in the livestock protection collar. EPA concluded that such use did not pose unreasonable risks to humans or the environment when used according to labeling directions (EPA 1995).

In the 1993 Biological Opinion, FWS explained that the primary risk to endangered species is through direct exposure by grizzly bears or wolves.\textsuperscript{42} In addition, any carrion-feeding or predatory mammals and birds are at risk of exposure, although the risk is lower.\textsuperscript{43} Prompt disposal of collared

\textsuperscript{39} \textit{id.} at II-79.
\textsuperscript{40} \textit{id.} at II-79.
\textsuperscript{41} \textit{id.} at II-79.
\textsuperscript{42} \textit{id.} at II-79.
\textsuperscript{43} \textit{id.} at II-79.
livestock carcasses and predators suspected of Compound 1080 poisoning is essential because residual toxicant on livestock and poisoning by secondary exposure from scavenging dead predators has been reported (Rudd and Genelly 1956, Eastland and Beasom 1986, Connolly 1989).44

In addition, livestock protection collars can be lost or the bladders containing the poison punctured by vegetation or barbed wire, causing spills that can pose an environmental risk (Eason 2006; Watson 1990; Connolly 1998).

In 2011, EPA identified an exposure risk to endangered grizzly bears, gray wolves, Canada lynx, bald eagles, Mexican spotted owls and southwestern willow flycatchers from Compound 1080 collars.45

C. EPA Requests Reinitiated Consultation with FWS

On April 15, 1991, EPA initiated consultation for 16 vertebrate control agents, including sodium cyanide (M-44s) and sodium fluoroacetate (Compound 1080 in livestock protection collars). In 1993, FWS completed consultation on these pesticides used in predator control.46

The 1993 Biological Opinion covers use of M-44s for control of coyotes, red foxes, gray foxes and wild dogs.47 It discusses the following endangered animals that may be harmed by M-44s: Hawaiian crow, California condor, Mariana crow, gray wolf, grizzly bear, Louisiana black bear, Florida panther, ocelot, jaguarundi and San Joaquin kit fox.48 That Biological Opinion allows for incidental takes of gray wolf in Montana, New Mexico, Texas and Wyoming; for grizzly bear in Montana and Wyoming; and for Louisiana black bear, jaguarundi and ocelot in Texas.49

For sodium fluoroacetate, the 1993 Biological Opinion found that this pesticide registration could affect the gray wolf and black bear.50 FWS identified specific state and county areas where livestock protection collars with sodium fluoroacetate could not be used and concluded that implementation of such a restriction would preclude jeopardy to both the gray wolf and the grizzly bear.51

In 2011, EPA identified mammals and birds that have been listed (or delisted and then relisted) since completion of the 1993 Biological Opinion and have habitats in areas with sodium cyanide and sodium fluoroacetate use. For both pesticides, these species include the grizzly bear, gray wolf, Canada lynx, Mexican spotted owl and southwestern willow flycatcher.52 The incidental

44 Id. at II-80.
45 Memorandum to Support Reinitiation of Consultation on Sodium Fluoroacetate (1080) dated February 10, 2011 from Valerie Wood, Biologist at the Environmental Fate and Effects Division of the EPA, to Arthur Williams, Associate Director of the Environmental Fate and Effects Division of the EPA.
47 1993 BiOp at II-73.
48 Id. at II-75.
49 Id. at II-75 to II-78.
50 Id. at II-79.
51 Id.
52 Memorandum to Support Reinitiation of Consultation on Sodium Cyanide (M-44) dated February 10, 2011 from Valerie Wood, Biologist at the Environmental Fate and Effects Division of the EPA, to Arthur Williams, Associate
authorization contained in the 1993 Biological Opinion either incompletely covers or entirely fails to cover these species.

Primarily because of the listing of those new, potentially affected species, on February 11, 2011, EPA requested reinitiated consultation for both of sodium cyanide and sodium fluoroacetate. EPA explained that its requests were also based EPA’s findings in its problem formulations for the 2010 registration reviews; earlier agency reviews, including its response to a petition to cancel the pesticides53 and its 1994 and 1995 Registration Eligibility Decisions; and EPA desire to develop “more focused mitigation” for species covered by the 1993 Biological Opinion.54 In addition, EPA explained that the ranges of listed species may have changed since issuance of the 1993 Biological Opinion.

VIOLATIONS

A. Violations of the Endangered Species Act

On February 11, 2011, the EPA requested reinitiated formal Section 7 consultation from the FWS on sodium cyanide and sodium fluoroacetate, and their potential impacts on a suite of listed species. Nearly six years later, FWS still has not responded to that request for consultation, even though the ESA requires that FWS complete consultation within 90 days.55

Regardless of the quality or completeness of the effects determinations that EPA submitted, FWS cannot simply ignore a request to reinitiate consultations under the ESA. While the Joint Regulations provide FWS with the option to extend the consultation deadlines contained in Section 7,56 this is not a loophole designed to swallow the entire consultation requirement. Moreover, we are unaware of any agreed-upon extension for these consultations.

The ESA’s substantive and procedural mandates are designed to make sure that consultations are completed and jeopardy is avoided. But here, FWS has allowed an action agency to continue to jeopardize listed species simply by never completing the required Section 7 consultation process.

Director of the Environmental Fate and Effects Division of the EPA; Memorandum to Support Reinitiation of Consultation on Sodium Fluoroacetate (1080) dated February 10, 2011 from Valerie Wood, Biologist at the Environmental Fate and Effects Division of the EPA, to Arthur Williams, Associate Director of the Environmental Fate and Effects Division of the EPA.

53 Letter dated Jan. 16, 2009 from Debra Edwards, Director, Office of Pesticide Programs, EPA to Wendy Keefover-Ring, Director of Carnivore Protection Program, Sinapu.

54 Letter Requesting Reinitiation of Consultation for Sodium Fluoroacetate from Arthur William, Associate Director of the Environmental Fate and Effects Division of the EPA, to Gary Frazer, Assistant Director for Endangered Species at FWS dated February 11, 2011; Letter Requesting Reinitiation of Consultation for Sodium Cyanide from Arthur William, Associate Director of the Environmental Fate and Effects Division of the EPA, to Gary Frazer, Assistant Director for Endangered Species at FWS dated February 11, 2011.


56 50 C.F.R. § 402.14(f).
B. Violations of the Administrative Procedure Act

The APA dictates that agencies must “conclude a matter presented to it…within a reasonable time.” Accordingly, APA Section 706(1) authorizes reviewing courts to “compel agency action unlawfully withheld or unreasonably delayed.” In February of 2011, EPA requested reinitiation of Section 7 consultations with FWS regarding sodium cyanide and sodium fluoroacetate. Six years later, FWS has not taken any steps to complete the consultations and has not completed a new biological opinion for either of these pesticides. Given that the ESA and Joint Regulations specify that consultations must be completed within 90 days, FWS’s failure to complete the consultations constitutes unlawfully withheld or unreasonably delayed agency action under Section 706(1).

CONCLUSION

In summary, FWS has failed to complete reinitiated consultation on sodium cyanide and sodium fluoroacetate within the timelines required under the ESA and its implementing regulations after receiving from EPA formal requests to reinitiate consultations under Section 7 of the ESA. Within sixty days, if FWS does not act to correct the violations described in this notice, the Groups will pursue litigation against the FWS. If you have any questions, or would like to discuss these matters further, please contact us.

Sincerely,

Collette L. Adkins
Senior Attorney
Center for Biological Diversity

Bethany Cotton
Wildlife Program Director
WildEarth Guardians

Nicholas Arrivo
Staff Attorney
The Humane Society of the United States

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57 5 U.S.C. § 555(b).
58 Id. § 706(1).
SCIENTIFIC LITERATURE CITED


