Billing Code 4333–15

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R3–ES–2020–0053; FF09E21000 FXES11110900000 201]

Endangered and Threatened Wildlife and Plants; Determination that Designation of Critical Habitat is Not Prudent for the Rusty Patched Bumble Bee

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of final determination.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), have reconsidered whether designating critical habitat for the rusty patched bumble bee (*Bombus affinis*) would be prudent. On January 11, 2017, we published a final rule listing the rusty patched bumble bee as an endangered species under the Endangered Species Act of 1973, as amended (Act). In that final rule, we stated that designation of critical habitat may be prudent, but not determinable. We have now determined that such a designation would not be prudent. The present or threatened destruction, modification, or curtailment of habitat is not the primary threat to the species, and the availability of habitat does not limit the conservation of the rusty patched bumble bee now, nor will it in the future.

DATES: The determination announced in this document was made on [INSERT DATE OF FEDERAL REGISTER PUBLICATION].

ADDRESSES: This document and the supporting documentation we used in preparing this determination are available on the Internet at *http://www.regulations.gov* under

Docket No. FWS–R3–ES–2020–0053.

FOR FURTHER INFORMATION CONTACT: Sarah Quamme, Field Supervisor, Minnesota-Wisconsin Ecological Services Field Office, U.S. Fish and Wildlife Service, 4101 American Blvd. E., Bloomington, MN 55425; telephone 952–252–0092. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

Historically, the rusty patched bumble bee was broadly distributed across the eastern United States and Upper Midwest, from Maine in the United States and southern Quebec and Ontario in Canada, south to the northeast corner of Georgia, reaching west to the eastern edges of North and South Dakota (Service 2016, p. 49). For a thorough review of the life history and ecology of the rusty patched bumble bee, please refer to the species status assessment report (Service 2016).

Previous Federal Actions

Please refer to the proposed listing rule for the rusty patched bumble bee (81 FR 65324; September 22, 2016) for a detailed description of previous Federal actions concerning this species. On January 11, 2017, we published in the *Federal Register* (82 FR 3186) a final rule listing the rusty patched bumble bee as an endangered species. The rule became effective on March 21, 2017 (82 FR 10285; February 10, 2017). On January 15, 2019, the Natural Resources Defense Council filed a lawsuit against the Service for not publishing a final rule designating critical habitat for the species. Per a September 25, 2019, settlement agreement with the Natural Resources Defense Council, we agreed to

submit to the *Federal Register* either a proposed rule designating critical habitat or a final determination that critical habitat designation is not prudent no later than July 31, 2020.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities

associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Designation also does not allow the government or public to access private lands, nor does designation require implementation of restoration, recovery, or enhancement measures by non-Federal landowners.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed may be included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

When designating critical habitat, the Secretary will first evaluate areas occupied by the species. The Secretary will only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species.

Our 2017 rule found that critical habitat was not determinable because of the lack of complete data regarding the complex life-history needs of the rusty patched bumble bee. We also ventured that designation of critical habitat may be prudent. Specifically, we found that identification and mapping of critical habitat is not likely to initiate any threat of collection or vandalism for the bee and that potential benefits of critical habitat designation may include: (1) triggering consultation under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is unoccupied; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the protected species (82 FR 3186; January 11, 2017). While our 2017 rule stated that designation of critical habitat may be prudent, the Service did not make a finding in the 2017 final listing rule that designation was prudent.

We have now analyzed more complete data and have a better understanding of the life-history needs of the rusty patched bumble bee. In light of this enhanced understanding, as well as new information that has become available since the time of listing, we have re-evaluated whether critical habitat designation is prudent for the rusty patched bumble bee.

Designating Habitat Would Not Be Prudent

The rusty patched bumble bee is a habitat generalist, considered to be flexible with regard to its habitat requirements. The species occupies a variety of habitats, including prairies, woodlands, marshes, agricultural landscapes, and residential parks and gardens (Colla and Packer 2008, p. 1381; Colla and Dumesh 2010, p. 46; Service rusty

patched bumble bee unpublished geodatabase 2019). The species requires areas that support sufficient food (nectar and pollen), undisturbed nesting habitat in proximity to floral resources, and overwintering habitat for hibernating queens (Goulson *et al.* 2015, p. 2; Potts *et al.* 2010, p. 349).

Bumble bees are generalist foragers, meaning they gather pollen and nectar from a wide variety of flowering plants (Xerces 2013, pp. 27–28). The rusty patched bumble bee is one of the first bumble bees to emerge early in the spring and the last to go into hibernation, so the species requires a constant and diverse supply of blooming flowers to meet its nutritional needs.

Rusty patched bumble bee nests are typically in abandoned rodent nests or other similar cavities (Plath 1922, pp. 190–191; Frison 1923, p. 267; Macfarlane *et al.* 1994, p. 4). Bumble bee queens seek nesting sites that require little preparation, are in well-drained soil, and are sheltered from the elements (Frison 1923, pp. 265–266). In a recent study of other bumble bee species, spring foundress queens (i.e., queens establishing a new nest) searching for nesting locations favored transitional zones between wooded and open habitats over open habitats, with most queens investigating areas with dense leaf litter, fallen logs, and other features of woody habitats (Lanterman *et al.* 2019, pp. 136–137). Other bumble bees in the subgenus to which rusty patched bumble bee belongs have been found nesting in a variety of landscapes, including forest and forest edges as well as agricultural, urban, grassland, and other landscapes (Liczner and Colla 2019, p. 794).

Little is known about the overwintering habitats of rusty patched bumble bee foundress queens, but other species of *Bombus* typically form a chamber in soft soil, a

few centimeters deep, and sometimes use compost or mole hills to overwinter (Goulson 2010, p. 11). Overwintering bumble bee queens have been found mostly in shaded areas, usually near trees and in banks without dense vegetation (Liczner and Colla 2019, p. 792). An overwintering rusty patched bumble bee queen, discovered in a maple oak-woodland in Wisconsin in 2016, was found under a few centimeters of leaf litter and loose soil (Herrick 2016, pers. comm.). Based on what we know about other *Bombus* species and the rusty patched bumble bee, we assume rusty patched bumble bees are overwintering primarily in woodlands.

Historically, the rusty patched bumble bee was widely distributed across its range. Prior to listing in 2017, the species experienced a widespread and precipitous decline. The cause of the decline is unknown, but evidence suggests a synergistic interaction between an introduced pathogen and exposure to pesticides (specifically, insecticides and fungicides; Service 2016, p. 53). The final listing rule for rusty patched bumble bee (82 FR 3186; January 11, 2017) identified additional threats to the species as habitat loss and degradation, small population dynamics, and effects of climate change.

Historical loss of habitat is commonly cited as a contributor to bee declines (Goulson *et al.* 2015, p. 2; Goulson *et al.* 2008; Potts *et al.* 2010, p. 348; Brown and Paxton 2009, pp. 411–412). For example, loss of native grassland since European settlement of North America is estimated to be as high as 99.9 percent (Samson and Knopf 1994, p. 418). The current decline of rusty patched bumble bee, however, is more recent than these historical losses of habitat. Since 1999, the rusty patched bumble bee has experienced an 88 percent decline in the number of populations documented prior to 2000. Along with the loss of populations, a marked decrease in the range and distribution

has occurred in recent times, with an 87 percent loss of spatial extent within the historical range since 2000. Although habitat loss has established negative effects on bumble bees (Goulson *et al.* 2008; Williams and Osborne 2009, pp. 371–373), many bumble bee experts conclude it is unlikely to be a main driver of the recent, widespread North American bee declines (Szabo *et al.* 2012; p. 236; Colla and Packer 2008, p. 1388; Cameron *et al.* 2011, p. 665). Further, the rusty patched bumble bee may not be as severely affected by habitat loss because it is not dependent on specific plant species for floral resources and can use a variety of habitats for nesting and overwintering.

The rusty patched bumble bee is no longer present in 20 of the 31 States and Provinces where it occurred historically; however, suitable habitat is still widespread in these areas. In addition, many of the locations where the species was observed historically retain suitable habitat, indicating many of the historical locations were not extirpated due to habitat loss. Because the rusty patched bumble bee is a generalist forager that does not depend on certain species of plants for nectar and pollen and likely uses woodlands and woodland edges as well as other areas for overwintering and nesting, the best available information indicates that its habitat needs are relatively plentiful and widely distributed across its historical range, providing further evidence that habitat loss is not the primary threat to the species. Across the historical range of the species, there appears to be abundant suitable habitat for rusty patched bumble bees to occupy in the future should their numbers rebound. Due to the rusty patched bumble bee's general habitat requirements, we expect sufficient habitat to remain available to the species into the future.

Since the time of listing, we have developed a rusty patched bumble bee map, posted on our website, that shows where the rusty patched bumble bee may be present (Service 2020). The map identifies three areas: (1) "high potential zones" (HPZs) where rusty patched bumble bee is likely present, (2) "low potential zones" where rusty patched bumble bee is not likely to be present, and (3) the species' historical range where rusty patched bumble bee is not present. The HPZs are irregular polygons generated from a model of known recent (2007–present) observation points, estimated foraging distances, and the ability of the bee to move through a variety of land classes. The modeled HPZ polygons do not equate to suitable habitat for rusty patched bumble bees, although the HPZs likely contain suitable habitat because the rusty patched bumble bee was recently observed at least once within each of the HPZs. The model used to create the HPZs, however, did not attempt to map specific foraging, nesting, or overwintering areas.

Section 7(a)(2) of the Act requires Federal agencies to evaluate their actions with respect to any species that is listed as an endangered or threatened species. Since the time of listing, we have developed section 7 consultation guidance, which focuses on avoiding direct impacts to rusty patched bumble bees and their occupied habitat (Service 2019b, entire). The consultation guidance directs Federal agencies to assess potential effects to rusty patched bumble bee from activities occurring in suitable habitat within the HPZs. We have determined that consultation outside of these zones, in unoccupied habitat, is not necessary because it is unlikely that the species is using those areas. Although we identified section 7 consultation in unoccupied areas as a potential benefit of designating critical habitat, we have found since then that consultation in those areas is not necessary for the conservation of the species.

Similarly, we developed voluntary guidance for implementation of section 10(a)(1)(B) of the Act for non-Federal project proponents (Service 2017, entire). For non-Federal projects that would occur within a HPZ, this voluntary guidance helps project proponents and landowners understand the status and distribution of the rusty patched bumble bee, determine whether their projects could incidentally take the rusty patched bumble bee, and, if so, how they may plan and carry out their projects while in compliance with the Act.

In 2018, the Service developed "Conservation Management Guidelines for the Rusty Patched Bumble Bee (*Bombus affinis*)" (Service 2018, entire) and, in 2019, released the "Draft Recovery Plan for Rusty Patched Bumble Bee (*Bombus affinis*)" (Service 2019a, entire). Both documents provide guidance for improving or maintaining nesting habitat, floral resources, and overwintering habitat for rusty patched bumble bee. The recovery strategy in the draft recovery plan focuses on a sequence of first halting declines, then reversing declines, and ultimately securing the long-term viability of the species (Service 2019a, p. 3). The initial specific objective includes preventing further loss of populations by increasing the health of individuals and the number of colonies within a population, improving the quality and quantity of habitat, and ensuring connectivity between populations. The draft recovery plan recommends habitat restoration and enhancement because even slight improvements in resource availability could increase development and productivity at existing colonies and improve the bees' resilience to other stressors, such as pesticides and pathogens, which are estimated to be the primary drivers of the species' recent decline. This also helps to address the deleterious effects of small population size, which the rusty patched bumble bee is

currently experiencing. At a landscape level, although habitat improvement may benefit the species, we cannot predict which specific areas rusty patched bumble bees may occupy, given the primary stressors of pesticides and pathogens, the species' dispersal abilities, and the variety of habitats it can use for foraging, overwintering, and nesting.

The Service's website provides a map of priority areas that are of most interest for rusty patched bumble bee surveys, habitat assessments, and habitat improvements, with areas with the most recent detections of the species and areas that intersect with HPZs as the two highest priorities (Service 2019c). The priority areas are not appropriate for designation as critical habitat because they do not map directly to suitable habitat and contain areas not suitable for rusty patched bumble bees. Rather, the priority areas reflect our emphasis on the need to protect bees and prevent the further loss of colonies. The maps provide guidance for Federal and non-Federal projects as well as education to local landowners.

Our current regulations (50 CFR 424.12(a)(1)) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

The best scientific data available indicate that the present or threatened destruction, modification, or curtailment of the rusty patched bumble bee's habitat or range is not the primary threat to the species. Because habitat for the rusty patched bumble bee is not limiting, and because the bee is considered to be flexible with regard to its habitat use for foraging, nesting, and overwintering, the availability of habitat does not limit the conservation of the rusty patched bumble bee now, nor will it in the future. Given the primary stressors of pesticides and pathogens, the species' dispersal abilities, and the variety of habitats it can use for foraging, overwintering, and nesting, we cannot predict which specific areas rusty patched bumble bees may occupy at a landscape level across its historic range. Therefore, pursuant to 50 CFR 424.12(a)(1)(v), the best scientific data available indicate that designation of critical habitat is not prudent.

In making this determination we applied the implementing regulations at 50 CFR 424.12(a)(1) that are currently in effect. The current implementing regulations incorporate revisions that were made final on August 27, 2019, and that final rule expressly stated that the revisions applied "only to relevant rulemakings for which the proposed rule is published after [September 26, 2019]" (84 FR 45020). The reason for that applicability language was so as not "to require that any previously completed

classification decision or critical habitat designation must be reevaluated on the basis of these final regulations" (*Id*.). The proposed and final listing rules for the rusty patched bumble bee published on September 22, 2016, and January 11, 2017, respectively—both were before September 26, 2019, and both indicated that critical habitat was not determinable but may be prudent.

There is some ambiguity as to whether this indication in the proposed and final listing rules that designation may be prudent does constitute a "rulemaking" for which a proposed rule was published before the effective date of that rule." It is not clear, for example, whether a prudency determination qualifies as a "rulemaking" under the applicability language or whether the proposed rule—a proposal to list the species along with an accompanying finding that critical habitat was not then determinable—qualified as a "proposed rule published after that date."

To address this ambiguity, we also evaluated whether designation of critical habitat is prudent under the regulations that were in effect when we made the not-determinable finding at the time of the final listing rule.

The regulations that were in effect at the time the species was listed (in early 2017) stated that a designation of critical habitat is not prudent when any of the following situations exist:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species; or

(ii) Such designation of critical habitat would not be beneficial to the species. In determining whether a designation would not be beneficial, the factors the Services may consider include but are not limited to: Whether the present or threatened destruction,

modification, or curtailment of a species' habitat or range is not a threat to the species, or whether any areas meet the definition of "critical habitat."

The best scientific data available indicate that the present or threatened destruction, modification, or curtailment of the rusty patched bumble bee's habitat or range is not the primary threat to the species. Because habitat for the rusty patched bumble bee is not limiting, and because the bee is considered to be flexible with regard to its habitat use for foraging, nesting, and overwintering, the availability of habitat does not limit the conservation of the rusty patched bumble bee now, nor will it in the future. Although we have since found that triggering section 7 consultation in unoccupied areas is not necessary, we have achieved, through development of the priority maps, the other benefits of critical habitat that we had identified in the final listing rule, i.e., focusing conservation activities on the most essential areas to prevent further loss of colonies, providing educational benefits by creating greater public awareness of rusty patched bumble bee and its conservation, and preventing inadvertent harm to the species. Because these maps are updated regularly as we receive new information, they provide better, more focused attention to the needs of rusty patched bumble bee than a static critical habitat designation would. For these reasons, we find that designating critical habitat would not be beneficial for the species.

Therefore, we also find that, even if we were to apply the regulations in place at the time of listing at 50 CFR 424.12(a)(1), we would still conclude that designating critical habitat is not prudent for the rusty patched bumble bee.

References Cited

A complete list of references cited in this document is available on the Internet at *http://www.regulations.gov* and upon request from the Minnesota-Wisconsin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are staff members of the Service's Great Lakes Regional Office and Minnesota-Wisconsin Ecological Services Field Office.

Authority

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

Aurelia Skipwith
Director, U.S. Fish and Wildlife Service.

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