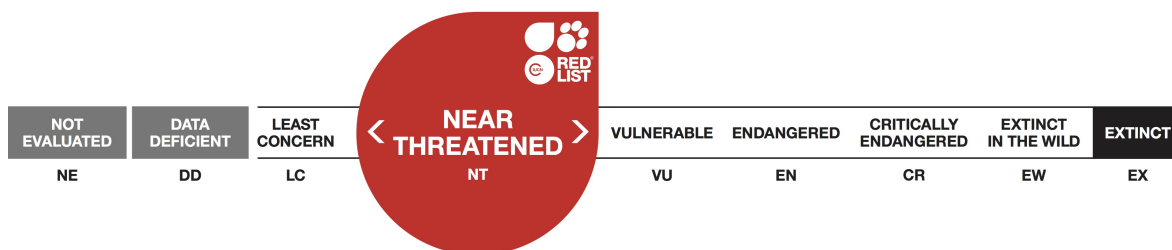




Cornufer vitiensis, Fiji Tree Frog

Assessment by: IUCN SSC Amphibian Specialist Group



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Citation: IUCN SSC Amphibian Specialist Group. 2019. *Cornufer vitiensis*. The IUCN Red List of Threatened Species 2019: e.T58484A83672189. <http://dx.doi.org/10.2305/IUCN.UK.2019-2.RLTS.T58484A83672189.en>

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Amphibia	Anura	Ceratobatrachidae

Taxon Name: *Cornufer vitiensis* (Girard, 1853)

Synonym(s):

- *Halophila vitiensis* Girard, 1853
- *Platymantis vitiensis* (Girard, 1853)

Common Name(s):

- English: Fiji Tree Frog, Levuka Wrinkled Ground Frog

Taxonomic Source(s):

Frost, D.R. 2015. Amphibian Species of the World: an Online Reference. Version 6.0. New York, USA. Available at: <http://research.amnh.org/herpetology/amphibia/index.html>.

Assessment Information

Red List Category & Criteria: Near Threatened [ver 3.1](#)

Year Published: 2019

Date Assessed: December 20, 2018

Justification:

Listed as Near Threatened since although the population is severely fragmented and there is continuing decline in the extent and quality of its habitat, thus making the species close to qualifying for Vulnerable, its extent of occurrence (EOO) is around 35,000 km² which is likely to be an overestimation.

Previously Published Red List Assessments

2004 – Near Threatened (NT)

<http://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T58484A11775844.en>

Geographic Range

Range Description:

This species occurs in Fiji on the islands of Viti Levu, Vanua Levu and Ovalau, between 50-800 m asl. It has now also been recorded on Qamea Island (Osborne *et al.* 2013). There is a photograph record from Taveuni, but no encounters in the wild to date and, while this island is included in the distribution map, it is coded as 'Presence Uncertain'. It is not found in the high elevation forests in the interior of Viti Levu (T. Osborne pers. comm. November 2018). Its estimated extent of occurrence (EOO) is around 35,000 km², although this is likely to be an overestimation given it is not found throughout the entire islands from which it is known.

Country Occurrence:

Native: Fiji

Distribution Map

Cornufer vitiensis



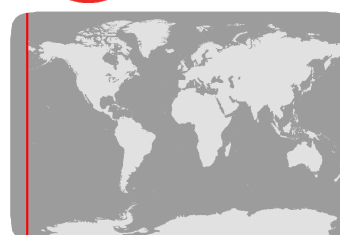
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Range

- Extant (resident)
- Presence Uncertain

Compiled by:

IUCN (International Union for Conservation of Nature) & Conservation International.



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



Population

It can be locally common in suitable areas, in particular in mature, wet forest along streams, but it is much less common in secondary and degraded habitats. Surveys (of various durations and frequency) between 2003-2006 recorded between 10-30 and 30+ individuals per site at Savura Reserve, Sovi Basin and Wabu Reserve on Viti Levu Island (Morrison and Naikatini 2008). Surveys on Viti Levu and Vanua Levu conducted in 2008 and 2009 (published in Osborne *et al.* 2013), and for biodiversity rapid assessments conducted by the Institute of Applied Sciences (the most recent surveys on both islands conducted only just this year) at University of the South Pacific (USP) (T. Osborne pers. comm. December 2018). The relict subpopulations that have been surveyed on these islands are reported to be found in similar numbers as there were over a decade ago (T. Osborne pers. comm. December 2018). More recent surveys conducted on all islands it occurs on did not detect the species at 10 independent sites on Taveuni or Ovalau Islands, suggesting a possible decline in abundance at these localities (Osborne *et al.* 2013). On Ovalau, the decline may be a result of the increasing land modification that is occurring, however this species is only known from Taveuni from a photo record and there have not been any field encounters with it on the island (Osborne *et al.* 2013). The population is thought to be declining.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

It is naturally a forest species, living especially along streams in giant *Pandanus*, bird's nest ferns and the common lily (*Colospermum montanum*). It is also found, although at much lower densities, in rural gardens, pandans, and semi-disturbed vegetation. They are often found within or perched on *Pandanus* plants (Osborne *et al.* 2013), and their distribution may be closely associated with the presence or absence of *Pandanus* plants (Osborne *et al.* 2008). Adults are encountered more during July to October, gravid females between August and November, hatchlings May to October (dry season), and juveniles between November to April (wet season) (Osborne *et al.* 2008). It breeds by direct development and, while it breeds year round, this species is more reproductively active during December to March (Osborne *et al.* 2008). Eggs being laid in leaf axils, and the clutch size is less than 30 eggs.

Systems: Terrestrial, Freshwater

Use and Trade

There are no records of this species being utilized.

Threats (see Appendix for additional information)

The major threat to this species is habitat loss and degradation caused by agriculture (including commercial farming on Viti Levu and Vanua Levu), logging (both small and large-scale), and urban and infrastructure development (T. Osborne pers. comm. November 2018). Habitat loss and degradation from commercial agriculture and logging is extensive on Viti Levu, and to a lesser degree on Vanua Levu (T. Osborne pers. comm. November 2018).

Conservation Actions (see Appendix for additional information)

Conservation Actions

This species has been confirmed as occurring in Tomaniivi Nature Reserve, Colo-I-Suva Forest Park,

Garrick Memorial Park, Bouma Forest Reserve, Savura Forest Reserve, and Waisali Rainforest Reserve. These areas are not well protected as there is little to no legislation governing forest protection within and at the borders, as well as the ambiguity of reserves types and vagueness of legislated protection measures for the different reserve types (T. Osborne pers. comm. November 2018). Encroachment has been observed on Viti Levu in the Vago and Savura Reserves.

Conservation Needed

The main priority conservation measure for this species is the conservation of mature forest, especially along streams.

Research Needed

Further research in to population distribution, size and trends, in addition to life history and threats is needed.

Credits

Assessor(s): IUCN SSC Amphibian Specialist Group

Reviewer(s): Stuart, S.N.

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**Facilitators(s) and
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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
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Resident	Suitable	Yes
14. Artificial/Terrestrial -> 14.4. Artificial/Terrestrial - Rural Gardens	Resident	Marginal	-
14. Artificial/Terrestrial -> 14.6. Artificial/Terrestrial - Subtropical/Tropical Heavily Degraded Former Forest	Resident	Marginal	-

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	-	-	-
	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	-	-	-
	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	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.1. Intentional use: (subsistence/small scale) [harvest]	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.2. Intentional use: (large scale) [harvest]	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place

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

Conservation Actions in Place
In-Place Land/Water Protection and Management
Occur in at least one PA: Yes

Conservation Actions Needed

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

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
2. Land/water management -> 2.1. Site/area management

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
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Estimated extent of occurrence (EOO) (km ²): 35000
Lower elevation limit (m): 50
Upper elevation limit (m): 800
Population
Population severely fragmented: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Movement patterns: Not a Migrant

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