plant occurs on the date on which all Federal, state, local, and contractual decommissioning requirements are fully satisfied (the substantial completion date). Except as otherwise provided in paragraph (d)(3)(ii) of this section, the substantial completion date is also the termination date.

* * * * *

John Dalrymple,

Deputy Commissioner for Services and Enforcement.

[FR Doc. 2016–31205 Filed 12–28–16; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2016–0130; FXES11130900000 178 FF09E42000]

RIN 1018–BB90

Endangered and Threatened Wildlife and Plants; Reclassifying the Tobusch Fishhook Cactus From Endangered to Threatened on the Federal List of Endangered and Threatened Plants

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and 12-month petition finding; request for comments.

SUMMARY: Under the authority of the Endangered Species Act of 1973, as amended (Act), we, the U.S. Fish and Wildlife Service (Service), propose to reclassify the Tobusch fishhook cactus (*Sclerocactus brevihamatus* ssp. *tobuschii;* currently listed as *Ancistrocactus tobuschii*) from endangered to threatened on the Federal List of Endangered and Threatened Plants (List). This determination is based on a thorough review of the best available scientific and commercial information, which indicates that the threats to this plant have been reduced to the point that it no longer meets the definition of endangered under the Act, but may still become endangered within the foreseeable future. This document also serves as the 12-month finding on a petition to reclassify this plant from endangered to threatened.

DATES: We will accept comments received or postmarked on or before February 27, 2017. Please note that if you are using the Federal eRulemaking Portal (see **ADDRESSES**), the deadline for submitting an electronic comment is 11:59 p.m. Eastern Time on this date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by February 13, 2017.

ADDRESSES: *Written comments:* You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter FWS–R2–ES–2016–0130, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on ‘‘Comment Now!’’

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R2–ES–2016–0130, U.S. Fish and Wildlife Service, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see *Public Comments,* below, for more information).

Copies of Documents: This proposed rule and supporting documents are available on *http://www.regulations.gov.* In addition, the supporting file for this proposed rule will be available for public inspection, by appointment, during normal business hours, at the Austin Ecological Services Field Office, 10711 Burnet Rd., Suite 200, Austin, TX 78727; telephone 512–490–0057.

FOR FURTHER INFORMATION CONTACT: Adam Zerrenner, Field Supervisor, U.S. Fish and Wildlife Service, Austin Ecological Services Field Office, 10711 Burnet Rd., Suite 200, Austin, TX 78727; telephone 512–490–0057; or facsimile 512–490–0974. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Information Requested

Public Comments

We want any final rule resulting from this proposal to be as effective as possible. Therefore, we invite tribal and governmental agencies, the scientific community, industry, and other interested parties to submit comments or recommendations concerning any aspect of this proposed rule. Comments should be as specific as possible.

To issue a final rule to implement this proposed action, we will take into consideration all comments and any additional information we receive. Such communications may lead to a final rule that differs from this proposal. All comments, including commenters' names and addresses, if provided to us, will become part of the supporting record.

We are specifically requesting comments on:

(1) New information on the historical and current status, range, distribution, and population size of the Tobusch fishhook cactus, including the locations of any additional populations.

(2) New information on the known and potential threats to the Tobusch fishhook cactus.

(3) New information regarding the life history, ecology, and habitat use of the Tobusch fishhook cactus.

Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act (16 U.S.C. 1531 *et seq.*) directs that determinations as to whether any species is an endangered or threatened species must be made ‘‘solely on the basis of the best scientific and commercial data available.’’

You may submit your comments and materials concerning the proposed rule by one of the methods listed in **ADDRESSES**. Comments must be submitted to *http://www.regulations.gov* before 11:59 p.m. (Eastern Time) on the date specified in **DATES**. We will not consider hand-delivered comments that we do not receive, or mailed comments that are not postmarked, by the date specified in **DATES**.

We will post your entire comment—including your personal identifying information—on *http://www.regulations.gov.* If you provide personal identifying information in your comment, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing

Section 4(b)(5)(E) of the Act provides for one or more public hearings on this proposed rule, if requested. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by the date shown in **DATES**. We will schedule public hearings on this proposal, if any are requested, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** at least 15 days before the first hearing.

Peer Review

In accordance with our policy, ''Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,'' which was published on July 1, 1994 (59 FR 34270), we are soliciting the expert opinion of at least three appropriate independent specialists regarding scientific data and interpretations contained in the Species Status Assessment Report (SSA Report) (Service 2016; available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130) supporting this proposed rule. The purpose of such review is to ensure that our decisions are based on scientifically sound data, assumptions, and analysis. We will incorporate, as appropriate, the feedback from the peer review of the SSA Report into any final determination regarding the subspecies.

Background

Section 4(b)(3)(B) of the Act requires that, for any petition to revise the Federal Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific or commercial information that reclassifying a species may be warranted, we make a finding within 12 months of the date of receipt of the petition (''12-month finding''). In this finding, we determine whether the petitioned action is: (1) Not warranted, (2) warranted, or (3) warranted, but immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. We must publish these 12-month findings in the **Federal Register**. This document represents:

- Our 12-month warranted finding on a July 16, 2012, petition to reclassify the Tobusch fishhook cactus from endangered to threatened (that is, to ''downlist'' this plant);
- Our determination that the Tobusch fishhook cactus no longer meets the definition of endangered under the Act; and
- Our proposed rule to reclassify the Tobusch fishhook cactus from endangered to threatened on the Federal List of Endangered and Threatened Plants.

Previous Federal Actions

We published a final rule to list the Tobusch fishhook cactus as an endangered species under the Act on November 7, 1979 (44 FR 64736). At that time, we also determined that it was not prudent to designate critical habitat for the subspecies because the publication of critical habitat maps could make the species more vulnerable to taking. We issued a recovery plan on March 18, 1987. The recovery plan has not been revised. A status review (''5-year review'') under section 4(c)(2)(A) of the Act was completed for the Tobusch fishhook cactus on January 5, 2010. The 5-year review recommended that this plant be reclassified from endangered to threatened (Service 2010).

On July 16, 2012, we received a petition dated July 11, 2012, from The Pacific Legal Foundation, Jim Chilton, the New Mexico Cattle Growers' Association, New Mexico Farm & Livestock Bureau, New Mexico Federal Lands Council, and Texas Farm Bureau requesting, among other things, that the Tobusch fishhook cactus be reclassified as threatened based on the analysis and recommendation contained in the 5-year review. The Service published a 90-day finding on September 9, 2013 (78 FR 55046) that the petition contained substantial scientific or commercial information indicating that the petitioned action may be warranted. On November 20, 2015, the Service received a complaint (*New Mexico Cattle Growers' Association et al.* v. *United States Department of the Interior et al.,* No. 1:15–cv–01065–PJK–LF (D. N.M.)) for declaratory judgment and injunctive relief from the New Mexico Cattle Growers' Association, Jim Chilton, New Mexico Farm & Livestock Bureau, New Mexico Federal Lands Council, and Texas Farm Bureau to, among other things, compel the Service to make a 12-month finding on the petition. This document serves as our 12-month warranted finding on the July 16, 2012, petition to reclassify the Tobusch fishhook cactus from endangered to threatened.

Species Status Assessment for Tobusch fishhook cactus.

We prepared a Species Status Assessment (SSA) for the Tobusch fishhook cactus (Service 2016; available at *http://www.regulations.gov*), which includes a thorough review of the subspecies' taxonomy, natural history, habitats, ecology, populations, and range. The SSA analyzes individual, population, and subspecies requirements, as well as factors affecting the subspecies' survival and its current conditions, to assess the subspecies' current and future viability in terms of resilience, redundancy, and representation.

We define viability as the ability of a species to persist and to avoid extinction over the long term. Resilience refers to the population size and demographic characteristics necessary to endure stochastic environmental variation (Shaffer and Stein 2000, pp. 308–310). Resilient populations are better able to recover from losses caused by random variation, such as fluctuations in recruitment (demographic stochasticity), variations in rainfall (environmental stochasticity), or changes in the frequency of wildfires. Redundancy refers to the number and geographic distribution of populations or sites necessary to endure catastrophic events (Shaffer and Stein 2000, pp. 308–310). As defined here, catastrophic events are rare occurrences, usually of finite duration, that cause severe impacts to one or more populations. Examples of catastrophic events include tropical storms, unusually high or prolonged floods, prolonged drought, and unusually intense wildfire. Species that have multiple resilient populations distributed over a larger landscape are more likely to survive catastrophic events, since not all populations would be affected. Representation refers to the genetic diversity, both within and among populations, necessary to conserve long-term adaptive capability (Shaffer and Stein 2000, pp. 307–308). Species with greater genetic diversity are more able to adapt to environmental changes and to colonize new sites.

The SSA Report provides the scientific basis that informs our regulatory determination as to whether or not this subspecies should be listed as an endangered or a threatened species under the Act. This decision involves the application of standards within the Act, the Act's implementing regulations, and Service policies (see Finding and Proposed Determination, below). The following discussion is a summary of the results and conclusions from the SSA Report. We are soliciting peer review of the draft SSA Report from three objective and independent scientific experts.

Description

Tobusch fishhook cactus is a rare, endemic plant of the Edwards Plateau of central Texas. The common and scientific names honor Herman

Tobusch, who first collected it in 1951 (Marshall 1952, p. 78). In the wild, this globose or columnar cactus rarely exceeds 5 centimeters (2 inches) in diameter and in height (Poole and Janssen 2002, p. 7). As the name implies, it is armed with curved ''fishhook'' spines.

Classification

The taxonomic classifications of Tobusch fishhook cactus include several published synonyms. We listed it as a species, *Ancistrocactus tobuschii* (44 FR 64736, November 7, 1979), and retained this classification for the recovery plan (Service 1987). However, recent phylogenetic evidence supports classifying Tobusch fishhook cactus as subspecies *tobuschii* of *Sclerocactus brevihamatus* (Porter and Prince 2011, pp. 40–47). It is distinguished morphologically from its closest relative, *S. brevihamatus* ssp. *brevihamatus,* on the basis of yellow versus pink- or brown-tinged flowers, fewer radial spines, and fewer ribs (Marshall 1952, p. 79; Poole et al. 2007, p. 442; Porter and Prince 2011, pp. 42–45). Additionally, *S. brevihamatus* ssp. *tobuschii* is endemic to limestone outcrops of the Edwards Plateau, while *S. brevihamatus* ssp. *brevihamatus* occurs in alluvial soils in the Tamaulipan Shrublands and Chihuahuan Desert. A recent investigation confirmed genetic divergence between the two subspecies, although they may interact genetically in a narrow area where their ranges overlap (Rayamajhi 2015, pp. 67, 98; Sharma 2015, p. 1). With the publication of this proposed rule, we officially accept the new scientific name of the Tobusch fishhook cactus as *Sclerocactus brevihamatus* ssp. *tobuschii.*

Reproduction

Tobusch fishhook cactus grows slowly, reaching a reproductive size of about 2 centimeters (0.8 inches) in diameter after 9 years (Emmett 1995, pp. 168–169). It flowers between late January and mid-March, and its major pollinators are honey bees and halictid bees (Emmett 1995, pp. 74–75; Lockwood 1995, pp. 428–430; Reemts and Becraft 2013, pp. 6–7; Langley 2015, pp. 21–23). The breeding system is primarily out-crossing, requiring two individuals for reproduction, but the subspecies is capable of self-fertilization (Emmett 1995, p. 70; Langley 2015, pp. 24–28). Reproductive individuals produce an average of 112 seeds per year (Emmett 1995, p. 108). Ants may be seed predators, dispersers, or both (Emmett 1995, pp. 112–114, 124). Mammals or birds may also accomplish longer distance seed dispersal (Emmett 1995, pp. 115–116, 126). There is little evidence that seeds persist in the soil (Emmett 1995, pp. 120–122).

Habitats

When listed as endangered in 1979, fewer than 200 individuals of Tobusch fishhook cactus were known from 4 riparian sites, 2 of which had been destroyed by floods (44 FR 64736, November 7, 1979; Service 1987, pp. 4–5). We now understand that those riparian habitats were atypical; the great majority of populations that have now been documented occur in upland sites dominated by Ashe juniper-live oak woodlands and savannas on the Edwards Plateau (Poole and Janssen 2002, p. 2). Soils are classified in the Tarrant, Ector, Eckrant, and similar series. Within a matrix of woodland and savanna, the subspecies occurs in discontinuous patches of very shallow, gravelly soils where bare rock and rock fragments comprise a large proportion of the surface cover (Sutton et al. 1997, pp. 442–443). Associated vegetation includes small bunch grasses and forbs. The subspecies' distribution within habitat patches is clumped and tends to be farther from woody plant cover (Reemts 2014, pp. 9–10). The presence of cryptograms, primitive plants that reproduce by spores rather than seeds, may be a useful indicator of fine-scale habitat suitability (Service 2010, p. 17). Wildfire (including prescribed burning) causes negligible damage to Tobusch fishhook cactus populations (Emmett 1995, p. 42; Poole and Birnbaum 2003, p. 12). The subspecies probably does not require fire for germination, establishment, or reproduction, but periodic burning may be necessary to prevent the encroachment of woody plants into its habitats.

Populations and Range

A population of an organism is a group of individuals within a geographic area that are capable of interbreeding or interacting. Although the term is conceptually simple, it may be difficult to determine the extent of a population of rare or cryptic species, and this is certainly the case for Tobusch fishhook cactus. Thorough surveys on public lands, such as state parks and highway rights-of-way, have detected groups of individuals, but since the vast majority of the surrounding private lands have not been surveyed, we do not know if these are small, isolated populations, or parts of larger interacting populations or meta-populations. For convenience, we often informally use the terms ''site'', referring to a place where the species was found, and ''colony'', referring to a cluster of individuals, when we do not know the extent of the local population.

Tobusch fishhook cactus populations are now confirmed in eight central Texas counties: Bandera, Edwards, Kerr, Kimble, Kinney, Real, Uvalde, and Val Verde. In 2009, the Texas Native Diversity Database listed 105 element occurrences, areas in which the species was present, (EOs; NatureServe 2002, p. 10) of Tobusch fishhook cactus, totaling 3,395 individuals (TXNDD 2009, pp. 1–210). Texas Parks and Wildlife Department botanists monitored 118 permanent plots at 12 protected natural areas from 1991 through 2013 (Poole and Janssen 2002, entire; Poole and Birnbaum 2003, entire). Annual mortality in plots was often greater than 20 percent, and consistently exceeded recruitment (Emmett 1995, pp. 155–161; Poole and Birnbaum 2001, p. 5). In particular, infestations by insect larvae caused catastrophic population declines (Emmett 1995, pp. 155–161; Calvert 2003, entire). However, mortality and recruitment determinations are confounded by the great difficulty in detecting live plants in the field (Poole and Janssen 2002, p. 5; Reemts 2014, pp. 1, 8). Despite the decline of many individual colonies, the total known population sizes have steadily increased, due to the discovery of previously undetected individuals and colonies.

Summary of Subspecies Requirements

Requirements of Individuals

Tobusch fishhook cactus plants occur in patches of very shallow, rocky soil overlying limestone. The immediate vicinity of plants is sparsely vegetated with small bunch grasses and forbs and there is little or no woody plant cover. Individuals require an estimated 9 years to reach a reproductive size of about 2 centimeters (0.8 inches) in diameter. Reproduction is primarily by out-crossing between unrelated individuals, and the known pollinators include honey bees and halictid bees. Out-crossing requires genetically diverse cactus populations within the foraging range of pollinators, and is less likely to occur in small, isolated populations. Healthy pollinator populations, in turn, require intact, diverse, native plant communities. Halictid bees are frequent natural pollinators of the Tobusch fishhook cactus. Given their relatively small size, we expect the foraging range of these bees to be fairly limited. Therefore, the health and diversity of native vegetation within the vicinity of Tobusch fishhook cactus plants (a range of 50 to 500 meters (m) (164 to 1,640 feet (ft)) may be particularly important for successful cactus reproduction. Healthy pollinator populations also require the least possible exposure to agricultural pesticides within their foraging ranges.

Requirements of Populations

Population persistence requires stable or increasing demographic trends. Although some Tobusch fishhook cactus individuals live for decades, annual mortality rates are often greater than 20 percent, and relatively few individuals live long enough to reproduce. Mortality within monitored colonies often exceeds recruitment, and some colonies have died out. Nevertheless, even where individual colonies have collapsed, the total documented population sizes at many protected natural areas are stable or increasing, due to discoveries of new individuals and colonies. Therefore, the assessment of demographic trends depends on how populations are delineated; we conclude that it is more appropriate to track the collective populations of multiple colonies that interact on a landscape scale (*i.e.,* meta-populations). Meta-population persistence requires recruitment of new colonies, and/or reestablishment at sites of former colonies that previously collapsed. A major cause of mortality is infestation by insect larvae, mainly by an undescribed species of *Gerstaeckeria* (cactus weevil), and one or more species of cactus longhorn beetles (*Moneilema* spp.). The adults of these parasites are flightless, so their dispersal to new colonies is likely to be very limited. When individual colonies of the cactus die off, the parasites also die off, rendering those patches of suitable habitat available for cactus re-colonization. Hence, these periodic infestations of parasite larvae greatly influence the population dynamics of the Tobusch fishhook cactus. The distance between colonies has two opposing effects on their persistence. Greater distance reduces susceptibility to parasite infestation, but also reduces the amount of gene flow, by means of pollinators vectoring pollen, or through seed dispersal, between colonies. Thus, the persistence of entire meta-populations would require fairly large landscapes where discontinuous patches of suitable habitat are distributed and populated at a density just low enough to hold the parasites at bay, but just high enough for halictid bees and other pollinators and seed dispersers to vector genes between them.

One measure of population resilience is minimum viable population (MVP), which is an estimate of the minimum population size that has a high probability of enduring a specified period of time. Poole and Birnbaum (2003, p. 1) estimated an MVP of 1,200 individuals for the Tobusch fishhook cactus, using a surrogate species approach (Pavlik 1996, pp. 136–137). For the reasons explained above, MVP levels are more appropriately applied to meta-populations rather than individual colonies of this cactus.

The degree of genetic diversity within Tobusch fishhook cactus populations is important for several reasons. First, diversity within populations should confer greater resistance to pathogens and parasites, and greater adaptability to environmental stochasticity (random variations, such as annual rainfall and temperature patterns) and climate changes. Second, low genetic diversity within interbreeding populations leads to a higher incidence of inbreeding, and potentially to inbreeding depression. Finally, the breeding system of the Tobusch fishhook cactus is primarily out-crossing, so populations with too little genetic diversity would produce fewer progeny.

Fire, whether natural or prescribed, appears to have little effect on individual Tobusch fishhook cactus plants. This is because the plants occur where vegetation is very sparse, and the plants protrude very little above the ground and are protected by surrounding rocks from the heat of vegetation burning nearby. On the other hand, periodic fire is likely to be necessary for population persistence to reduce juniper encroachment into suitable habitats. Furthermore, the diverse shrub and forb vegetation that sustains healthy pollinator populations is maintained by periodic wildfire; without fire, dense juniper groves frequently displace these shrubs and forbs. Hence, if the native plant diversity of entire landscapes surrounding Tobusch fishhook cactus populations succumbs to juniper encroachment, pollinator populations will likely decline, and reproduction of the Tobusch fishhook cactus and gene flow between its colonies may be reduced.

Subspecies Requirements

In addition to population resilience (described above under ''Requirements of Individuals'' and ''Requirements of Populations''), we assess the subspecies' viability in terms of its redundancy and representation.

Given that insect parasites are able to devastate large, dense populations, a few large populations are much more vulnerable than many small populations. The resilience of the Tobusch fishhook cactus derives not merely from the size of meta-populations, but also their density. Meta-populations with a low density of colonies may incur loss of genetic diversity and increased potential for inbreeding. Conversely, vulnerability to insect parasitism increases when meta-populations become too dense, or when individual colonies become too large. Assessments of resilience (meta-population size and demographics) and redundancy (number of meta-populations within representative areas) depend on how meta-populations are delineated. We believe that there must be some optimal range of meta-population density, *i.e.* the distance between meta-populations, and of colony size, although we do not currently know what those are.

Representation reflects the genetic diversity, both within and among populations, necessary to conserve long-term adaptive capability (Shaffer and Stein 2000, pp. 307–308). Genetic diversity within a population can be measured by the numbers of variant forms of genes represented in that population. One measure of this within-population genetic diversity is called heterozygosity; possible values range from 0 (all members of a population are genetically identical for specified genes) to 1.0 (all members of a population a genetically different). Another useful measure is the inbreeding coefficient (F_{IS}), which ranges from -1 (all members of the population are heterozygous, containing two forms of specific genes, and there is no evidence of inbreeding) to 1.0 (all members are homozygous, containing only one form of specific genes, and inbred). Although there are no heterozygosity levels or inbreeding coefficients that are considered healthy for all species, we may assess the genetic health of the Tobusch fishhook cactus by comparison to the observed values of reference species, such as other cactus species with similar life histories that are abundant and widespread (Rayamajhi 2015, pp. 56, 63; Schwabe et al. 2015, pp. 449, 454–455). The array of different environments in which a species occurs, such as the riparian and upland sites where Tobusch fishhook cactus is found, can also be used as a proxy measure for genetic diversity and therefore representation (Shafer and Stein 2000, p. 308).

Review of the Recovery Plan

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Recovery plans identify site-specific management actions that will achieve recovery of the species, measurable criteria that set a trigger for review of the species' status, and methods for monitoring recovery progress.

Recovery plans are not regulatory documents; instead they are intended to establish goals for long-term conservation of listed species and define criteria that are designed to indicate when the threats facing a species have been removed or reduced to such an extent that the species may no longer need the protections of the Act, as well as actions that may be employed to achieve reaching the criteria. There are many paths to accomplishing recovery of a species, and recovery may be achieved without all criteria being fully met or all actions fully implemented. Recovery of a species is a dynamic process requiring adaptive management that may, or may not, fully follow the guidance provided in a recovery plan.

The Tobusch fishhook cactus recovery plan was approved by the Service on March 18, 1987 (Service 1987). Delisting criteria were not established in the recovery plan. However, the recovery plan established a criterion of 3,000 individuals in each of four safe sites for reclassification from endangered to threatened.

We now understand that insect parasites are able to devastate large, dense populations and we conclude that a few large populations are much more vulnerable than many small populations; therefore, this recovery criterion should be amended. Currently, many small populations exist, and surveyors have documented 3,395 Tobusch fishhook cactus individuals at 105 element occurrences (EOs) in 8 counties of the Edwards Plateau, including 12 sites managed either by the state or conservation organizations, where monitored populations ranged from 34 to 1,090 individuals.

Summary of Factors Affecting the Subspecies

Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from listed status. A species may be determined to be an endangered or threatened species due to one or more of the five listing factors described in section 4(a)(1) of the Act: (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. A species may be reclassified or delisted on the same basis. Consideration of these factors was incorporated into the Tobusch fishhook cactus SSA (Service 2016; available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130) and projected in future scenarios to evaluate viability of the Tobusch fishhook cactus. The effects of conservation measures were also assessed as part of the current condition of the Tobusch fishhook cactus in the SSA Report, and those effects were projected in future scenarios.

Land Use Changes (Factor A)

Relatively little urban and industrial development is occurring within the semi-arid, sparsely populated eight-county known range of the Tobusch fishhook cactus. However, a significant ongoing trend throughout the subspecies' range is the subdivision of large ranches leading to a proliferation of roads, fences, power lines, and residential development, all of which contribute incrementally to habitat loss and fragmentation.

The predominant, historic land use throughout the Edwards Plateau has been livestock grazing. In many cases, poor rangeland management during the last century has caused the depletion of herbaceous vegetation, cessation of the natural wildfire cycle, proliferation of dense juniper stands, soil erosion, and reduced infiltration and storage of rainwater in the soil profile; all of these changes are likely to have harmed Tobusch fishhook cactus populations. The change to a primarily recreational land use often entails continued grazing, but at a sustainable stocking density.

Prescribed burning may be one of the most important vegetation management tools for sustaining Tobusch fishhook cactus populations because it reduces woody vegetation encroachment. However, the proliferation of residential development within the species' habitat makes this tool more challenging for natural resource managers to use.

Changes in Vegetation and Wildfire Frequency (Factor A)

Bray (1904, pp. 14–15, 23–24) documented the rapid transition of grasslands to woodlands in the Edwards Plateau occurring more than a century ago; he attributed this change to overgrazing, the depletion of grasses, and the cessation of wildfires. Fonteyn et al. (1988, p. 79) state that savannas covered portions of the pre-settlement Edwards Plateau, and since 1850 were transformed to shrubland or woodland ''primarily by suppression of recurring natural and anthropogenic fires and the introduction of livestock.'' They list the fire-sensitive Ashe juniper (*Juniperus ashei*) as the most successful of many woody plants that have invaded grasslands. Reemts (2014 p. 1) lists the encroachment of woody plants into the rocky, open habitat as one of several remaining habitat-related threats that endanger the Tobusch fishhook cactus.

Livestock Grazing (Factor A)

The recovery plan stated, ''*Ancistrocactus tobuschii* plants have been observed that were either uprooted or had apical meristem injuries from livestock trampling.'' Nevertheless, livestock trampling and herbivory have not subsequently been identified as significant causes of mortality or damage to Tobusch fishhook cactus plants. Their recurved spines and small size probably protect Tobusch fishhook cactus plants from livestock herbivory. Livestock are not attracted to the sparsely vegetated outcrops where Tobusch fishhook cactus plants typically occur, and the plants are often nestled among larger rocks. While livestock trampling probably occurs in grazed habitats, we have no evidence that it represents a significant threat to the subspecies. A number of healthy Tobusch fishhook cactus populations occur on well-managed rangeland. We conclude that properly managed livestock grazing, especially where juniper thinning and prescribed burning are used to manage rangeland, is generally compatible with conservation of this cactus.

Illegal Collection (Factor B)

Many rare cactus populations have been depleted by overzealous collectors. The recovery plan lists illegal collection as a threat to the subspecies. Westlund (1991, pp. 2, 35, 39) found six specimens of Tobusch fishhook cactus, grown legally from seed, for sale in commercial nurseries. Poole and Janssen (2002, p. 9) noted that one population of the Tobusch fishhook cactus was heavily depleted by collection, but concluded that ''collection is not currently perceived to be a grave threat.'' Although illegal collection has not significantly impacted the subspecies, the wild populations openly accessed by the public remain vulnerable. The potential threat of illegal collection might be diminished if seeds and plants of legally propagated Tobusch fishhook cacti become easier and less expensive to obtain than wild-dug specimens.

Parasites (Factor C)

The Tobusch fishhook cactus weevil (*Gerstaeckeria* spp.) and cactus longhorn beetle (*Moneilema* spp.) parasitize and kill Tobusch fishhook cactus plants and have contributed significantly to drastic declines in many of the known populations (Calvert 2003, entire).

Periodic outbreaks of insect parasitism appear to be an unavoidable natural cycle. For this reason, large cactus populations could eventually host very large parasite populations, leading to their collapse. The most appropriate conservation strategy may be to protect larger numbers of small, widely spaced meta-populations, rather than fewer large populations that are more vulnerable to parasites.

Other Herbivory (Factor C)

Poole and Birnbaum (2003, pp. 11–12) report that jackrabbits browse the cactus, but in most sites cause less than 2 percent mortality. If the root systems are not too badly damaged, they may regenerate one or more new stems. Feral hogs have uprooted plants in many sites (also observed by Reemts (2015, p. 1)). An unidentified ant species has also caused 1 percent mortality at some sites by creating mounds on top of the stems. With the exception of feral hogs, herbivory does not appear to be a significant cause of mortality or damage to Tobusch fishhook cactus plants.

Inadequacy of Existing Regulatory Mechanisms (Factor D)

Federally listed plants occurring on private lands have limited protection under the Act, unless also protected by state laws; the State of Texas also provides very little protection to listed plant species on private lands. Approximately 95 percent of Texas land area is privately owned. It is reasonable to assume that the vast majority of existing Tobusch fishhook cactus habitat, including sites that have not been documented, occurs on private land. Therefore, most of the subspecies' populations and habitats are not subject to Federal or state protection unless there is a Federal nexus, such as provisions of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a federally funded project.

Demographic Consequences of Small Population Size and Density (Factor E)

Poole and Birnbaum (2003, p. 1) estimated an MVP of 1,200 individuals (Service 2016, section II.7.5, available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130). For Tobusch fishhook cactus, MVP levels are more appropriately applied to meta-populations rather than individual colonies. Small populations are less able to recover from losses caused by random environmental changes (Shaffer and Stein 2000, pp. 308–310), such as fluctuations in recruitment (demographic stochasticity), variations in rainfall (environmental stochasticity), or changes in the frequency of wildfires. The Tobusch fishhook cactus has a predominantly out-crossing breeding system. The probability of successful fertilization between unrelated individuals is reduced in small, isolated populations. The remaining plants would produce fewer viable seeds, further reducing population recruitment and engendering a downward spiral toward extirpation. The demographic consequences of small population size are compounded by genetic consequences (discussed below), because reduced out-crossing corresponds to increased inbreeding. In addition to population size, it is likely that population density within meta-populations also influences population viability; density must be high enough for gene flow within meta-populations, but low enough to minimize parasite infestations.

Genetic Consequences of Small Population Sizes (Factor E)

Small, reproductively isolated populations are susceptible to the loss of genetic diversity, to genetic drift, and to inbreeding. The loss of genetic diversity may reduce the ability of a species or population to resist pathogens and parasites, to adapt to changing environmental conditions, or to colonize new habitats. Conversely, populations that pass through a ''genetic bottleneck'', *i.e.* a time of significant loss of genetic diversity, may subsequently benefit through the elimination of harmful alleles, or the variant forms of a given gene. Nevertheless, the net result of loss of the genetic diversity is likely to be a loss of fitness and lower chance of survival of populations and of the subspecies.

Genetic drift is a change in the frequencies of alleles in a population over time. Genetic drift can arise from random differences in founder populations, *i.e.* new populations originally established by a very small number of individuals, and the random loss of rare alleles in small, isolated populations. Genetic drift may have a neutral effect on fitness, or contribution to the gene pool, in larger populations, but may cause the loss of genetic diversity in small populations. Genetic drift may also result in the adaptation of an isolated population to the climates and soils of specific sites, leading to the development of distinct genotypes that are specifically adapted to a particular ecological area and to speciation, or the evolution of new species. For example, the genetic divergence of *Sclerocactus brevihamatus* ssp. *brevihamatus* and *S. brevihamatus* ssp. *tobuschii* (Rayamajhi 2015, pp. 67, 98; Service 2016, pp. 6–7, available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130) may have resulted when populations of the species *brevihamatus* migrated into separate geographic regions, and once separated, each population adapted to different soils, climate, and pollinator species.

Inbreeding depression is the loss of fitness among offspring of closely related individuals. While most animal species are susceptible to inbreeding depression, plant species vary greatly in response to inbreeding. Levels of inbreeding can be measured with the inbreeding coefficient (F_{IS}), which ranges from -1 (all members of the population are heterozygous for specific genes and there is no evidence of inbreeding) to 1.0 (all members are homozygous and inbred). Rayamajhi (2015, pp. 63–64) found relatively high inbreeding coefficients in three of eight populations, which he attributed to mating of close relatives within small, isolated populations. Nevertheless, we do not know to what extent inbreeding has reduced fitness of these populations.

Land Ownership (Factor E)

A large portion of the known individuals and populations of the Tobusch fishhook cactus occurs on privately owned land. This does not constitute a direct threat to the subspecies, and many landowners have demonstrated interest and enthusiasm for its conservation. However, private ownership makes conservation more challenging for several reasons. Access to populations and habitats is subject to the interests of hundreds of individual landowners. Consequently, our knowledge of the subspecies' actual status is far from complete. Establishing and maintaining cooperative relationships with large numbers of private landowners is time-consuming, and these important relationships may lapse when personnel of conservation organizations retire or pursue other career choices. The ownership of private lands changes hands over time, and future owners may choose not to continue conservation efforts that were supported by previous owners. Hence, it is difficult to assure permanent conservation on private lands. These challenges underscore the importance of effective landowner outreach in the conservation of the Tobusch fishhook cactus.

Climate Change (Factor E)

The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (IPCC 2013, p. 23) projects the following changes by the end of the 21st century, relative to the 1986 to 2005 averages: It is virtually certain that most land areas will experience warmer and/or fewer cold days and nights; it is virtually certain that most land areas will experience warmer and/or more frequent hot days and nights; it is very likely that the frequency and/or duration of warm spells and heat waves will increase in most land areas; it is very likely that the frequency, intensity, and/or amount of heavy precipitation will increase in mid-latitude land masses; it is likely that the intensity and/or duration of droughts will increase on a regional to global scale. The magnitude of projected changes varies widely, depending on which scenario of future greenhouse gas emissions is used.

To evaluate how the climate of Tobusch fishhook cactus habitats may change, we used the National Climate Change Viewer (U.S. Geological Survey 2015) to compare past and projected future climate conditions for Edwards County, Texas. The baseline for comparison was the observed mean values from 1950 through 2005, and 30 climate models were used to project future conditions for 2050 through 2074. We selected the climate parameters of August maximum temperature, January minimum temperature, annual mean precipitation, and annual mean evaporative deficit. These particular parameters were selected from those available because they represented those most likely to impact the survival of individuals. The highest temperature of the year (August maximum temperature) could potentially affect individuals by exacerbating the effects of drought and the lowest temperatures of the year (January minimum temperature) could expose individuals to freezing temperatures. The annual mean precipitation and evaporative deficit provide measures of drought that could negatively affect individuals. The results are described in detail in the SSA Report (Service 2016, available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130), but generally, these models project that plant growth and survival in Edwards County will become more moisture-limited, although the degree of change varies under different scenarios.

Nevertheless, we do not know how the Tobusch fishhook cactus responded to prior climate changes, nor can we determine how these projected climate changes will affect the Tobusch fishhook cactus and its habitat. Warmer winters could extend the growing season and improve reproduction and survival of the Tobusch fishhook cactus, but might also increase survival of parasite larvae. Heavier, less frequent rainfall could reduce establishment of Tobusch fishhook cactus seedlings, but perhaps less so than the bunch grasses with which it competes. Zaya et al. (2014, pp. 37–38) projected that climate changes will be detrimental to 4 populations, due primarily to lower survival and reproduction, and beneficial to 6 others, given increased individual growth rates. Thus, although it is likely that the projected climate changes will affect the survival of the Tobusch fishhook cactus in infinitely complex ways, we do not currently know what the net result of beneficial and detrimental effects will be.

Conservation Efforts

Support for the recovery of Tobusch fishhook cactus has come from a variety of sources. Conservation measures from nine formal consultations under section 7 of the Act supported scientific investigations, the salvage of individuals that would have been destroyed by development, and contributions to the Tobusch Fishhook Cactus Conservation Fund (Fund). The Lady Bird Johnson Wildflower Center manages the Fund through a memorandum of agreement with the Service. The Fund supported three projects that contributed significantly to our knowledge of the Tobusch fishhook cactus. These three Tobusch fishhook cactus projects included a study on the effects of shading by woody shrubs, a conservation genetics study, and population viability analyses. Five grants under section 6 of the Act have supported scientific investigations and extensive inventory and monitoring of the subspecies on state highway rights-of-way, in state parks, in wildlife management areas, and in state natural areas. Four graduate-level investigations focused on the Tobusch fishhook cactus, leading to three Master's theses and a doctoral dissertation, and provided information that is essential to the subspecies' conservation and recovery.

Current Status

By 2009, surveyors documented 3,395 Tobusch fishhook cactus individuals at 105 E.O.s in 8 counties of the Edwards Plateau. This includes 12 sites managed either by the state or conservation organizations where monitored populations ranged from 34 to 1,090 individuals, and totaled 3,139 individuals. Recent surveys found 660 new Tobusch fishhook cactus individuals that probably represent many new E.O.s, bringing the total documented number of individuals (based on the most recent surveys) to over 4,000.

We developed a model of potential habitat based on the soil types and watersheds of documented populations. This model predicts that over 2 million hectares (ha) (5 million acres (ac)) of potential habitat occurs in the eight counties of the cactus' currently known range, as well as in some adjacent counties (mainly Crockett and Sutton Counties). However, we have no records of the Tobusch fishhook cactus occurring in any of these adjacent counties, nor have any surveys for the subspecies been conducted there, to our knowledge. Within these areas of potential habitat, only a small fraction of the total area contains suitable habitat, consisting of discontinuous, open areas on or near exposed limestone strata. Based on 25 surveys widely distributed across the subspecies range, we calculated an average density across the range of the species. That average density was applied to the amount of suitable habitat and used to calculate an estimate of the global population. We estimate that the global population is about 480,000 individuals (Service 2016, Appendix B, available at *http://www.regulations.gov* under Docket No. FWS–R2–ES–2016–0130).

From 1991 through 2013, many individual colonies of the Tobusch fishhook cactus declined and some have died out completely. A principle cause of colony decline is parasitism by the larvae of flightless insects, including an undescribed species of *Gerstaeckeria* (a cactus weevil) and one or more species of *Moneilema* (cactus longhorn beetles). At the same time, total populations in monitored sites (consisting of multiple colonies; meta-populations) have remained steady or have increased, due to the discovery of new colonies or re-colonization of formerly depleted colonies. We believe that the Tobusch fishhook cactus co-evolved with these parasitic organisms, and that they are important drivers of its population dynamics. Large, dense cactus populations become susceptible to larval parasitism and decline until parasite populations cannot be sustained. Meta-populations, consisting of multiple, widely-dispersed colonies, appear to be stable; however, we do not know what the long-term demographic trends are at the meta-population or subspecies level.

The expected heterozygosity (H_e) and observed heterozygosity (H_o) are useful measures of within-population genetic diversity; possible values range from 0 (all members of a population are genetically identical for specified genes) to 1.0 (all members of a population are genetically different). Rayamajhi (2015, pp. 57–61, 64, 97) determined that the mean H_e for nine populations of *Sclerocactus brevihamatus* ssp. *tobuschii* was 0.59, and the mean H_o was 0.37. Through comparison to columnar cactus species that are endemic or have limited geographic distribution, he concluded that, for *S. brevihamatus* ssp. *tobuschii,* H_e was moderately high, and H_o was moderate which suggest there is sufficient genetic diversity to conserve long-term adaptive capability.

Another useful measure is the inbreeding coefficient (F_{IS}), which ranges from -1 (all members of the population are heterozygous for specific genes and there is no evidence of inbreeding) to 1.0 (all members are homozygous and inbred). For *Sclerocactus brevihamatus* ssp. *tobuschii,* the mean F_{IS} was 0.38 (range of 0.15 to 0.63) (Rayamajhi 2015). While most populations had an apparently healthy degree of out-crossing, three populations of *S. brevihamatus* ssp. *tobuschii* were at relatively higher risk of inbreeding effects and may have suffered recent genetic bottlenecks through population declines. The higher level of inbreeding in these populations may be due to small, isolated populations; mating of close relatives within populations; the limited range of seed dispersal; and the limited range and foraging behavior of a primary pollinator, halictid bees.

There were relatively few genetic differences between the nine Tobusch fishhook cactus populations in Rayamajhi's study (2015), regardless of the distance between populations. This evidence supports a hypothesis that gene flow has occurred throughout the subspecies' range, at least until recently; however, recently isolated populations may not yet show genetic differentiation, in part because individuals can live and contribute to the local gene pool at least for several decades.

Assessment of Current and Future Viability

We estimate that about 480,000 individuals of Tobusch fishhook cactus are distributed at low density over an area of more than 2 million ha (5 million ac). Thus, it is likely that the Tobusch fishhook cactus has multiple, resilient populations. Although many individual colonies have declined, meta-population levels of monitored areas appear stable; however, we have very little data on meta-population trends over the subspecies' entire range. Genetic data from wild populations indicate that most populations, and the subspecies as a whole, currently possess sufficient genetic diversity to conserve long-term adaptive capability. Nevertheless, some small, isolated populations have higher levels of inbreeding, and may as a consequence suffer reduced fitness and reproduction. There is relatively little genetic diversity between populations, which is evidence that gene flow has occurred fairly recently between populations. Considering the naturally low densities of Tobusch fishhook cactus populations, gene flow among them may be easily disrupted.

Demographic population viability analyses (PVA) of monitoring plot data predicted stable or increasing trends for two or three populations, moderate declines for two populations, and large to precipitous declines in five populations over the next 50 years (Zaya et al. 2014, pp. 29–42). When expected climate changes were included in these analyses, four populations responded negatively to climate changes, and six populations responded positively (compared to PVA without climate changes). These findings predict an overall decline in subspecies viability over the 50 year time frame. However, we do not know how well these analyses project the demographic trends of meta-populations distributed over larger landscapes.

We project what the viability of the Tobusch fishhook cactus could be, between 2050 and 2074, under three scenarios. We considered how conservation support, the subspecies' geographic range, habitat management, population management, and climate changes may contribute to these scenarios. The first scenario represents improvements over current conditions. The second scenario represents the most likely conditions if current trends continue. The third scenario represents deteriorating conditions. We conclude that under the most likely scenario, the subspecies remains viable but requires continued conservation, management, and protection.

Finding and Proposed Determination

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Tobusch fishhook cactus. The Tobusch fishhook cactus was listed as endangered in 1979, due to: Few known populations, habitat destruction, and altered stream flows (Factor A); illegal collection (Factor B); and very limited geographic range, small population sizes, restricted gene pool, and lack of reproduction (Factor E). We now know there are many more populations over a much wider area; about 4,000 individuals have been documented at more than 105 EOs. These data allow us to estimate that the total population size is about 480,000 individuals distributed at low density over about 2 million ha (5 million ac). Most habitats are relatively secure, given that they are in remote, rocky areas that are unsuitable for growing crops. However, the great majority is on private lands that are becoming increasingly fragmented and may be subject to destruction or modification. Many of the known populations are small and isolated, and the monitored portions of numerous populations have declined. Demographic population viability analyses predict an overall future decline in subspecies' viability. However, we do not know how well these analyses project the demographic trends of meta-populations distributed over larger landscapes. We know that insect parasites are a major cause of mortality, and may naturally reduce populations to low densities. Many populations have sufficient genetic diversity to confer long-term adaptive capability, but some small, isolated populations have higher levels of inbreeding and may be affected by reduced fitness and reproduction. It is likely that projected climate changes will affect the Tobusch fishhook cactus, but we do not currently know whether this will have a net positive or negative effect on its viability.

We have determined that the Tobusch fishhook cactus' current viability is higher than was known at the time of listing. Based on the analysis in the SSA, and summarized above, we believe that the Tobusch fishhook cactus does not meet the definition of endangered under the Act. However, due to continued threats from the demographic and genetic consequences of small population sizes and geographic isolation, insect parasitism, feral hog depredation, and changes in the wildfire cycle and vegetation, as well as unknown long-term effects of land use changes and climate changes, we find that the Tobusch fishhook cactus is likely to become an endangered species within the foreseeable future throughout all of its range. Because we have found that the Tobusch fishhook cactus

(*Sclerocactus brevihamatus* ssp. *tobuschii;* currently listed as *Ancistrocactus tobuschii*) meets the definition of threatened under the Act, we propose to reclassify it from endangered to threatened on the Federal List of Endangered and Threatened Plants (List).

Significant Portion of the Range Analysis

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so throughout all or a significant portion of its range. We published a final policy interpreting the phrase ''significant portion of its range'' (SPR) (79 FR 37578; July 1, 2014). The final policy states that: (1) If a species is found to be endangered or threatened throughout a significant portion of its range, the entire species is listed as endangered or threatened, respectively, and the Act's protections apply to all individuals of the species wherever found; (2) a portion of the range of a species is ''significant'' if the species is not currently endangered or threatened throughout all of its range, but the portion's contribution to the viability of the species is so important that, without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range; (3) the range of a species is considered to be the general geographical area within which that species can be found at the time the Service makes any particular status determination; and (4) if a vertebrate species is endangered or threatened throughout a significant portion of its range, and the population in that significant portion is a valid distinct population segment (DPS), we will list the DPS rather than the entire taxonomic species or subspecies. Because we have determined that the Tobusch fishhook cactus is threatened throughout all of its range, no portion of its range can be ''significant'' for the purposes of the definitions of ''endangered species'' and ''threatened species.''

Conclusion

Using the best available scientific information, we have determined that the Tobusch fishhook cactus is not currently in danger of extinction throughout all or a significant portion of its range, but is likely to become endangered within the foreseeable future throughout all of its range. In accordance with 50 CFR 424.11(c), we therefore propose to reclassify the Tobusch fishhook cactus as threatened on the Federal List of Endangered and Threatened Plants at 50 CFR 17.12(h).

Effects of the Rule

This proposal, if made final, would revise 50 CFR 17.12(h) to reclassify the Tobusch fishhook cactus as threatened on the Federal List of Endangered and Threatened Plants. There is no critical habitat designated for this subspecies; therefore, this proposed rule would not affect 50 CFR 17.96.

Required Determinations

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;
(2) Use the active voice to address readers directly;
(3) Use clear language rather than jargon;
(4) Be divided into short sections and sentences; and
(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

National Environmental Policy Act

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), need not be prepared in connection with regulations pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited in this proposed rule is available at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2016–0130, or upon request from the Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are staff members of the Service's Austin Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. Amend § 17.12(h), the List of Endangered and Threatened Plants, under FLOWERING PLANTS by:
■ a. Removing the entry for ''*Ancistrocactus tobuschii*''; and
■ b. Adding, in alphabetical order, an entry for ''*Sclerocactus brevihamatus* ssp. *tobuschii*'' to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
FLOWERING PLANTS				
* * * * * * *				
Sclerocactus brevihamatus ssp. *tobuschii*	Tobusch fishhook cactus	Wherever found	T	44 FR 64736; 11/7/1979, [**Federal Register** citation of the final rule].
* * * * * * *				

Dated: December 15, 2016.

Stephen Guertin,

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

[FR Doc. 2016–31296 Filed 12–28–16; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 160426363–6363–01]

RIN 0648–BG03

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region; Amendment 26

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

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS proposes to implement management measures described in Amendment 26 to the Fishery Management Plan for the Coastal Migratory Pelagics Fishery of the Gulf of Mexico and Atlantic Region (FMP) as prepared and submitted jointly by the Gulf of Mexico Fishery Management Council (Gulf Council) and South Atlantic Fishery Management Council (South Atlantic Council). Amendment 26 and this proposed rule would adjust the management boundary for the Gulf of Mexico (Gulf) and Atlantic migratory groups of king mackerel; revise acceptable biological catch (ABC), commercial and recreational annual catch limits (ACLs), commercial quotas and recreational annual catch targets (ACTs) for Atlantic migratory group king mackerel; allow limited retention and sale of Atlantic migratory group king mackerel incidentally caught in the shark gillnet fishery; establish a commercial split season for Atlantic migratory group king mackerel in the Atlantic southern zone; establish a commercial trip limit system for Atlantic migratory group king mackerel in the Atlantic southern zone; revise the commercial and recreational ACLs for Gulf migratory group king mackerel; revise commercial zone quotas for Gulf migratory group king mackerel; and modify the recreational bag limit for Gulf migratory group king mackerel. The purpose of Amendment 26 and this proposed rule is to ensure that king mackerel management is based on the best scientific information available, while increasing the social and economic benefits of the fishery.

DATES: Written comments must be received on or before January 30, 2017.

ADDRESSES: You may submit comments on the proposed rule, identified by ''NOAA–NMFS–2016–0120,'' by either of the following methods:

- *Electronic submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal: *http://www.regulations.gov.* Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2016-0120, click the ''Comment Now!''* icon, complete the required fields, and enter or attach your comments.
- *Mail:* Submit written comments to Karla Gore, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701.

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

Electronic copies of Amendment 26 may be obtained from the Southeast Regional Office Web site at *http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_sa/cmp/2016/am%2026/index.html.* Amendment 26 includes an environmental assessment, a Regulatory Flexibility Act (RFA) analysis, and a regulatory impact review.

FOR FURTHER INFORMATION CONTACT: Karla Gore, Southeast Regional Office, NMFS, telephone: 727–551–5753, or email: *karla.gore@noaa.gov.*

SUPPLEMENTARY INFORMATION: The coastal migratory pelagic fishery of the Gulf and Atlantic Regions is managed under the FMP and includes the management of the Gulf and Atlantic migratory groups of king mackerel, Spanish mackerel and cobia. The FMP was prepared jointly by the Gulf and South Atlantic Councils (Councils) and is implemented through regulations at 50 CFR part 622 under authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Background

The Magnuson-Stevens Act requires NMFS and regional fishery management councils to prevent overfishing and achieve, on a continuing basis, OY from federally managed fish stocks.

In September of 2014, the Southeast Data, Assessment, and Review (SEDAR) 38 stock assessment was completed for both the Gulf and Atlantic migratory groups of king mackerel (SEDAR 38). SEDAR 38 determined that both the Gulf and Atlantic migratory groups of king mackerel are not overfished and are not undergoing overfishing. The Gulf Council's and South Atlantic Council's respective Scientific and Statistical Committees (SSCs) reviewed the assessment and concluded that SEDAR 38 should form the basis for revisions to the overfishing limit (OFL), acceptable biological catch (ABC), and ACLs for the two migratory groups of king mackerel. SEDAR 38 also provided genetic information on king mackerel, which indicated that the Councils'