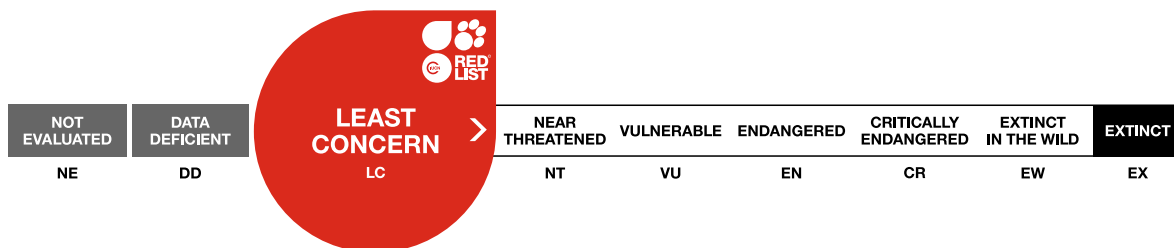


Solenodon paradoxus, Hispaniolan Solenodon

Assessment by: Kennerley, R., Turvey, S.T. & Young, R.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Eulipotyphla	Solenodontidae

Scientific Name: *Solenodon paradoxus* Brandt, 1833

Common Name(s):

- English: Hispaniolan Solenodon, Haitian Solenodon
- Spanish; Castilian: Solenodon de la Española

Taxonomic Notes:

The southern Hispaniolan Solenodon population (distributed south of the Neiba Valley) has been described as a separate subspecies (*Solenodon paradoxus woodi* Ottenwalder, 2001) on the basis of morphometric analysis, but genetic differences between northern and southern Hispaniolan Solenodon populations have not yet been assessed.

Assessment Information

Red List Category & Criteria: Least Concern [ver 3.1](#)

Year Published: 2020

Date Assessed: November 20, 2015

Justification:

This species is assessed as Least Concern because it has a large extent of occurrence (EOO) of approximately 80,493 km² and is found in numerous protected areas. Whilst there is ongoing habitat destruction and degradation across several parts of its range, there is no evidence of recent subpopulation declines or extirpations. It may qualify as threatened in the future if further data show that habitat loss or predation by invasive mammals are significant threats.

Previously Published Red List Assessments

2008 – Endangered (EN)

<https://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T20321A9186243.en>

1996 – Endangered (EN)

1994 – Endangered (E)

1990 – Endangered (E)

1988 – Endangered (E)

1986 – Endangered (E)

1982 – Endangered (E)

1965 – Unknown (N/A)

Geographic Range

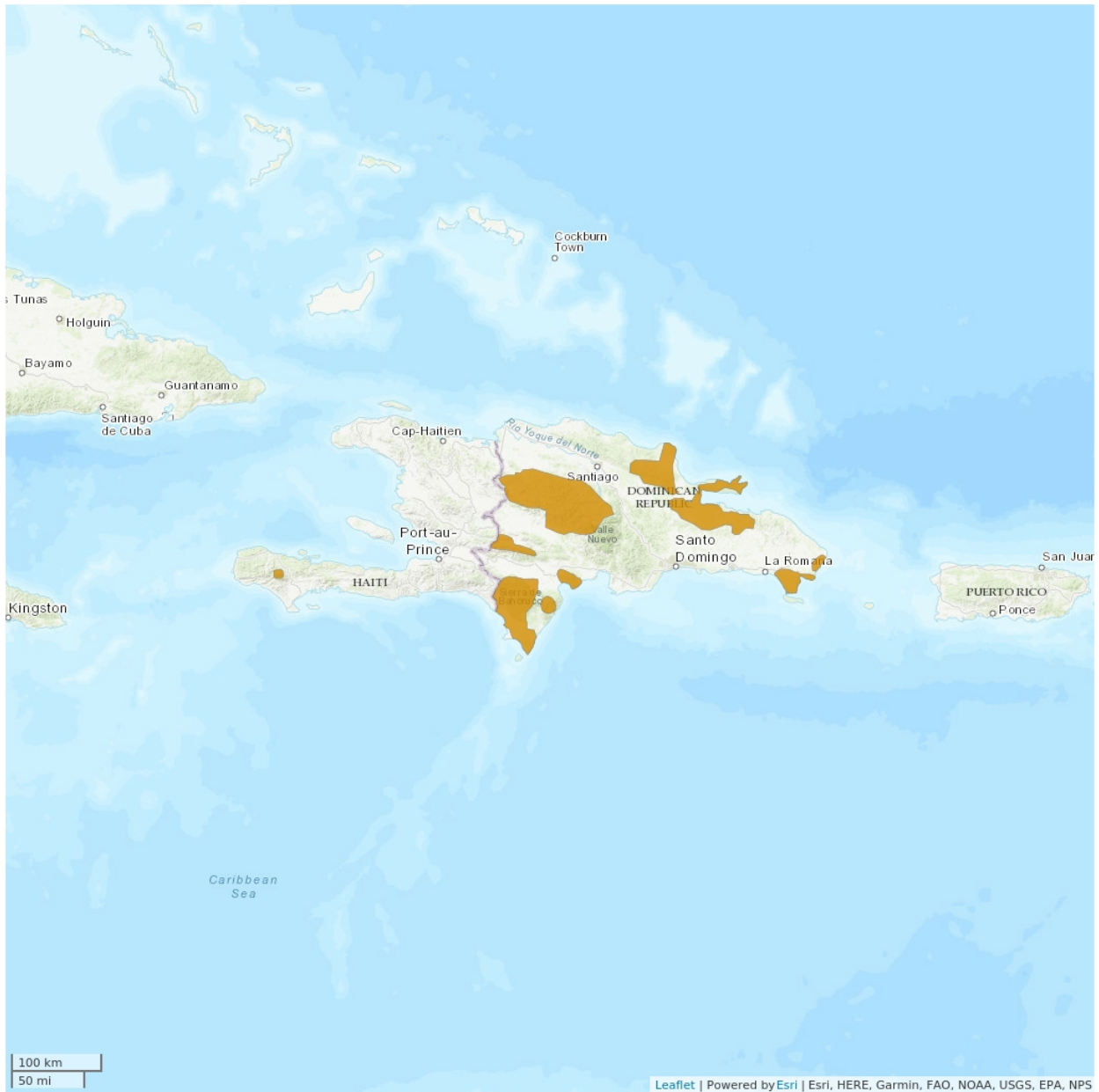
Range Description:

This species occurs in the Massif de la Hotte and in the Massif de la Selle (Haiti) and across the Dominican Republic, from elevations of 13 to 2,026 m asl (Kennerley 2014).

Country Occurrence:

Native, Extant (resident): Dominican Republic; Haiti

Distribution Map

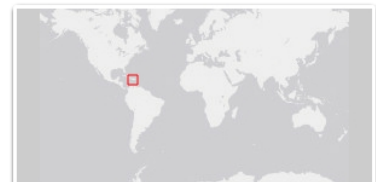


Legend

■ EXTANT (RESIDENT)

Compiled by:

IUCN SSC Small Mammal Specialist Group 2020



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

Population

Recent research suggests that the species is far more wide-spread across the island of Hispaniola than previously thought. In Haiti the species could be considered Critically Endangered because there is an isolated population with a range less than 100 km², threatened by habitat loss and persecution (S. Turvey and L. Davalos pers. comm.), although more recent searches for the species in the south-east of the country closer to the border with the Dominican Republic have confirmed presence of the species (Kennerley 2014). Populations were previously thought to be highly fragmented due to human activity and agriculture, however current research has shown a more widespread, consistent distribution across the Dominican Republic (Kennerley 2019).

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The Hispaniolan Solenodon is found in forests and scrubland, as well as around crops and areas of pasture. It is mainly nocturnal, denning during the day in rock clefts and hollow trees. Its diet is predominately made up of insects found in soil and leaf litter. Solenodons obtain food by rooting in the ground with their snouts and by tearing into rotten logs and trees with their foreclaws. This species is relatively social, and up to eight individuals may inhabit the same den. Litter size is 1 or 2 young. The young are born in a nesting burrow. Young solenodons remain with their mother for several months, which is exceptionally long for insectivores.

Systems: Terrestrial

Threats (see Appendix for additional information)

The most significant threat to this species appears to be the continuing demise of its forest habitat, through conversion of land for agriculture, cutting of trees for charcoal production, and forest fires. Predation by introduced cats and dogs is also likely to be a considerable threat. During surveys of several rural communities in south-west of the Dominican Republic solenodons and the other island endemic non-volant mammal (*Plagiodontia aedium*), dogs were reported to have accounted for 73% of known deaths for both species, and attention was drawn to the role played by dogs trained to kill mongoose and feral cats. These dogs are allowed to roam freely in the vicinity of villages during day and night, and are reported to be responsible for 57% of kills, as opposed to only 12% made by dogs taken on specific hunting trips (Turvey *et al.* 2014). In Haiti persecution and hunting for food (Samuel Turvey pers. comm.) are threats, and there is devastating habitat destruction also occurring. During a trip to Duchity and Pic Macaya in Haiti, researchers recorded five solenodon deaths caused by dogs (Borroto-Páez and Woods 2012).

Conservation Actions (see Appendix for additional information)

It is protected by law in the Dominican Republic (General Environmental Law 64 - 00). There was a recovery Plan published in 1992 which suggested comprehensive surveys, and management in the National Park Pic Macaya, and education, and the control of exotic mammals, and breeding programmes. This plan was not implemented (Samuel Turvey pers. comm). Found in most protected areas in the Dominican Republic (Sixto Inchaustegui pers. comm). It is one of the species that lives in both the Caribbean Biodiversity Hotspot and the Greater Antillean Moist Forests Ecoregion (Olson and

Dinerstein, 1998).

Credits

Assessor(s): Kennerley, R., Turvey, S.T. & Young, R.

Reviewer(s): Amori, G.

Contributor(s): Inchaustegui, S. & Hood, C.

Authority/Authorities: IUCN SSC Small Mammal Specialist Group

Bibliography

- Borroto-Páez, R. and Woods, C.A. 2012. Status and impact of introduced mammals in the West Indies. In: Borroto-Páez, R., Woods, C.A., and Sergile, F.E. (eds), *Terrestrial Mammals of the West Indies. Contributions*, pp. 241-258. Wocahoota Press and Florida Museum of Natural History.
- Hutterer, R. 2005. Order Soricomorpha. In: D.E. Wilson and D.M. Reeder (eds), *Mammal Species of the World*, pp. 220-311. Johns Hopkins University Press, Baltimore, Maryland, USA.
- IUCN. 2020. The IUCN Red List of Threatened Species. Version 2020-3. Available at: www.iucnredlist.org. (Accessed: 10 December 2020).
- Kennerley, R.J. 2014. The ecology of the Hispaniolan Solenodon and Hutia in native forest and agricultural systems in the Dominican Republic. Centre for Agri-Environmental Research, University of Reading.
- Olson, D.M. and Dinerstein, E. 1998. The Global 200: a representation approach to conserving the Earth's most biologically valuable ecoregions. *Conservation Biology* 12(3): 502.
- Rosalind J Kennerley, Malcolm A C Nicoll, Richard P Young, Samuel T Turvey, Jose M Nunez-Mino, Jorge L Brocca, Simon J Butler. 2019. The impact of habitat quality inside protected areas on distribution of the Dominican Republic's last endemic non-volant land mammals. *Journal of Mammalogy* 100(1): 45-54.
- Thornback, J. and Jenkins, M. 1982. *The IUCN Mammal Red Data Book. Part 1: Threatened mammalian taxa of the Americas and the Australasian zoogeographic region (excluding Cetacea)*. IUCN, Gland, Switzerland.
- Turvey, S.T., Fernández-Secades, C., Nuñez-Miño, J.M., Hart, T., Martinez, P., Brocca, J.L. and Young, R.P. 2014. Is local ecological knowledge a useful conservation tool for small mammals in a Caribbean multicultural landscape? *Biological Conservation* 169: 189-197.

Citation

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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?
1. Forest -> 1.5. Forest - Subtropical/Tropical Dry	-	Suitable	-
1. Forest -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-
1. Forest -> 1.9. Forest - Subtropical/Tropical Moist Montane	-	Suitable	-
7. Caves and Subterranean Habitats (non-aquatic) -> 7.1. Caves and Subterranean Habitats (non-aquatic) - Caves	-	Suitable	-
14. Artificial/Terrestrial -> 14.1. Artificial/Terrestrial - Arable Land	-	Suitable	-
14. Artificial/Terrestrial -> 14.2. Artificial/Terrestrial - Pastureland	-	Suitable	-
14. Artificial/Terrestrial -> 14.3. Artificial/Terrestrial - Plantations	-	Marginal	-
14. Artificial/Terrestrial -> 14.6. Artificial/Terrestrial - Subtropical/Tropical Heavily Degraded Former Forest	-	Suitable	-

Use and Trade

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

End Use	Local	National	International
Food - human	Yes	No	No

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	Ongoing	Majority (50-90%)	Unknown	Unknown
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.3. Persecution/control	Ongoing	Minority (50%)	Negligible declines	Low impact: 4
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.5. Motivation Unknown/Unrecorded	Ongoing	Majority (50-90%)	Unknown	Unknown
	Stresses:	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 (Canis familiaris)	Ongoing	Whole (>90%)	Negligible declines	Medium impact: 6
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 land/water protection
Conservation sites identified: Yes, over entire range

Conservation Actions Needed

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

Conservation Action Needed
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.2. Invasive/problematic species control
3. Species management -> 3.4. Ex-situ conservation -> 3.4.1. Captive breeding/artificial propagation
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level

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
1. Research -> 1.6. Actions
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Estimated extent of occurrence (EOO) (km ²): 80493.02
Lower elevation limit (m): 13
Upper elevation limit (m): 2,026

Population
Population severely fragmented: Unknown
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Unknown

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