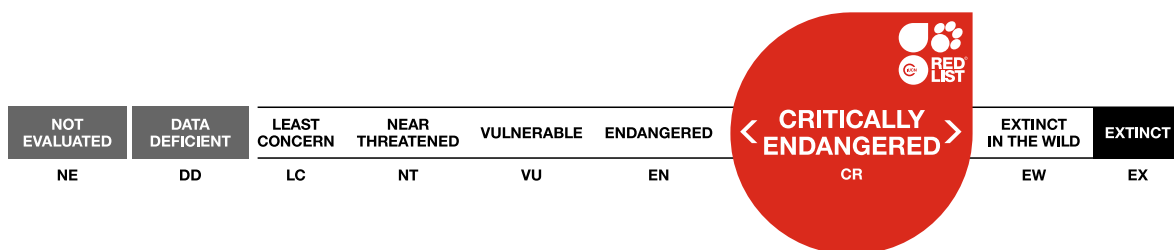


## *Crithagra concolor*, Sao Tome Grosbeak

Assessment by: BirdLife International



View on [www.iucnredlist.org](http://www.iucnredlist.org)

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*If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.*

## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Aves	Passeriformes	Fringillidae

**Scientific Name:** *Crithagra concolor* (Barboza du Bocage, 1888)

**Synonym(s):**

- *Neospiza concolor* (Barboza du Bocage, 1888)

**Common Name(s):**

- English: Sao Tome Grosbeak, Sao Tome Canary, Sao Tome Goldfinch, Sao Tomé Grosbeak, São Tomé Canary, São Tomé Grosbeak
- French: Grosbec de São Tomé

**Taxonomic Source(s):**

del Hoyo, J., Collar, N.J., Christie, D.A., Elliott, A., Fishpool, L.D.C., Boesman, P. and Kirwan, G.M. 2016. *HBW and BirdLife International Illustrated Checklist of the Birds of the World. Volume 2: Passerines*. Lynx Edicions and BirdLife International, Barcelona, Spain and Cambridge, UK.

**Taxonomic Notes:**

*Crithagra concolor* (del Hoyo and Collar 2016) was previously placed in the genus *Neospiza* following Dowsett & Forbes-Watson (1993); Sibley & Monroe (1990, 1993).

**Identification Information:**

18 cm. Large, chunky finch with massive bill. Uniformly rusty-brown on upperparts and underparts, slightly darker on head, wings and tail. Greyish-buff bill. **Similar spp.** Príncipe Seed-eater *Serinus rufobrunneus* is much smaller. **Voice** Brief series of 4-5 short, 2-note canary-like whistles, with the second note higher. Similar to that of the Príncipe Seed-eater but deeper in tone, simpler and more repetitive.

## Assessment Information

**Red List Category & Criteria:** Critically Endangered C2a(ii) [ver 3.1](#)

**Year Published:** 2021

**Date Assessed:** June 4, 2020

**Justification:**

This species qualifies as Critically Endangered because it has an extremely small population which is inferred to be in decline owing to habitat degradation and the impact of invasive predators. It is found in one site only, where it occupies a very small area of forest which, although it is not severely threatened, remains effectively unprotected and might be vulnerable in the future. Recent observations extend the known range, elevation and habitat, but the population is assumed to remain extremely small.

## Previously Published Red List Assessments

2018 – Critically Endangered (CR)

<https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T22720310A128249895.en>

2016 – Critically Endangered (CR)

<https://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22720310A94664492.en>

2015 – Critically Endangered (CR)

<https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T22720310A78029046.en>

2013 – Critically Endangered (CR)

<https://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T22720310A49658798.en>

2012 – Critically Endangered (CR)

2009 – Critically Endangered (CR)

2008 – Critically Endangered (CR)

2004 – Critically Endangered (CR)

2000 – Critically Endangered (CR)

1996 – Critically Endangered (CR)

1994 – Critically Endangered (CR)

1988 – Threatened (T)

## Geographic Range

### Range Description:

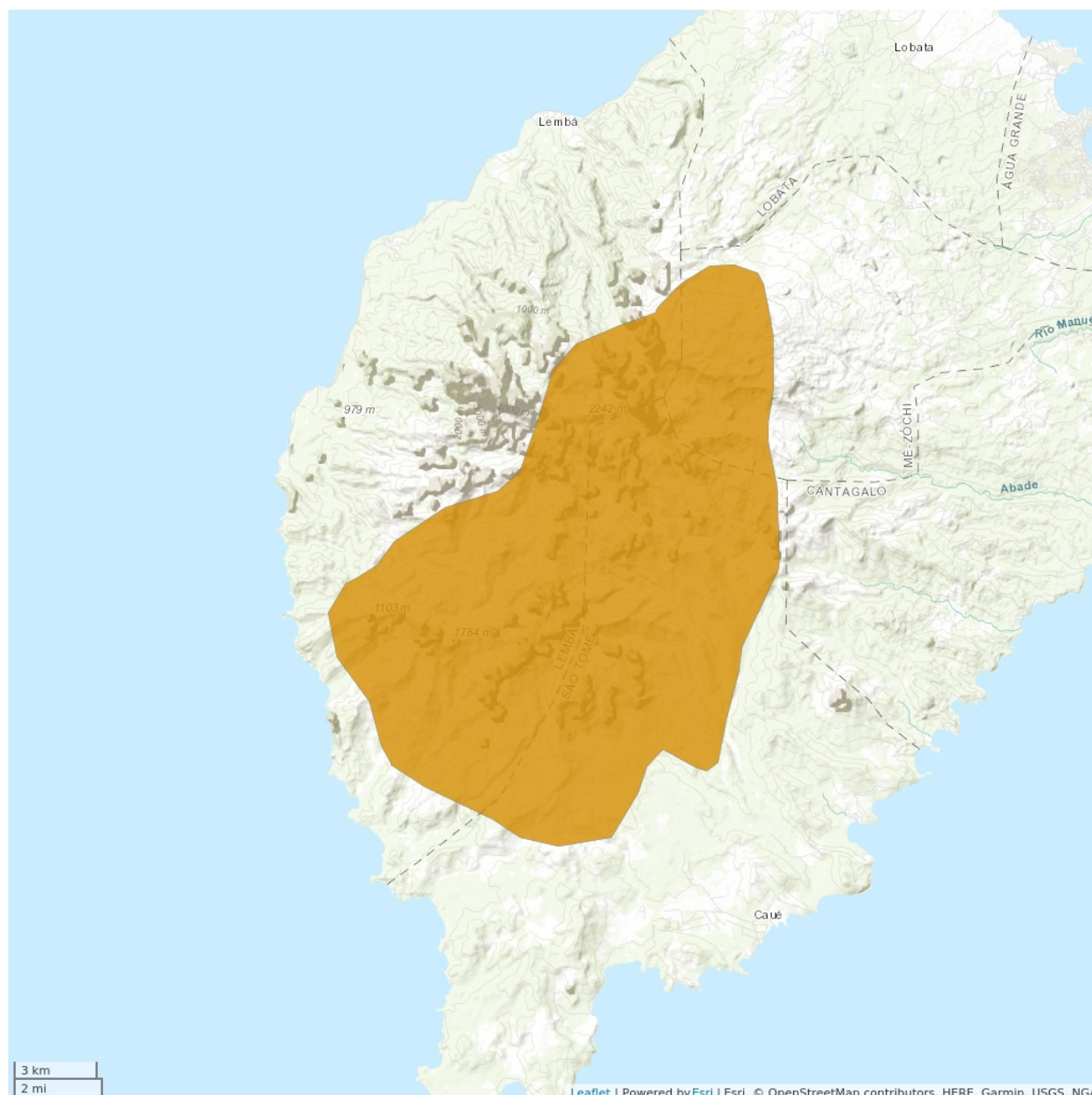
The species was, until relatively recently, known from just one remaining of three 19th century specimens from southern São Tomé, **São Tomé and Príncipe** (Steinheimer 2005; F. Steinheimer *in litt.* 2016). The remaining, and still only stuffed specimen, is the sole syntype of the species now housed at the Natural History Museum at Tring (UK), the other two specimens were destroyed by a fire at the Museu Bocage at Lisbon in 1978 (Jones and Tye 2006). It was rediscovered in 1991, close to the rio Xufexufe in the south-west of the island (Sergeant *et al.* 1992). Since then it was sighted at nearby Formoso Pequeno (R. F. de Lima *in litt.* 2013) and several other localities, mostly in native lowland forest (de Lima *et al.* 2017; Soares *et al.* 2020).

This species is endemic to São Tomé, **São Tomé and Príncipe**, where it is believed to be confined to an area of suitable habitat between 141 km<sup>2</sup> (de Lima *et al.* 2017) and 251 km<sup>2</sup> (Soares *et al.* 2020). It is thinly distributed in the south and centre of the island, single birds or pairs being reliably observed at a few localities (Olmos and Turshak 2010; Solé *et al.* 2012). The paucity of records suggests it probably has a tiny population, but recent extensions to the known range, elevation and habitat raise the possibility that the population may prove to be larger than expected.

### Country Occurrence:

**Native, Extant (resident):** Sao Tome and Principe (São Tomé)

# Distribution Map

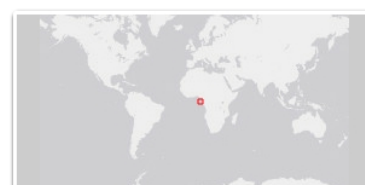
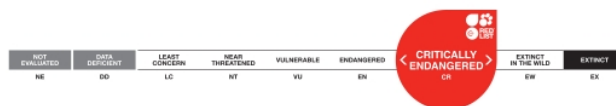


## Legend

EXTANT (RESIDENT)

Compiled by:

BirdLife International and Handbook of the Birds of the World 2021



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

## Population

The species is assumed to have a tiny population due to the scarcity of records. However, a recent extensive survey collated 39 records of this species, including many new localities, in altitude, and in secondary forest (de Lima *et al.* 2017). The species is very difficult to detect, so could be more abundant than current records suggest (Ward-Francis *et al.* 2015; de Lima *et al.* 2017), and whilst still likely to have a small population, the recent evidence suggests there could be >250 mature individuals. However, it is precautionarily placed in the range of 50-249 mature individuals.

### Trend Justification

The population is inferred to be declining as a result of ongoing habitat degradation, plus the impacts of introduced predators, however the rate of decline has not been estimated.

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

It was thought to be restricted to lowland, native forest, but in 2010 and 2011 it was sighted in secondary forest at 1,300-1,400 m (Solé *et al.* 2012). Subsequent records further support that it is not a lowland native specialist, and that its range is larger than previously assumed (de Lima *et al.* 2017). It is probably a canopy species and is reportedly quite silent, which could partly explain why it has so rarely been seen (Christy and Clarke 1998). It is mostly unresponsive to playback (Olmos and Turshak 2010; Solé *et al.* 2012). However, it seems to be easier to detected during the short dry season, when most birds are breeding (de Lima *et al.* 2017). It seems to move in pairs or alone and comes to the forest understorey to feed on seeds that it crushes with its powerful bill (Jones and Tye 2006; Olmos and Turshak 2010).

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

Historically, large areas of lowland forest were cleared for cocoa plantations. These were subsequently abandoned, creating large extents of secondary forest (Oyono *et al.* 2014) that are less suitable for this species (de Lima *et al.* 2017; Soares *et al.* 2020). The establishment of an oil palm plantation further increased habitat loss (de Lima *et al.* 2017). Other threats to habitat include the development infrastructure resulting from the ongoing population increase, and offshore oil exploitation (Oyono *et al.* 2014). Introduced Black Rat *Rattus rattus*, Mona Monkey *Cercopithecus mona*, African Civet *Civettictis civetta* and feral cats *Felis catus* are potential predators (Dutton 1994), although more research is needed to ascertain whether they are actually impacting the population.

## Conservation Actions (see Appendix for additional information)

### Conservation and Research Actions Underway

This species is considered protected by law 11/1999, and most of its range falls within the protected São Tomé Obo Natural Park. Hunting this species is also prohibited. In 2008, a training programme with NGOs Associação de Biólogos Saotomenses (ABS) and Monte Pico was initiated to involve locals in the study and conservation of São Tomean species. During an international workshop held in February 2008 to promote ecotourism in São Tomé and Príncipe, birdwatching was listed as an activity that should be encouraged. Ribeira Peixe was identified as a suitable site for a pilot project (Olmos and Turshak 2010).

In July 2009, ABS promoted a short course for the training of local people as bird guides at Ribeira Peixe. Efforts are on-going to promote the conservation of the area (Olmos and Turshak 2010).

Between 2012 and 2015, as part of the BirdLife International Preventing Extinctions programme, a species action plan was defined, involving local and international stakeholders (Ndang'ang'a *et al.* 2014), and local community members were key in implementing research and monitoring into the ecology, population status and threats to the species (Ward-Francis *et al.* 2015; de Lima *et al.* 2017). The Government is developing an open access database to collate all biodiversity data for the island, which will be used to inform land-use decisions (Ward-Francis *et al.* 2015). A workshop was held in January 2015, which included participants from the Government, to discuss progress towards an International Species Action Plan for the species (Ward-Francis *et al.* 2015). This species was chosen as one of a suite of indicator species that will be monitored through regular surveys in order to assess the effectiveness of the protected areas for biodiversity conservation (BirdLife International 2019). There are several ongoing projects supporting Biodiversity Conservation, Protected Area management, and sustainable management of forests in São Tomé and Príncipe, for example, the ECOFAC6 initiative, 2018-2020. This includes activities specific to the conservation of São Tomé Grosbeak (BirdLife International 2019).

### **Conservation and Research Actions Proposed**

Monitor population size, trends and threats. Research ecological requirements, namely concerning breeding and feeding. Ensure the implementation of existing environmental laws. Implement policies and raise awareness. Ensure that any hydroelectric developments are not within the Obo Natural Park, and incorporate species conservation measures in the Park management plan. Develop capacity for park management (Ward-Francis *et al.* 2015). Formally recognise the proposed buffer zone, which encompasses several areas where birds have been recorded, but which are currently unprotected (Solé *et al.* 2012; de Lima *et al.* 2017).

## **Credits**

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**Partner(s) and Institution(s):** BirdLife International

**Authority/Authorities:** IUCN SSC Bird Red List Authority (BirdLife International)

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## Citation

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## External Resources

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# Appendix

## Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	Resident	Suitable	Yes
1. Forest -> 1.9. Forest - Subtropical/Tropical Moist Montane	Resident	Suitable	Yes

## Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming	Future	Minority (50%)	Very rapid declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.4. Scale Unknown/Unrecorded	Past, unlikely to return	Majority (50-90%)	Rapid declines	Past impact
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	Minority (50%)	No decline	Low impact: 4
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion		
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Future	Majority (50-90%)	Rapid declines	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.2. Species disturbance		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Cercopithecus mona)	Ongoing	Whole (>90%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Civettictis civetta)	Ongoing	Whole (>90%)	Unknown	Unknown

	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species ( <i>Mustela nivalis</i> )	Ongoing	Whole (>90%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species ( <i>Rattus rattus</i> )	Ongoing	Whole (>90%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects		

## Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Action in Place</b>
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: Yes, over entire range
Occurs in at least one protected area: No
Invasive species control or prevention: No
In-place species management
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-place education
Subject to recent education and awareness programmes: Yes
Included in international legislation: No
Subject to any international management / trade controls: No

## Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Action Needed</b>
1. Land/water protection -> 1.1. Site/area protection
2. Land/water management -> 2.1. Site/area management
4. Education & awareness -> 4.2. Training

<b>Conservation Action Needed</b>
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.2. Policies and regulations
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level

## Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Research Needed</b>
1. Research -> 1.3. Life history & ecology
3. Monitoring -> 3.1. Population trends

## Additional Data Fields

<b>Distribution</b>
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 284
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 284
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 6-10
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 100
Upper elevation limit (m): 1,400
Lower depth limit (m): 1,500
<b>Population</b>
Number of mature individuals: 50-249
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
No. of subpopulations: 1
Continuing decline in subpopulations: Unknown

<b>Population</b>
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: Yes
No. of individuals in largest subpopulation: 51-250
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 3.3
Movement patterns: Not a Migrant

## The IUCN Red List Partnership



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