Billing Code

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[FF09E21000 FXES1111090FEDR 245]

Endangered and Threatened Wildlife and Plants; Ten 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 10 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 Hupp's Hill cave beetle (*Pseudanophthalmus parvicollis*), Hubbard's cave beetle (*Pseudanophthalmus hubbardi*), overlooked cave beetle (*Pseudanophthalmus praetermissus*), Shenandoah cave beetle (*Pseudanophthalmus limicola*), Little Kennedy cave beetle (*Pseudanophthalmus cordicollis*), Holsinger's cave beetle (*Pseudanophthalmus holsingeri*), Hubricht's cave beetle (*Pseudanophthalmus hubrichti*), silken cave beetle (*Pseudanophthalmus sericus*), Pinaleño talussnail (*Sonorella grahamensis*), and San Xavier talussnail (*Sonorella eremita*). 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 [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 Number

Holsinger's cave beetle	FWS-R5-ES-2023-0233
Hubbard's cave beetle	FWS-R5-ES-2023-0235
Hubricht's cave beetle	FWS-R5-ES-2023-0236
Hupp's Hill cave beetle	FWS-R5-ES-2023-0237
Little Kennedy cave beetle	FWS-R5-ES-2023-0238
Overlooked cave beetle	FWS-R5-ES-2023-0239
Pinaleño talussnail	FWS-R2-ES-2023-0240
San Xavier talussnail	FWS-R2-ES-2023-0241
Shenandoah cave beetle	FWS-R5-ES-2023-0242
Silken cave beetle	FWS-R5-ES-2023-0243

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
Hupp's Hill cave beetle, Hubbard's cave beetle, overlooked cave beetle, Shenandoah cave beetle, Little Kennedy cave beetle, Holsinger's cave beetle, Hubricht's cave beetle, and silken cave beetle	Cindy Schulz, Field Office Supervisor, Virginia Ecological Services Field Office, 804–654–1842, cindy_schulz@fws.gov
Pinaleño talussnail and San Xavier talussnail	Heather Whitlaw, Arizona Ecological Services Field Office Supervisor, 806–773–5932, heather_whitlaw@fws.gov

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 ("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. 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 of the Interior 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 the Service 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' likely 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 Holsinger's cave beetle, Hubbard's cave beetle, Hubricht's cave beetle, Hupp's Hill cave beetle, Little Kennedy cave beetle, overlooked cave beetle, Pinaleño talussnail, San Xavier talussnail, Shenandoah cave beetle, or silken cave beetle 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. We reviewed the petitions for the Hubbard's cave beetle, Hubricht's cave beetle, Little Kennedy cave beetle, overlooked cave beetle, Pinaleño talussnail, San Xavier talussnail, Shenandoah cave beetle, and silken cave beetle (see the discussion below for information on Holsinger's and Hupp's Hill cave beetles). For all of these species, including the species for which we completed discretionary status reviews (Holsinger's and Hupp's Hill beetles), we reviewed information available in our files, and other available published and unpublished information. 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 eight species and the discretionary status reviews

of two 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 actions included in this document. The following is a description of the documents containing these analyses:

The species assessment forms for the Holsinger's cave beetle, Hubbard's cave beetle, Hubricht's cave beetle, Hupp's Hill cave beetle, Little Kennedy cave beetle, overlooked cave beetle, Pinaleño talussnail, San Xavier talussnail, Shenandoah cave beetle, and silken cave beetle 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 these species do 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 these 10 species. Each SSA report contains a thorough review of the taxonomy, life history, ecology, current status, and projected future status for each species. This supporting information can be found on the internet at *https://www.regulations.gov* under the appropriate docket number (see **ADDRESSES**, above). Our analyses for these decisions applied our current regulations, portions of which were last revised in 2019. Given that we proposed further revisions to these regulations on June 22, 2023 (88 FR 40764), we have also analyzed whether the decisions would be different if we were to apply those proposed revisions. We concluded that the decisions would have been the same if we had applied the proposed 2023 regulations. The analyses under both the regulations currently in effect and the regulations after incorporating the June 22, 2023, proposed revisions are included in our decision file for each action.

Holsinger's Cave Beetle, Hubbard's Cave Beetle, Hubricht's Cave Beetle, Hupp's Hill Cave Beetle, Little Kennedy Cave Beetle, Overlooked Cave Beetle, Shenandoah Cave Beetle, and Silken Cave Beetle

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 15 cave beetle species: *Pseudanophthalmus hubbardi, Pseudanophthalmus praetermissus, Pseudanophthalmus limicola, Pseudanophthalmus cordicollis, Pseudanophthalmus hubrichti, Pseudanophthalmus sericus, Pseudanophthalmus avernus, Pseudanophthalmus intersectus, Pseudanophthalmus hirsutus, Pseudanophthalmus virginicus, Pseudanophthalmus egberti, Pseudanophthalmus pontis, Pseudanophthalmus sanctipauli, Pseudanophthalmus potomaca,* and *Pseudanophthalmus thomasi* (referred to by the common names "Hubbard's cave beetle," "overlooked cave beetle," "Shenandoah cave beetle," "Little Kennedy cave beetle," "Hubricht's cave beetle," "silken cave beetle," "Avernus cave beetle," "crossroads cave beetle," "Cumberland Gap cave beetle," "Maiden Spring cave beetle," "New River Valley cave beetle," "Natural Bridge cave beetle," "Saint Paul cave beetle," "South Branch Valley cave beetle," and "Thomas' cave beetle," respectively, in the petition), as endangered or threatened species under the Act. On September 27, 2011, we published in the *Federal Register* (76 FR 59836) a 90-day finding that the petition provided substantial information indicating 374 of those species may warrant listing, including the 15 species listed above.

In a letter dated September 12, 2022, the petitioners withdrew their petition for nine of the Virginia cave beetle species, citing new information indicating the species no longer merit consideration for listing. These nine species are the Avernus cave beetle, crossroads cave beetle, Cumberland Gap cave beetle, Maiden Spring cave beetle, New River Valley cave beetle, Natural Bridge cave beetle, Saint Paul cave beetle, South Branch Valley cave beetle, and Thomas' cave beetle.

This document constitutes our 12-month finding on the April 20, 2010, petition to list Hubbard's, overlooked, Shenandoah, Little Kennedy, Hubricht's, and silken cave beetles under the Act. We also decided, as discretionary actions, to assess two additional Virginia cave beetle

species (*Pseudanophthalmus holsingeri* (Holsinger's cave beetle) and *Pseudanophthalmus parvicollis* (Hupp's Hill cave beetle)) identified by the Service and partners as species of concern.

Summary of Finding

The eight focal cave beetle species are found in Virginia throughout the Appalachian Valley and Ridge (AVR) geologically unique limestone formations. Uplift, erosion, and dissolution of the faulted and folded strata of the AVR have produced isolated belts of karst topography with numerous caves, where carbonate bedrock is exposed in the valleys and flanks of ridges capped with non-cave forming rocks.

Cave beetles are eyeless, wingless beetles generally reddish/brown in color. The eight cave beetle species are insects in the Carabidae Family (Carabid beetles) under the Order Coleoptera. More specifically, they fall under the subfamily Trechinae, which includes numerous genera, including *Pseudanophthalmus*. Genus *Pseudanophthalmus* beetles (within which the eight species fall) are typically 3–9 millimeters in size (Service 2023, p. 2-4).

The eight cave beetle species are troglobites, meaning they are obligate cave dwellers and complete all phases of their life cycle within caves (Service 2023, p. v). Caves are a natural opening in solid rock with areas of complete darkness and are larger than a few millimeters (mm) in diameter (Culver and Pipan 2019, pp. 4–5). Caves typically form in karst landscapes that are defined as areas in which dissolution by weak acids is the primary agent shaping the landscape, as opposed to erosion, volcanoes, and earthquakes (Culver and Pipan 2019, pp. 4–5). Most solution caves form in carbonate (limestone or dolostone) bedrock.

Pseudanophthalmus cave beetles typically inhabit riparian mudbanks and other moist areas within limestone caves (Lewis 2001a, p. 5). Notable habitat features where *Pseudanophthalmus* cave beetles have been collected in Virginia include mud cracks, fine silt, woody debris, cobbles, and rocks. It is difficult to interpret these microhabitat features in terms of individual needs because we know so little about the life history of these species. It is

common for other carabid beetles to prefer areas where they may seek shelter (hence the mudcracks, rocks, cobbles, and woody debris), and it is likely, again based on other carabid beetles, that females lay eggs in moist silty areas. The combination of moisture and organic material also likely presents the right circumstances for their prey items to be available. The individual needs that seem clear are that karst environments with water or moisture are necessary for beetles to be present; they have not been observed outside of caves or in completely dry caves.

Cave beetles are generally predatory and carnivorous, most likely feeding on mites, springtails, and opportunistic items, including beetle eggs and larvae. The primary food source of *Pseudanophthalmus* is enchytraeid and tubificid worms found associated with cave mudbanks (Lewis 2001a, b, and c, p. 4; Lewis 2002, p. 5). While it is not clear exactly what each species eats, experts are confident that they forage at a higher trophic level than some other cave invertebrates; they have not been observed associated with mammal scat like some other troglobites that feed on the associated bacterial and fungal growth (Service 2023, p. 2-5).

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles, 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 eight cave beetles' biological status include quarrying, commercial operations inside caves, and urbanization/development. These activities may alter the physical structure of caves and change the water table or hydrology of cave systems; we made the conservative assumption that compromised water quality and quantity may impact cave beetle species (Service 2023, p. 4-6). We also considered potential threats of agriculture and timbering (Service 2023, pp. 4-2–4-3).

Despite potential impacts from the primary threats, the best scientific and commercial data available indicate that the Little Kennedy, Shenandoah, and Hubricht's cave beetle species

have maintained resilient populations throughout their respective ranges. This projection also applies to the single site-endemic species (Hupp's Hill, Hubbard's, Holsinger's, overlooked, and silken cave beetles), because, similar to Little Kennedy, Shenandoah, and Hubricht's cave beetles, the best available information indicates that these species are projected to maintain resilient populations even under the projected future threats.

The eight cave beetles' redundancy and representation are limited due to their narrow ranges; however, this may be similar to historical conditions for most of the eight species. We assume that Hupp's Hill cave beetle is extirpated from one location (Battlefield Crystal Caverns); however, the best available information indicates no population- or species-level threats are acting on the species at Ogden's location.

Cave beetles are cryptic species that can be hard to locate within their habitats. Most caves likely undergo seasonal fluctuations in moisture that may influence the distribution of cave fauna within the system. The nature of caves and karst systems is such that there is presumed to be a large portion of area that is accessible to cave beetles (but not to humans), including cracks and crevices that may extend long distances and connect to unknown caves. We find that the eight cave beetle species have sufficient resiliency, redundancy, and representation in light of the best available potential stressor data and information. Thus, after assessing the best available information, we conclude that the eight cave beetle species (i.e., Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles) are not in danger of extinction throughout all of their ranges.

Next, we proceed with determining whether the eight cave beetle species are likely to become endangered within the foreseeable future throughout all of their ranges. Our evaluation is based upon analysis of threats and regional land-use projections for a foreseeable future extending out to 2070. The best available information does not indicate the threats will impact the species such that any of them meet the Act's definition of a threatened species. We expect no changes in redundancy or representation for any of the eight species as a result of future threats.

After assessing the best available information, we conclude that the eight cave beetle species (i.e., Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles) are not likely to become endangered within the foreseeable future throughout all of their ranges.

We also evaluated whether the Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles are endangered or threatened in a significant portion of their ranges. We did not find any portions of the Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles ranges for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion, either now or within the foreseeable future. Thus, after assessing the best available information, we conclude that the Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles are not in danger of extinction in a significant portion of their ranges now, or within the foreseeable future.

After assessing the best available information, we conclude that Hupp's Hill, Hubbard's, overlooked, Shenandoah, Little Kennedy, Holsinger's, Hubricht's, and silken cave beetles are not in danger of extinction now or likely to become in danger of extinction within the foreseeable future throughout all of their ranges or in any significant portion of their ranges. Therefore, we find that listing the eight cave beetle species as endangered species or threatened species under the Act is not warranted. For each beetle species, a detailed discussion of the basis for this finding can be found in the species assessment form and other supporting documents, which are available on *https://www.regulations.gov* under the appropriate docket number (see **ADDRESSES**, above).

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 SSA report for the

eight cave beetle species. The Service sent the SSA report to six independent peer reviewers and received one response. Results of this structured peer review process can be found at *https://www.regulations.gov* under the appropriate docket number (see **ADDRESSES**, above). We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

Pinaleño Talussnail and San Xavier Talussnail

Previous Federal Actions

On June 25, 2007, the Service received a petition from Forest Guardians (i.e., WildEarth Guardians) requesting that we list 475 species, including the Pinaleño talussnail and the San Xavier talussnail, as endangered or threatened species and designate critical habitat under the Act. All 475 species occur within the Southwestern 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 for 192 of the species (74 FR 66866); that finding stated that the petition presented substantial scientific information indicating that listing may be warranted for 67 of the 192 species, including the Pinaleño talussnail and the San Xavier talussnail.

Summary of Finding

The Pinaleño talussnail and San Xavier talussnail are land snails endemic to southeastern Arizona that reside on rocky hillsides, rocky washes, and talus slopes. The Pinaleño talussnail occurs in the Pinaleño Mountains on the Coronado National Forest within an estimated 25 square miles (64.7 square kilometers) of potentially suitable habitat. The San Xavier talussnail is restricted to the northwestern slope of White Hill in the Sonoran Desert with an approximate range of 1.08 acres (0.44 hectares) on private land.

Both species require interstitial spaces in the talus for estivation (dormancy); dense vegetation and canopy cover; available food sources of fungus, lichen, decaying plant matter,

and young green shoots; and adequate moisture. An adequate level of moisture is needed for the talussnails' active periods when they carry out their necessary life-history processes, as well as to support suitable habitat. An adequate level of moisture occurs when weather conditions fall within appropriate ranges of temperature, precipitation, relative humidity, and evaporation deficit. Individuals spend most of their time in estivation to avoid drying out or freezing during unfavorable conditions. The primary environmental influences are climate change and drought for both species, as well as wildfire and erosion for the Pinaleño talussnail.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Pinaleño talussnail and San Xavier talussnail, 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 Pinaleño talussnail's status include drought and impacts from climate change, erosion, and wildfire. Population resiliency is dependent on a variety of climate conditions that influence talussnail active period, habitat quality, and habitat quantity. Our assessment used weather parameters to evaluate the talussnails' resiliency (e.g. high, moderate, or low condition) based on the requirements of active periods (i.e., mean daily maximum temperature, mean annual precipitation, mean daily maximum relative humidity), habitat quality (i.e., mean annual evaporation deficit), and habitat quantity (i.e., mean annual temperature change). Our results indicate that the weather parameters assessed are currently fully supportive of talussnail life history requirements; therefore, the overall current condition of Pinaleño talussnail population resiliency is assessed as "high condition." The species' life history indicates that the species is adapted to variable environmental conditions by spending most of its time in estivation to avoid desiccation or freezing during unfavorable conditions. Surveys effort indicated that land snail abundance estimates were unchanged due to a recent fire, and fuel reduction activities are ongoing. Thus, after assessing the best available information, we conclude that the Pinaleño talussnail is not in danger of extinction throughout all of its range.

Climate change impacts to mean maximum relative humidity and mean temperature change for the Pinaleño talussnail are expected in 50-year future scenarios. However, the changes are expected to be very small and are not expected to decrease the viability of the species such that the species is in danger of extinction within the foreseeable future. The species' life history allows it to rebound after fires and other historical catastrophic events like mega droughts. Additionally, all historical habitat for the species remains intact, and there is no loss of range to date. Although there is some potential for climate effects in the 50-year timeframe, these effects are not substantial enough to substantially decrease habitat conditions for the species and result in the species being in danger of extinction. After assessing the best available information, we conclude that the Pinaleño talussnail is not likely to become endangered within the foreseeable future throughout all of its range.

The primary threats affecting San Xavier talussnail's biological status include drought and impacts from climate change. The San Xavier talussnail's current population resiliency is on the border between moderate and high condition. Habitat is intact, is connected, and does not have any development or land-use changes nearby that would alter the habitat conditions at these sites, thereby contributing to the conservation of habitat quality into the future. The species' life history indicates that the species is adapted to variable environmental conditions by spending most of its time in estivation to avoid desiccation or freezing during unfavorable conditions. The most likely catastrophic event for the San Xavier talussnail would be the loss of interstitial spaces in occupied talus habitats, but this is unlikely due to conservation commitments in the "2018 Strategic Conservation Plan for the San Xavier Talussnail in Pima, Arizona." Thus, after assessing the best available information, we conclude that the San Xavier talussnail is not in danger of extinction throughout all of its range.

Climate change impacts to mean maximum temperature and mean temperature change for the San Xavier talussnail are expected in 50-year future scenarios. However, the changes are expected to be very small and are not expected to decrease the viability of the species such that

the species is in danger of extinction within the foreseeable future. The species' life history allows it to rebound after fires and other historical catastrophic events like mega droughts. Additionally, all historical habitat for the species remains intact, and there is no loss of range to date. Although there is some potential for climate effects in the 50-year timeframe, these effects are not substantial enough to substantially decrease habitat conditions for the species and result in the species being in danger of extinction. After assessing the best available information, we conclude that the San Xavier talussnail is not likely to become endangered within the foreseeable future throughout all of its range.

We also evaluated whether the Pinaleño talussnail and the San Xavier talussnail are endangered or threatened in a significant portion of their range. We did not find any portions of the Pinaleño talussnail and the San Xavier talussnail ranges for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion, either now or within the foreseeable future. Thus, after assessing the best available information, we conclude that the Pinaleño talussnail and the San Xavier talussnail are not in danger of extinction in a significant portion of their ranges now, or within the foreseeable future.

After assessing the best available information, we conclude that the Pinaleño talussnail and the San Xavier talussnail are not in danger of extinction now or likely to become in danger of extinction within the foreseeable future throughout all of their ranges or in any significant portion of their ranges. Therefore, we find that listing the Pinaleño talussnail and the San Xavier talussnail 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 Pinaleño talussnail and the San Xavier talussnail species assessment form and other supporting documents on *https://www.regulations.gov* under the appropriate docket number (see **ADDRESSES**, above).

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 Pinaleño talussnail and the San Xavier talussnail SSA report. The Service sent the SSA report to eight independent peer reviewers and received six responses. Results of this structured peer review process can be found at *https://www.regulations.gov* under Docket Nos. FWS-R2-ES-2023-0241 and FWS-R2-ES-2023-0242. 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 of, biology of, ecology of, status of, or stressors to the Holsinger's cave beetle, Hubbard's cave beetle, Hubricht's cave beetle, Hupp's Hill cave beetle, Little Kennedy cave beetle, overlooked cave beetle, Pinaleño talussnail, San Xavier talussnail, Shenandoah cave beetle, or silken cave beetle 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

A complete list of the references used in these petition findings 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.

Signing Authority

Martha Williams, Director of the U.S. Fish and Wildlife Service, approved this action on December 7, 2023, for publication. On December 7, 2023, Martha Williams authorized the undersigned to sign the document electronically and submit it to the Office of the Federal Register for publication as an official document of the U.S. Fish and Wildlife Service.

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.).

Madonna Baucum,
Regulations and Policy Chief,
Division of Policy, Economics, Risk Management, and Analytics of the Joint Administrative Operations,
U.S. Fish and Wildlife Service.

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