

**Reply to: Endangered and Threatened Wildlife and Plants;
Listing the Scarlet Macaw; Proposed rule 50 CFR Part 17
[Docket No. FWS-R9-ES-2012-0039; 4500030115]**

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June 2016

Field work with Scarlet Macaws for his PhD in Belize 2009 and on Isla Coiba
June 2015.

Scarlet Macaws in Belize Omitted From Textual Descriptions of Range

Although shown as “endangered” in Fig. 1 on page 20340, the Scarlet Macaws of Belize are left out of the description of the presence of *A.m. cyanopectus* in the following sites in the document:

Page 20303, middle column, last paragraph – there is no mention of Belize

Page 20305, top of far right column – there is no mention of Belize

Evidence of Poaching in Central America

The proposed rule change says “As indicated in our 2012 Proposed Rule, another main threat to neotropical parrot species, in general, is capture for the pet trade. Little information exists on the level of poaching of scarlet macaws in this region.”

Below is information on “poaching of scarlet macaws in this region”, as of 2010.

Mexico

Lowery Jr. & Dalquest (1951) mention “The Macaw in Veracruz is shot for food. The flesh is tender and well-flavored. The birds are ordinarily so shy, however, that probably very few are obtained by native hunters.” Poaching is the second largest problem facing Scarlet Macaws in Mexico (Macias Caballero et al. 2000), a problem Inigo-Elias (1996) noted with 4 of 41 nest trees cut down to get chicks and another burnt, all in one season.

Guatemala

In one 1991 poaching incident in the Peten, chicks were sedated with the drug Diasepan and put into small sacks attached to the legs of women wearing large skirts who walked over the border into Mexico. The estimated death rate for this process was 95% (de Berger 1991).

When I trained with Wildlife Conservation Society in 2008 at Parque Nacional Laguna del Tigre (PNLT) I saw several nest trees with spike marks from poaching attempts in previous years. Between 1992-1999 a total of 14 nest trees were cut down, one burnt, and the 102 nests poached (Villeda 2000). Between 1992 and 2002, citing Proyecto Guacamaya of ProPeten data, there were 115 chicks poached from the PNLT area (Moya & Castillo Villeda 2002).

The value of a macaw nestling was estimated at 1,000 Quetzales (US\$ 131.00) in the local market by Rodas (2002), much more than a villager could make in a month, and Villeda (2000) noted villagers interviewed agreed that the prices had gone up as the birds had become more scarce. On occasion authorities successfully intervene. In March of 2010 a raid occurred in Guatemala City and 81 wild animals were confiscated, of which 51 were within the parrot family. Parrots included 12 juvenile Scarlet Macaws, all of unknown origin, except one stolen from the local zoo (World Parrot Trust 2010).

Nest monitoring, protection and community education and involvement by WCS Guatemala has resulted in much less poaching since 2003 at four of the five major nesting areas in the PNLT area (Boyd & McNab 2008). Official sources continue to say that hunting and poaching still cause a major impact on the population (Ministerio de Ambiente y Recursos Naturales 2009).

El Salvador

Writing of the demise of Scarlet Macaws in El Salvador, Thurber et al (1987) lament that "Deforestation, hunting for food and feathers, and nest robbing for the pet trade have combined to extirpate this spectacular species".

Honduras

The Scarlet Macaw was declared the national bird of Honduras in 1983 (Portillo Reyes et al. 2005a), and there are laws prohibiting their capture, possession and sale, but the local and international pet trade has caused a great decrease in Scarlet Macaws which were legally exported as late as 1989 (Thorn 1991). In 2004, 94,255 birds were “legally” exported from Honduras and illegal traffic estimates are 3 to 4 times that amount. (Portillo Reyes et al. 2005b).

Despite the legalities, or lack thereof, poaching regularly occurs in the Rus Rus area between February and May. Based on interviews with local people, researchers discovered in Rus Rus alone between 200 to 300 chicks were taken in 2003. Chicks are bought directly from the poachers for between 30 and 60 US dollars. Interviewees believed that Nicaraguan poachers bring the chicks to their country where they more easily entered into international trade. Some chicks are also sent to major cities within Honduras (Portillo Reyes et al. 2004).

Nest monitoring in February 2003 showed 8 of 13 nests had evidence of nesting, but by August 5 of 6 nests active in February were poached. Evidence included resin-filled logging spur spike holes in the bark, holes hacked through the sides of the trees at the level of the nest cavity to extract the chicks, and nest trees that had been chopped down (Portillo Reyes et al. 2004).

In an effort to stop the commercial trade of macaws the forestry department, Administración Forestal del Estado-Corporación Hondureña de Desarrollo Forestal (AFE-COHDEFOR), started to require registration of all macaws. Of 27 registered in the Puerto Lempira forestry area which includes Rus Rus, 13 Scarlet Macaws were permitted to leave the area and were likely sold as pets. The actual numbers of Scarlet Macaws held as pets is likely higher than the numbers registered (Portillo Reyes et al. 2004).

Nicaragua

As is the case elsewhere in Central America, poaching, chicks taken from nests, is the main threat for Scarlet Macaws in Nicaragua. What drives this poaching is high domestic prices for these beautiful birds, upwards of US\$ 200 to 300 (Martinez-Sanchez 1991) or \$1500 for a juvenile Scarlet Macaw (Lezama Lopez et al. 2004).

If the nest is inaccessible the entire tree may be cut down to get chicks that survive the fall (Herrera Scout 2004; Martinez-Sanchez 1991). Another method almost equally destructive is the climbing

up the tree and hacking an opening in the tree where the chicks are, often below the nest entrance (Herrera Scout 2004). Both of these practices eliminate nest trees which makes the damage to the species even worse.

In 1986, permitted, legal, commercial harvesting of these birds, and many other species, was conducted by a restricted number of companies, to produce revenue which funded work to manage species, but all parrot exports were stopped by research (Lezama Lopez et al. 2004) showing a precipitous drop in parrot populations nationwide (Ministerio de Ambiente y los Recursos Naturales 2008). One study estimated 7,205 parrots were sold locally and exported, legally or illegally, from July to November 2000 (Herrera Scout 2004). One source of illegal trade was the same collectors that worked for the legal companies according to an internal unpublished report by Gutiérrez y Gómez in 1996 (Ministerio de Ambiente y los Recursos Naturales 2008). Illegal trade in parrots, including macaws, continued after the ban and was highly publicized (BirdLife International 2007). Chicks from Scarlet Macaw nests on Volcan Consiguina are also taken and sold to the pet trade in El Salvador (Rodriguez Martinez & Camacho 2009). Confiscations and prosecutions by government authorities occurred in 2009 in the Caribbean region and in 2010 in Managua where a dozen Scarlet Macaws were for sale. All confiscated animals are taken to the National Zoo or to other locales for safekeeping (M. Lezama, pers. comm., 2010). Several species of smaller parrots are still openly bought and publically displayed as seen in San Juan de Oriente and Granada (McReynolds, pers. obs., 2010).

Costa Rica

Poaching of chicks for the pet trade is a serious problem in Costa Rica for several parrots and the two macaws: *Ara ambiguus* and *A. macao* (Chassot et al. 2006). In the Oso Peninsula, 11 of 57 potential nests were identified by local people as being “frequently poached” (Guittar et al. 2006). Information from local interviews identified poaching of chicks as a problem, and that they were sold to domestic and foreign markets via intermediaries at an average of US\$ 240.00 per chick (Dear et al. 2005).

The Carara area is under heavy poaching pressure (Vaughan et al. 2005). In Carara, eighty-five percent of 56 known nest cavities were considered at high (64%) or medium (23%) poaching risk because they locations were known to locals, or they were low, or they had obvious marks of previous

poaching such as ladders or tree climbing spike marks in the bark (Vaughan 2002). If a poacher sells 9 or 10 nestlings he will not need to work all year (F. Dear, pers. comm., 2005.).

There has been a significant effort to control poaching in the Carara area. Raids and arrests of suspected poachers have resulted in confiscation of chicks and climbing gear, fines, and much publicity concerning the illegality of poaching (Vaughan et al. 2005), although poaching continues to be a serious problem (C. Vaughan, pers. comm., 2005), probably because they can earn US\$ 200.00 to 300.00 per chick (Vaughan 2002).

Panama

As is the case elsewhere, poaching and hunting, in addition to loss of habitat, led to the virtual extirpation of Scarlet Macaws in Panama. One example of the human impact is found in the town of Chitre in the Azuero Peninsula. Dancers depicting the devil during the Feast of Corpus Christi have headdresses and masks adorned with perhaps dozens of long red Scarlet Macaw tail feathers (Balaguer 2010). Dr. Francisco Delgado, cited by Balaguer (2010), has been instrumental in creating dyed feathers for substitutions, but laments below: (Balaguer 2010)

Over the course of about one hundred years, all of the macaw pairs have disappeared from our peninsula. Many of them were killed so that their tail feathers could be yanked out and used in the diablico sucio dances. Their feathers represent flaming hair, the blazing fire of the Devil; but that's one of the main reasons that the macaws have disappeared from this area.

Before the prison closed on Isla Coiba, there were rumors of policeman guarding prisoners turning to illegal trafficking of Scarlet Macaws to make money (Balaguer 2010) and these rumors were confirmed by a former inmate, now a Park Guard at Parque Nacional Isla Coiba (McReynolds, pers. obs. 2016). Despite a program to use captive Scarlet Macaw feathers, hunting still occurs and poaching of chicks for pets remains a problem at Parque Nacional Cerro Hoya (Rodriguez & Hinojosa 2010).

Belize

The most pressing danger for the Scarlet Macaw population in Belize is poaching which is abetted by lack of enforcement of wildlife laws, one of several issues which negatively impact biodiversity in Belize (Casteneda 1998). Belizeans once hunted and poached macaws, but that appears to be largely in the past and undocumented. In the early 1980's Mayan hunters shot macaws for food (Hartshorn et al. 1984) and Garifuna people from Dangriga used macaw feathers for their John Canoe Dance and still ask for them (Sho, pers. comm., 2007). Macaws were shot in the Cockscomb for both food and pets by

Mayans (Saqui. pers. comm., 2009) (Kamstra 1987) and in 1998 fourteen macaws were shot in the Cockscomb Basin according to S. Matola (King 1998). The best publicized spate of shooting of Scarlet Macaws occurred at Red Bank, with numbers killed variously categorized as 20 to 60 birds (Belize Audubon Society 1997) or 30 (Renton 1998b). There are also rare reports of poaching in Sapote Creek near Red Bank (Sipriano, pers. comm., 2009), and hunting of macaws in the Cockscomb (Brijillio, pers. comm., 2009). One recent poaching incident by a Belizean was reported to me from Trio, Toledo (D. Dourson, pers. comm., 2010).

Belize has no extensive commercial parrot or macaw trade. Commercial export in the early 1980's was curtailed with "no large shipments of parrots and macaws" (Hartshorn et al. 1984) and export would likely be less likely now due to better government. There appears to be no commercial wild bird pet trade in Belize, by Belizeans. Beyond domestic fowl, there are not birds of any kind for sale in village markets, or in larger stores in urban areas (McReynolds, pers. obs., 2009). However this does not mean that there are no bird pets obtained from the wild. The village of Armenia in the Cayo District is typical – two large raucous *Amazona sp.* parrots were obviously pets and the entire village knew about them, and paid them no heed. Despite having never seen a captive wild macaw in my four year residence and my 1.5 years of research in Belize, I suspect there may be a few in private residences, although the numbers are likely low.

It is widely thought that illegal Guatemalan palm leaf harvesters (xateros) in the Chiquibul area will opportunistically shoot or poach any wildlife and this problem has been given national exposure (7NewsBelize.com 2009a, b). Xate is one of three palm species: *Chamaedorea. ernesti-augustii*, *C. oblongata*, and *C. elegans* with a value of US \$ 1.8 million in the Chiquibul Forest Reserve and US \$ 5 million in the Greater Maya Mountain area (Bridgewater et al. 2006). Poverty compels these xateros to cross into Belize and spend a week or two cutting xate in the Chiquibul National Park or Chiquibul Reserve and then haul it back to Guatemala where it is sold and eventually reaches international floral markets. Matola brought one wounded macaw to the Belize Zoo (Loro Parque Fundación 2001) and there were reports of Guatemalans poaching chicks as early as 1984 (Nazim, pers. comm., 2009).

In January 2008, I was told by people involved that the Belize Defence Force had recently caught a few illegal Guatemalan xateros and one, a 14 year old boy, stayed at the FCD Guardhouse. This boy,

from the border town of Las Brisas, Guatemala, told one of the FCD rangers that they had already extracted 30 chicks and sold them in Guatemala for 1,500 to 2,000 Quetzals (US\$ 136.00 to 181.00) per bird. Britt documented several poached nests in remote areas; a few nest trees were cut down, while others were scaled with spiked boots and rope (Britt 2010a, b, c).

Discarded plucked macaw feathers have been seen at Natural Arch and between Chapayal and Blue Hole on the Raspaculo River (Bol, pers. comm., 2007), carcasses of macaws have been found at Guatemalan xatero camps in the Chiquibul (N. Bol, pers. comm., 2010; pers. comm. to author by Guatemalan xate harvesters, 2010), and FCD rangers (pers. comm. 2009) reported a xatero camp with feathers from macaw and Red-lore Parrots *Amazona autumnalis*. In May 2010 two adult macaws were found shot in the Upper Raspaculo, one was photographed, minus tail feathers by Lenny Gentle. After having told me about two macaws found shot in the Chiquibul area in 2007, probably by xateros, a member of the Belize Defense Force told me the xateros use the long tail feathers as headbands in hats (pers. comm., 2007). The shootings were surely by xateros, and possibly meant to send a message to FCD patrols. Xateros and FCD rangers have had shootouts not far from the Chiquibul FCD base (FCD Rangers, pers. comm., 2010).

There are reports of a significant number of caged macaws in border towns of Guatemala and they may be coming from Belize (Manzanero, pers. comm., 2008).

Isla Coiba Population

Previous population comments

My previous comments concerning the Isla Coiba population were based off of discussions with Beatriz Schmitt who, with Keller, reported on the parrot populations of Panama (Keller & Schmitt 2008).

New Research on Isla Coiba

With permit assistance from the Smithsonian Tropical Research Institute, in June 2015 I visited Isla Coiba on a 10 day trip to determine the status of *Ara macao* and produced a report that will be sent to USFWS separately as location data should not be public knowledge (McReynolds et al. 2016). Highlights of my research relevant to the proposed listing are below.

Surveys at one site were very productive. Ten observation trips (seven in the am and three in the pm; avg. obs. time was 78 min.) were conducted within eleven days; we encountered macaws on all trips (36 observations and 83 individuals) and at the rate of 6.38 macaws per hour. Observations included photos of pairs and juveniles (short-tails). Three suspected nest or roost trees were discovered – each had a pair attending it, and one had a juvenile in the cavity. The largest group of macaws seen on the trip occurred here with seven pairs seen at once. A minimum population for this small area is 24 individuals (22 paired adults, 2 juveniles) and does not include other macaws seen or heard on the same day in the same site, our other research observation sites, nor many sites on the island that have historically yielded macaw sightings. We encountered a few macaws during exploratory trips at several other sites that have historically yielded macaw sightings. Groups of 16 and 35 macaws have been reported on Isla Coiba (Luck 2009), with the largest quantity being about 45 macaws in a tree at one site (Autoridad Nacional del Ambiente et al. 2009).

Limited by time and coastal exploration due to unexpected lack of trails, a population estimate for the entire island went beyond the scope of this research, but it seems likely that it could be as high as 100 with a photo of 45 (Autoridad Nacional del Ambiente et al. 2009) and a claim of “100s” by Alicia Ibanez, the island’s premier botanist, in the video on Isla Coiba produced by Mar Viva (reference not found yet). Interviews with two rangers with many years of experience on the island indicated populations are higher than in the past, due to poaching by guards when the island held a prison.

Isla Coiba Poaching Discussion on page 20308

There is little solid reason to believe poaching currently occurs on Isla Coiba. Based on my interviews with the owner of Bird Coiba (the bird guide service for the island), two rangers with many years of experience on the island, and a discussion with the superintendent of Parque Nacional Isla Coiba, there are no known poaching problem at Isla Coiba. When the above people were asked no one knew where Scarlet Macaw nests were and I assume if these people do not then others less familiar with the island would know less. There are no permanent habitations on the island except a police base and the ranger base. The island has no roads and very few maintained trails – all are short. Access is by boat, and boats are boarded and checked regularly – when I was there in June 2015 a boat was confiscated due to non-compliance with fishing regulations.

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