against adverse operating conditions, such as cell imbalance, back charging, overcharging and overheating.

(3) Not emit explosive or toxic gases, either in normal operation or as a result of its failure that may accumulate in hazardous quantities within the airplane.

(4) Meet the requirements of § 25.863.

(5) Not damage surrounding structure or adjacent systems, equipment, or electrical wiring from corrosive fluids or gases that may escape in such a way as to cause a major or more-severe failure condition.

(6) Have provisions to prevent any hazardous effect on airplane structure or systems caused by the maximum amount of heat it can generate due to any failure of it or its individual cells.

(7) Have a failure sensing and warning system to alert the flight crew if its failure affects safe operation of the airplane.

(8) If its function is required for safe operation of the airplane, have a monitoring and warning feature that alerts the flight crew when its charge state falls below acceptable levels.

(9) Have a means to automatically disconnect from its charging source in the event of an over-temperature condition, cell failure or battery failure.

**Note:** The battery system consists of the batteries, battery charger, and any protective, monitoring, and alerting circuitry or hardware inside or outside of the battery. It also includes vents (where necessary) and packaging. For the purpose of these special conditions, a battery and battery system are referred to as a battery.

Issued in Kansas City, Missouri, on March 28, 2023.

**Patrick R. Mullen,**

*Manager, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service.*

[FR Doc. 2023–06729 Filed 3–31–23; 8:45 am]

**BILLING CODE 4910–13–P**

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 73

**[DA 23–262; MB Docket No. 22–373; RM–11933; FR ID 134378]**

### Radio Broadcasting Services; South Padre Island, Texas

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This document amends the FM Table of Allotments, of the Commission's rules, by adding Channel 288A at South Padre Island, Texas. A staff engineering analysis indicates that Channel 288A can be allotted to South Padre Island, Texas, consistent with the minimum distance separation requirements of the Commission's rules (Rules), with a site restriction of 11 km (7 miles) south of the community. The reference coordinates are 26–01–30 NL and 97–09–15 WL.

**DATES:** Effective May 12, 2023.

**FOR FURTHER INFORMATION CONTACT:** Rolanda F. Smith, Media Bureau, (202) 418–2700.

**SUPPLEMENTARY INFORMATION:** This is a synopsis of the Federal Communications Commission's (Commission) Report and Order, adopted March 28, 2023 and released March 28, 2023. The full text of this Commission decision is available online at *https://apps.fcc.gov/ecfs/.* This document does not contain information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13.

The Report and Order in this proceeding substituted Channel 288A for vacant Channel 237A at South Padre Island, Texas to accommodate the hybrid modification application for Station KRIX(FM), Port Isabel, Texas resulting in the public interest because it would enhanced service for Station KRIX(FM), Port Isabel, Texas. Channel 237A at South Padre Island, Texas is not currently listed in the FM Table of Allotments but is considered a vacant allotment resulting from the license cancellation of FM station DKZSP, Fac. ID No. 56473, South Padre Island, Texas. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* U.S.C. 801(a)(1)(A).

**List of Subjects in 47 CFR Part 73**

Radio, Radio broadcasting.

Federal Communications Commission.

**Nazifa Sawez,**

*Assistant Chief, Audio Division, Media Bureau.*

**Final Rules**

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 73 as follows:

## PART 73—RADIO BROADCAST SERVICES

■ 1. The authority citation for part 73 continues to read as follows:

**Authority:** 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.

■ 2. In § 73.202, amend table 1 to paragraph (b), under Texas, by adding in alphabetical order an entry for ''South Padre Island'' to read as follows:

**§ 73.202 Table of Allotments.**

* * * * *

(b) * * *

TABLE 1 TO PARAGRAPH (b)

| U.S. States | Channel No. |
|---|---|
| **Texas** | |
| * * * * * | |
| South Padre Island ..... | 288A |
| * * * * * | |

* * * * *

[FR Doc. 2023–06780 Filed 3–31–23; 8:45 am]

**BILLING CODE 6712–01–P**

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

### 50 CFR Part 17

**[Docket No. FWS–HQ–ES–2022–0134; FF09E21000 FXES1111090FEDR 234]**

**RIN 1018–BG93**

### Endangered and Threatened Wildlife and Plants; Significant Portion of Its Range Analysis for the Northern Distinct Population Segment of the Southern Subspecies of Scarlet Macaw

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

**ACTION:** Final determination; notification of additional analysis.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), determine threatened status under the Endangered Species Act of 1973 (Act), as amended, for the northern distinct population segment (DPS), of the southern subspecies of scarlet macaw (*Ara macao macao*). Scarlet macaws are brilliantly colored parrots native to Mexico and Central and South America. This action affirms the 2019 listing of the scarlet macaw under the Act.

**DATES:** This determination is effective March 30, 2023.

**ADDRESSES:** Supporting materials for this action, including comments we received on our November 2, 2022, **Federal Register** document (87 FR 66093) are available in Docket No. FWS–HQ–ES–2022–0134 on *https://www.regulations.gov.*

**FOR FURTHER INFORMATION CONTACT:** Rachel London, Chief, Branch of Delisting and Foreign Species, Ecological Services Program, U.S. Fish and Wildlife Service, MS: ES, 5275 Leesburg Pike, Falls Church, VA 22041–3803 (telephone 703–358–2171). Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:**

## Background

Scarlet macaws (*Ara macao*) have the broadest range of all the macaw species (Ridgely 1981, p. 250). The range of the species extends from Mexico, south through Central America, and into the Amazon of South America to central Bolivia and Brazil. In Mexico and Central America, the scarlet macaw's historical range and population have been reduced and fragmented over the last several decades primarily as a result of habitat destruction and collection of wild birds for the pet trade (Vaughan et al. 2003, pp. 2–3; Collar 1997, p. 421; Wiedenfeld 1994, p. 101; Snyder et al. 2000, p. 150). The majority (83 percent) of the species' range and population lies within the Amazon Biome of South America (BLI 2011a, unpaginated; BLI 2011b, unpaginated; BLI 2011c, unpaginated). In South America, the scarlet macaw occurs over much of its historical range within the Amazon and occurs in small areas outside the Amazon, such as west of the Andes Mountains in Colombia.

The scarlet macaw is classified as two subspecies, the northern subspecies (*A. macao cyanoptera*) and southern subspecies (*A. macao macao*) (Schmidt 2013, pp. 52–53; Schmidt et al. 2019, p. 735). The northern subspecies of scarlet macaw ranges from Mexico, south through Central America in Guatemala, Nicaragua, Honduras, and down the Atlantic slope of Costa Rica, as well as on Isla Coiba in Panama. The southern subspecies of scarlet macaw occurs along the Pacific slope of Costa Rica and southward through mainland Panama and into the remainder of the species' range in South America. The subspecies are separated by the central cordilleras in Costa Rica (Schmidt 2013, pp. 52–53; Schmidt et al. 2019, p. 744).

On February 26, 2019, we published in the **Federal Register** a final rule under the Act at 84 FR 6278 (hereafter, ''the 2019 rule''). The 2019 rule revised the List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations (at 50 CFR 17.11(h)) to add the northern subspecies of scarlet macaw (*A. m. cyanoptera*) as endangered, the northern DPS of the southern subspecies (*A. m. macao*) as threatened (hereafter, ''the northern DPS''), and the southern DPS of the southern subspecies (*A. m. macao*) and subspecies crosses (*A. m. cyanoptera* and *A. m. macao*) as threatened due to similarity of appearance. The 2019 rule also added protective regulations to 50 CFR 17.41 pursuant to section 4(d) of the Act for the northern and southern DPSs of the southern subspecies and for subspecies crosses. For a more thorough discussion of the taxonomy, life history, distribution, and the determination of listing status for scarlet macaws under the Act, please refer to the Species Information section in the 2019 rule.

## This Action

In the 2019 rule, we found the northern DPS of the southern subspecies of scarlet macaw was not currently in danger of extinction but likely to become in danger of extinction within the foreseeable future throughout all of its range. At that time, we followed our Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (hereafter, Final Policy, 79 FR 37578; July 1, 2014), which provided that if the Services determined that if a species is threatened throughout all of its range, the Services would not analyze whether the species is endangered in a significant portion of its range. Therefore, we did not conduct a ''significant portion of its range'' analysis for the scarlet macaw in the northern DPS and determine whether it met the definition of an endangered species as a result.

However, in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. Jan. 28, 2020) (*Everson*), the Court vacated that provision of the Final Policy. This decision came after the threatened determination for scarlet macaw published in the 2019 rule. Therefore, we have since reconsidered our ''significant portion of its range'' analysis for the scarlet macaw in the northern DPS based on the plain language of the Act and the implications of *Everson.* As part of this process, we published a notification of additional analysis in the **Federal Register** on November 2, 2022 (87 FR 66093). We conducted our ''significant portion of its range'' analysis in line with what we submitted to and was approved by the Court in *Friends of Animals* v. *Williams* (No. 1:21–cv–02081–RC, Doc. 22).

## Summary of Comments

In the November 2, 2022, **Federal Register** document, we requested any interested party to submit comments that pertain to how we should reassess the ''significant portion of its range'' for the northern DPS in light of the plain language of the Act and the Court's order in *Everson.* We reviewed all comments received for substantive issues. We address four substantive comments by the one commenter below.

*Comment (1):* One commenter stated that the Service should incorporate Schmidt et al. 2019 in the ''significant portion of its range'' analysis. Schmidt et al. 2019 describes the genetic divergences between subspecies of the scarlet macaw (*Ara macao*). The commenter believed that this study warranted the Service's consideration in its ''significant portion of its range'' analysis.

*Response:* We note that this 2019 study was published after the publication of the 2019 rule and would be information considered after our final rule became effective. We also note that we requested public comments only on how recent case law regarding the Service's ''significant portion of its range'' analysis based on the plain language of the Act and the implications of *Everson* could affect the 2019 rule. Any public comment that is beyond the scope of our request is not relevant. Nevertheless, in the 2019 rule, we incorporated information in Schmidt 2013, which includes the same information as Schmidt et al. 2019 in terms of genetic divergences between the subspecies of scarlet macaw, *Ara cyanoptera* and *A. macao.* Schmidt et al. 2019 published their research in the International Journal of Avian Science, Ibis (2020), 162, 735–748. Schmidt 2013 is research submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate School of Arts and Sciences at Columbia University (2013), 188pp. The information in both Schmidt et al. 2019 and Schmidt 2013 conclude the northern subspecies, *A. m. cyanoptera,* ranges from Mexico to northern Costa Rica and the southern subspecies, *A. m. macao,* ranges from lower Central America to South America (Schmidt *et al.* 2019, p. 742). We incorporated the genetic analysis of the two subspecies in the 2019 rule. Additionally, we incorporated the analysis of the unique trans-Andean populations of scarlet macaws, which are the same populations within the northern DPS that include the populations on the

Pacific slope of Costa Rica, mainland Panama, and northwest Colombia. Therefore, we included the best available information regarding the genetic status of the two subspecies of scarlet macaw, and already considered the genetic information in the 2019 study, when we issued the 2019 rule.

*Comment (2):* One commenter stated that if the Service does conclude that the northern DPS is endangered in a significant portion of its range, then it must list the entire northern DPS as endangered. The commenter stated that there is no basis to list the northern DPS found in certain portions of its range as endangered but to list the northern DPS found in other portions of its range as threatened. As support, the commenter cited *Alsea Valley Alliance* v. *Evans,* 161 F. Supp. 2d 1154, 1162 (D. Or. 2001) (''Listing distinctions below that of a subspecies or a DPS of a species are not allowed under the ESA.'').

*Response:* We agree. In addition to *Alsea Valley Alliance,* our listing determination and analysis for chimpanzees in 2015 provides additional information and a thorough discussion of this issue (80 FR 34499; June 16, 2015). However, as discussed further below, the Service does not conclude that the northern DPS is endangered in a significant portion of its range.

*Comment (3):* One commenter stated that just because the populations of the northern DPS may be stable in Costa Rica, does not mean that the northern DPS is not endangered in other portions of its range or that those other portions of its range are not significant, as an individual population must be considered independently from the whole northern DPS. Citing to the Service's findings in the 2019 rule, the commenter asserts the northern DPS populations in both Panama and northwest Columbia are endangered and that both populations are ''significant—biologically, genetically, and in comparison to the overall range of the northern DPS.'' Thus, the commenter concludes that we should find that the northern DPS is endangered in a significant portion of its range.

*Response:* We agree with the commenter that in addition to the population in Costa Rica, the population in Panama and the population in northwest Columbia are the appropriate populations to consider in our ''significant portion of its range'' analysis for whether they are endangered and significant. As discussed further below we have considered whether either of these populations is significant biologically, genetically, and in comparison to the overall range of the northern DPS. To determine whether a portion is ''significant,'' we considered how the portion contributes to the viability of the northern DPS. We considered the northern DPS' population sizes, geographic distribution, and threats to the northern DPS, including the northern DPS' response to the threats and cumulative effects. We also considered whether the effects of the threats on the northern DPS are greater in any biologically meaningful portion of the northern DPS' range than in other portions such that the northern DPS is in danger of extinction now in that portion. We explain our rationale that the northern DPS is not endangered in a significant portion of its range in more detail below.

*Comment (4):* A commenter asserted that the Service never determined that the northern DPS migrates between Costa Rica and either Panama or northwest Colombia.

*Response:* Scarlet macaws have been shown to make small and larger range movements to areas with greater food and/or nesting resources. Parrots and macaws can travel tens to hundreds of kilometers (km) and are able to exploit resources in a variety of habitats within the larger landscape (Lee 2010, pp. 7–8, citing several authors; Brightsmith 2006, unpaginated; Collar 1997, p. 241). Radio telemetry studies were conducted on scarlet macaws in Guatemala, Belize, and Peru, and preliminary results showed variation in the distances over which scarlet macaws range but suggest home ranges of individuals cover hundreds of square kilometers (Boyd and Brightsmith 2011, in litt.; Boyd 2011, pers. comm.). Of nine scarlet macaws tracked over periods of 3 to 9 months, the maximum extent of an individual's range (farthest distance between two points at which individuals were located with radio telemetry) varied between 25 km to 165 km, with most moving between 25 km and 50 km (Boyd and Brightsmith 2011, in litt.; Boyd 2011, pers. comm.). Additionally, scarlet macaws are moving within Costa Rica between the Área de Conservación Pacífico Central (ACOPAC) and the Southern Pacific Costa Rica (Área de Conservación Osa (ACOSA)) populations and the scarlet macaw is basically continuous between the two populations in Costa Rica (see *Scarlet Macaw in the Northern DPS,* below). However, we are not aware of information on the movements or migration within the northern DPS of scarlet macaws between Costa Rica and Panama, Panama and Colombia, or Costa Rica and Colombia.

**Scarlet Macaw in the Northern DPS**

The scarlet macaw inhabits various habitat types throughout its range, including tropical humid evergreen forest, deciduous and humid forest, intact and partially cleared lowland rainforest, mixed pine and broad-leaved woodlands, open areas and edges with scattered stands of tall trees, gallery forest, mangroves, and savannas, often near rivers (Juniper and Parr 1998, p. 425; Wiedenfeld 1994, p. 101; Forshaw 1989, p. 407; Meyer de Schauensee and Phelps, Jr. 1978, p. 99). Scarlet macaws prefer lowland, humid habitats that are dependent on the availability of fresh water (Schmidt et al. 2019, p. 744; Schmidt 2013, p. 175). The species generally occurs from sea level to about 500 meters (m) (1,640 feet (ft)) elevation but has been reported ranging up to 1,500 m (4,921 ft) in Central America (Juniper and Parr 1998, p. 425; Vaughan 1983, in Vaughan et al. 2006, p. 919).

Generally, the species is geographically constrained between central highlands and either the Pacific or Atlantic Coasts. In the northern DPS, the range of the scarlet macaw occurs south of the central cordilleras of Costa Rica, along the Pacific slope, and south through Panama to northwest of the Andes Mountains in Colombia. Scarlet macaws are confined to the tropical forests in lower Central America by the central highlands and the Pacific Ocean. Similarly, in Colombia scarlet macaws inhabit moist tropical ecosystems along the mid- to lower-Magdalena River Valley, bounded by the Central and Oriental Cordilleras of the Northern Andes (Hilty and Brown 1986, p. 200). The geographical extent of these lowland habitats covers an area markedly smaller than either upper Central America or the Amazon Basin, with fewer major sources of fresh water (Schmidt et al. 2019, p. 745).

The total population of scarlet macaws in the northern DPS is approximately 1,000 to 2,000 birds (see table 1, below). Populations include: (1) Two populations on the Pacific slope in Costa Rica—the ACOPAC and the ACOSA populations, (2) very small populations in the Chiriquí province and at the southern end of the Azuero Peninsula of Veraguas, near Cerro Hoya National Park in Panama, and (3) population(s) in northwest Colombia west of the Andes Mountains, although we have minimal information on the population size or distribution in Colombia west of the Andes Mountains.

The Costa Rica populations account for almost all the total known population of the northern DPS of the southern subspecies of scarlet macaw

(see table 1). The ACOPAC population is estimated to contain approximately 450 birds (Arias et al. 2008, in McReynolds 2011, in litt.). The estimates for the ACOSA population are between 800 to 1,200 birds (Dear et al. 2010, p. 17) but possibly up to 2,000 birds (Guzman 2008, p. 17). However, combining plausible subpopulation estimates, the total population of scarlet macaws on the Pacific slope of Costa Rica that includes both the ACOPAC and ACOSA populations was estimated at approximately 1,800 birds (McReynolds 2011, in litt., unpaginated).

By all indications the scarlet macaw population in ACOPAC has been expanding from the traditional stronghold in and around Carara National Park (Brightsmith 2016, in litt., p. 11). Since 2013, scarlet macaws in groups of up to 30, along with pairs during the height of the breeding season, were regularly observed south of Carara, up and down the coast and up to 70 km (43 mi) south of the point where the census in Carara is usually conducted. In addition, scarlet macaws from the areas immediately to the northwest of Carara have been reported. Scarlet macaws occur in Palo Verde National Park, in the surrounding areas, and in patchwork forested habitats in between. The species may frequently pass through these areas and is not present at high densities. Group sizes are small, and it is unclear if the birds are escaped or released birds from a nearby lodge or natural dispersers (Brightsmith 2016, in litt., p. 14). Regardless, because there have been scattered sightings of scarlet macaws from Palo Verde National Park south to Carara National Park and throughout western Guanacaste, the birds near Palo Verde are no longer considered completely isolated (Brightsmith 2016, in litt., p. 14). However, evidence to support successful establishment of populations north of Carara is weak (Brightsmith 2016, in litt., p. 13).

The best available information suggests that the ACOSA population is simultaneously expanding up the coast. Birds were reported to occur in multiple areas between the ACOPAC and ACOSA populations, in Manuel Antonio National Park and Uvita, as well as Dominical that is the approximate midpoint between the ACOPAC and ACOSA populations. Thus, the scarlet macaw is basically continuous from the Osa Peninsula (ACOSA population) to Carara National Park (ACOPAC population) (Brightsmith 2016, in litt., p. 13). Additionally, 85 percent of residents interviewed in 2005 believed scarlet macaws were more abundant than 5 years prior in ACOSA, suggesting this population may be increasing (Dear et al. 2010, p. 10). Sightings of scarlet macaws between the ACOPAC and ACOSA populations may represent individuals from either of the populations, and it is difficult to distinguish between expansion of the ACOPAC population to the south and the expansion of the ACOSA population to the north (Brightsmith 2016, in litt., p. 11).

In Panama, the scarlet macaw was once described as almost extinct on the mainland but abundant and occurring in substantial numbers on Isla Coiba, a one-time penal colony where human settlement and most hunting was prohibited (Ridgely 1981, p. 253). The current population of scarlet macaws in Panama is estimated at less than 200 birds, with most of the population occurring on Isla Coiba and less than 25 birds estimated to occur on the mainland (Keller and Schmitt 2008, in Brightsmith 2012, in litt. and McReynolds 2011, in litt., unpaginated). Scarlet macaws on Isla Coiba are considered the northern subspecies, *A. m. cyanoptera* (Schmidt 2013, pp. 69–73; Schmidt et al. 2019, p. 740), and are not part of the northern DPS of the southern subspecies of scarlet macaw. Therefore, the very small number of scarlet macaws existing on mainland Panama are the only scarlet macaws in Panama that are considered the northern DPS of the southern subspecies and part of this analysis.

Sporadic sightings of scarlet macaws have occurred over the last few decades in the western border region of Panama and Costa Rica, in the area of the upper Río Corotu (or Río Bartolo Arriba) near Puerto Armuelles, and near Querevalo, in the Chiriquí province (Burica Press 2007, unpaginated; McReynolds 2011, in litt., unpaginated; Brightsmith in litt. 2016, p. 17; Sullivan et al. 2009, unpaginated). Scarlet macaws have been successfully reintroduced in Tiskita, Costa Rica, which is in the western border region of Costa Rica and Panama (Tiskita Jungle Lodge 2018, unpaginated). Therefore, it is uncertain if the birds that occur in the western border region of Panama are wild or the reintroduced birds dispersing south from Tiskita, Costa Rica (Brightsmith 2016, in litt., p. 17). However, with the successful reintroduction of scarlet macaws at Tiskita, which has resulted in a viable population, scarlet macaws are established at this location (Tiskita Jungle Lodge 2018, unpaginated). Additionally, a small, but unknown number of scarlet macaws occur on the southern end of Panama in the Azuero Peninsula of Veraguas, near Cerro Hoya National Park, Tonosi Forest Reserve, and farther to the east (Brightsmith 2016, in litt., p. 17; Sullivan et al. 2009, unpaginated; Rodriguez and Hinojosa 2010, in McReynolds 2011, in litt., unpaginated).

In northwest Colombia, scarlet macaws are believed to occur in the Magdalena and Cauca River valleys in tropical ecosystems bounded by the northern Andes Mountains (Hilty and Brown 1986, p. 200; Forshaw 1989, p. 407). They have been reported as probably close to extinction in the Magdalena Valley, Cauca Valley, and north (Donegan 2013, in litt.; Ellery 2013, in litt.; McMullen 2010, p. 60). However, they may occur in very low numbers in the more remote and inaccessible parts of the region, but its status is not clear. Therefore, we are aware of little information on the population or distribution of scarlet macaws within northwest Colombia.

TABLE 1—ESTIMATED POPULATION SIZE OF SCARLET MACAW IN THE NORTHERN DPS

[Scarlet Macaw (*Ara macao macao*) Northern DPS]

| Population range country | Population name | Population estimates | |
|---|---|---|---|
| Costa Rica | Central Pacific Conservation Area—Área de Conservación Pacífico Central (ACOPAC). | ~450 | Plausible estimate of total population in Costa Rica ~1,800. |
| Costa Rica | Osa Conservation Area—Área de Conservación Osa (ACOSA) | ~800–1,200, potentially up to 2,000. | |

TABLE 1—ESTIMATED POPULATION SIZE OF SCARLET MACAW IN THE NORTHERN DPS—Continued

[Scarlet Macaw (*Ara macao macao*) Northern DPS]

| Population range country | Population name | Population estimates |
|---|---|---|
| Panama (mainland) ..... | Cerro Hoya National Park ..... | <25 |
| Colombia ..... | Northwest Colombia ..... | unknown |
| Total Population Size of *A. m. macao;* Northern DPS ..... | | 1,000–2,000 |

**Primary Factors Affecting the Scarlet Macaw in the Northern DPS**

The two primary threats to scarlet macaws are the loss of forest habitat and collection of wild birds for the pet trade (Iñigo-Elias in litt. 1997, in Snyder et al. 2000, p. 150; Guedes 2004, p. 280). The primary cause of forest loss is conversion to agriculture for crops and pasture, although other human activities such as construction of infrastructure, selective logging, fires, oil and gas extraction, and mining also contribute to the loss of forest cover within the range of the species (Blaser et al. 2011, Latin America and the Caribbean, pp. 262–402; Boucher et al. 2011, entire; Clark and Aide 2011, entire; FAO 2011a, pp. 17–18; May et al. 2011, pp. 7–13; Pacheco 2011, entire; Government of Costa Rica 2010, pp. 38–39; Belize Ministry of Natural Resources and Environment 2010, pp. 40–45; Armenteras and Morales 2009, pp. 133–145, 176–191; Kaimowitz 2008, p. 487; Mosandl et al. 2008, pp. 38–40; Nepstad et al. 2008, entire; Foley et al. 2007, pp. 26–27; Fearnside 2005, pp. 681–683).

Historically, large areas of forest have been removed throughout the species' range, particularly in Mexico and Central America, and any large tracts of forest that remain are fragmented and are mostly isolated because they are cut off from each other (Bray 2010, p. 93). Deforestation continues throughout much of the scarlet macaw's range, including in the northern DPS, and is a threat to the species because it eliminates the species' habitat by removing trees that support the species' essential needs for nesting, roosting, and food. Scarlet macaws require a large range and a variety of food resources. Thus, large-scale land conversion presents a generalized threat to scarlet macaw nest sites, foraging areas, and migration corridors (Schmidt 2013, p. 173). Scarlet macaws are dependent on larger, older trees that have large nesting cavities. Additionally, they primarily forage in the forest canopy, and are relatively general in their feeding habits. Abundance may fluctuate because they may move to areas with greater resource availability, influencing local and seasonal abundance (Lee 2010, p. 7; Cowen 2009, pp. 5, 23, citing several sources; Tobias and Brightsmith 2007, p. 132; Brightsmith 2006, unpaginated; Renton 2002, p. 17). Thus, removal of older and larger trees decreases suitable nesting sites and food resources, increases competition, and causes the loss of current generations through an increase in infanticide and egg destruction (Lee 2010, pp. 2, 12). The species will use partially cleared and cultivated landscapes if they provide sufficient dietary requirements and maintain enough large trees. However, scarlet macaws have a better chance of surviving in large tracts of primary forest where suitable nesting cavities are more common than in open and small patches of non-primary forest (Inigo-Elias 1996, p. 91). Therefore, as the size of the suitable habitat is reduced, it is less likely to provide the essential resources for the species (Ibarra-Macias 2009, p. 6; Lees and Peres 2006, pp. 203–205).

Competition for suitable nest cavities negatively affects reproductive success of scarlet macaws, including in the northern DPS. Competition limits available nesting sites and thus the number of pairs that can breed, or competition may cause nest mortality stemming from agonistic interactions. Intraspecific competition between different pairs of scarlet macaws, and competition with pairs of other macaw species that are larger and more competitive, is intense in some areas (Renton and Brightsmith 2009, p. 5; Inigo-Elias 1996, p. 96; Nycander 1995, p. 428). Additionally, Africanized honeybees (*Apis mellifera scutellata)* are also reported to be a serious competitor with scarlet macaws for nest cavities (Garcia et al. 2008, p. 52; Vaughan et al. 2003, p. 13; Inigo-Elias 1996, p. 61).

Collecting wild birds for the pet trade has been occurring for centuries (Cantu-Guzman et al. 2007, p. 9; Guedes 2004, p. 279; Snyder et al. 2000, pp. 98–99). Removing birds from the wild is driven by demand for the pet trade and related to rural poverty because capture for sale in local markets can provide a significant source of supplemental income in rural areas (Huson 2010, p. 58; González 2003, p. 438). Low salaries and high unemployment in the region drive people to search for extra sources of income that may include collecting wildlife for the pet trade (TRAFFIC NA 2009, pp. 23–24).

Collection of scarlet macaws decreases the population, inhibits future breeding by removing reproductive age adults, causes mortality of eggs or chicks, and causes damage to and loss of nesting sites (Cantu-Guzman et al. 2007, p. 14). Scarlet macaws are long-lived species with a low reproductive rate, low survival of chicks and fledglings, late age to first reproduction, and large proportions of the population as nonbreeding adults. Therefore, the species is particularly vulnerable to overexploitation, especially when individuals are removed from the wild year after year (Munn 1992, p. 57; Wright et al. 2001, p. 712). Collection and deforestation often work in tandem because activities that clear forests increase access to previously inaccessible areas, which in turn increases the vulnerability of species to overexploitation by humans (Peres 2001, entire; Putz et al. 2000, pp. 16, 23).

The scarlet macaw is a popular pet species within its range countries, and most birds collected for the pet trade are sold as pets and remain within range countries (Snyder et al. 2000, p. 150; Wiedenfeld 1994, p. 102). Because of high mortality rates associated with capture and transport of wildlife, the number of birds sold or exported for the pet trade represents only a portion of those removed from the wild. Cumulative mortality rates before parrots reach customers have been estimated to be as high as 77 percent; for nestlings, approximately 80 percent died before reaching a pet store (Inigo and Ramos 1991 and Enkerlin 2000, in Cantu-Guzman et al. 2007, p. 60). Pet collection is a threat for the scarlet macaw in the northern DPS.

On June 6, 1981, the scarlet macaw was included in Appendix II of the Convention on International Trade in

Endangered Species of Wild Fauna and Flora (CITES). On August 1, 1985, the scarlet macaw was included in Appendix I of CITES because of the high level of trade. Species included in Appendix I are considered threatened with extinction, and international trade is permitted only under exceptional circumstances, which generally precludes commercial trade. The United States and Europe historically were the main markets for wild birds in international trade (FAO 2011b, p. 3). Trade was particularly high in the 1980s (Rosales et al. 2007, pp. 85, 94; Best et al. 1995, p. 234). However, in the years following the enactment of the Wild Bird Conservation Act in 1992 (WBCA; 16 U.S.C. 4901 *et seq.*), there was a substantial reduction of wild-caught parrots imported to the United States from Mesoamerica and South America as well as the rest of the world (Pain et al. 2006, p. 327). The European Union, which was the largest market for wild birds following enactment of the WBCA, banned the import of wild birds in 2006 due to disease concerns (FAO 2011b, p. 21), thus eliminating another major market and further reducing international trade of wild parrots and macaws.

The scarlet macaw is protected by domestic laws within all countries and the countries have a system of protected areas or national parks that aim to conserve biodiversity. Enforcement of wildlife laws is generally lacking because the agencies responsible often do not have the financial resources, personnel, or both to adequately enforce their laws, particularly in remote areas (TRAFFIC NA 2009, p. 20; Valdez et al. 2006, p. 276; Mauri 2002, entire).

Historically, the scarlet macaw existed in much higher numbers. However, the species currently occurs in relatively small and fragmented populations throughout most of its range. Small, isolated populations place the species at greater risk of local extirpation or extinction due to a variety of factors, including loss of genetic variability, demographic and environmental stochasticity, and natural catastrophes (Lande 1995, entire; Lehmkuhl and Ruggiero 1991, p. 37; Gilpin and Soulé 1986, pp. 25–33; Soulé and Simberloff 1986, pp. 28–32; Shaffer 1981, p. 131; Franklin 1980, entire). The species maintains some genetic diversity throughout its range and between the two subspecies. With the ongoing loss of habitat throughout the range, the loss of genetic variability could diminish their capacity to adapt to changes in the environment (Blomqvist et al. 2010, entire; Reed and Frankham 2003, pp. 233–234; Nunney and Campbell 1993, pp. 236–237; Soulé and Simberloff 1986, pp. 28–29; Franklin 1980, pp. 140–144). Other natural events that put small populations at risk include variation in birth and death rates, fluctuations in gender ratio, and environmental disturbances such as wildfire and climatic shifts (Blomqvist et al. 2010, entire; Gilpin and Soulé 1986, p. 27; Shaffer 1981, p. 131). Negative impacts associated with small population sizes of scarlet macaws may be magnified because of interactions with habitat loss and collection. Cumulatively, the small population sizes occurring in narrow lowland forested areas in fragmented habitat, combined with ongoing collection and a long-lived species' low reproduction rate, increases the species' vulnerability. As discussed later below, some populations of the scarlet macaw in the northern DPS are relatively small and fragmented.

The scarlet macaw in the northern DPS occurs from northwestern Costa Rica, south through mainland Panama, and west of the Andes Mountains in Colombia. Deforestation, collection, lack of effective enforcement of existing laws, and small population size all cumulatively affect scarlet macaws in the northern DPS. In the 2019 rule, we found the northern DPS of the southern subspecies of scarlet macaw was not currently in danger of extinction but likely to become in danger of extinction within the foreseeable future throughout all of its range. We now consider our ''significant portion of its range'' analysis for the scarlet macaw in the northern DPS based on the plain language of the Act and the Court's order in *Everson.*

*Status Throughout a Significant Portion of Its Range*

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. Following the court's holding in *Everson,* and having determined that the northern DPS of the southern subspecies of scarlet macaw is not in danger of extinction (endangered species) throughout all of its range, we evaluate whether the scarlet macaw in the northern DPS is in danger of extinction in a significant portion of its range—that is, whether there is any portion of the northern DPS' range for which both (1) the portion is significant; and (2) the northern DPS is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first for these potentially significant portions of the range. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question. In undertaking this analysis for the northern DPS of scarlet macaw, we choose to address the status question first—we consider information pertaining to the population sizes and geographic distribution of the portions, the threats that the northern DPS faces, and the northern DPS' response to those threats to identify portions of the range where the northern DPS may be endangered.

In examining the status question, we note that the statutory difference between an endangered species and a threatened species is the timeframe in which the species (subspecies or DPS) becomes in danger of extinction; an endangered species is in danger of extinction now while a threatened species is not in danger of extinction now but is likely to become so in the foreseeable future. Thus, we reviewed the best scientific and commercial data available regarding the time horizon for the threats that are driving the scarlet macaw in the northern DPS to warrant listing as a threatened species throughout all of its range. We then considered whether these threats or their effects are occurring in any portion of the northern DPS' range such that the northern DPS is in danger of extinction now in that portion of its range. We examined the following threats: habitat loss and fragmentation, collection for the pet trade, small population size, and climate change, including synergistic and cumulative effects.

We evaluated the northern DPS of the southern subspecies of scarlet macaw to determine if it is in danger of extinction now in any portion of its range. The range can theoretically be divided into portions in a number of ways. For the scarlet macaws in the northern DPS, we considered the northern DPS' population sizes, geographic distribution, and threats to the northern DPS, including the northern DPS' response to the threats and cumulative effects. We considered whether the effects of the threats on the northern DPS are greater in any biologically meaningful portion of the northern DPS' range than in other portions such that the northern DPS is in danger of extinction now in that portion. We focused our analysis on portions of the northern DPS' range that may meet the definition of an endangered species. We identified three portions of the northern DPS for these analyses: (1) the Pacific slope of Costa Rica, (2) mainland

Panama, and (3) Colombia west of the Andes Mountains. Scarlet macaws can engage in large-scale movements to exploit resources within the larger landscape. They also undergo smaller scale movements between nocturnal roost sites and daily foraging areas (Marineros and Vaughan 1995, pp. 448–450; Forshaw 1989, p. 407). Movements are often dictated by the spatial and temporal abundance of resources. The northern DPS includes populations of scarlet macaw in each country that are separated from each other with no known connectivity between them. Therefore, even if scarlet macaws can engage in larger scale movements within suitable habitat, the portions are based on the known population distributions of the northern DPS within each country and not strictly based on the geographic border of each country.

**Analysis of the Costa Rica Portion**

The scarlet macaw in the northern DPS has been reduced from much of its historical range in Costa Rica due to the primary threats of habitat loss and collection. The northern DPS of scarlet macaw in Costa Rica occurs in lowlands along the Pacific slope flanked by the central highlands and the Pacific Ocean. The Costa Rica population in the northern DPS, including both the ACOPAC and ACOSA populations, is the largest population and accounts for most of the total population of scarlet macaws in the northern DPS.

Costa Rica is both losing and gaining forest cover throughout the country (Hansen et al. 2013, entire; Brightsmith 2016, in litt. p. 1). Even though Costa Rica was the only country in Central America to experience a positive change in forest cover over a recent 25-year period (1990–2015; FAO 2015, p. 10), some level of deforestation still occurs in parts of the country due to expansion of agriculture and livestock activities and to illegal logging in private forests and national parks and reserves (Government of Costa Rica 2011, p. 2; Government of Costa Rica 2010, pp. 10–11, 38, 52–54; Parks in Peril 2008, unpaginated). The major driver of deforestation is the conversion of forest to livestock and agricultural uses because land users often generate a higher annual income with agriculture or livestock-raising than with forests. Indigenous communities have difficulties keeping nonindigenous farmers from encroaching onto their lands (Government of Costa Rica 2011, p. 1). Additionally, a lack of human and financial resources allows squatters and illegal loggers to exploit resources in protected areas.

A comprehensive study of deforestation in Costa Rica's park system found that deforestation inside Level-1 protected areas, which denotes areas with absolute protections and where no land-cover change is allowed, was negligible from 1987 to 1997, and within the park's 1-km buffer zones the protected areas had a net forest gain for the same period. However, a 1 percent annual deforestation rate occurred in 10-km buffer zones of protected areas. Thus, as distance increases from Level-1 protected areas, total deforestation and deforestation rates also increase (Sanchez-Azofeifa et al. 2003, p. 128). Corcovado National Park, the largest protected area in ACOSA, is one of the Level-1 protected areas in Costa Rica most affected by deforestation within 1 km of its boundaries (Sanchez-Azofeifa et al. 2003, pp. 128–129). Within 10 km of the park, significant clearing occurred (Sanchez-Azofeifa et al. 2003, p. 132). Additionally, in the ACOPAC scarlet macaw population, deforestation occurs around the Carara National Park with a higher rate of deforestation northwest of Carara than to the south (Sanchez-Azofeifa et al. 2003, pp. 128–129; Brightsmith 2016, in litt., p. 12). Generally, National Parks on the Pacific slope are experiencing less deforestation on surrounding lands than those on the Atlantic slope, which is attributed to the intensification and expansion of agricultural cash crops such as banana and pineapple (Sanchez-Azofeifa et al., 1999, 2001, cited in Sanchez-Azofeifa et al. 2003, p. 129).

Overall, the northern DPS' habitat and population size have been reduced from historical levels, and the primary threat of deforestation affects the wild population of scarlet macaws in Costa Rica. Even though some deforestation is ongoing, Costa Rica has experienced a positive change in forest cover over a 25-year period, 1990 to 2015. Deforestation or forest degradation in the current range of the scarlet macaw is not occurring at a level that is causing a further decline of the northern DPS in Costa Rica.

Historically, northern DPS scarlet macaws in Costa Rica experienced heavy collection pressure, but there are ongoing efforts to reduce the magnitude of collection. Hunting is important in the communities for both subsistence and monetary gain; with low-income communities surrounding a park, the incentives to poach are great (Huson 2010, p. 66). Intense management efforts in the mid-1990s that included anti-poaching efforts increased recruitment into the population. However, the anti-poaching efforts and the associated increase in population size was not sustained over the long term (Vaughan et al. 2005, p. 127). A significant effort to control poaching in the Carara area is ongoing because poaching continues to be a serious problem (Vaughan 2005, pers. comm., in McReynolds 2016, in litt., unpaginated). Once successfully fledged from the nest, scarlet macaws appear to have a high survival rate (Myers and Vaughan 2004, cited in Vaughan et al. 2005, p. 128).

In 2005, the ACOPAC population of scarlet macaws was believed to be self-sustaining, even with heavy poaching pressure (Vaughan et al. 2005, p. 128). We have no information that suggests a change in this conclusion since 2005. In the ACOSA, approximately half (48 percent) of residents interviewed believed that scarlet macaws were still being poached, although 85 percent of the interviewees believed numbers of scarlet macaws were increasing and 43 percent of the interviewees mentioned less poaching occurs now than before (and none said poaching had increased (Dear et al. 2010, p. 13)). Overall, while collection is ongoing in the ACOSA and ACOPAC populations, the population of scarlet macaws is increasing despite the collection pressure.

Costa Rica's Wildlife Conservation Law and its amendments prohibit the hunting, collection, and extraction of all species, except in certain cases for subsistence by indigenous groups, scientific purposes, or species control (Costa Rican Embassy 2013, unpaginated; NOVA 2013, unpaginated; Tico Times 2017, unpaginated). Additionally, Costa Rica has protected its resources through an ambitious national parks and biological reserves system, but those parks and reserves are inadequately funded and insufficiently controlled (Government of Costa Rica 2010, p. 34). Poaching by local communities is a problem of great concern; hunting within national park boundaries is illegal, but it is difficult to monitor and enforce hunting prohibitions with limited funds and supervision (Huson 2010, p. 18; Government of Costa Rica 2010, p. 52). Officials in Carara National Park reported that they do not have enough staff to effectively control poaching (Huson 2010, p. 8).

Active reintroduction programs have added hundreds of scarlet macaws to the wild in the northern DPS in Costa Rica (Ara Project 2017, unpaginated; Brightsmith et al. 2005, p. 468; Dear et al. 2010, pp. 15–17; Forbes 2005, p. 97; Tiskita Jungle Lodge 2018, unpaginated). Most reintroduction projects also conduct environmental education at a local level and attract additional media attention to educate

the public about the importance of scarlet macaws and their conservation (Brightsmith 2016, in litt., p. 22).

Success of the reintroductions varies. On the Nicoya Peninsula in northwestern Costa Rica, scarlet macaws are currently released at Punta Islita, Playa Tamboor, and Curú National Wildlife Refuge, which are all within 50 km of each other. It is difficult to determine how these populations will fare over time because these populations are isolated, but these three release sites could help repopulate the Nicoya Peninsula (Brightsmith 2016, in litt., p. 15). Some released birds survived but have not produced chicks; we do not have information concerning the status of most of the released birds at these locations (Brightsmith et al. 2005, p. 468). Within the South Pacific coast region, over 75 scarlet macaws have been released into the wild with close to 90 percent survival rate (Tiskita Jungle Lodge 2018, unpaginated). This reintroduction program has ceased because a viable population has been established that is large enough to potentially connect with populations in the ACOSA that are farther north along the coast (Ara Project 2018, unpaginated; Tiskita Jungle Lodge 2018, unpaginated).

Releases of captive scarlet macaws could increase the wild populations because many of the reintroduced captive-raised and confiscated birds are released adjacent to existing populations or at least within the range that scarlet macaws are known to disperse. Some of the released birds have adapted to surviving in the wild by finding mates, food, and nesting resources. Conversely, releases of captive scarlet macaws could potentially pose a threat to wild populations by exposing wild birds to diseases for which wild populations have no resistance (Dear *et al.* 2010, p. 20; Schmidt 2013, pp. 74–75; also see IUCN 2013, pp. 15–17). But generally speaking, disease risks are small because the probable frequency of occurrence is low (see *Factor C* discussion in 77 FR 40237–40238; July 6, 2012).

The population of scarlet macaws in the northern DPS is estimated to range between 1,000 and 2,000 birds (see table 1, above). Information indicates that the ACOPAC and ACOSA populations in Costa Rica, which make up the bulk of the northern DPS of scarlet macaw, are at least stable and likely increasing. The population appears to be expanding into suitable habitat along the Pacific slope between the ACOPAC and ACOSA populations. With regular sightings of scarlet macaws between the two populations, the scarlet macaw is basically continuous from the Osa Peninsula (ACOSA population) to Carara National Park (ACOPAC population) (Brightsmith 2016, in litt., p. 13). While poaching, deforestation, small population size, and inadequate enforcement of existing protections continue to affect the species, because the population is increasing and expanding in its range between the two populations, it is reasonable to conclude that the Costa Rica portion of scarlet macaw is not currently in danger of extinction and does not meet the definition of an ''endangered species'' under the Act. However, we expect that the threats will continue and put the Costa Rica portion in danger of extinction in the foreseeable future. Because we reached a negative answer with respect to the status of the scarlet macaws in the northern DPS in Costa Rica meeting the definition of an endangered species, we do not need to evaluate whether the Costa Rica portion of the northern DPS is significant.

**Analysis of the Mainland Panama Portion**

The best available information on distribution and abundance indicates that there are very few scarlet macaws on mainland Panama. The current population on mainland Panama is estimated to be fewer than 25 birds that occur in two areas, in northwest Panama in the upper Río Corotú near Puerto Armuelles and Querévalo in the Chiriquí province, and on the southern end of the Azuero Peninsula of Veraguas, near Cerro Hoya National Park, Tonosi Forest Reserve, and farther to the east. In the area of the upper Río Corotú near Puerto Armuelles and Querévalo in the Chiriquí province, there have been sporadic sightings of scarlet macaws. However, it is uncertain if the birds in northwest Panama are a wild population or birds dispersing south from a reintroduction program at Tiskita, Costa Rica, that have successfully established in the area because of the program.

Deforestation in Panama is relatively low for the Mesoamerica region; the annual decrease during 1990–2015 was 169 $km^2$ (65 $mi^2$ or 0.4 percent) (FAO 2015, p. 12). Drivers of deforestation include urbanization, cattle ranching, agro-industrial development, unregulated shifting cultivation, open mining, poor logging practices, charcoal-making, and fire (ITTO 2005, in Blaser et al. 2011, p. 354). Deforestation in the country currently occurs primarily in the Darien, Colon, Ngabe Bugle, and Bocas del Toro provinces (Blaser et al. 2011, p. 354), which are outside the scarlet macaw's range in Panama. However, illegal logging is widespread in humid forests throughout Panama, even in protected areas (Blaser et al. 2011, p. 361). We are unaware of information indicating that deforestation and forest degradation are impacting scarlet macaws in northwest Panama. We are also unaware of information indicating that deforestation is occurring near the small but unknown number of scarlet macaws on the southern end of the Azuero Peninsula of Veraguas, near Cerro Hoya National Park and in the forest reserves just to the east. Less than 15 percent of the peninsula is covered by mature forest, but most of the remaining forest can be found in Cerro Hoya National Park and the Tronosa Forest Reserve to the east (Miller et al. 2015, p. 1).

Little information is available on collection of scarlet macaws in Panama, although it was a factor leading to the extremely low population size of the species from the country (McReynolds 2016, in litt. unpaginated). Cerro Hoya National Park is located on the southern tip of the Azuero Peninsula within Panama's most impoverished province (Veraguas) and the Los Santos province. Collection of wildlife (including scarlet macaws) is a threat in this area because locals use unoccupied lands for logging and to collect wildlife for sustenance and income. Poaching of wildlife is common in rural areas (Government of Panama 2005, p. 36; Parker et al. 2004, p. II–6). Therefore, it is reasonable to conclude that some level of poaching of scarlet macaws likely occurs in the country, although at what level is unknown. Because the species is vulnerable to overexploitation based on their life-history traits, poaching individuals from such a small population would impact the population's viability. Moreover, despite a program to use captive scarlet macaw feathers to cut down on hunting of wild birds for their feathers, hunting still occurs, and collecting chicks for pets remains a concern at Cerro Hoya National Park (Rodriquez and Hinojosa 2010, in McReynolds 2016, in litt., unpaginated).

The National Environment Authority is the primary government institution for forest and biodiversity conservation and management. To protect and regulate the use of wildlife, flora and fauna, the Panamanian Government has created numerous laws, including Wildlife Law 24 that establishes wildlife as part of the natural heritage of Panama and provides for protection, restoration, research, management and development of the country's genetic resources, including rare species; the General Law

on the Environment (41), which establishes the basic principles and norms for the protection, conservation, and restoration of the environment and promotes the sustainable use of natural resources; and the National System of Protected Areas (Parker et al. 2004, p. III–2; Blaser et al. 2011, p. 355). However, the National Environment Authority has limited capacity and resources to ensure adherence to forest-related laws and regulations (Blaser et al. 2011, p. 361).

Overall, deforestation is a threat to forests in Panama, primarily occurring in areas outside of the scarlet macaw's range. Illegal and small-scale subsistence logging is ongoing with little oversight and causes forest degradation. However, we are unaware of deforestation affecting the northern DPS on mainland Panama. Poaching was not identified as a main threat to biodiversity in Cerro Hoya National Park (Parker et al. 2004, Annex G, unpaginated), but poaching is common in rural areas and collection of scarlet macaws within the park and in rural areas is likely ongoing. The threats of habitat loss and collection are not geographically concentrated in Panama and are not occurring at a different rate or on an increased trajectory compared to the other parts of the range within the northern DPS. The scarlet macaw exists on mainland Panama in two areas with an extremely small overall population size (less than 25 birds). The scarlet macaw's life history traits limit the species' ability to recover, particularly when individuals are removed from the wild year after year. The loss of individuals in the wild coupled with any loss of habitat that removes large trees that provide resources for nesting and food are threats to the species' viability in Panama. Therefore, because of the very small population size and ongoing threats, we conclude that the northern DPS is in danger of extinction in the Panama portion.

Because we concluded that the northern DPS is in danger of extinction in the Panama portion, we next proceed to evaluating whether this portion of the range is significant. To determine whether a portion is ''significant,'' we considered how the portion contributes to the viability of the species. There are multiple ways in which a portion of the species' range could contribute to the viability of a species, including (but not limited to) by serving a particular role in the life history of the species (such as the breeding grounds or food source for the species), by including high-quality or unique-value habitat relative to the rest of the habitat in the range, or by representing a large percentage of the range.

The scarlet macaw occurs in two areas in Panama, although it is uncertain if the birds that occur in the western border region of Costa Rica and Panama are wild or the reintroduced birds dispersing south from Tiskita, Costa Rica. The total range of where scarlet macaws occur in Panama is unknown, but the best available information indicates the size of the portion is very small and not a large percentage of the northern DPS's range.

The total population of scarlet macaws on mainland Panama represents only about 1 percent of the total population of the northern DPS. The populations in Panama are not biologically or genetically unique from other populations in the northern DPS. We are not currently aware of any life-history functions that the Panama portion is contributing meaningfully to the northern DPS' overall resiliency and representation, within the context of a ''significant portion of its range'' analysis. For example, there is no information that the very small population in Panama is serving as a source population for the northern DPS. The northern DPS contains similar ecosystems across its range—lowland tropical habitats bounded by highlands or the Pacific Ocean. Scarlet macaws are dependent on larger, older trees that have large nesting cavities, forage primarily in the forest canopy, and are relatively general in their feeding habits. The best available information does not indicate that forests where scarlet macaws occur in Panama are higher quality or provide high value relative to the remaining portions of the range in the northern DPS.

Genetically, the populations on the Pacific slope in Costa Rica, mainland Panama, and in Colombia west of the Andes Mountains were determined to be a spatially discrete group within the broader lineage of *Ara macao* (Schmidt 2013, p. 49; Schmidt et al. 2019, p. 744). The populations we included in the northern DPS are those same populations. Thus, there is no information that the scarlet macaws in Panama are genetically or biologically unique from the rest of the northern DPS. Overall, this portion by itself will have only a minimal impact on the viability of the northern DPS, and therefore, cannot be significant and cannot be the basis for listing the entire northern DPS as endangered. Therefore, having found that the Panama portion is in danger of extinction, but the portion is not significant, the Panama portion is not a significant portion of the northern DPS' range because both factors must be true.

**Analysis of the Colombia Portion**

Scarlet macaws historically occurred in northwest Colombia in the tropical zone of the Caribbean region, and the inter-Andean valleys, the largest of which are the Magdalena and Cauca River valleys (Salaman et al. 2009, p. 21; Hilty and Brown 1986, p. 200; Forshaw 1989, p. 407). The species' range was reported from eastern Cartagena to the low Magdalena Valley, southward to southeast Córdoba, and the middle Magdalena Valley (Hilty and Brown (1986, p. 200). However, the scarlet macaw has been reported as probably close to extinction in the Magdalena and Cauca River valleys, and north (Donegan 2013, in litt.; Ellery 2013, in litt.; McMullen 2010, p. 60); few sightings have been reported. Scarlet macaws may occur in very low numbers in the more remote and inaccessible parts of the region, but their status there is not clear. We are unaware of any other detailed information on the numbers, distribution, or status of the scarlet macaw in northwest Colombia.

The primary factors affecting the northern DPS in northwest Colombia are habitat loss, and to a lesser extent trade (Donegan 2013, in litt., unpaginated). Deforestation is ongoing in northwest Colombia with few large tracts of forest remaining within the historical range of the scarlet macaw (Ortega and Lagos 2011, p. 82; Salaman et al. 2009, p. 21; Colombia Gold Letter 2012, pp. 1–2). Forest loss is due primarily to conversion of land to pasture and agriculture, but also mining, illicit crops, and logging (Ortega and Lagos 2011, pp. 85–86). Colombia has lost forest at a steady rate over a 25-year period, 1990–2015 (FAO 2015, p. 10). The Magdalena and Caribbean regions had approximately only 7 percent and 23 percent (respectively) of their land area in original vegetation, with the remainder converted primarily to grazing land (79 percent and 68 percent, respectively) (Etter et al. 2006, p. 376). The Magdalena region lost 40 percent of its forest cover between 1970 and 1990, and an additional 15 percent between 1990 and 1996 (Restrepo & Syvitski 2006, pp. 69, 72). Within the Caribbean region, protected areas and sanctuaries have lost up to 70 percent of forest cover since they were created in the late 1970s and early 1980s (Miller et al. 2004, p. 454).

The threat of habitat loss is not geographically concentrated in Colombia or occurring at a different rate or on an increased trajectory compared to the other parts of the range within the

northern DPS. Collection for the pet trade occurs throughout the range of the northern DPS, but collection is not geographically concentrated in Colombia or occurring at a different scale from any other portion in the northern DPS. All indications suggest that the scarlet macaw's population in northwest Colombia is very small and has been significantly reduced from its historical range in the larger inter-Andean River valleys. With ongoing deforestation that removes the species' habitat for nesting and foraging, viability of a very small population is likely minimal, particularly because the species' life-history traits limit the rate of recovery from loss of wild populations. Therefore, we conclude that the northern DPS is in danger of extinction in the Colombia portion of the species' range of the northern DPS.

Because we conclude that the northern DPS is in danger of extinction in the Colombia portion, we next proceed to evaluating whether this portion of the range is significant. As explained above, to determine whether a portion was ''significant,'' we considered how the portion contributes to the viability of the northern DPS. The population is reported to be near extirpation from northwest Colombia, but a few individuals may possibly occur in more remote and inaccessible areas of the region. The total range of where scarlet macaws occur in Colombia is unknown, but the best available information indicates the size of the portion is very small and not a large percentage of the northern DPS's range. Additionally, all indications suggest the population is very small and likely represents a minimal proportion of the total population of the northern DPS.

The population in Colombia is not biologically or genetically unique from other populations in the northern DPS. We are not currently aware of any life-history functions that the Colombia portion is contributing meaningfully to the northern DPS' overall resiliency and representation, within the context of a ''significant portion of its range'' analysis. For example, there is no information that the very small but unknown population in Colombia is serving as a source population for the northern DPS. The northern DPS contains similar ecosystems across its range—lowland tropical habitats bounded by highlands and/or the Pacific Ocean. Scarlet macaws are dependent on larger, older trees that have large nesting cavities, forage primarily in the forest canopy, and are relatively general in their feeding habits. The best available information does not indicate that forests where scarlet macaws occur in northwest Colombia are higher quality or provide high value relative to the remaining portions of the range in the northern DPS.

Genetically, the populations on the Pacific slope in Costa Rica, mainland Panama, and in Colombia west of the Andes Mountains were determined to be a spatially discrete group within the broader lineage of *Ara macao* (Schmidt 2013, p. 49; Schmidt et al. 2019, p. 744). The populations we included in the northern DPS are those same populations. Thus, there is no information that the scarlet macaws in Colombia are genetically or biologically unique from the rest of the northern DPS. Overall, this portion by itself will have only a minimal impact on the viability of the northern DPS, and therefore, cannot be significant and cannot be the basis for listing the entire northern DPS as endangered. Therefore, having found that the Colombia portion may be in danger of extinction, but the portion is not significant, the Colombia portion of the northern DPS' range is not a significant portion because both factors must be true.

**Analysis of the Panama and Colombia Portions Combined**

Having determined that neither the Panama nor the Colombia portions are significant portions of the northern DPS's range, we considered whether the Panama and Columbia portions combined might be a significant portion of the range of the scarlet macaw in the northern DPS that is endangered. The scarlet macaw in the northern DPS may be in danger of extinction in that combined portion because of ongoing threats of deforestation that removes the species' habitat for nesting and foraging, as well as collection for the pet trade. Viability of very small populations in Panama and Colombia is likely minimal, particularly because the species' life-history traits limit the rate of recovery from loss of wild populations. Therefore, we conclude that the scarlet macaw in the northern DPS is in danger of extinction in this portion of the northern DPS. However, even taken together, this combined portion is not significant because the populations are very small, they do not account for a large percentage of the range, and this portion is not biologically or genetically unique from the rest of the northern DPS. Panama and Colombia taken together will have only a minimal impact on the viability of the scarlet macaw in the northern DPS, and therefore, cannot be significant and cannot be the basis for listing the entire northern DPS as endangered. Thus, having found that the portion is in danger of extinction, but the portion is not significant, the portion of the scarlet macaw in the northern DPS's range combining Panama and Colombia together is not a significant portion because both factors must be true.

The analysis of the Panama portion, Colombia portion, and the portion that combines Panama and Colombia together, does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017), because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of ''significant,'' that those court decisions held to be invalid.

**Conclusion**

In the document announcing that we were reexamining the ''significant portion of the range'' analysis for the northern DPS of the southern subspecies of scarlet macaw, we stated that we would reconsider our analysis based on the plain language of the Act and the implications of *Everson* (87 FR 66093; November 2, 2022). If the analysis determined that there are no significant portions of the range for the northern DPS of the southern subspecies of scarlet macaw, the ''significant portion of its range'' analysis ends the process. If the analysis determined that one or more significant portions of the range exist but do not warrant endangered status, the ''significant portion of its range'' analysis also ends the process. However, if the analysis found one or more significant portions of the range and found the northern DPS of the southern subspecies of scarlet macaw should be listed as endangered instead of threatened, we would submit a proposed rule to the **Federal Register** by March 28, 2024, seeking public comment on the proposed reclassification of the northern DPS of the southern subspecies of scarlet macaw.

In this analysis of the northern DPS of the southern subspecies of scarlet macaw, we assessed four portions within the DPS: the Pacific slope of Costa Rica, Mainland Panama, and Colombia west of the Andes, and Panama and Colombia combined. We concluded that none of the portions in the northern DPS are both in danger of extinction and significant. The Costa Rica population is not in danger of extinction; therefore, we did not need to address its significance. For the Panama population and Colombia population, it is reasonable to conclude that each of

these portions may be in danger of extinction; however, neither of these portions of the range are significant. Similarly, combining the Panama and Colombia populations, we concluded this portion may be in danger of extinction; however, this portion of the range is not significant. Having completed the ''significant portion of its range'' analysis for the northern DPS and determined that the northern DPS is not in danger of extinction in any significant portion of its range, we do not propose to revise the current status of the southern subspecies of scarlet macaw in the northern DPS. Therefore, we affirm the listing of the scarlet macaw as set forth in the 2019 rule.

### Author

The primary authors of this document are the staff members of the U.S. Fish and Wildlife Service's Branch of Delisting and Foreign Species.

### Authority

This document is published under the authority of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*).

**Martha Williams,**

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

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 648

**[Docket No.: 230329–0086]**

**RIN 0648–BL99**

## Fisheries of the Northeastern United States; Framework Adjustment 36 to the Atlantic Sea Scallop Fishery Management Plan

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

**ACTION:** Final rule.

**SUMMARY:** NMFS approves and implements the measures included in Framework Adjustment 36 to the Atlantic Sea Scallop Fishery Management Plan as adopted and submitted by the New England Fishery Management Council. Framework 36 establishes scallop specifications and other measures for fishing years 2023 and 2024. Framework 36 implements measures to protect small scallops to support rotational access area trips to the fleet in future years. To promote uniformity in the fishery, this final rule also corrects and clarifies regulatory text that is unnecessary, outdated, or unclear. This action is necessary to prevent overfishing and improve both yield-per-recruit and the overall management of the Atlantic sea scallop resource.

**DATES:** Effective March 31, 2023.

**ADDRESSES:** The Council has prepared an Environmental Assessment (EA) for this action that describes the measures contained in Framework Adjustment 36 to the Atlantic Sea Scallop Fishery Management Plan (FMP) and other considered alternatives and analyzes the impacts of these measures and alternatives. The Council submitted Framework 36 to NMFS that includes the EA, a description of the Council's preferred alternatives, the Council's rationale for selecting each alternative, the Initial Regulatory Flexibility Analysis (IRFA), and a Regulatory Impact Review (RIR). Copies of supporting documents used by the New England Fishery Management Council, including the EA and RIR, are available from: Thomas A. Nies, Executive Director, New England Fishery Management Council, 50 Water Street, Newburyport, MA 01950 and accessible via the internet in documents available at: *https://www.nefmc.org/library/scallop-framework-36.*

In addition to the EA, NMFS has prepared a Categorical Exclusion (CE) for the revision of the bushel definition being implemented under Section 305(d) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Steven Act). Copies of the CE are available from: Michael Pentony, Regional Administrator, Greater Atlantic Regional Fisheries Office, 55 Great Republic Drive, Gloucester, MA 01930.

**FOR FURTHER INFORMATION CONTACT:** Shannah Jaburek, Fishery Policy Analyst, (978) 282–8456.

**SUPPLEMENTARY INFORMATION:**

### Background

The New England Fishery Management Council adopted Framework Adjustment 36 to the Atlantic Sea Scallop FMP on December 7, 2022. The Council submitted Framework 36, including an EA, for NMFS approval on March 9, 2023. NMFS published a proposed rule for Framework 36 on March 3, 2023 (88 FR 13408). To help ensure that the final rule would be implemented before the start of the fishing year on April 1, 2023, the proposed rule included a 15-day public comment period that closed on March 20, 2023.

NMFS has approved all of the measures in Framework 36 recommended by the Council, as described below. This final rule implements Framework 36, which sets scallop specifications and other measures for fishing years 2023 and 2024, including changes to the catch, effort, and quota allocations and adjustments to the rotational area management program for fishing year 2023, and default specifications for fishing year 2024. The Magnuson-Stevens Fishery Conservation and Management Act allows NMFS to approve, partially approve, or disapprove measures proposed by the Council based on whether the measures are consistent with the FMP, the Magnuson-Stevens Act and its National Standards, and other applicable law. NMFS generally defers to the Council's policy choices unless there is a clear inconsistency with the law or the FMP. Details concerning the development of these measures were contained in the preamble of the proposed rule and are not repeated here. Consistent with section 305(d) of the Magnuson-Stevens Act, this final rule also addresses regulatory text that is unnecessary, outdated, or unclear.

#### *Specification of Scallop Overfishing Limit (OFL), Acceptable Biological Catch (ABC), Annual Catch Limits (ACL), Annual Catch Targets (ACT), Annual Projected Landings (APL) and Set-Asides for the 2023 Fishing Year, and Default Specifications for Fishing Year 2024*

The Council set the OFL based on a fishing mortality (F) of 0.61, equivalent to the F threshold updated through the Northeast Fisheries Science Center's most recent scallop benchmark stock assessment that was completed in September 2020. The ABC and the equivalent total ACL for each fishing year are based on an F of 0.45, which is the F associated with a 25-percent probability of exceeding the OFL. The Council's Scientific and Statistical Committee (SSC) recommended scallop fishery ABCs of 43.7 million lb. (19,828 mt) for 2023 and 44.5 million lb. (20,206 mt) for the 2024 fishing year, after accounting for discards and incidental mortality. The SSC will reevaluate and potentially adjust the ABC for 2024 when the Council develops the next framework adjustment.

Table 1 outlines the scallop fishery catch limits.