Dated: August 2, 2019.

Margaret E. Everson  
Principal Deputy Director, U.S. Fish and Wildlife Service, Exercising the Authority of the Director, U.S. Fish and Wildlife Service.

DEPARTMENT OF THE INTERIOR  
Fish and Wildlife Service

50 CFR Part 17

[4500090022]

Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions To List Eight Species as Endangered or Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition findings.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce 12-month findings on petitions to list eight species 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 Arapahoe snowfly, brook floater, golden orb, Joshua tree, seaside alder, smooth pimpleback, tricolored blackbird, and yellow-banded bumble bee. However, we ask the public to submit to us at any time any new information that becomes available relevant to the status of any of the species mentioned above or their habitats.

DATES: The findings in this document were made on August 15, 2019.

ADDRESSES: Detailed descriptions of the basis for each of these findings are available on the internet at http://www.regulations.gov under the following docket numbers:

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<th>Species</th>
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<tbody>
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<td>Arapahoe snowfly</td>
<td>FWS–R6–ES–2019–0031</td>
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<td>Brook floater</td>
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<td>FWS–R5–ES–2016–0024</td>
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Supporting information used to prepare these findings is available for public inspection, by appointment, during normal business hours, by contacting the appropriate person, as specified under FOR FURTHER INFORMATION CONTACT. Please submit any new information, materials, comments, or questions concerning these findings to the appropriate person, as specified under FOR FURTHER INFORMATION CONTACT.

FOR FURTHER INFORMATION CONTACT:

<table>
<thead>
<tr>
<th>Species</th>
<th>Contact information</th>
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<tbody>
<tr>
<td>Arapahoe snowfly</td>
<td>Justin Shoemaker, Acting Regional Liaison, Mountain-Prairie Regional Office, 309–757–5800, ext. 214.</td>
</tr>
<tr>
<td>Seaside alder</td>
<td>Cherry Keller, Senior Endangered Species Biologist, Chesapeake Bay Field Office, 410–573–4532.</td>
</tr>
<tr>
<td>Smooth pimpleback</td>
<td>Chuck Ardizzzone, Field Supervisor, Texas Coastal Field Office, 281–286–8282, ext. 26506.</td>
</tr>
</tbody>
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If you use a telecommunications device for the deaf (TDD), please call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

We are required to make a finding whether or not a petitioned action is warranted within 12 months after receiving any petition for which we have determined contained substantial scientific or commercial information indicating that the petitioned action may be warranted (section 4(b)(3)(B) of the Act (16 U.S.C. 1531 et seq.)) (“12-month finding”). We must make a finding that the petitioned action is: (1) Not warranted; (2) warranted, or (3) warranted but precluded. “Warranted but precluded” means that (a) the petitioned action is warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened species, and (b) expeditious progress is being made to add qualified species to the Lists of Endangered and Threatened Wildlife and Plants (Lists) and to remove from the Lists species for which the protections of the Act are no longer necessary. Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring that a subsequent finding be made within 12 months of
that date. We must publish 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. 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.

In considering whether a species may meet the definition of an endangered species or a threatened species because of any of the five factors, we must look beyond the mere exposure of the species to the stressor to determine whether the species responds to the stressor in a way that causes actual impacts to the species. If there is exposure to a stressor, but no response, or only a positive response, that stressor does not cause a species to meet the definition of an endangered species or a threatened species. If there is exposure and the species responds negatively, we determine whether that stressor drives or contributes to the risk of extinction of the species such that the species warrants listing as an endangered or threatened species. The mere identification of stressors that could affect a species negatively is not sufficient to compel a finding that listing is or remains warranted. For a species to be listed or remain listed, we require evidence that these stressors are operative threats to the species and its habitat, either singly or in combination, to the point that the species meets the definition of an endangered or a threatened species under the Act.

In conducting our evaluation of the five factors provided in section 4(a)(1) of the Act to determine whether the Arapahoe snowfly (Arsapnia arapahoe), brook floater (Alasmidonta varicosa), golden orb (Cyclonaias aurea), Yucca brevifolia and Yucca jaegeriana (Joshua tree), Alnus maritima (seaside alder), smooth pimpleback (Cyclonaias houstonensis), tricolored blackbird (Agelaius tricolor), and yellow-banded bumble bee (Bombus terricola) meet the 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, information available in our files, and other available published and unpublished information. These evaluations may include information from recognized experts; Federal, State, and tribal governments; academic institutions; foreign governments; private entities; and other members of the public.

The species assessment forms for the Arapahoe snowfly, brook floater, golden orb, Joshua tree, seaside alder, smooth pimpleback, tricolored blackbird, and yellow-banded bumble bee contain more detailed biological information, a thorough analysis of the listing factors, and an explanation of why we determined that these species do not meet the definition of an endangered species or a threatened species. This supporting information can be found on the internet at http://www.regulations.gov under the appropriate docket number (see ADDRESSES, above). The following are informational summaries for each of the findings in this document.

### Arapahoe Snowfly

**Previous Federal Actions**

On April 6, 2010, we received a petition from the Xerces Society for Invertebrate Conservation, Dr. Boris Kondratieff, Save the Poudre: Poudre Waterkeeper, Cache la Poudre River Foundation, WildEarth Guardians, and Center for Native Ecosystems, requesting that the Arapahoe snowfly be listed as an endangered species under the Act. On April 26, 2011, we published a 90-day finding in the Federal Register (76 FR 23256), concluding that the petition presented substantial scientific and commercial information indicating that listing Arapahoe snowfly may be warranted. On May 10, 2012, we published a 12-month finding in the Federal Register (77 FR 27386) in which we stated that listing the Arapahoe snowfly as endangered or threatened was warranted. However, listing was precluded at that time by higher priority actions, and the species was added to the candidate species list. From 2012 through 2016, we addressed the status of the Arapahoe snowfly annually in our candidate notice of review, with the determination that listing was warranted but precluded (see 77 FR 69994, November 21, 2012; 78 FR 70104, November 22, 2013; 79 FR 72450, December 5, 2014; 80 FR 80584, December 24, 2015; 81 FR 87246, December 2, 2016).

**Summary of Finding**

The Arapahoe snowfly is a winter stonefly found in small streams characterized by substrates of pebble, cobble, and bedrock along the northern Front Range of the Rocky Mountains of Colorado. At the time of the preparation of the 12-month finding (77 FR 27386; May 10, 2012), the Arapahoe snowfly was documented in only 2 small tributaries of the Cache la Poudre River. Subsequently, the species has been documented in a total of 19 streams along the northern Front Range of Colorado. The number of Arapahoe snowfly individuals at these sites are consistently low; in sampling studies targeted at Arapahoe snowfly, only 41 of 26,170 specimens were morphologically identified as that taxon, and all were males. Arapahoe snowfly always co-occurred with two more-widely distributed and common stoneflies, Arsapnia decepita and Capnia gracilis.

Genetic analyses, involving two mitochondrial genes, one nuclear gene, and thousands of individual nuclear polymorphisms, of 98 specimens from nine separate locations, demonstrated that all individuals examined were the first-generation progeny of crosses between female Arsapnia decepita and male Capnia gracilis. No backcrosses or later-generation hybrids were observed, indicating that these progeny do not represent a self-sustaining lineage. Instead of representing a distinct taxon, individuals formerly recognized as being the distinct species Arsapnia arapahoe (the Arapahoe snowfly) are actually first-generation hybrids between female A. decepita and male C. gracilis that appear in the narrow zone of range overlap between the parental species in northern Colorado. Therefore, we find the Arapahoe snowfly is not a valid taxonomic entity; does not meet the definition of a species or subspecies under the Act; and, as a result, cannot warrant listing under the Act. A detailed discussion of the basis for this finding can be found in the Arapahoe snowfly species assessment form and other
Brook Floater

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 brook floater, as 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 information indicating that listing the brook floater may be warranted. This notice constitutes the 12-month finding on the April 20, 2010, petition to list the brook floater under the Act.

Summary of Finding

The brook floater is a small freshwater mussel usually less than 75 millimeters (2.95 inches) in length. The species is an Atlantic slope freshwater mussel historically native to the District of Columbia, 16 States in the eastern United States, and two Canadian provinces. The mussel has a widespread distribution, is currently found in 14 of the 16 historically known States, and is considered extirpated in Delaware and Rhode Island and in the District of Columbia.

The most robust populations of brook floaters inhabit creeks and rivers of varying size with stable substrates, intact riparian buffers (vegetated areas comprised of forest, shrub, or herbaceous plants located adjacent to streams), excellent water quality, and little to no anthropogenic influences. The species needs clean, low to little to no anthropogenic influences. The species needs clean, low to moderate flowing water, with stable substrate (sand, gravel, and cobble), appropriate food levels, water temperatures above 14 °C (57.2 °F) for glochidia release, and interstitial chemistry and presence of fish hosts for glochidia attachment and dispersal.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the brook floater, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the brook floater’s biological status include disjunct populations facing habitat loss or fragmentation; changes in water flows; and degraded water quality from development, energy production, and agriculture. We also assessed impacts to the brook floater from effects of climate change. There are uncertainties in predicting precipitation changes over such a wide range and assessing the species’ response, but we do not expect effects from climate change to be a primary stressor affecting the species’ viability. We examined a number of other factors, including inherent factors (small population size and low fecundity), predation, invasive species, and hybridization, and we found that these factors did not rise to such a level that affected multiple populations or the species as a whole.

Despite impacts from the primary stressors, the species has maintained resilient populations throughout its range. Although we predict some continued impacts from these stressors in the future, we anticipate the species will continue to maintain resilient populations throughout the foreseeable future that are distributed widely throughout each of its representative units. Therefore, we find that listing the brook floater as endangered or threatened is not warranted. A detailed discussion of the basis for this finding can be found in the brook floater species assessment form and other supporting documents (see ADDRESSES, above).

Golden Orb

Previous Federal Actions

On June 25, 2007, we received a petition from WildEarth Guardians, then Forest Guardians, to list 475 species in the Southwest Region, including the golden orb, as endangered or threatened species under the Act. On December 15, 2009, we published a 90-day finding in the Federal Register (74 FR 66260), concluding that the petition presented substantial information indicating that listing the golden orb may be warranted. On October 6, 2011, we published a 12-month finding in the Federal Register (76 FR 62166) in which we stated that listing the golden orb was warranted. However, listing was precluded at that time by higher priority actions, and the species was added to the candidate species list. From 2012 through 2016, we addressed the status of the golden orb annually in our candidate notice of review, with the determination that listing was warranted but precluded (see 77 FR 60994, November 21, 2012; 78 FR 70104, November 22, 2013; 79 FR 72450, December 5, 2014; 80 FR 80584, December 24, 2015; 81 FR 87246, December 2, 2016).

Summary of Finding

Recent genetic studies revealed that individuals thought to be golden orb are actually members of a more widespread, common species, the pimpleback (Cyclonaias pustulosa). These studies have been widely accepted by the relevant scientific community and the Service. Due to being synonymized with pimpleback, golden orb is not a valid taxonomic entity; does not meet the definition of a species or subspecies under the Act; and, as a result, cannot warrant listing under the Act. A detailed discussion of the basis for this finding can be found in the golden orb species assessment form and other supporting documents (see ADDRESSES, above).
xerophytic monocot with spongy, indehiscent fruit that is pollinated by Tegeticula antithetica, a species of yucca moth. Yucca jaegeriana displays dichotomous branching and generally has shorter leaves (less than 22 centimeters (8.7 inches)) and shorter height to first branching at 0.75 to 1.0 meter (2.3 to 3.3 feet) than Y. brevifolia. Joshua trees generally occur on flats, mesas, bajadas, and gentle slopes (alluvial fans). Joshua trees grow on a wide variety of soil types but generally on old alluvia of igneous, rather than sedimentary, origin that consist of silty, loamy, or sandy soils that have minimal runoff. Joshua trees are able to tolerate alkaline or saline soils in cold weather that range from 4 °C (39 °F) in winter to 46 °C (110 °F) in summer.

We have carefully assessed the best available scientific and commercial information regarding the past, present, and future threats to Joshua tree, and we evaluated all relevant factors under the five listing factors, including regulatory mechanisms and conservation measures addressing these stressors. The primary stressors to Joshua trees include wildfire, invasive plants, effects of climatic changes, and habitat loss. While these threats are currently acting on the two species at either a population- or species-level scale. With the two species still occupying their historical ranges, which extend to over 2.2 million hectares (5.6 million acres) for Y. brevifolia and 2.5 million hectares (6.2 million acres) for Y. jaegeriana, as well as a hybrid zone of approximately 52,000 hectares (130,000 acres), the current conditions of the two species still provide for enough resiliency, redundancy, and representation despite the identified threats acting on them. There is no evidence to indicate recent population size reductions or range contractions for either species over the last 40 years based on distribution mapping. Recruitment of both Y. jaegeriana and Y. brevifolia is occurring across their respective ranges.

Similarly, estimates of future resiliency, redundancy, and representation for Yucca jaegeriana and Y. brevifolia are high. The two species will most likely face the same threats they are currently facing into the future (wildfire, invasive plants, effects of climatic changes, and habitat loss). We evaluated environmental conditions and threat factors acting on the two species into the future (approximately 80 years) and developed two future scenarios to assist in determining the potential future conditions for the two species.

Because the two species are long-lived, have such large ranges and distributions, mostly occur on Federal land, and occupy numerous ecological settings, we have determined that future stochastic and catastrophic events would not lead to population- or species-level declines in the foreseeable future. As a result, we have determined that either Yucca jaegeriana or Yucca brevifolia are in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of their ranges. Therefore, we find that listing the Joshua tree as an endangered or threatened species is not warranted. A detailed discussion of the basis for this finding can be found in the Joshua tree species assessment form and other supporting documents (see ADDRESSES, above).

Seaside Alder

Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity, the Alabama Rivers Alliance, the Clinch Coalition, Dogwood Alliance, the Gulf Restoration Network, Tennessee Forests Council, and the West Virginia Highlands Conservancy to list 404 aquatic, riparian, and wetland species, including seaside alder, as 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 information indicating that listing the seaside alder may be warranted. Although the petitioned entity is seaside alder, the best available information indicates that seaside alder comprises three subspecies: Alnus maritima ssp. maritima (Delmarva alder), A. maritima ssp. georgiensis (Georgia alder), and A. maritima ssp. oklahomensis (Oklahoma alder). The Service used its discretion to conduct the status review at the species and subspecies levels. This notice constitutes the 12-month finding on the April 20, 2010, petition to list seaside alder under the Act.

Summary of Finding

Seaside alder is a large, deciduous shrub or small tree, 16 to 23 feet (5 to 7 meters) tall that grows in multistemmed clumps, instead of individual trees, in the wet soils of river, stream, or pond edges. Despite its name, it is known to occur only in freshwater habitats and prefers areas with full sun and therefore at least periodically saturated or inundated. The species is capable of both sexual and asexual reproduction, but evidence of new plants from seedlings is rare, and, like many other riparian shrubs, seaside alder primarily reproduces asexually through clones and runners. Despite this, genetic diversity appears to be adequate.

The species currently occurs in three regional populations that have been described and accepted as subspecies: Delmarva alder (A. maritima ssp. maritima) in Dorchester, Somerset, Wicomico, and Worcester Counties in Maryland, and Kent and Sussex Counties in Delaware; Georgia alder (A. maritima ssp. georgiensis) in Bartow County, Georgia; and Oklahoma alder (Alnus maritima ssp. oklahomensis) in Pontotoc and Johnston Counties of south-central Oklahoma. The seaside alder occupies at least 35 known watersheds, and the species’ current distribution is similar to its historical distribution. We are aware of additional records of occurrence on private lands; however, supporting information on those records is not available to us, and, therefore, these records are not included in our assessment.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to seaside alder, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors to seaside alder, which vary depending on the subspecies, include changes to natural processes such as drought cycles, air temperature, precipitation patterns, flooding regimes, and sea level rise, or human-mediated actions (e.g., human population growth, development, and mining) that cause decreased water quantity and water quality degradation. Despite effects from these stressors, seaside alder has maintained resilient populations throughout its range and in each of the subspecies’ ranges, and is expected to continue to do so into the foreseeable future. The species is represented by three genetically diverse subspecies, which occur in many types of freshwater habitat (tidal rivers, marshes and ponds, and spring-fed streams and rivers) that are adapted to three distinct climates (mid-Atlantic, Southeast, and Southwest); thus, the species is expected to retain its ability to adapt to changes in its environment. In summary, our review of the best available scientific and commercial information indicates that seaside alder does not meet the definition of an endangered species or threatened species. We also find that Delmarva
alder, Georgia alder, and Oklahoma alder do not meet the definition of endangered species or threatened species. Therefore, we find that listing seaside alder or any of its subspecies as an endangered or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the seaside alder species assessment form and other supporting documents (see ADDRESSES, above).

**Smooth Pimpleback**

**Previous Federal Actions**

On October 15, 2008, we received a petition from WildEarth Guardians, to list six species of freshwater mussels, including the smooth pimpleback, as endangered or threatened species under the Act. On December 15, 2009, we published a 90-day finding in the Federal Register (74 FR 66260), concluding that the petition presented substantial information indicating that listing the smooth pimpleback may be warranted. On October 6, 2011, we published a 12-month finding in the Federal Register (76 FR 62166) in which we stated that listing the smooth pimpleback was warranted. However, listing was precluded at that time by higher priority actions, and the species was added to the candidate species list.

From 2012 through 2016, we addressed the status of the smooth pimpleback annually in our candidate notice of review, with the determination that listing was warranted but precluded (see 77 FR 69994, November 21, 2012; 78 FR 70104, November 22, 2013; 79 FR 72450, December 5, 2014; 80 FR 80584, December 24, 2015; 81 FR 87246, December 2, 2016).

**Summary of Finding**

Recent genetic studies revealed that smooth pimpleback is synonymous with pimpleback, a wide-ranging species that is very common. These studies have been widely accepted by the relevant scientific community and the Service. Due to being synonymized with pimpleback, smooth pimpleback is not a valid taxonomic entity; does not meet the definition of a species or subspecies under the Act; and, as a result, cannot warrant listing under the Act. A detailed discussion of the basis for this finding can be found in the smooth pimpleback species assessment form and other supporting documents (see ADDRESSES, above).

**Tricolored Blackbird**

**Previous Federal Actions**

On February 3, 2015, we received a petition from the Center for Biological Diversity to list the tricolored blackbird as an endangered or threatened species under the Act. On September 18, 2015, we published a 90-day finding in the Federal Register (80 FR 56423), concluding that the petition presented substantial information indicating that listing the tricolored blackbird may be warranted. This document constitutes the 12-month finding on the February 3, 2015, petition to list the tricolored blackbird under the Act.

**Summary of Finding**

The tricolored blackbird occurs throughout most of lower-elevation California and additional smaller nesting colonies in Oregon, Washington, and Nevada in the United States, and in Baja California, Mexico. The tricolored blackbird exhibits a unique breeding behavior that is a combination of colonial, nomadic, and itinerant behaviors. Its colonial and generally highly synchronous nesting behavior is thought to be an adaptation to unpredictable insect outbreaks and/or high rates of predation pressure, as well as allowing the species to exploit available nesting and foraging opportunities in a changing environment. The species requires a protected nesting substrate (a vegetative substrate that is sturdy enough for nest placement and is protected by being surrounded by water, by having spines, and/or by being dense), such as wetland habitats with cattails and/or bulrushes; spiny, nonnative plants such as Himalayan blackberry or thistle; or silage crops grown for dairy cattle feed. Young tricolored blackbirds are fed a diet comprised almost entirely of insects, and adult blackbirds consume both native insects and other plant material such as grains and seeds.

We have carefully assessed the best scientific and commercial information regarding the past, present, and future threats to the tricolored blackbird, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The tricolored blackbird is currently facing many threats throughout its range, and the species has undergone a substantial decline in recent decades. Still, more than 100,000 tricolored blackbirds were recorded in the most recent Statewide surveys, and individuals in the central portions of the species’ range are well-connected, with birds frequently shifting their use of nesting sites and regions based on availability of suitable habitat. Many threats are continuing to impact the tricolored blackbird and its habitat, and drought may result in a decrease in habitat quality across the species’ range. Furthermore, several researchers have indicated that, as a colonial nesting species, the tricolored blackbird may undergo a similarly rapid decline as have other colonial nesting birds. However, the tricolored blackbird has shown high nesting success in both small and large colonies, indicating that they may be adaptable to changing colony size as well as changing nesting habitat types. Additionally, regulatory mechanisms such as the California Endangered Species Act are currently acting to ameliorate the severity of some existing threats, such as impacts to colonies nesting in silage fields. Furthermore, the most likely future scenarios project that the tricolored blackbird will maintain its current resiliency, representation, or redundancy, or undergo only a slight decrease in habitat and population condition in some regions in the foreseeable future. Therefore, we find that listing the tricolored blackbird as endangered or threatened is not warranted. A detailed discussion of the basis for this finding can be found in the tricolored blackbird species assessment form and other supporting documents (see ADDRESSES, above).

**Yellow-Banded Bumble Bee**

**Previous Federal Actions**

On September 15, 2015, we received a petition from Defenders of Wildlife requesting that the yellow-banded bumble bee be listed as an endangered or threatened species and critical habitat be designated for this species under the Act. On March 16, 2016, we published a 90-day finding in the Federal Register (81 FR 14058), concluding that the petition presented substantial scientific or commercial information indicating that listing the yellow-banded bumble bee may be warranted. This document constitutes the 12-month finding on the September 15, 2015, petition to list the yellow-banded bumble bee under the Act.

**Summary of Finding**

The yellow-banded bumble bee is an early-spring emerging bumble bee living in colonies that include a queen, worker bees (sterile females), and reproducitves (new queens and fertile males). Colonies are annual, and the founding queen, workers, and males all die in the late summer or early fall. The mated new queens overwinter in a state of dormancy. Adult yellow-banded bumble bees have black hairs on their heads, legs, and base of the abdomen; yellow hairs on the front of the thorax and
The yellow-banded bumble bee’s current range includes Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New York, North Dakota, Pennsylvania, South Dakota, Vermont, West Virginia, and Wisconsin in the United States; and Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Prince Edward Island, Quebec, Saskatchewan, and Yukon Territory in Canada. The species inhabits a variety of forest types, including riparian woodland, mature deciduous and conifer forests, and treeline conifer forests. The species also uses wetlands, undisturbed bogs, alpine tundra, and prairies. The yellow-banded bumble bee requires diverse and abundant floral resources in proximity to nesting habitat throughout the spring, summer, and fall. It also requires suitable nesting and overwintering habitat.

We have carefully assessed the best scientific and commercial information regarding the past, present, and future threats to the yellow-banded bumble bee, and we evaluated all relevant factors under the five listing factors, as well as existing conservation measures and the synergistic effects of the threats. The primary stressors are habitat loss and fragmentation, pesticide use, pathogens and parasites, the effects of small and isolated populations, and the effects of climate change.

In the species’ current condition, there is representation (i.e., occupancy) across the majority of the yellow-banded bumble bee’s historical range. Although there has been a reduction in range with the apparent extirpation of the species from three ecoregions, the species continues to be found across 15 ecoregions, spanning much of the northern United States and much of Canada. Also, while the relative abundance has declined, there remains relatively consistent numbers of yellow-banded bumble bees captured across multiple States since the 1950s. The continued captures of the yellow-banded bumble bee indicate ongoing resiliency and redundancy supporting multiple populations of the species across its range. The continued persistence of occupied habitat across the species’ range provides sufficient resiliency, redundancy, and representation to sustain the species beyond the near term.

We evaluated four future scenarios for the yellow-banded bumble bee. The future scenarios all retain resiliency, redundancy, and representation to a sufficient degree such that the risk is low that the species will be in danger of extinction in the foreseeable future. The large range that the yellow-banded bumble bee inhabits provides for redundancy, as populations are distributed across the species’ range such that it can withstand a catastrophic event. The species will continue to exhibit high or moderate resiliency in at least four ecoregions that are spread across the species’ range; in two of the four future scenarios, seven ecoregions are projected to be in high or moderate resiliency in 20 years. Finally, the species would exhibit representation by continuing to occur across its range in various ecoregions to maintain ecological and genetic diversity. Taking into account the effects of the most likely threats and the potential for cumulative effects to the yellow-banded bumble bee’s resource needs, our projections for the viability of the yellow-banded bumble bee in the future are that it will continue to be represented throughout its range, albeit at likely reduced occupancy and relative abundance percentages than currently found.

Our review of the best available scientific and commercial information indicates that the yellow-banded bumble bee is not in danger of extinction throughout all or a significant portion of its range or likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Therefore, we find that listing the yellow-banded bumble bee is not warranted. A detailed discussion of the basis for this finding can be found in the yellow-banded bumble bee species assessment form and other supporting documents (see ADDRESSES, above).

New Information

We request that you submit any new information concerning the taxonomy of, biology of, ecology of, status of, or stressors to the Arapahoe snowfly, brook floater, golden orb, Joshua tree, seaside alder, smooth pimpleback, tricolored blackbird, and yellow-banded bumble bee 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

Lists of the references cited in the petition findings are available on the internet at http://www.regulations.gov in the dockets provided above in ADDRESSES and upon request from the appropriate person, as specified under FOR FURTHER INFORMATION CONTACT.

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.).

Dated: July 25, 2019

Margaret E. Everson,  Principal Deputy Director, U.S. Fish and Wildlife Service, Exercising the Authority of the Director, U.S. Fish and Wildlife Service.

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