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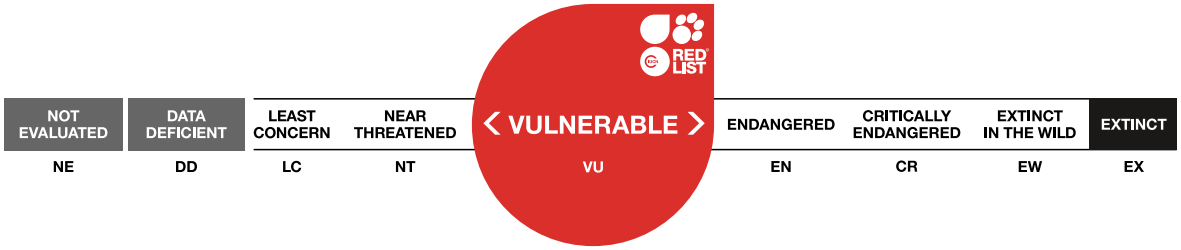
Tropicoporus drechsleri

Assessment by: Drechsler-Santos, E.R., Kossmann, T., Bittencourt, F., Salvador Montoya, C.A. & da Cunha, K.M.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Fungi	Basidiomycota	Agaricomycetes	Hymenochaetales	Hymenochaetaceae

Scientific Name: *Tropicoporus drechsleri* Salvador-Montoya & Popoff

Taxonomic Source(s):

Index Fungorum Partnership. 2020. Index Fungorum. Available at: http://www.indexfungorum.org.

Taxonomic Notes:

Tropicoporus drechsleri was recently described by Salvador-Montoya *et al*. (2018) based on molecular phylogenetic analysis (although it is morphologically distinctive) as a new species in the "*Inonotus linteus*" species complex. The collections examined to determine the species were previously identified as *Tropicoporus linteus* (Berk. & M.A.Curtis) L.W.Zhou & Y.C.Dai.

Assessment Information

Red List Category & Criteria: Vulnerable C2a(ii) ver 3.1

Year Published: 2020

Date Assessed: May 27, 2020

Justification:

Tropicoporus drechsleri is currently known from several sites in Argentina, in the Chaco and Selva Misionera (Atlantic Forest), and one site in the western part of Santa Catarina State, Brazil, (also in the Atlantic Forest). It is a specific parasite of *Cordia americana*, and its distribution is expected to match that of its host, ranging between 20°-30° S latitude in South America, from the Atlantic Forest to the east up to the Andean mountains to the west, in the Chaco domain. It is also expected to be found in Bolivia, Paraguay and Uruguay. There are an estimated 400-500 sites throughout its host's distribution, each potentially containing 10-20 mature individuals. Total population size is estimated at 5,000 to 10,000 mature individuals distributed in one subpopulation. A population size reduction of 10-20% in 70 years (three generations based on the phenology of the host tree) is suspected due to past and ongoing loss of suitable habitat in the Atlantic Forest and Chaco. *Tropicoporus drechsleri* is classified as Vulnerable.

Geographic Range

Range Description:

Tropicoporus drechsleri is currently known from several sites in Argentina, in Chaco and Selva Misionera (Atlantic Forest), and one site in the western part of Santa Catarina State of Brazil (also in the Atlantic Forest). The species is a specific parasite of *Cordia americana*, and its distribution is expected to match that of its host which ranges between 20°-30° S latitude in South America, from the Atlantic Forest to the east up to the Andean mountains to the west, in the Chaco domain. It is also expected to be found in Bolivia, Paraguay and Uruguay.

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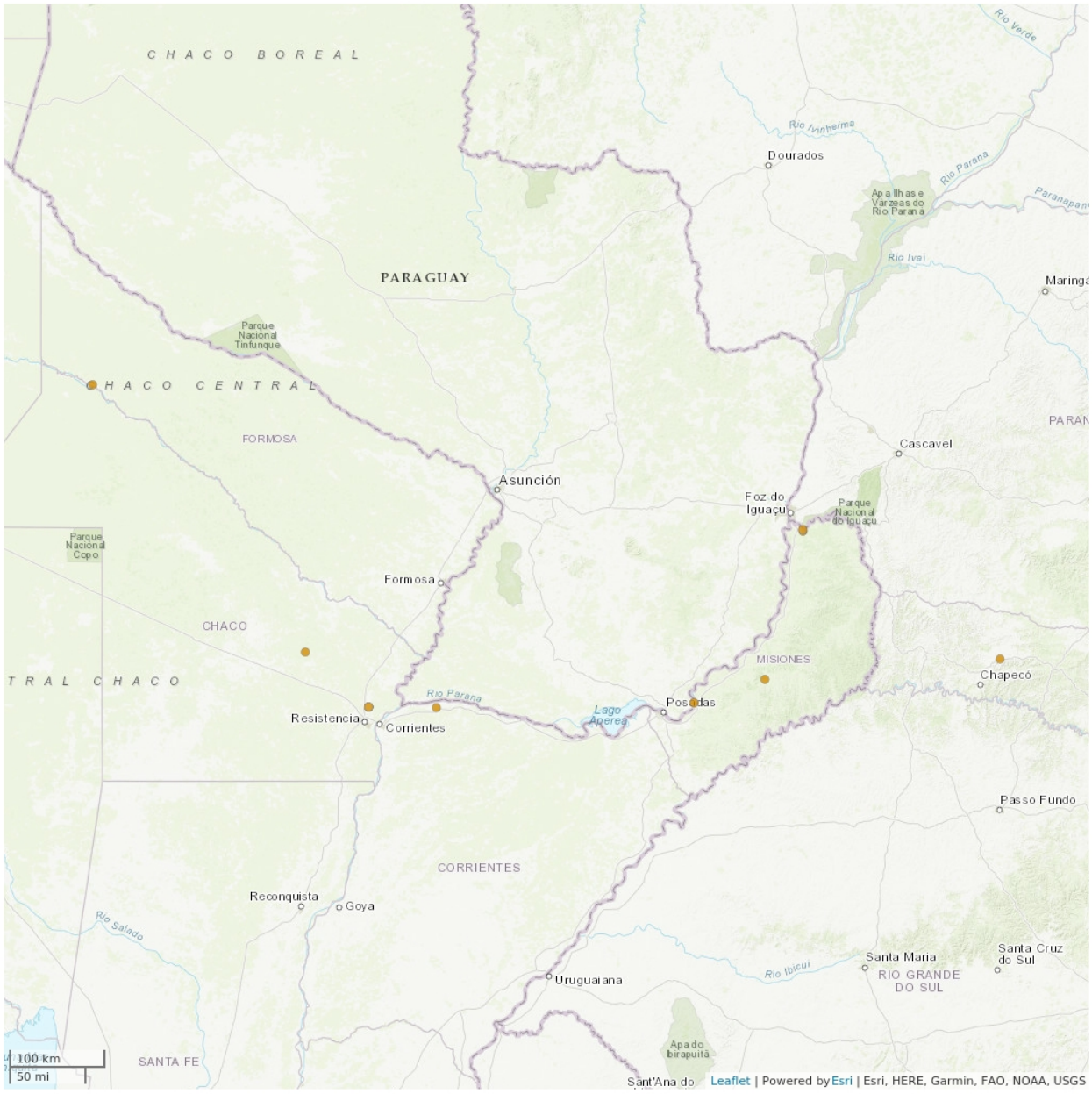
Based on the its host distribution and population density, T. drechsleri is expected to be more abundant in the Atlantic Forest, followed by the Chaco domain.

Country Occurrence:

Native, Extant (resident): Argentina; Brazil

Native, Possibly Extant (resident): Bolivia, Plurinational States of; Paraguay; Uruguay

Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

IUCN 2020

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

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Population

The species is known from 18 records in 8 sites in Argentina and Brazil. All but one of the sites are in Argentina, near the type locality. There are an estimated 400-500 sites throughout its host's distribution, each potentially containing 10-20 mature individuals. The total population size is estimated at between 5,000 to 10,000 mature individuals distributed in one subpopulation.

The Chaco has been suffering a rapid decline is the last 50 years, mainly due to deforestation for planting soy bean (Fearnside 2001, Kaimowitz and Smith 2001, Grau *et al*. 2005). In north-western Argentina, the Chaco domain lost 20% of its remaining area from 1972 to 2001 (Grau *et al.* 2005). In Bolivia, Chiquitano forest, the Chaco lost 48% of its original area, also because of establishment of agricultural fields (Steininger *et al.* 2001). Additionally, the Atlantic Forest domain has only 28% of its original area (Rezende *et al.* 2018). Due to the Atlantic Forest and Chaco loss of area in the past, and the current situation in areas where the species occurs, there is an suspected population size reduction of 10-20% in 70 years (three generations, based on the phenology of the host tree).

Current Population Trend: Decreasing

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

The species is parasitic and likely host specific on *Cordia americana*. Its range is estimated to follow that of its host's in the Atlantic Forest (Brazil, Argentina and Paraguay), Chaco (Argentina and possible in Bolivia and Paraguay), and likely in Montes Ribereños (Uruguay).

Systems: Terrestrial

Use and Trade **(see Appendix for additional information)**

No use/trade is known.

Threats **(see Appendix for additional information)**

Tropicoporus drechsleri and its host, *Cordia americana*, are mainly distributed in two domains, the Atlantic Forest and the Chaco. Both domains are considered deforestation hotspots, suffering loss of area mainly due to agriculture and human occupation (Pinto *et al*. 2006, Gasparri and Grau 2009). The species is also threatened by 'savannization' of the tropical forests in South America caused by climate change (Salazar *et al*. 2007).

Conservation Actions **(see Appendix for additional information)**

The main action needed for the conservation of the species is to protect areas where its host occurs by establishing additional Conservation Units as the decline in protected areas is substantially reduced. For example, between 1989 and 2000 the deforestation in major protected areas of Atlantic Forest in Paraguay was 6.07%, contrasting with an nearly 80% loss of area in unprotected sites. These data document the success of protection policies. More surveys are also needed to confirm estimated sites of occurrence, as well as to better understand its distribution, phenology and ecology.

Credits

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Assessor(s): Drechsler-Santos, E.R., Kossmann, T., Bittencourt, F., Salvador Montoya, C.A. & da Cunha, K.M.

Reviewer(s): Mueller, G.M.

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Disclaimer

External Resources

For Supplementary Material, and for Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.5. Forest - Subtropical/Tropical Dry	-	Suitable	-
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-

Plant Growth Forms

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

Plant Growth Form
M. Fungus

Threats

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

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	Low impact: 3
	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 -> 2.1.3. Agro-industry farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		

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7. Natural system modifications -> 7.3. Other ecosystem modifications	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
11. Climate change & severe weather -> 11.1. Habitat shifting & alteration	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		
11. Climate change & severe weather -> 11.2. Droughts	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 1. Ecosystem stresses -> 1.3. Indirect ecosystem effects		

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
5. Law & policy -> 5.2. Policies and regulations

Research Needed

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

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology

Additional Data Fields

Population
Number of mature individuals: 5,000-10,000
Continuing decline of mature individuals: Yes
No. of subpopulations: 1
All individuals in one subpopulation: Yes
No. of individuals in largest subpopulation: 5000-10000
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 23.33

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The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

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