

the Commission limit these requirements to service providers that are currently receiving support?

**III. Procedural Matters**

**A. Paperwork Reduction Act**

28. The document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, therefore, it does not contain any proposed information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4).

**IV. Ordering Clauses**

29. *It is further ordered* that, pursuant to the authority contained in sections 4(i), 214, 218–220, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 214, 218–220, 254, 303(r), and 403, and § 1.1 of the Commission’s rules, 47 CFR 1.1, this Notice of Inquiry *is adopted*. The Notice of Inquiry will be *effective* upon publication in the **Federal Register**, with comment dates indicated therein.

Federal Communications Commission.  
**Marlene Dortch**,  
*Secretary*.  
 [FR Doc. 2023–18084 Filed 8–22–23; 8:45 am]  
**BILLING CODE 6712–01–P**

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

[FF09E21000 FXES1111090FEDR 234]

**Endangered and Threatened Wildlife and Plants; Nine Species Not Warranted for Listing as Endangered or Threatened Species**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notification of findings.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce findings that nine species are not warranted for listing as endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After a thorough review

of the best available scientific and commercial information, we find that it is not warranted at this time to list the Alexander Archipelago wolf (*Canis lupus ligoni*), Chihuahua catfish (*Ictalurus* sp. 1), Cooper’s cave amphipod (*Stygobromus cooperi*), Georgia blind salamander (*Eurycea wallacei*), minute cave amphipod (*Stygobromus parvus*), Morrison’s cave amphipod (*Stygobromus morrisoni*), narrow-foot hygrotus diving beetle (*Hygrotus diversipes*), pristine crayfish (*Cambarus pristinus*), and Tennessee heelsplitter (*Lasmigona holstonia*). However, we ask the public to submit to us at any time any new information relevant to the status of any of the species mentioned above or their habitats.

**DATES:** The findings in this document were made on August 23, 2023.

**ADDRESSES:** Detailed descriptions of the bases for these findings are available on the internet at <https://www.regulations.gov> under the following docket numbers:

Species	Docket No.
Alexander Archipelago wolf .....	FWS–R7–ES–2023–0109
Chihuahua catfish .....	FWS–R2–ES–2023–0110
Cooper’s cave amphipod .....	FWS–R5–ES–2023–0120
Georgia blind salamander .....	FWS–R4–ES–2023–0117
Minute cave amphipod .....	FWS–R5–ES–2023–0121
Morrison’s cave amphipod .....	FWS–R5–ES–2023–0122
Narrow-foot hygrotus diving beetle .....	FWS–R6–ES–2023–0111
Pristine crayfish .....	FWS–R4–ES–2023–0115
Tennessee heelsplitter .....	FWS–R4–ES–2023–0116

Those descriptions are also available by contacting the appropriate person as specified under **FOR FURTHER INFORMATION CONTACT**. Please submit any

new information, materials, comments, or questions concerning this finding to the appropriate person, as specified

under **FOR FURTHER INFORMATION CONTACT**.

**FOR FURTHER INFORMATION CONTACT:**

Species	Contact information
Alexander Archipelago wolf .....	Stewart Cogswell, Field Supervisor, Anchorage Field Office, <a href="mailto:Stewart_Cogswell@fws.gov">Stewart_Cogswell@fws.gov</a> , 907–271–2888.
Chihuahua catfish .....	Michael Warriner, Supervisory Fish and Wildlife Biologist, Austin Ecological Services Field Office, <a href="mailto:Michael_warriner@fws.gov">Michael_warriner@fws.gov</a> , 512–490–0057.
Cooper’s cave amphipod, minute cave amphipod, Morrison’s cave amphipod.	Jennifer Norris, Field Supervisor, West Virginia Field Office, <a href="mailto:jennifer_l_norris@fws.gov">jennifer_l_norris@fws.gov</a> , 304–704–0655.
Georgia blind salamander .....	Peter Maholland, Field Supervisor, Georgia Ecological Services Field Office, <a href="mailto:peter_maholland@fws.gov">peter_maholland@fws.gov</a> , 706–208–7512.
Narrow-foot hygrotus diving beetle .....	Tyler Abbott, Field Supervisor, Wyoming Field Office, <a href="mailto:tyler_abbott@fws.gov">tyler_abbott@fws.gov</a> , 307–757–3707.
Pristine crayfish .....	Dan Elbert, Field Supervisor, Tennessee Field Office, <a href="mailto:daniel_elbert@fws.gov">daniel_elbert@fws.gov</a> , 571–461–8964.
Tennessee heelsplitter .....	Janet Mizzi, Field Supervisor, Asheville Ecological Services Field Office, <a href="mailto:janet_mizzi@fws.gov">janet_mizzi@fws.gov</a> , 828–258–3939x42223.

Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711

(TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States

should use the relay services offered within their country to make

international calls to the point-of-contact in the United States.

#### SUPPLEMENTARY INFORMATION:

##### Background

Under section 4(b)(3)(B) of the Act (16 U.S.C. 1531 *et seq.*), we are required to make a finding on whether or not a petitioned action is warranted within 12 months after receiving any petition that we have determined contains substantial scientific or commercial information indicating that the petitioned action may be warranted (hereafter a “12-month finding”). We must make a finding that the petitioned action is: (1) Not warranted; (2) warranted; or (3) warranted but precluded by other listing activity. We must publish a notification of these 12-month findings in the **Federal Register**.

##### Summary of Information Pertaining to the Five Factors

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations at part 424 of title 50 of the Code of Federal Regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Lists of Endangered and Threatened Wildlife and Plants (Lists). The Act defines “species” as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature (16 U.S.C. 1532(16)). The Act defines “endangered species” as any species that is in danger of extinction throughout all or a significant portion of its range (16 U.S.C. 1532(6)), and “threatened species” as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). Under section 4(a)(1) of the Act, a species may be determined to be an endangered species or a threatened species because of any of the following five factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species’ continued existence. In evaluating these actions and conditions, we look for those that may

have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself. However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the Act’s definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as we can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’ biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

In conducting our evaluation of the five factors provided in section 4(a)(1) of the Act to determine whether the Alexander Archipelago wolf, Cooper’s cave amphipod, Georgia blind salamander, minute cave amphipod, Morrison’s cave amphipod, narrow-foot hygrotyus diving beetle, pristine crayfish, and Tennessee heelsplitter meet the Act’s definition of “endangered species” or “threatened species,” we considered and thoroughly evaluated the best scientific and commercial information available regarding the past, present, and future stressors and threats. In conducting our evaluation of the Chihuahua catfish, we determined that it does not meet the definition of a “species” under the Act, and, as a result, we conclude that it is not a listable entity. We reviewed the petitions, information available in our files, and other available published and unpublished information for all these species. Our evaluation may include information from recognized experts; Federal, State, and Tribal governments; academic institutions; foreign governments; private entities; and other members of the public.

In accordance with the regulations at 50 CFR 424.14(h)(2)(i), this document announces the not-warranted findings on petitions to list nine species. We have also elected to include brief summaries of the analyses on which these findings are based. We provide the full analyses, including the reasons and data on which the findings are based, in the decisional file for each of the nine actions included in this document. The following is a description of the documents containing these analyses:

The species assessment forms for Alexander Archipelago wolf, Cooper’s cave amphipod, Georgia blind salamander, minute cave amphipod, Morrison’s cave amphipod, narrow-foot hygrotyus diving beetle, pristine crayfish, and Tennessee heelsplitter contain more detailed biological information, a thorough analysis of the listing factors, a list of literature cited, and an explanation of why we determined that

each species does not meet the Act's definition of an "endangered species" or a "threatened species." To inform our status reviews, we completed species status assessment (SSA) reports for the Alexander Archipelago wolf, Cooper's cave amphipod, Georgia blind salamander, minute cave amphipod, Morrison's cave amphipod, narrow-foot hygrotus diving beetle, pristine crayfish, and Tennessee heelsplitter. Each SSA report contains a thorough review of the taxonomy, life history, ecology, current status, and projected future status for each species. The species assessment form for the Chihuahua catfish contains more detailed taxonomic information, a list of literature cited, and an explanation of why we determined that the species does not meet the Act's definition of a "species." This supporting information can be found on the internet at <https://www.regulations.gov> under the appropriate docket number (see **ADDRESSES**, above).

#### *Alexander Archipelago Wolf*

##### Previous Federal Actions

On July 15, 2020, we received a petition from the Center for Biological Diversity, Alaska Rainforest Defenders, and Defenders of Wildlife, requesting that the Alexander Archipelago wolf subspecies in Southeast Alaska be listed as a threatened species or an endangered species and critical habitat be designated for this species under the Act. The petitioners requested that we recognize Alexander Archipelago wolves in Southeast Alaska as a distinct population segment (DPS), and evaluate this DPS for listing as threatened or endangered. The petitioners also requested that we evaluate the Alexander Archipelago wolf subspecies for listing where Southeast Alaska constitutes a significant portion of the range. On July 27, 2021, we published a 90-day finding (86 FR 40186) that the petition contained substantial information indicating that listing may be warranted for the species. This document constitutes our 12-month finding on the July 15, 2020, petition to list the Alexander Archipelago wolf under the Act.

We evaluated the Southeast Alaska population of AA wolf under our 1996 DPS policy (61 FR 4722) and found that it met both the discreteness and significance criteria. The population is discrete based on the international governmental boundary between the United States (Alaska) and Canada (British Columbia) within which significant differences in control of exploitation, management of habitat,

and regulatory mechanisms exist. The population meets the significance criteria because the loss of the Alexander Archipelago wolves in Southeast Alaska would result in a significant gap in the range of the taxon because an extensive area would be without Alexander Archipelago wolves if the Southeast Alaska population were lost. For a more detailed discussion of our DPS analysis, please see the species assessment form.

Given the best available information related to the DPS Policy's discreteness and significance criteria, we determined that the Southeast Alaska segment of the Alexander Archipelago wolf population meets the DPS Policy criteria for both the discreteness criteria and the significance criteria. Thus, in addition to our listing evaluation and finding on the Alexander Archipelago wolf range-wide, we also evaluated the Southeast Alaska DPS, as requested by the petition.

##### Summary of Finding for the Alexander Archipelago Wolf

The Alexander Archipelago wolf is a subspecies of gray wolf that occurs along the coastal mainland and islands of Southeast Alaska and British Columbia. Based on the best available information, the current distribution of the species is similar to its historical distribution.

There are gaps in our understanding of the life history of the Alexander Archipelago wolf; thus, when appropriate, we have applied information from gray wolves and other gray wolf subspecies. Alexander Archipelago wolves breed between 22 to 34 months of age, and litters range from 1 to 8 pups. Denning typically occurs from mid-April through early July; throughout the rest of the year Alexander Archipelago wolves are traveling, hunting, or dispersing. Alexander Archipelago wolves are capable of dispersing long distances, both on land and water, although there are many examples of these wolves avoiding water crossings. Pack sizes typically range between 2 and 12 wolves, although much larger groups have been observed. Alexander Archipelago wolves are opportunistic predators that eat a variety of prey species, yet, like gray wolves, ungulates compose most of their diet. Across the range of the species, Sitka black-tailed deer (*Odocoileus hemionus sitkensis*) and moose (*Alces americanus*) make up 75 percent of the wolf's diet. Alexander Archipelago wolves are habitat generalists, typically utilizing whatever habitat their preferred prey use and avoiding areas of intense human

activity. Old-growth forests, which Alexander Archipelago wolves select for, make up a majority of home range areas, and areas near freshwater are also selected by wolves during denning.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Alexander Archipelago wolf, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. The primary threats affecting the Alexander Archipelago wolf's biological status include timber harvest and associated road development, harvest of wolves, and genetic inbreeding. Although disease and climate change may not be currently impacting the species, the best available information indicates that these factors could have impacts on the species' viability in the future.

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we assessed the current status of the Alexander Archipelago wolf to determine if it meets the definition of an endangered species or threatened species. Our assessment of Alexander Archipelago wolf current viability included the primary threats of timber harvest and associated road development, harvest of wolves, and genetic inbreeding. To evaluate overall current population resiliency of the Alexander Archipelago wolf, we ranked each population into a current condition category (*i.e.*, high, moderately-high, moderate, moderately-low, low, or functionally extirpated) based on estimates of population growth, and the species' needs which include dietary diversity, area of old-growth forest available, and remoteness (*i.e.*, space from human activity; Table 3 of the SSA Report). Despite past and ongoing threats, Alexander Archipelago wolf currently occupies five analysis units that span its historical range, three of which exhibit high resiliency (Northern and Southern Coastal British Columbia and Northern Southeast Alaska), one with moderately high resiliency (Southern Southeast Alaska), and one with moderately low resiliency (Prince of Wales Island Complex). Currently, Alexander Archipelago wolves appear to have high adaptive capacity, and we expect most populations to be able to adapt to near-term changes in their physical and biological environments. The exception to this is the Prince of Wales Island Complex analysis unit.

Within the Prince of Wales Island Complex analysis unit, high levels of inbreeding have been documented, and

ungulate prey is limited compared to the rest of the range. These characteristics limit the adaptive capacity of wolves within this analysis unit. Nonetheless, based on the best available information, the Prince of Wales Island Complex analysis unit demonstrates stable population trends. Overall, the Alexander Archipelago wolf is widely distributed across its current and historical range indicating that it has high redundancy (ability to withstand catastrophic events) and overall high representation (adaptive capacity), contributing to its overall viability. Thus, after assessing the best available information, we conclude that the Alexander Archipelago wolf is not in danger of extinction throughout all of its range.

To assess future viability of the Alexander Archipelago wolf, we considered the foreseeable future out approximately 30 years (to 2050) and projected the influence of three future scenarios that included disease and climate change and the other primary threats included in the assessment of current viability. The Alexander Archipelago wolf is projected to retain high to moderate levels of resiliency within four of the five analysis units, and no significant loss in distribution is predicted across its range. The exception is the Prince of Wales Island Complex analysis unit, which is projected to decline in resiliency under most scenarios, and under one scenario, projections indicate possible extirpation. However, the Prince of Wales Island Complex analysis unit represents a relatively small area (approximately 4.5 percent; Service 2023, p. 110) compared to the overall geographic range of the species, and a relatively small proportion of the rangewide population estimate (17 percent; Service 2023, pp. 90–91). Thus, after assessing the best available information, we conclude that the Alexander Archipelago wolf is not likely to become endangered within the foreseeable future throughout all of its range.

We evaluated the range of the Alexander Archipelago wolf to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any portion of its range. The Prince of Wales Island Complex analysis unit has moderately low resiliency now and ranges from moderate resiliency to functionally extirpated into the future. We found that this analysis unit may have a different status compared to the rest of the range. Within the Prince of Wales Island Complex analysis unit, high levels of old-growth timber harvest, road

development, and inbreeding have been documented, and wolf harvest rates (reported and unreported) may also exceed sustainable levels in some years (Service 2023, p. 62). Additionally, ungulate prey is limited to just one species, the Sitka black-tailed deer, limiting adaptive capacity for wolves in this analysis unit. Although other analysis units may also face one or two threats from timber harvest, road development, inbreeding, wolf harvest, or prey availability, the Prince of Wales Island Complex is the only analysis unit that experiences all of these threats.

However, we did not find that the Prince of Wales Island Complex analysis unit represents a significant portion of the range for the Alexander Archipelago wolf. The Prince of Wales Island Complex analysis unit represents approximately 4.5 percent of the overall geographic range of the species (Service 2023, p. 110). Additionally, the Prince of Wales Island Complex analysis unit does not have high-quality habitat relative to the rest of the range. Contiguous patches of old-growth forest (at least 75 square kilometers) have been identified as the preferred habitat for this species and are considered high-quality habitat. The Prince of Wales Island Complex analysis unit contains 10.9 percent of the total preferred old-growth habitat that is available to the species rangewide (Service 2023, p. 110). Lastly, the habitat within the Prince of Wales Island Complex analysis unit is not considered unique for any specific life-history functions (*e.g.*, availability of denning habitat or ungulate prey); the species' preferred denning habitat is found in all other analysis units, and ungulate prey diversity is greater in the other analysis units. Thus, we do not consider the Prince of Wales Island Complex analysis unit to represent a large geographic area relative to the range of the species as a whole, to have higher quality habitat relative to the remaining portions of the range, or to represent uniquely valuable habitat for the species. We do not find that the Prince of Wales Island Complex analysis unit is significant. Therefore, the Prince of Wales Island Complex analysis unit does not represent a significant portion of its range, and we find that the Alexander Archipelago wolf is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range.

After assessing the best available information, we conclude that the Alexander Archipelago wolf is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of

its range. Therefore, we find that listing the Alexander Archipelago wolf as an endangered species or threatened species under the Act is not warranted.

#### Summary of Finding for the Southeast Alaska Alexander Archipelago Wolf DPS

The Southeast Alaska Alexander Archipelago wolf DPS occurs along the coastal mainland and islands of Southeast Alaska. Based on the best available information, the current distribution of the species is similar to its historical distribution.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Southeast Alaska Alexander Archipelago wolf DPS, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. The primary threats affecting the Southeast Alaska Alexander Archipelago wolf DPS's biological status include timber harvest and associated road development, harvest of wolves, and genetic inbreeding. Although disease and climate change may not be currently impacting the species, the best available information indicates that these factors could have impacts on the species' viability in the future.

Our assessment of the current viability of the Southeast Alaska Alexander Archipelago wolf DPS included the primary threats of timber harvest and associated road development, harvest of wolves, and genetic inbreeding. Currently, one analysis unit exhibits high resiliency (Northern Southeast), one analysis unit exhibits moderately high resiliency (Southern Southeast), and one analysis unit exhibits moderately low resiliency (Prince of Wales Island Complex). Alexander Archipelago wolves in the Northern Southeast Alaska analysis unit and the Southern Southeast Alaska analysis unit appear to have high adaptive capacity, and we expect wolves in these analysis units to be able to adapt to near-term changes in their physical and biological environments. Even though the Southern Southeast Alaska analysis unit exhibits signs of recent and historical inbreeding, there is no evidence of a reduction in fitness related to inbreeding. Additionally, the Southern Southeast Alaska analysis unit has a greater potential for connectivity and therefore, gene flow, with other analysis units on the mainland, and it has a greater diversity of ungulate prey. Within the Prince of Wales Island Complex analysis unit, high levels of

inbreeding have been documented and ungulate prey is limited compared to the rest of the range of the DPS. These characteristics limit the current adaptive capacity of wolves within the Prince of Wales Island Complex analysis unit. However, even with this additional stress, the population estimates for Prince of Wales Island Complex analysis unit indicate it is currently stable. Within the Southeast Alaska Alexander Archipelago wolf DPS, the species is distributed across its current and historical range, indicating that it has high redundancy (ability to withstand catastrophic events) and high representation (adaptive capacity), contributing to its overall viability. Thus, after assessing the best available information, we conclude that the Southeast Alaska Alexander Archipelago wolf DPS is not in danger of extinction throughout its range.

To assess future viability of the Southeast Alaska Alexander Archipelago wolf DPS, we considered the foreseeable future out approximately 30 years (to 2050) and projected the influence of three future scenarios that included disease and climate change, and the other primary threats included in the assessment of current viability. The Southeast Alaska Alexander Archipelago wolf DPS is projected to have high to moderate resiliency within the Northern Southeast Alaska analysis unit, moderately high resiliency in the Southern Southeast Alaska analysis unit, and moderate resiliency to a functionally extirpated status within the Prince of Wales Island Complex analysis unit. However, the Prince of Wales Island Complex analysis unit represents a relatively small percentage of the total geographic area of the Southeast Alaska Alexander Archipelago wolf DPS (approximately 13.2 percent) and approximately 30 percent of the overall Southeast Alexander Archipelago wolf DPS population. Thus, after assessing the best available information, we conclude that the Southeast Alaska Alexander Archipelago wolf DPS is not likely to become endangered within the foreseeable future throughout all of its range.

We then evaluated the range of the Southeast Alaska Alexander Archipelago wolf DPS to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. We looked at the entire range of the Southeast Alaska Alexander Archipelago wolf DPS and found that the Prince of Wales Island Complex analysis unit has moderately low resiliency now and ranges from moderately resilient to functionally

extirpated into the future. We found that the Prince of Wales Island Complex may have a different status compared to the rest of the DPS range. Within the Prince of Wales Island Complex analysis unit, high levels of old-growth timber harvest, road development, and inbreeding have been documented, and wolf harvest rates (reported and unreported) may exceed sustainable levels in some years (Service 2023, p. 62). Additionally, ungulate prey is limited to just one species, Sitka black-tailed deer, limiting adaptive capacity for wolves in this analysis unit. Although the other analysis units may also face one or two threats from either timber harvest, road development, inbreeding, wolf harvest, or prey availability, the Prince of Wales Island Complex is the only analysis unit that experiences all of these threats. However, we did not find the Prince of Wales Island Complex analysis unit to represent a significant portion of the range of the Southeast Alaska Alexander Archipelago wolf. The Prince of Wales Island Complex analysis unit represents a relatively small portion of the geographic area of the Southeast Alaska Alexander Archipelago wolf DPS (approximately 13.2 percent). Additionally, the Prince of Wales Island Complex analysis unit does not have high-quality habitat relative to the rest of the range. Contiguous patches of old-growth forest have been identified as the preferred habitat for this species and are considered high-quality habitat. The Prince of Wales Island Complex analysis unit contains approximately 22.8 percent of high-quality habitat compared to the rest of the DPS range (Service 2023, p. 110). Lastly, the habitat on the Prince of Wales Island Complex analysis unit is not considered unique for any specific life-history functions (e.g., denning habitat or prey diversity); denning habitat is found in the other analysis units within the DPS, and the other two analysis units have greater ungulate prey diversity compared to the Prince of Wales Island Complex. Thus, we do not consider the Prince of Wales Island Complex analysis unit to represent a large geographic area relative to the range of the DPS, to have higher quality habitat relative to the rest of the DPS, or to represent uniquely valuable habitat for the DPS. Therefore, the Prince of Wales Island Complex analysis unit does not represent a significant portion of the Southeast Alaska Alexander Archipelago wolf DPS range, and the Southeast Alaska Alexander Archipelago wolf DPS is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range.

After assessing the best available information, we concluded that the Southeast Alaska Alexander Archipelago wolf DPS is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the Southeast Alaska Alexander Archipelago wolf DPS as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Alexander Archipelago wolf species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R7-ES-2023-0109.

#### Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process we solicited independent scientific reviews of the information contained in the Alexander Archipelago wolf SSA report. The Service sent the SSA report to 10 independent peer reviewers and received 4 responses. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket No. FWS-R7-ES-2023-0109 and <https://www.fws.gov/library/categories/peer-review-plans>. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

#### Chihuahua Catfish

##### Previous Federal Actions

On June 25, 2007, the U.S. Fish and Wildlife Service (Service) received a petition dated June 18, 2007, from Forest Guardians (now WildEarth Guardians) requesting that the Service list 475 species, including the Chihuahua catfish, as threatened or endangered species and designate critical habitat under the Act. All 475 species occur within the Southwest Region and were ranked as G1 or G1G2 species by NatureServe at the time. In a July 11, 2007, letter to the petitioner, the Service acknowledged receipt of the petition and stated that the petition was under review by staff in the Southwest Regional Office. On December 16, 2009, the Service published a partial 90-day finding on the petition, including the Chihuahua catfish and 191 other species, stating that the petition presented substantial scientific information indicating that listing may be warranted for 67 of the 192 species (74 FR 66866).

## Summary of Finding

In assessing the best available scientific information for the status of a species, the Service generally relies on information published in peer-reviewed journals and other reports. Particularly related to taxonomic determinations, we defer to the scientific literature and to professional authorities for taxonomical assignments. However, when that information is in question, the Service conducts its own analysis, and we exercise our best scientific judgment.

For a taxon to be listed under the Act, it must be a listable entity; that is, it must be either formally described and accepted as a species or subspecies or there must be credible scientific evidence that the entity should qualify as a valid species or subspecies. The Chihuahua catfish has never been formally described in peer-reviewed literature as a valid taxonomic entity. A draft species description from 1998 proposed to describe the species as distinct but was never finalized. Recent morphological and genetic analyses found no evidence that this putative species exists in New Mexico and Texas.

To date, no peer-reviewed publications have supported a distinct species status of the Chihuahua catfish or provided evidence of its existence. We have reviewed the best available information regarding the taxonomic status of the putative Chihuahua catfish and conclude that there is insufficient credible scientific evidence that the entity qualifies as a valid species or subspecies. Therefore, it is not warranted for listing because we find that there is not credible scientific evidence that the Chihuahuan catfish is a listable entity under Act. A detailed discussion of the basis for this finding can be found in the Chihuahua catfish species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R2-ES-2023-0110.

## Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in our report titled "Review of the Chihuahua catfish (*Ictalurus* sp. 1)". The Service sent the report to seven independent peer reviewers and received four responses. We incorporated the results of these reviews, as appropriate, into the report, which is the foundation for this finding. Results of this structured peer review

process can be found at <https://www.regulations.gov> under Docket No. FWS-R2-ES-2023-0110.

## *Cooper's Cave Amphipod, Minute Cave Amphipod, and Morrison's Cave Amphipod*

### Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands to list 404 aquatic, riparian, and wetland species, including *Stygobromus cooperi*, *S. parvus*, and *S. morrisoni* (referred to by the common names "Cooper's cave amphipod," "minute cave amphipod," and "Morrison's cave amphipod," respectively, in the petition), as endangered or threatened species under the Act. On September 27, 2011, we published a 90-day finding in which we announced that the petition contained substantial information indicating that listing may be warranted for the species (76 FR 59836). This document constitutes our 12-month finding on the April 20, 2010, petition to list Cooper's, minute, and Morrison's cave amphipods under the Act.

### Summary of Finding

Cooper's, minute, and Morrison's cave amphipods are specialized for subterranean karst habitat characterized by relatively stable physiochemical conditions compared to surface environments and have limited or patchily distributed food resources. Karst landscapes are geologic features or landforms characterized by distinctive permeable underground drainage systems, caves, and sinkholes that have been formed through the dissolving of soluble rock, particularly limestone (Simms 2005, p. 678). Due to the absence of light and primary producers in subterranean environments, these species are likely detritivores or omnivores that feed on organic matter (*i.e.*, dead plant and animal material) originating from the surface. Morrison's cave amphipod is restricted to Virginia and West Virginia, and Cooper's cave and minute cave amphipods are restricted to West Virginia, with limited distributions.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Cooper's, minute, and Morrison's cave amphipods, and we evaluated all relevant factors under the five listing factors, including any regulatory

mechanisms and conservation measures addressing these threats. The primary threats affecting Cooper's, minute, and Morrison's cave amphipods are: (1) groundwater contamination by sediments and toxic compounds, (2) disruption of food supply due to deforestation/surface alteration, and (3) direct modification of habitats due to cave visitation and urban development of karst areas. Protection, management, and conservation measures that may improve the species' viability are summarized below.

After evaluating the best available scientific and commercial information on potential stressors acting individually or in combination, we found no indication that the combined effects are currently causing a population-level decline or degrading the habitat of the Cooper's, minute, or Morrison's cave amphipod, or that the combined effects are likely to do so within a foreseeable future of 20 years, based on the projected species' response to future stressors.

Despite impacts from the primary threats, the best data and information available indicate Cooper's, minute, and Morrison's cave amphipod species have maintained resilient populations throughout their respective ranges. Although we predict some continued impacts from these threats in the future, we anticipate each species will continue, in the foreseeable future (that is roughly 20 years), to maintain resilient populations throughout their ranges that are distributed throughout each of their representative units.

After evaluating threats to the species under the section 4(a)(1) factors listed above and assessing the cumulative effect of the threats of these factors, we evaluated Cooper's, minute, and Morrison's cave amphipod viability to determine if these species meet the definition of an endangered or threatened species. The Cooper's, minute, and Morrison's cave amphipod redundancy and representation are limited due to their narrow ranges; however, this situation is likely similar to historical conditions. We find that the Cooper's, minute, and Morrison's cave amphipods have sufficient resiliency, redundancy, and representation in light of the best available potential stressor data and information, both currently and into the foreseeable future, such that they do not meet the definition of an endangered or threatened species throughout their range.

We evaluated the range of the Cooper's cave amphipod to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any portion of its

range. The Cooper's cave amphipod is a narrow endemic that functions as a single, contiguous population and occurs within a very small area of 27 square kilometers (km<sup>2</sup>) (10.5 square miles [mi<sup>2</sup>]). Thus, there is no biologically meaningful way to break this limited range into portions, and the threats that the species faces affect the species comparably throughout its entire range. As a result, there are no portions of the species' range where the species has a different biological status from its rangewide biological status. Therefore, we conclude that there are no portions of the species' range that warrant further consideration, and the species is not in danger of extinction or likely to become so in the foreseeable future in any significant portion of its range.

We evaluated the range of the minute and Morrison's cave amphipods to determine if the species are in danger of extinction now or likely to become so in the foreseeable future in any portion of their ranges (1,467 km<sup>2</sup> or 566 mi<sup>2</sup> and 2,266 km<sup>2</sup> or 876 mi<sup>2</sup>, respectively). The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the definition of an endangered species or a threatened species. For minute and Morrison's cave amphipods, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now or likely to become so in the foreseeable future in that portion. We examined the following threats: (1) groundwater contamination, (2) disruption of food supply due to deforestation or surface alteration, and (3) direct modification of habitat due to cave visitation and urban development.

After evaluating the best available scientific and commercial information on potential stressors acting individually or in combination, we found no indication that the combined effects are currently causing a population-level decline or degrading the habitat of the minute or the Morrison's cave amphipods. These factors are not occurring at a substantial level in any portion for either the minute or Morrison's cave amphipods to contribute to the risk of extinction. We found no biologically meaningful portion of the minute or Morrison's cave amphipod ranges where threats are impacting individuals differently from how they are affecting the species elsewhere in its range, or where the biological condition of the species differs from its condition elsewhere in

its range such that the status of the species in that portion differs from its status in any other portion of the species' range. Refer to the species assessment form in the docket for this action for additional details.

After assessing the best available information, we concluded that Cooper's, minute, and Morrison's cave amphipods are not in danger of extinction or likely to become in danger of extinction throughout all of their ranges or in any significant portion of their ranges. Therefore, we find that listing the Cooper's, minute, or Morrison's cave amphipods as endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Cooper's, minute, and Morrison's cave amphipods species assessment form and other supporting documents on <https://www.regulations.gov> under Docket Nos. FWS-R5-ES-2023-0120 (Cooper's cave amphipod), FWS-R5-ES-2023-0121 (minute cave amphipod), and FWS-R5-ES-2023-0122 (Morrison's cave amphipod).

#### Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process we solicited independent scientific reviews of the information contained in the Cooper's, minute, and Morrison's cave amphipod SSA report. The Service sent the SSA report to four independent peer reviewers and received four responses. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket Nos. FWS-R5-ES-2023-0120 (Cooper's cave amphipod), FWS-R5-ES-2023-0121 (minute cave amphipod), and FWS-R5-ES-2023-0122 (Morrison's cave amphipod). We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

#### Georgia Blind Salamander

##### Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands to list 404 aquatic, riparian, and wetland species, including *Eurycea wallacei* (formerly known as, and identified by petitioners as, *Haideotriton wallacei*), as an endangered or threatened species under

the Act. On September 27, 2011, we published a 90-day finding (76 FR 59836) that the petition contained substantial information indicating that listing may be warranted for the species. This document constitutes our 12-month finding on the April 20, 2010, petition to list the Georgia blind salamander under the Act.

#### Summary of Finding

The Georgia blind salamander is a relatively small, pinkish-white, blind salamander with visible external gills. Eyes are entirely lacking, except for dark eyespots. The bodies of juveniles exhibit many small pigment spots uniformly distributed along the dorsal and lateral surfaces but are otherwise translucent. Adults are similar in appearance but lack body pigmentation, leaving them almost pure white apart from their gills. Lungs are also absent. Common prey items of the Georgia blind salamander mainly include crustaceans (ostracods, amphipods, copepods, and isopods), though insects and arachnids have also been found in salamander digestive tracts. Habitat of the Georgia blind salamander consists primarily of caves within the Upper Floridan Aquifer System, an extensively karstified aquifer system. Currently, locations where Georgia blind salamander have been found include Jackson County, Florida, as well as Dougherty and Decatur Counties, Georgia, in the Marianna Lowlands-Dougherty Plain physiographic region. The best available science indicates there is a high likelihood of Georgia blind salamander co-occurring with the Dougherty Plain cave crayfish (*Cambarus cryptodytes*), resulting in up to 58 extant sites. It is important to note that the identified sites are only those that are accessible to humans and do not necessarily represent the entire distribution of the species. Also, many sites of co-occurrence are isolated wells, indicating that both species are likely more widely distributed throughout the aquifer and associated springsheds than is evidenced by direct sightings alone. It is likely the species is present in the Dougherty Plain portion of the Upper FAS.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Georgia blind salamander, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. Existing threats related to water quality and water quantity are present, though there are extant sites. In addition, water quantity

currently does not appear to have a large impact on this aquifer, as drawdowns even in drought conditions were not impacting water levels in the aquifer. Since aquifers have relatively stable conditions over space and time, particularly compared to other terrestrial or even aquatic habitats, the species' broad occurrence across the 4.4-million-acre aquifer likely ensures it has adequate representation and redundancy currently.

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we assessed the current status of the Georgia blind salamander to determine if it meets the definition of an endangered species or threatened species. The Georgia blind salamander currently has moderate to high resilience (78 percent of sites); water quality and quantity are the primary factors influencing the species rangewide, although the underlying aquifer has exhibited relatively stable conditions over time, and the species is presumed to occur across the aquifer. There are extant sites where existing threats related to water quality and water quantity still occur, and drawdowns in drought conditions were not impacting water levels in the aquifer. Thus, the threats appear to have low imminence and magnitude such that they are not significantly affecting the species' current viability. Accordingly, we determined that the Georgia blind salamander is not in danger of extinction throughout its range.

We then considered whether the species is likely to become in danger of extinction within the foreseeable future throughout its range. The analysis of future condition to 2070, considered in the SSA report, encompasses the best available information for future projections of land-use change under two different scenarios (worst case—A1B and best case—B2), as well as pollutant discharge permits and effects of climate change (for example, sea level rise and drought). The timeframe considered enabled us to analyze the threats/stressors acting on the species and draw reliable predictions about the species' response to these factors. Land use changes may impact water quality, and thus could influence species viability.

Given the future scenarios, the resiliency of the Georgia blind salamander population is predicted to decline or remain approximately the same in the future. However, given the vast size (4,400,162 acres of surface area) and stability of habitat, as well as the species' broad occurrence across the

aquifer, and projected limited future threats, we determined that the scale of impacts projected in the future will not impact the species such that the species is likely to become in danger of extinction within the foreseeable future. Thus, after assessing the best available information, we determined that the Georgia blind salamander is not in danger of extinction now or likely to become so in the foreseeable future throughout all of its range.

We next considered whether the species may be in danger of extinction or likely to become so in the foreseeable future in a significant portion of its range—that is, whether there is any portion of the species' range for which it is true that both (1) the portion is significant and (2) the species is in danger of extinction now or likely to become so in the foreseeable future in that portion. Because the range of a species can theoretically be divided into portions in an infinite number of ways, we focused our analysis on portions of the species' range that contribute to the conservation of the species in a biologically meaningful way. For the Georgia blind salamander, we considered whether the threats or their effects on the species are greater in any portion of the species' range than in other portions such that the species is in danger of extinction now or likely to become so in the foreseeable future in that portion.

Because this species occupies a habitat that is not easily accessible or sampled, with few existing records, it is assumed to be well distributed evenly across its interconnected 4.4 million-acre range. While it is considered one population, we identified sinkhole hotspots around Albany, Georgia, and Marianna, Florida, to be most vulnerable to the threats due to their close proximity to developed areas and potential lingering effects from Superfund sites. These portions of the range are also vulnerable to potential catastrophic chemical spills compared to the overall range. The fact that spills have occurred and the salamander remains in high to moderate condition in these areas indicates that the threats to water quality and quantity are not impacting the species such that it has a different status in these portions compared to the rest of the range. For these reasons, the sinkhole hotspot portions around Albany, GA, and Marianna, FL, were not determined to have a different status now or in the foreseeable future. Further, these portions also comprise a small portion of the total range, and therefore we conclude that these areas are not significant.

After assessing the best available information, we concluded that Georgia blind salamander is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the Georgia blind salamander as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Georgia blind salamander species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0117.

#### Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in the Georgia blind salamander SSA report. The Service sent the SSA report to eight independent peer reviewers and received three responses. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0117. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

#### *Narrow-Foot Hygrotus Diving Beetle*

##### Previous Federal Actions

On July 17, 2013, we received a petition from WildEarth Guardians to list the narrow-foot hygrotus diving beetle, henceforth “diving beetle,” as an endangered or threatened species under the Act. On January 12, 2016, we published a 90-day finding (81 FR 1368) that the petition contained substantial information indicating that listing may be warranted for the species. On April 21, 2020, WildEarth Guardians filed suit (Case No. 1:20-cv-1035) to compel us to complete a 12-month finding. We subsequently agreed to submit a 12-month finding for the diving beetle to the **Federal Register** by August 15, 2023. This document constitutes our 12-month finding on the July 17, 2013, petition to list the diving beetle under the Act.

##### Summary of Finding

Narrow-foot hygrotus diving beetles are small aquatic beetles found in central Wyoming within a specific geology of Cody Shale substrates or soils derived from Cody Shale in Fremont, Johnson, Natrona, and Washakie Counties. This beetle has likely never



had a wider distribution than the narrow range it currently occupies.

Diving beetles develop through egg, larval, pupal, and adult stages and rely on small, transitory, saline pools that form during the drying down of ephemeral streams in summer, with all life stages either occurring in or adjacent to these pools. Diving beetles require refugia and prey in pools and hydrologically intact areas surrounding pools, which support higher water quality and seasonally appropriate timing and quantities of water in pools. Diving beetle sites appear to function as a metapopulation, and as such, connectivity among pools is essential for diving beetles. Pools need to be near enough to each other so that, when local conditions in one pool become unsuitable, either adults can fly overland to another pool or individuals at any life stage can flow downstream to another pool with suitable habitat. The frequency across years with which pools are occupied by diving beetles is also important for diving beetles' resiliency. More frequently occupied pools reliably provide for the needs of diving beetles, and while infrequently occupied pools do not support diving beetles in most years, they do support diving beetles in years with extreme weather conditions that make other sites unsuitable.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the diving beetle, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we assessed the current status of the diving beetle to determine if it meets the definition of an endangered species or threatened species. The primary threats affecting the diving beetle's biological status include climate change, inadequate water availability, flooding, anthropogenic disturbance, and insecticide spraying.

Our assessment of current viability included all primary threats to the diving beetle. Despite past and ongoing stressors, the diving beetle has multiple populations in high and moderate condition. To assess future viability of this species, we considered the foreseeable future out to 2050 and projected the influence under three future scenarios of stressors that included climate change, inadequate water availability, flooding, anthropogenic disturbance, and insecticide spraying. Within the SSA,

we evaluated the viability of diving beetles, including a review of ongoing and future threats. The best available information indicates that this species' life-history traits are conducive to surviving projected climate changes and other increases in evaluated stressors now and into the foreseeable future.

Diving beetles also have a metapopulation structure with connectivity between sites that supports resiliency among all sites throughout the entire range, and the distribution of the species across three different river basins within central Wyoming helps support redundancy. Therefore, we expect all diving beetle sites to be maintained into the foreseeable future.

We then evaluated the range of the diving beetle to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the definition of an endangered species or a threatened species. For the diving beetle, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now or likely to become so in the foreseeable future in that portion. We found no portion of the diving beetle's range where threats are impacting individuals differently from how they are affecting the species elsewhere in its range, or where the biological condition of the species differs from its condition elsewhere in its range such that the status of the species in that portion differs from its status in any other portion of the species' range. Therefore, we find that the species is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range; refer to the species assessment form in the docket for this action for additional details.

After assessing the best available information, we concluded that the diving beetle is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the diving beetle as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the diving beetle species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R6-ES-2023-0111.

## Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in the diving beetle SSA report. The Service solicited review of the SSA report from six potential peer reviewers and received one review. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket No. FWS-R6-ES-2023-0111. We incorporated the results of the review, as appropriate, into the SSA report, which is the foundation for this finding.

## Pristine Crayfish

### Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands Conservancy to list 404 aquatic, riparian, and wetland species, including the pristine crayfish, as an endangered or threatened species under the Act. On September 27, 2011, we published a 90-day finding in the **Federal Register** (76 FR 59836) concluding that the petition presented substantial scientific or commercial information indicating that listing may be warranted. This document constitutes our 12-month finding on the April 20, 2010, petition to list pristine crayfish under the Act.

### Summary of Finding

The pristine crayfish is a small, freshwater crayfish endemic to the Cumberland Plateau in Tennessee. The species occurs in small- to medium-sized streams and rivers in the Caney Fork and Sequatchie River systems in central Tennessee. Pristine crayfish are known to occur in 27 streams in 8 subwatersheds (HUC12) in the region. Two distinct forms of the pristine crayfish are recognized based on body characteristics and genetics: the Caney Fork form and the Sequatchie form. The Caney Fork form of pristine crayfish occurs in five northern subwatersheds (17 streams), and the Sequatchie form occurs in three southern subwatersheds (10 streams). The pristine crayfish requires good water quality in first- to fourth-order perennial streams with cool water, shallow pools with slow to moderate flow, slab rock substrate with cobble, and low levels of sedimentation.

We have carefully assessed the best scientific and commercial information

available regarding the past, present, and future threats to the pristine crayfish, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we assessed the current status of the pristine crayfish to determine if it meets the definition of an endangered species or threatened species. The threats affecting the pristine crayfish's biological status include habitat destruction or modification, future effects of climate change, disease, and the effect of small, isolated populations. Of these threats, habitat destruction or modification and the future effects of climate change were identified as key drivers of the species' viability. Habitat destruction or modification is currently the primary threat to pristine crayfish viability. Impacts to the pristine crayfish's habitat rangewide are caused by sedimentation, decreased water quality, and the effects of impoundments. These impacts occur at the individual and population levels across the species' distribution, but the best available information indicates that these localized impacts have not affected pristine crayfish at the species level. Climate change has the potential to impact the species through increased magnitude and frequency of drought and increased temperature, and this threat is ongoing and projected to increase in the future. Although drought and increased temperatures may result in a decrease or lack of recruitment in some portions of its range during some years, there have been no documented species-level declines as a result of consecutive years of drought. The threats of disease and small population size may exacerbate the effects of the primary threats but are not expected to affect population resiliency, representation, and redundancy alone.

The best available information indicates that the range of the pristine crayfish has not contracted since described in 1965 and, in fact, its range was recently expanded into an additional river system. The species is naturally patchily distributed within its range and is known to occur in 27 streams across 8 HUC12 analysis units (AUs). Seven of the eight AUs exhibit moderate current resiliency. Although we identified habitat destruction or modification and climate change as the key drivers of species' viability, the species' current condition does not indicate species-level impacts from these or other cumulative factors that

have led to reductions in AU resiliency. The species' representation and redundancy are moderate, and the species occurs in multiple analysis units with sufficient resiliency across its historical and current range. Overall, no current threat is acting at an extent or severity such that the pristine crayfish is at risk of extinction throughout all of its range. Thus, after assessing the best available information, we conclude that the pristine crayfish is not in danger of extinction throughout all of its range.

Therefore, we proceed with determining whether the pristine crayfish is likely to become an endangered species within the foreseeable future throughout all of its range. To evaluate the future viability of the pristine crayfish, we considered the relevant threats currently acting on the species, those threats expected to act on the species in the foreseeable future, and the species' response to those threats. The primary threats to the pristine crayfish in the future are habitat destruction or modification and climate change. The three plausible future scenarios we examined included projections of urbanization, land use change (evergreen forest cover), impoundments, the effects of climate change, and the cumulative effect of these threats. Our analysis of the species' condition under future scenarios at two time steps (2036 and 2051) encompasses the best available information for future projections of modeled parameters under a range of plausible threat levels. We selected these time steps based on the pristine crayfish's lifespan of approximately 4 years and the reliability of the data and models used in the future threat projections and analyses. Therefore, we determined 30 years to be the foreseeable future for which we can reasonably predict the threats to the pristine crayfish and the species' response to those threats.

In this timeframe, there are minor projected increases in some threats that may affect the availability of suitable habitat across the species' range. Urbanization is projected to increase an average of 6 to 11 percent over current levels and evergreen forest cover (representing land use change) is projected to decrease by 1 percent in the same timeframes. The pristine crayfish is distributed across eight AUs (HUC12 subwatersheds) and is expected to remain extant in all future scenarios across the AUs. Our future condition analysis projected declines in resiliency in six or seven of the AUs in all scenarios except the increased impact scenario in 2051, when all eight AUs are projected to decline in resiliency. Based

on our analysis, the projected effects of climate change and impoundments may have a greater effect on species' resiliency compared to current impacts, but the magnitude and imminence of the threats and the species' responses are more uncertain.

We expect that the species' representation and redundancy will decline slightly but will largely be maintained in moderate condition in the future with all AUs remaining on the landscape in all scenarios. We projected future redundancy as moderate with no AUs projected to be extirpated, and the distribution of the species across the range is projected to remain at the current level. Likewise, representation is expected to remain moderate as both forms of the pristine crayfish are present on the landscape, although some parameters used to assess representation are projected to decline as resiliency declines. Impacts from current and ongoing threats will reduce population resiliency and affect the species' representation and redundancy in the foreseeable future but are not projected to lead to the species' decline such that the pristine crayfish is likely to become in danger of extinction in the modeled scenarios. The best available information does not indicate that the pristine crayfish's viability will decline so much that the species is likely to become an endangered species within the foreseeable future throughout its range.

We then evaluated the range of the pristine crayfish to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. Although threats are similar throughout the range of the species, the species' response is more pronounced in the Piney Creek AU. Due to lower current resiliency, threats are having a greater impact in the Piney Creek AU than elsewhere in the range. The Piney Creek AU exhibits low current resiliency driven primarily by a low extent of occupancy (few sites known within the stream) and lack of information regarding reproduction in the species. Given the species' condition within the Piney Creek AU, we have identified the unit as an area that may be in danger of extinction due to the low extent of occupancy and low reproduction/recruitment.

We then proceeded to the significance question, asking whether this portion of the range is significant. Although the Piney Creek AU contributes to the overall species-level representation and redundancy, it does not contain any high-quality or high-value habitat or any habitat or resources unique to that area

and necessary to the pristine crayfish's life history. In addition, only 1 of the 27 known streams with species occurrence is located in the Piney Creek AU. So this area does not contribute substantively to the species' viability. This portion does not make up a large geographic area of the range or contain a high proportion of the species' habitat or populations. Accordingly, we do not find this portion to be a significant portion of its range. Therefore, we find the pristine crayfish is not currently in danger of extinction in a significant portion of its range.

We next considered whether the pristine crayfish may be likely to become an endangered species within the foreseeable future in a significant portion of its range. As discussed above, we determined 30 years to be the foreseeable future for which we can reasonably predict the threats to the pristine crayfish and the species' response to those threats.

Habitat destruction or modification and climate change are the primary factors currently acting on or expected to act on the species in the future at a rangewide scale. The species currently exhibits moderate resiliency in seven of eight AUs and moderate species' level representation and redundancy. Although threats are projected to impact the species similarly across the range, the species' response is more pronounced in some AUs due to lower resiliency where threats are having a greater impact than elsewhere in the range. One AU (Caney Fork River—Clifty Creek) is projected to remain in moderate resiliency in all but the increased impact scenario in 2051. The remaining seven AUs are projected to exhibit low or very low resiliency under scenarios 2 and 3 in 2036 and 2051. We considered whether the seven AUs that are projected to exhibit low or very low resiliency in future scenarios may be a portion of the range that could become in danger of extinction within the foreseeable future. Although the future condition analyses projects overall declines in AU resiliency, stream catchments with species' occurrences are projected to remain in good condition within each AU. Within the high-condition catchments, we expect that habitat conditions will support sufficient pristine crayfish abundance and reproduction. Although projections indicate low or very low future resiliency in seven AUs, the remaining stream catchments in high condition indicate that the pristine crayfish in these AUs will remain on the landscape with sufficient viability. In addition, although some declines in representation and redundancy are projected in the future, we expect that

the pristine crayfish will have sufficient adaptive capacity and ability to withstand catastrophic change in the foreseeable future. Accordingly, we determined that the pristine crayfish is not likely to become an endangered species within a significant portion of its range.

We found no portion of the pristine crayfish's range where the biological condition of the species differs from its condition elsewhere in its range such that the status of the species in that portion warrants listing under the Act. Therefore, we find that the species is not in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range.

After assessing the best available information, we concluded that the pristine crayfish is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the pristine crayfish as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the pristine crayfish species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0115.

#### Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in the pristine crayfish SSA report. The Service sent the SSA report to four independent peer reviewers and received one response. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0115. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

#### Tennessee Heelsplitter

##### Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands to list 404 aquatic, riparian, and wetland species, including Tennessee heelsplitter (*Lasmigona holstonia*), as endangered or threatened species under the Act. On September 27, 2011, we published a 90-day finding

(76 FR 59836) that the petition contained substantial information indicating that listing may be warranted for the species. This document constitutes our 12-month finding on the April 20, 2010, petition to list the Tennessee heelsplitter under the Act.

#### Summary of Finding

The Tennessee heelsplitter is a small freshwater mussel usually less than 50 millimeters (2 inches) long. The species is a freshwater mussel native to the New, Cumberland, and Tennessee River basins in Virginia, Tennessee, Georgia, Alabama, and historically North Carolina. The Tennessee heelsplitter predominantly inhabits spring-fed creeks and small headwater streams with stable substrates and good water quality. The species needs water with low to moderate flow, appropriate temperatures for life-history functions, and presence of fish hosts for successful reproduction.

Resources influencing the successful completion of each life stage for Tennessee heelsplitter individuals include abundant host fish, stable substrate, proximity to breeding individuals, small or headwater streams, water with neutral pH and little to no contaminants, spring-fed streams with low to moderate water flow, and a water temperature range that allows for life-history functions (Service 2016a, p. 12). Successful completion of each life stage affects the ability of populations to withstand stochastic events (resiliency) and the species' ability to withstand catastrophic events (redundancy) as well as adapt to changing environmental conditions by way of genetic exchange or respond to environmental diversity between occupied streams (representation).

The population- and species-level resource needs of the Tennessee heelsplitter include sufficient juvenile and breeding adult abundances with broad distributions, suitable and abundant host fish, and habitat connectivity. Resiliency of Tennessee heelsplitter populations (which we defined as occupied stream reaches within analysis units (AUs)), as well as representation and redundancy of the species, are influenced by access to necessary resources.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Tennessee heelsplitter, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. The threats affecting the Tennessee heelsplitter's

biological status include siltation and sedimentation, pollution and toxic spills, drought and floods, aquatic nuisance species, and impoundments. These threats appear to have mostly localized extent and moderate impact. The current risk of extinction is low. Further, the Tennessee heelsplitter's current distribution has not substantially changed from its known historical distribution. Sixty percent of AUs are categorized as "high" or "most" habitat suitability and these AUs are distributed throughout each river basin. Redundancy is high, as our analysis indicates that suitable habitat exists throughout the range of the Tennessee heelsplitter. Representation is maintained across the range of historical and current occurrence in the Cumberland, New, and Tennessee River basins. Additionally, available information indicates the species' adaptive capacity will ensure survival despite predicted climate impacts, particularly because of the strong association with spring-fed streams that can act as cold-water and drought refugia in the face of climate change. Therefore, after assessing the best available information, we conclude that the Tennessee heelsplitter is not in danger of extinction throughout all of its range.

Based on projected habitat suitability for the two future scenarios, future resiliency for the Tennessee heelsplitter is expected to decrease slightly, but overall there will be 77 percent to 91 percent of suitable habitat available to the species, depending on the modeled scenario. Multiple AUs maintain resiliency, or levels of suitable habitat, in future-condition projections across the range and are likely to help buffer changes in environmental conditions through 2040 and 2060. Further, the concentration of AUs with high resiliency in the southwestern Virginia and northeastern Tennessee strongholds are projected to remain intact. Connectivity of these high resiliency AUs within the upper Tennessee representation unit (RU) bolster the likelihood of persistence into the future.

In the future, stochastic events associated with threats to the species will likely affect population resilience in parts of the range, and these are more likely to occur or be observed in developed areas. However, our future condition projections indicate Tennessee heelsplitter resiliency is sufficient to withstand disturbance and environmental stochasticity, due to prevalent suitable habitat and life-history traits that reduce risk currently and into the future. The Tennessee heelsplitter has several life-history traits

that allow it to adapt to changing conditions, such as the capability to transform on a wide variety of common host fish species, occurring in varying stream sizes, as well as tolerance of silty and sandy substrates and depositional areas with low flows. Spring-fed streams where the Tennessee heelsplitter is most frequently located are ubiquitous throughout the species' range and have year-round groundwater contributions with continuous flow and comparatively stable temperature regimes. These characteristics are expected to bolster Tennessee heelsplitter resilience in most AUs throughout the range into the future and withstand projected climate effects. After assessing the best available information, we conclude that the Tennessee heelsplitter is not likely to become an endangered species within the foreseeable future throughout all of its range.

We also evaluated the range of the Tennessee heelsplitter to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. We identified the three RUs—Cumberland, New, and Tennessee drainages—for evaluation. As described above, the threats are present across all AUs within the range, but some are localized in effect, though most threats have a low to moderate level of impact on the species. The New and Cumberland RUs currently have large percentages (100 percent and 75 percent, respectively) of suitable habitat, thus these areas have high estimated current resiliency. Our future conditions analysis indicates that none of the AUs in the New RU, and only one of the AUs in the Cumberland RU, is projected to no longer have suitable habitat to support the species. As such, the amount and distribution of suitable habitat in high resiliency AUs are projected to be maintained 40 years in the future in both the New and Cumberland RUs, and we determined that the Tennessee heelsplitter is not in danger of extinction now or likely to become so in the foreseeable future in the New or Cumberland RU.

The Tennessee RU comprises 132 AUs with varying levels of suitable habitat; 57 percent of the AUs have a current condition level of high or most resilience, and 43 percent are in a condition of moderate resilience. Our future conditions analysis indicates that 4 to 14 percent of the AUs in the Tennessee RU could lose habitat suitability within the next 40 years. Despite this potential loss of habitat suitability, between 86 and 96 percent of the AUs are projected to maintain

suitable habitat, with widespread distribution throughout the Tennessee RU portion of the range. The Tennessee heelsplitter is expected to have sufficient resiliency in this RU for many decades. Thus, we found that the Tennessee heelsplitter is not in danger of extinction now or likely to become so in the foreseeable future in the Tennessee RU.

After assessing the best available information, we concluded that Tennessee heelsplitter is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the Tennessee heelsplitter as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Tennessee heelsplitter species assessment form and other supporting documents at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0116.

#### Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process we solicited independent scientific reviews of the information contained in the Tennessee heelsplitter SSA report. The Service sent the SSA report to five independent peer reviewers and received two responses. Results of this structured peer review process can be found at <https://www.regulations.gov> under Docket No. FWS-R4-ES-2023-0116. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

#### New Information

We request that you submit any new information concerning the taxonomy, biology, ecology, or status of, or stressors to, the Alexander Archipelago wolf, Chihuahua catfish, Cooper's cave amphipod, Georgia blind salamander, minute cave amphipod, Morrison's cave amphipod, narrow-foot hygrotrus diving beetle, pristine crayfish, or Tennessee heelsplitter to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**, whenever it becomes available. New information will help us monitor these species and make appropriate decisions about their conservation and status. We encourage local agencies and stakeholders to continue cooperative monitoring and conservation efforts.

## References Cited

A list of the references cited in each petition finding is available in the relevant species assessment form, which is available on the internet at <https://www.regulations.gov> in the appropriate docket (see **ADDRESSES**, above) and upon request from the appropriate person (see **FOR FURTHER INFORMATION CONTACT**, above).

## Authors

The primary authors of this document are the staff members of the Species Assessment Team, Ecological Services Program.

## Authority

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

## Wendi Weber,

Acting Director, U.S. Fish and Wildlife Service.

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 660

[RTID 0648–XC971]

### Magnuson-Stevens Act Provisions; Fisheries Off West Coast States; Pacific Coast Groundfish Fishery Management Plan; Amendment 31

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of availability of proposed fishery management plan amendment; request for comments.

**SUMMARY:** NMFS announces that the Pacific Fishery Management Council has submitted Amendment 31 to the Pacific Coast Groundfish Fishery Management Plan to the Secretary of Commerce for review. If approved, Amendment 31 would define stocks that are in need of conservation and management, consistent with the provisions and guidelines of the Magnuson-Stevens Fishery Conservation and Management Act. Amendment 31 would define stocks for 14 species within the fishery management unit. These species were prioritized because they had stock assessments in 2021 or will have assessments in 2023. Amendment 31 is

necessary for NMFS to make stock status determinations, which in turn will help prevent overfishing, rebuild overfished stocks, and achieve optimum yield. Amendment 31 is administrative in nature and does not change harvest levels or timing and location of fishing, nor does it revise the goals and objectives or the management frameworks of the Pacific Coast Groundfish Fishery Management Plan.

**DATES:** Comments on Amendment 31 must be received no later than October 22, 2023.

**ADDRESSES:** You may submit comments on this document, identified by NOAA–NMFS–2023–0066, by the following method:

- **Electronic Submission:** Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to <https://www.regulations.gov> and enter NOAA–NMFS–2023–0066 in the Search box. Click the “Comment” icon, complete the required fields, and enter or attach your comments.

**Instructions:** Comments must be submitted by the above method to ensure that the comments are received, documented, and considered by NMFS. Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered. All comments received are a part of the public record and NMFS will post for public viewing on <https://www.regulations.gov> without change. All personal identifying information (*e.g.*, name, address, *etc.*), confidential business information, or otherwise sensitive information submitted voluntarily by the sender is publicly accessible. NMFS will accept anonymous comments (enter “N/A” in the required fields if you wish to remain anonymous).

## Electronic Access

This rule is accessible via the internet at the Office of the Federal Register website at <https://www.federalregister.gov>. Background information and documents including an analysis for this action (Analysis), which addresses the statutory requirements of the Magnuson Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) are available from the Pacific Fishery Management Council’s website at <https://www.pcouncil.org>.

**FOR FURTHER INFORMATION CONTACT:** Gretchen Hanshew, Fishery Management Specialist, at 206–526–6147 or [gretchen.hanshew@noaa.gov](mailto:gretchen.hanshew@noaa.gov).

**SUPPLEMENTARY INFORMATION:** NMFS manages the groundfish fisheries in the

exclusive economic zone (EEZ) seaward of Washington, Oregon, and California under the Pacific Coast Groundfish fishery management plan (PCGFMP). The Council prepared and NMFS implemented the PCGFMP under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), 16 U.S.C. 1801 *et seq.* and by regulations at 50 CFR parts 600 and 660. The Magnuson-Stevens Act requires that each regional fishery management council submit any fishery management plan (FMP) or plan amendment it prepares to NMFS for review and approval, disapproval, or partial approval by the Secretary of Commerce. The Magnuson-Stevens Act also requires that NMFS, upon receiving an FMP or amendment, immediately publish a notification that the FMP or amendment is available for public review and comment. This *notice of availability* announces that the proposed Amendment 31 to the FMP is available for public review and comment. NMFS will consider the public comments received during the comment period described above in determining whether to approve, partially approve, or disapprove Amendment 31 to the FMP.

## Background

Amendment 31 would define stocks that are in need of conservation and management. Amendment 31 would define stocks for 14 species within the fishery management unit (FMU; the jurisdiction of the FMP from 3–200 nautical miles offshore between the U.S. border with Canada and the U.S. border with Mexico, which may also be referred to as “coastwide”).

At its June 20–27, 2023 meeting in Vancouver, Washington, the Council recommended stock definitions for 14 species of Pacific Coast groundfish after NMFS was unable to make stock status determinations in 2021. NMFS was unable to make stock status determinations because the “stocks” for which the Council was expecting status determinations did not exist in the FMP. Currently, the FMP has a list of 80+ species to which it pertains, and does not describe whether each species is a single stock within the fishery management unit or if it is multiple (*e.g.*, regional) stocks.

NMFS requested that the Council undertake Amendment 31 to define stocks at its March 8–14, 2022 meeting in San Jose, California. NMFS advised the Council that it should define the stocks for which stock status determinations were changing in 2021 and 2023, and to add those definitions to the FMP. In particular, NMFS was