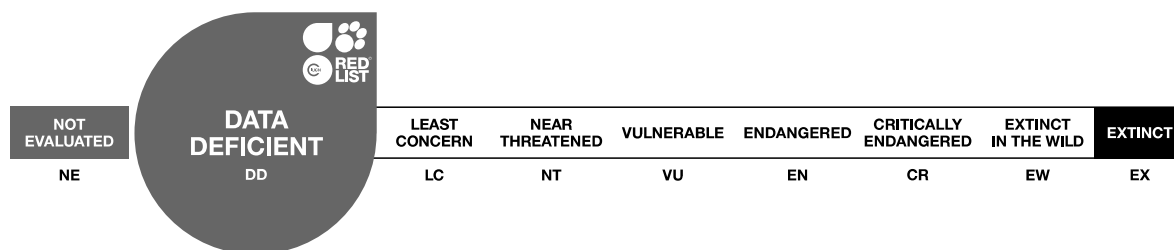


## *Dinotrema azoricum*

Assessment by: Nunes, R. & Borges, P.A.V.



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

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## Taxonomy

| Kingdom  | Phylum     | Class   | Order       | Family     |
|----------|------------|---------|-------------|------------|
| Animalia | Arthropoda | Insecta | Hymenoptera | Braconidae |

**Scientific Name:** *Dinotrema azoricum* (Fischer, 2003)

**Synonym(s):**

- *Synaldis azoricum* Fischer, 2003

## Assessment Information

**Red List Category & Criteria:** Data Deficient [ver 3.1](#)

**Year Published:** 2020

**Date Assessed:** March 26, 2018

**Justification:**

*Dinotrema azoricum* is an endemic species of the Azores, Portugal. It is known only from the holotype, collected on São Miguel in 1938, in a (currently) highly disturbed area. From the historical data, it potentially has a very small Extent of Occurrence (16 km<sup>2</sup>) and Area of Occupancy (16 km<sup>2</sup>). This species has possibly declined in the past as a result of human activity, but the present situation of this species needs to be further assessed and further research is needed into its population, distribution, threats, ecology and life history. Conservation of native vegetation could potentially aid this species' conservation. Based upon the unknown distribution, threats and ecology, this species is assessed as Data Deficient (DD).

## Geographic Range

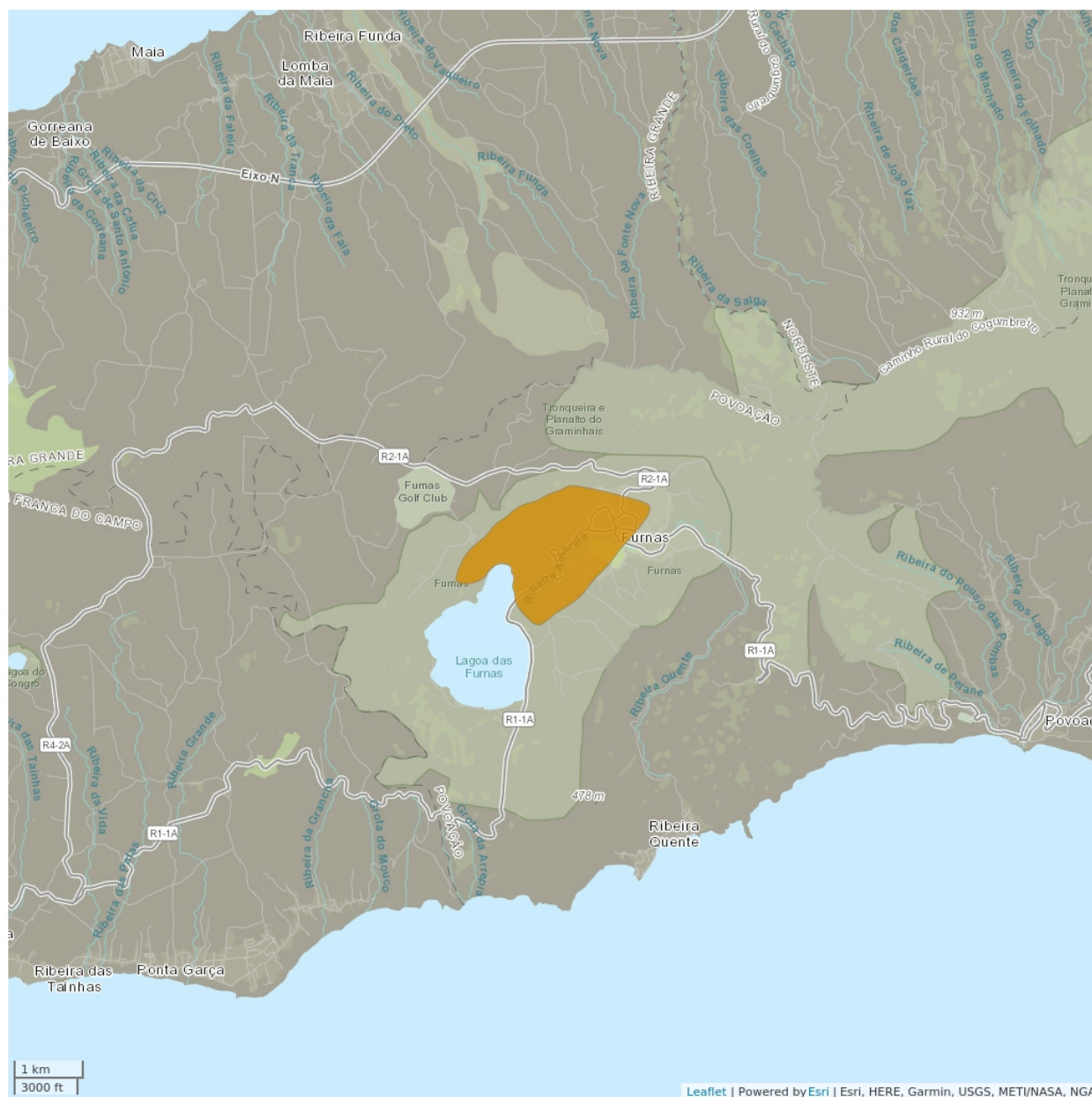
**Range Description:**

This species is known only from the holotype, collected on São Miguel island in 1938. Its location, Furnas, has been under high anthropogenic disturbance for the last decades. Based on the data from the 1938 expedition of Frey, Stora and Cedercreutz, the Extent of Occurrence (EOO) would be ca. 16 km<sup>2</sup> and the Area of Occupancy (AOO) would be ca. 16 km<sup>2</sup>. There is no recent information regarding the distribution of this species.

**Country Occurrence:**

**Native, Extant (resident):** Portugal (Azores)

## Distribution Map

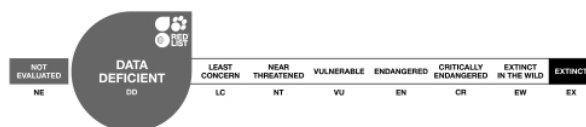


### Legend

■ EXTANT (RESIDENT)

Compiled by:

Azorean Biodiversity Group 2018



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

## Population

No current population size estimates exist for this species.

**Current Population Trend:** Unknown

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

The ecology and traits of this species are unknown. Other braconid wasps from the subfamily Alysiinae, tribe Alysiini are mostly solitary koinobionts. All species are endoparasitoids of Cyclorrhapha (Diptera) larvae (Goulet and Huber 1993). Many species from the genus *Dinotrema* are parasitoids of Phoridae (Diptera) in mushrooms (van Achterberg 1988). This species was collected in a disturbed area, in the vicinity of hotsprings.

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

A lack of information regarding the present status of this species precludes an assessment of potential threats. Nevertheless, the area where the holotype was collected is highly disturbed by human presence, and therefore it could be assumed that past and present human disturbance and land use changes, together with habitat degradation caused by invasive species might have affected this species.

## Conservation Actions (see Appendix for additional information)

The species is not protected by regional law. Conservation of native vegetation could potentially aid this species' conservation. Further research is needed into its population, distribution, threats, ecology and life history and hosts. Historically, this species was present in one area that is currently highly disturbed, but included in the Natural Park of S. Miguel.

## Credits

**Assessor(s):** Nunes, R. & Borges, P.A.V.

**Reviewer(s):** Danielczak, A.

## Bibliography

Goulet, H. and Huber, J.T. 1993. *Hymenoptera of the World: an identification guide to families*. Research Branch, Agriculture Canada, Ottawa.

IUCN. 2020. The IUCN Red List of Threatened Species. Version 2020-3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 10 December 2020).

van Achterberg, C. 1988. The genera of the *Aspilota*-group and some descriptions of fungicolous Alysiini from the Netherlands (Hymenoptera, Braconidae, Alysinae). *Zoologische Verhandelingen Leiden* 247: 1-88.

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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 -> 1.4. Forest - Temperate                                  | Resident | Suitable    | Yes               |
| 5. Wetlands (inland) -> 5.12. Wetlands (inland) - Geothermal Wetlands | Resident | Unknown     | -                 |

## Threats

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

| Threat                                                                                                                                       | Timing    | Scope                                                                                                           | Severity                         | Impact Score |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|
| 2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.1. Small-holder plantations                                              | Ongoing   | Unknown                                                                                                         | Slow, significant declines       | Unknown      |
|                                                                                                                                              | Stresses: | 1. Ecosystem stresses -> 1.1. Ecosystem conversion<br>1. Ecosystem stresses -> 1.2. Ecosystem degradation       |                                  |              |
| 8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species | Ongoing   | Unknown                                                                                                         | Causing/could cause fluctuations | Unknown      |
|                                                                                                                                              | Stresses: | 1. Ecosystem stresses -> 1.2. Ecosystem degradation<br>1. Ecosystem stresses -> 1.3. Indirect ecosystem effects |                                  |              |

## Conservation Actions in Place

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

| Conservation Action in Place               |
|--------------------------------------------|
| In-place research and monitoring           |
| Action Recovery Plan: No                   |
| Systematic monitoring scheme: No           |
| In-place land/water protection             |
| Occurs in at least one protected area: Yes |

## 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 |

## Research Needed

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

|                                                            |
|------------------------------------------------------------|
| <b>Research Needed</b>                                     |
| 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                    |
| 3. Monitoring -> 3.4. Habitat trends                       |

## Additional Data Fields

|                                                                       |
|-----------------------------------------------------------------------|
| <b>Distribution</b>                                                   |
| Estimated area of occupancy (AOO) (km <sup>2</sup> ): 16              |
| Continuing decline in area of occupancy (AOO): Unknown                |
| Extreme fluctuations in area of occupancy (AOO): Unknown              |
| Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 16           |
| Continuing decline in extent of occurrence (EOO): Unknown             |
| Extreme fluctuations in extent of occurrence (EOO): Unknown           |
| Continuing decline in number of locations: Unknown                    |
| Extreme fluctuations in the number of locations: Unknown              |
| Lower elevation limit (m): 200                                        |
| Upper elevation limit (m): 400                                        |
| <b>Population</b>                                                     |
| Continuing decline of mature individuals: Unknown                     |
| Extreme fluctuations: Unknown                                         |
| Population severely fragmented: Unknown                               |
| <b>Habitats and Ecology</b>                                           |
| Continuing decline in area, extent and/or quality of habitat: Unknown |

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