The IUCN Red List of Threatened Species™
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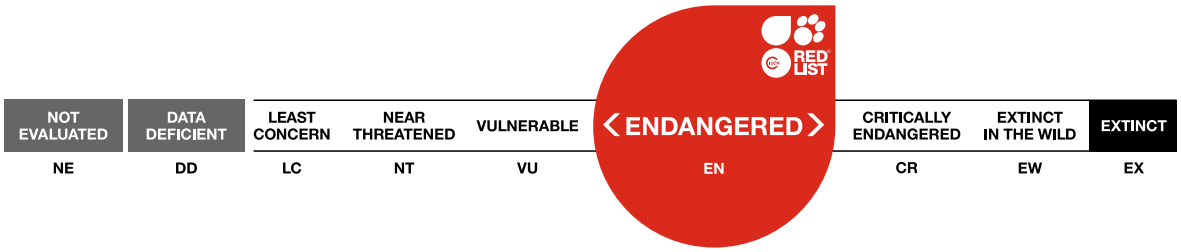
IUCN 2024: T61505A207650471
Scope(s): Global, Europe
Language: English

Gallotia intermedia, Tenerife Speckled Lizard

Assessment by: Bowles, P.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Reptilia	Squamata	Lacertidae

Scientific Name: *Gallotia intermedia* Barbadillo, Lacomba, Pêrez-Mellado, Sancho & López-Jurado, 1999

Common Name(s):

- English: Tenerife Speckled Lizard
- Spanish; Castilian: Lagarto Canario Moteado

Taxonomic Source(s):

Uetz, P. (ed). 2022. The Reptile Database. Available at: http://www.reptile-database.org. (Accessed: 5 May 2022).

Taxonomic Notes:

This species was described by Hernández *et al*. (2000), but the name first appeared in Barbadillo *et al*. (1999) and this is therefore the correct authority.

Assessment Information

Red List Category & Criteria: Endangered A4a; B1ab(ii,v)+2ab(ii,v) ver 3.1

Year Published: 2024

Date Assessed: October 7, 2022

Justification:

This species is endemic to Europe, where it is restricted to the Canary Islands, Spain. It is assessed as Endangered (EN A4a, B1ab(ii,v)+2ab(ii,v)) because the species has an extent of occurrence below 300 km^2 and an area of occupancy greater than 10 km^2 but likely to be below 50 km^2, it is considered on a precautionary basis to occur as a severely fragmented population, and a decline in both the number of mature individuals and the area occupied within the largest subpopulation (here presumed to correspond to a decline in area of occupancy) has been recorded between 2004 and 2019. The population is projected to continue to decline to extinction, potentially as soon as 2050, and over a 10 year time window between 2020 and 2030 this is projected to be at a rate of around 50%.

Previously Published Red List Assessments

2009 – Critically Endangered (CR)

2006 – Critically Endangered (CR)

Geographic Range

Range Description:

This species was discovered in 1996 in the Macizo de Teno in the extreme northwest of Tenerife Island,

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in the Canary Islands (Spain). It is now known from a small area of coastline in the extreme west of the island, and also from Montana de Guaza in the extreme south. It is believed that the species was once widespread throughout much of Tenerife.

Country Occurrence:

Native, Extant (resident): Spain (Canary Is.)

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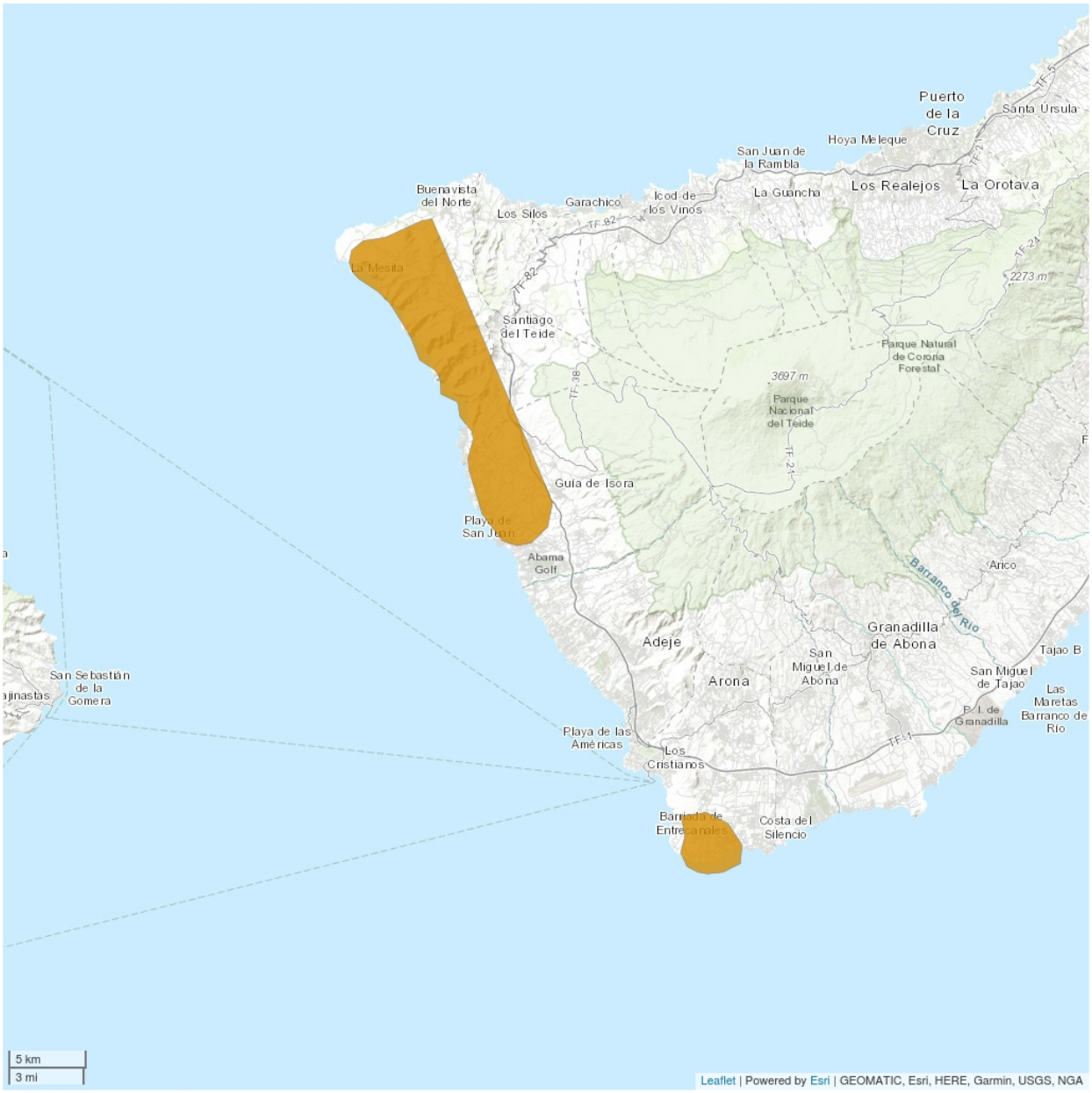
Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

European Red List, EC and IUCN 2023

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

In the species' remaining stronghold, Ginovés *et al*. (2005) estimated that the total population in the species' remaining stronghold, Montaña de Guaza, was between 884 and 1,100 individuals. Two subsequent censuses in the same area estimated a population size of between 529 and 867 (Albadelejo and Rodríguez 2014), or 587 (Padilla *et al*. 2019). There are 40 other, isolated subpopulations along 9 km of coastline in Teno, estimated to contain approximately 280-460 animals as of Rando (2002). Based on these estimates it is possible that the largest subpopulation contains more than 50% of the global population, however, this is not certain and the remaining subpopulations are small and isolated. As such the population is considered to be severely fragmented on a precautionary basis.

Comparing results of sampling between 2004 and 2014, Albadelejo and Rodríguez (2014) found that the proportion of large individuals in samples had declined by approximately 50% over the intervening decade, and the overall population by 25%. At individual sampling sites, densities fell by as much as 83% in this period (Albadelejo and Rodríguez 2014). These authors plot the extrapolated population trend for the Guaza subpopulation between 2004 and 2050, projecting a decline potentially in excess of 50% from 2020-2030. Based on minimum and median estimated population sizes as of 2004, Albadelejo and Rodríguez (2014) project the extinction of this subpopulation between 2035 and the late 2040s. For the maximum estimated population size, the species was projected to persist in 2050 but with approximately 250 individuals, a decline of around 75% since 2004.

Current Population Trend: Decreasing

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

This species inhabits rugged terrain, with rocks and boulders, often found on small rock ledges with sparse vegetation. The species is presumed to have once occurred in a variety of habitats across Tenerife. The species is largely herbivorous. It is an egg-laying species. Its life history has not been characterised, but it is similarly-sized to species such as *Gallotia galloti* that mature at three years of age (Castanet and Báez 1991, M.A. Carretero pers. comm. 2023). Members of this genus generally attain sexual maturity relatively early and some species continue to grow after sexual maturity (Molina-Borja and Bohórquez-Alonso 2023). If this is the case for *G. intermedia*, subpopulations will exhibit a high degree of overlap in adult size classes (M.A. Carretero pers. comm. 2023). Smaller, younger males may have fewer reproductive opportunities than larger males, which may result in a generation length exceeding three years, however as the population declines younger animals may form a larger portion of the breeding population (M.A. Carretero pers. comm. 2023). For the purposes of this assessment a minimal three year period is taken to represent generation length. The holotype of this species (which was described from a living animal) was still alive more than 20 years after it was described (M.A. Carretero pers. comm. 2023).

Systems: Terrestrial

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

There is no known use of or trade in this species.

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

The main threat to this species is predation by feral cats and, to a lesser degree, by rats. Most *Gallotia* exhibit slow life histories, distributing lifetime reproductive effort over many years, and so are likely to be especially sensitive to elevated mortality, particularly of large individuals (M.A. Carretero pers. comm. 2023). It is presumed that the historical decline in this species was largely due to predation by cats. A study undertaken within the Montaña de Guaza "critical area" found this lizard in the diet of cats sampled between December 2019 and February 2020, and that the proportion of reptiles in cats' diet in this region had increased from 3.6 to 11.5%, hypothesised to result from declines in rabbit populations that comprise the cats' usual primary prey (Ravelo and Reyes 2021). Padilla *et al.* (2019) observed that declines in Montaña de Guaza were greatest in areas of ravines most accessible to cats, while noting that this apparent trend requires confirmation with repeat sampling. The cats' diet also included rubbish likely from the nearby urban centres of Los Cristianos and El Palmar, suggesting that free-ranging animals from urban sites as far as a kilometre away pose a threat to the lizard. Several of the smaller subpopulations, consisting of a few individuals, may be threatened by the effects of inbreeding, and a review of unpublished genetic data (M.A. Carretero pers. comm. October 2022) is recommended.

Tourism development and activities could impact the southern subpopulation at Montaña de Guaza, but this requires confirmation (M.A. Carretero pers. comm. October 2022).

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

Measures to control access by cats to some of the remaining subpopulations, such as fencing, had reportedly been implemented by the time of a prior Red List assessment, however at least in Montaña de Guaza these appear not to be in place. Fencing off at least part of this subpopulation is recommended (Ravelo and Reyes 2021).

A recovery action plan has been developed for this species. There is a need for better control of free-roaming domestic cats, and the prohibition of feeding cats in public spaces is necessary (Ravelo and Reyes 2021). The species may still survive in other inaccessible parts of Tenerife, and more field surveys are urgently needed. It occurs in at least one protected area. Cat control is expensive, so fencing is probably the most cost-effective conservation action that can be implemented (M.A. Carretero pers. comm. October 2022).

There is some limited *ex situ* breeding of the species.

Credits

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Reviewer(s): Carretero, M., Cogălniceanu, D., Corti, C., Crnobrnja-Isailović, J., Crochet, P.-A., Doronin, I.V., Halpern, B., Jablonski, D., Jelić, D., Joger, U., Kirschey, T., Lymberakis, P., Maletzky, A., Martínez-Freiría, F., Mebert, K., Mizsei, E., Razzetti, E., Romano, A., Salvi, D., Speybroeck, J. & Stănescu, F.

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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?
3. Shrubland -> 3.5. Shrubland - Subtropical/Tropical Dry	Resident	Suitable	Yes
6. Rocky areas (eg. inland cliffs, mountain peaks)	-	-	-

Threats

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

Threat	Timing	Scope	Severity
1. Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	Majority (50-90%)	Unknown
Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Unspecified Rattus)	Ongoing	Majority (50-90%)	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 (Felis catus)	Ongoing	Majority (50-90%)	Unknown
Stresses:	2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: Yes
Systematic monitoring scheme: Yes
In-place land/water protection
Conservation sites identified: Yes, over entire range
Occurs in at least one protected area: Yes
In-place education
Subject to recent education and awareness programmes: Yes

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Conservation Actions Needed

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

Conservation Action Needed	Notes
1. Land/water protection -> 1.1. Site/area protection	-
2. Land/water management -> 2.1. Site/area management	-
3. Species management -> 3.2. Species recovery	-
3. Species management -> 3.4. Ex-situ conservation -> 3.4.1. Captive breeding/artificial propagation	-
4. Education & awareness -> 4.3. Awareness & communications	-

Research Needed

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

Research Needed	Notes
1. Research -> 1.2. Population size, distribution & trends	-
3. Monitoring -> 3.1. Population trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 16-44
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km²): 227
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: No
Population
Continuing decline of mature individuals: Yes
Population severely fragmented: Yes
Habitats and Ecology
Generation Length (years): 3

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The IUCN Red List Partnership

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