

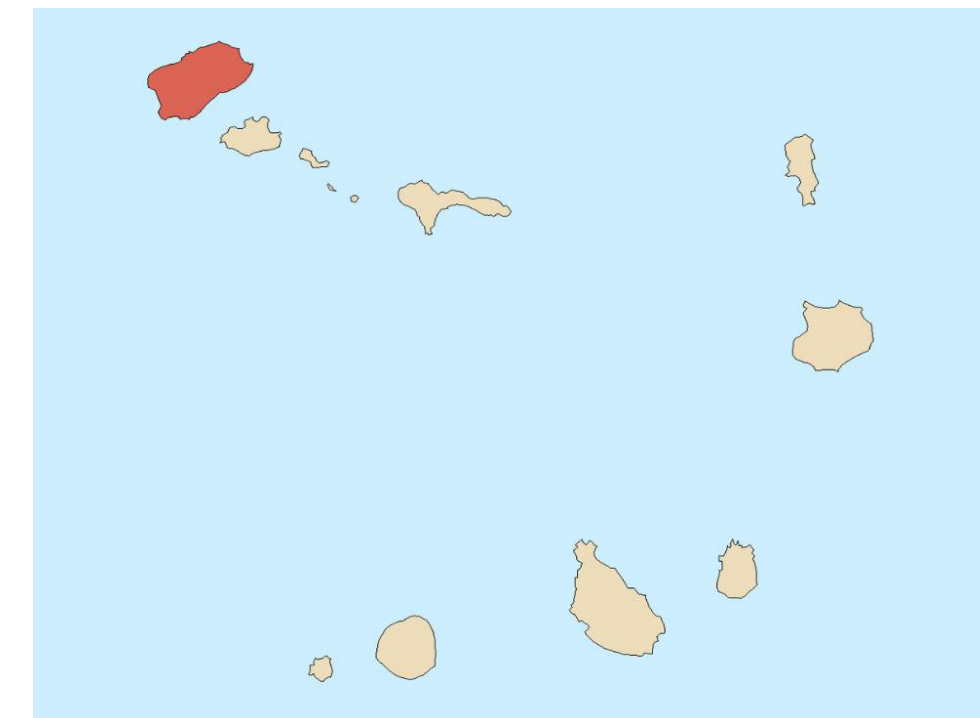


Conservation challenges for the flora of Santo Antão Island

Daniela Duarte, Gilda Monteiro
Nara Morais, Silvana Roque

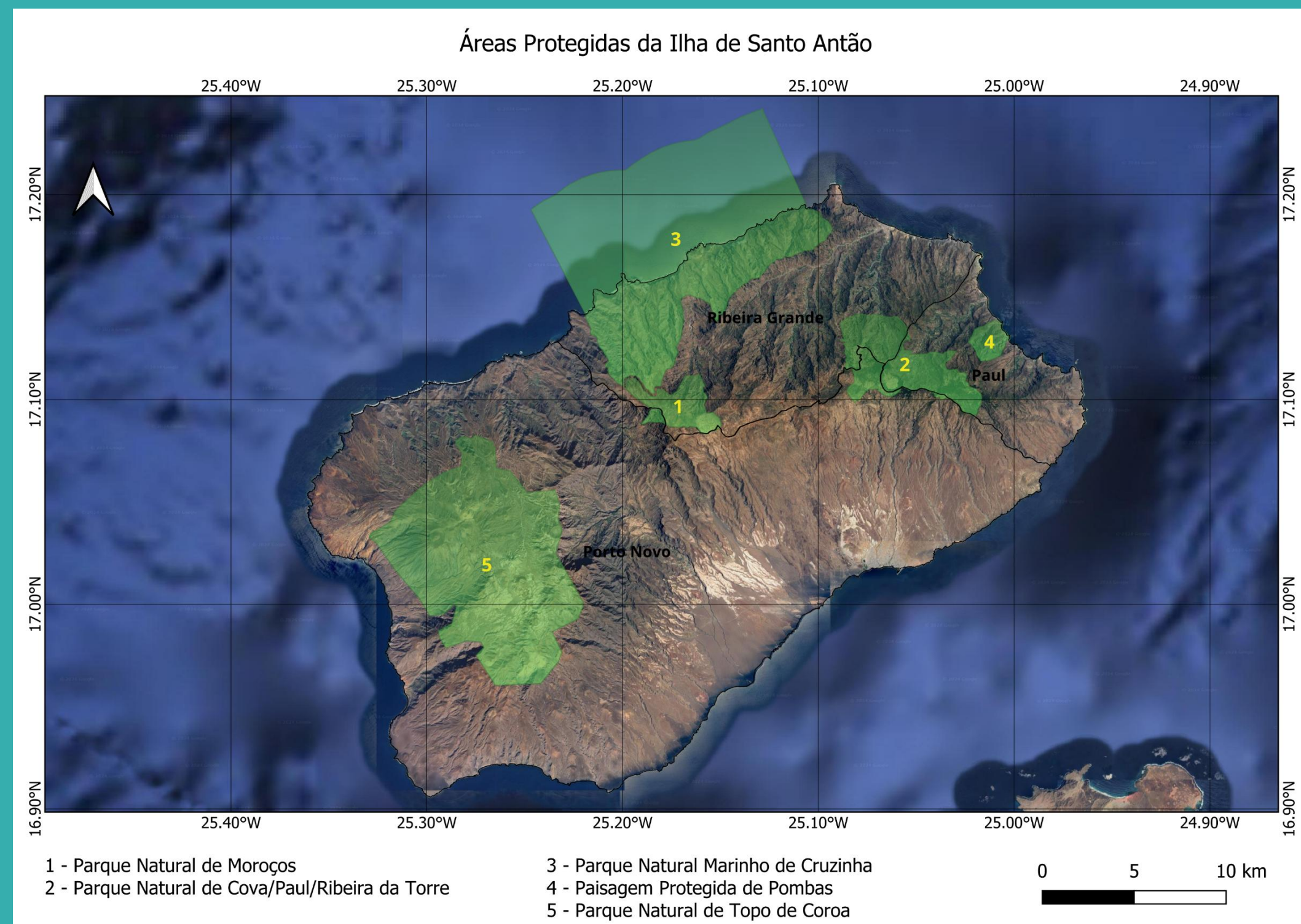
Framework

- ❑ Cabo Verde has 4.033 Km², 915 plant taxa, being 100 endemic taxa
- ❑ Santo Antão is the second largest island and the northernmost island of the archipelago, with 779 km², and the highest number of endemic plants of the archipelago, with 55 endemic taxa, being 13 exclusive
- ❑ The highest point of the island is the Topo de Coroa inactive volcano, with 1985 meters.
- ❑ The north-eastern area has mountains covered in a green color with a multitude of plants that are contemplated by the fog and constant humidity in the streams.
- ❑ In the west of the island, the climatic conditions are extremely arid, with a very resilient flora.



Santo Antão Protected areas and KBA's

- ✓ 198 Km2 of protected areas → 25% terrestrial territory
- ✓ 3 Terrestrial Natural Parks
- ✓ 1 Marine Natural Park
- ✓ 1 Protected Landscape





Areas of activity

01

**Plant conservation
programme**

02

Sea turtle conservation
programme

03

Bird conservation
programme

04

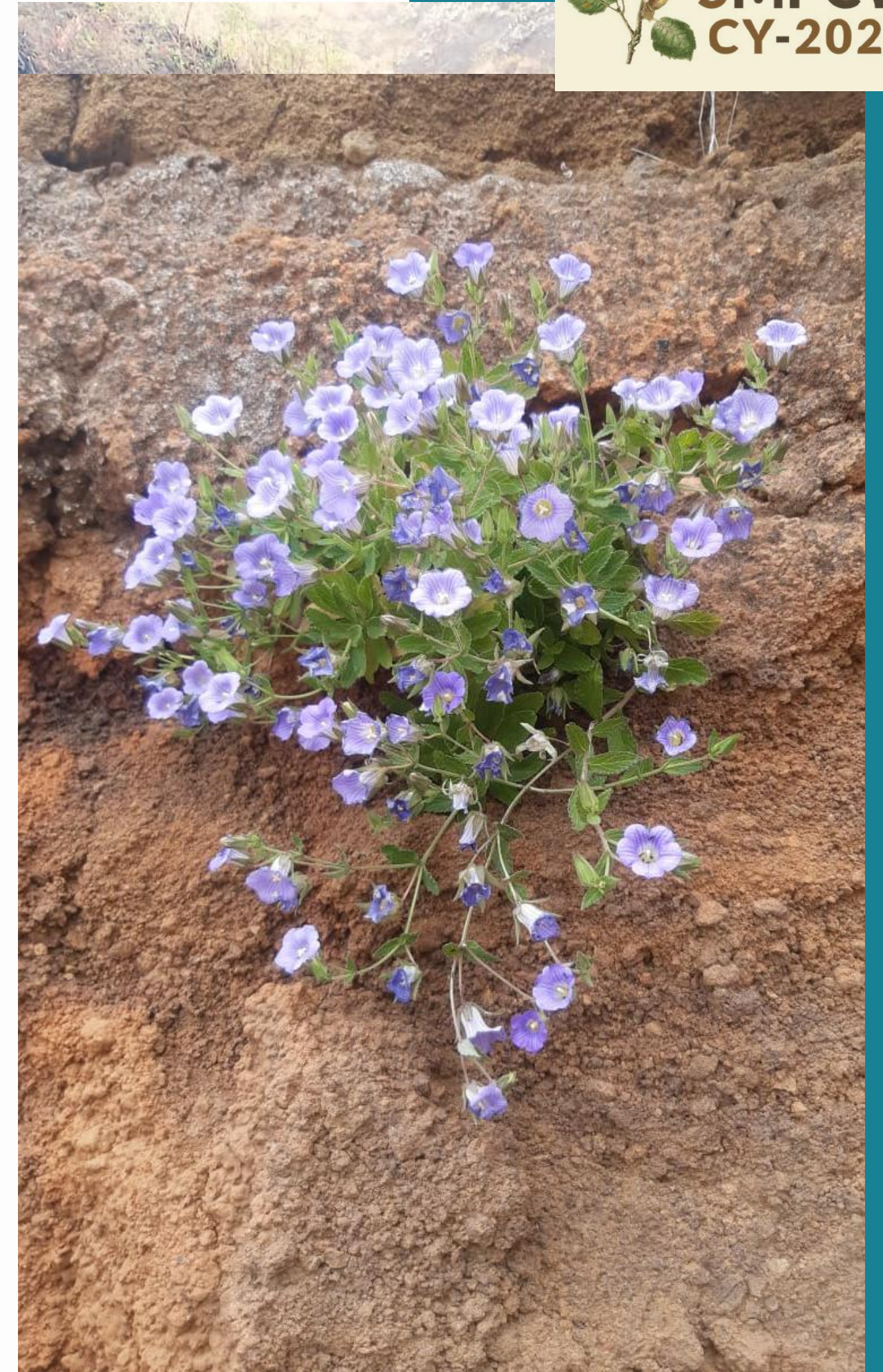
Marine conservation
programme

05

Environmental Education
and Community Awareness
Programme

Plant Conservation Programme

- Improve knowledge about the endemic plants of the island of Santo Antão and reduce their threats;
- Conserving endemic plant habitats through actions to support the governance and management of protected areas;
- Supporting local communities through training and promoting sustainable income alternatives.



Team training

Training in Field Techniques Applied to Monitoring Terrestrial Biodiversity – Flora and Vegetation (partnership with INIDA/Dr Isildo Gomes)



Preparation of a plant inventory form in Epicollect – Georeferencing, Edaphic Conditions, Identification



Inventorying and monitoring plants – semi-quantitative assessment of ecological factors and anthropogenic action



Team trained and able to inventory flora and vegetation throughout the island



Team training

Training in Propagation Techniques for Endemic Plants in the Nursery (Partnership with Biflores NGO)



Techniques for collecting and identifying different seed matrices



Perfecting techniques for propagating endemic plants in the nursery



Train the team and involve the community in conservation actions and work in the nursery



Endemic Plant Conservation Projects

- Conservation of Endangered Endemic Plants in the Topo de Coroa Natural Park (PPI)
- Conservation of critically endangered *Carex antoniensis* in the Cova KBA (CEPF)
- Conservation of Endemic Trees on the island of Santo Antão – Cape Verde (Franklinia / F&F)



Diplotaxis antoniensis

Conservation of Endangered Endemic Plants in the Topo de Coroa Natural Park



PPI



TerriMar
AMBIENTE E DESENVOLVIMENTO
SUSTENTÁVEL

Inventory results

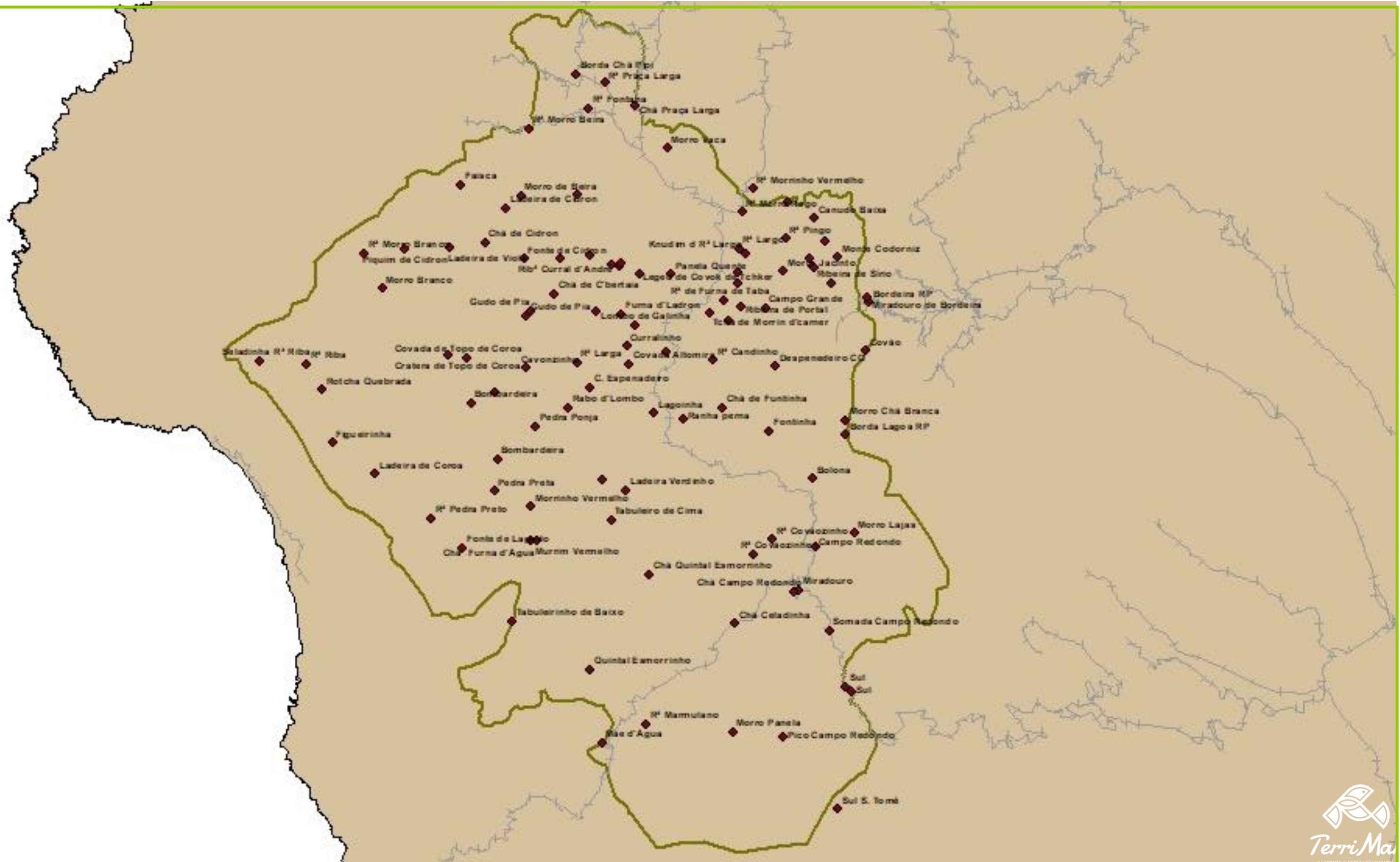
107

Inventory points

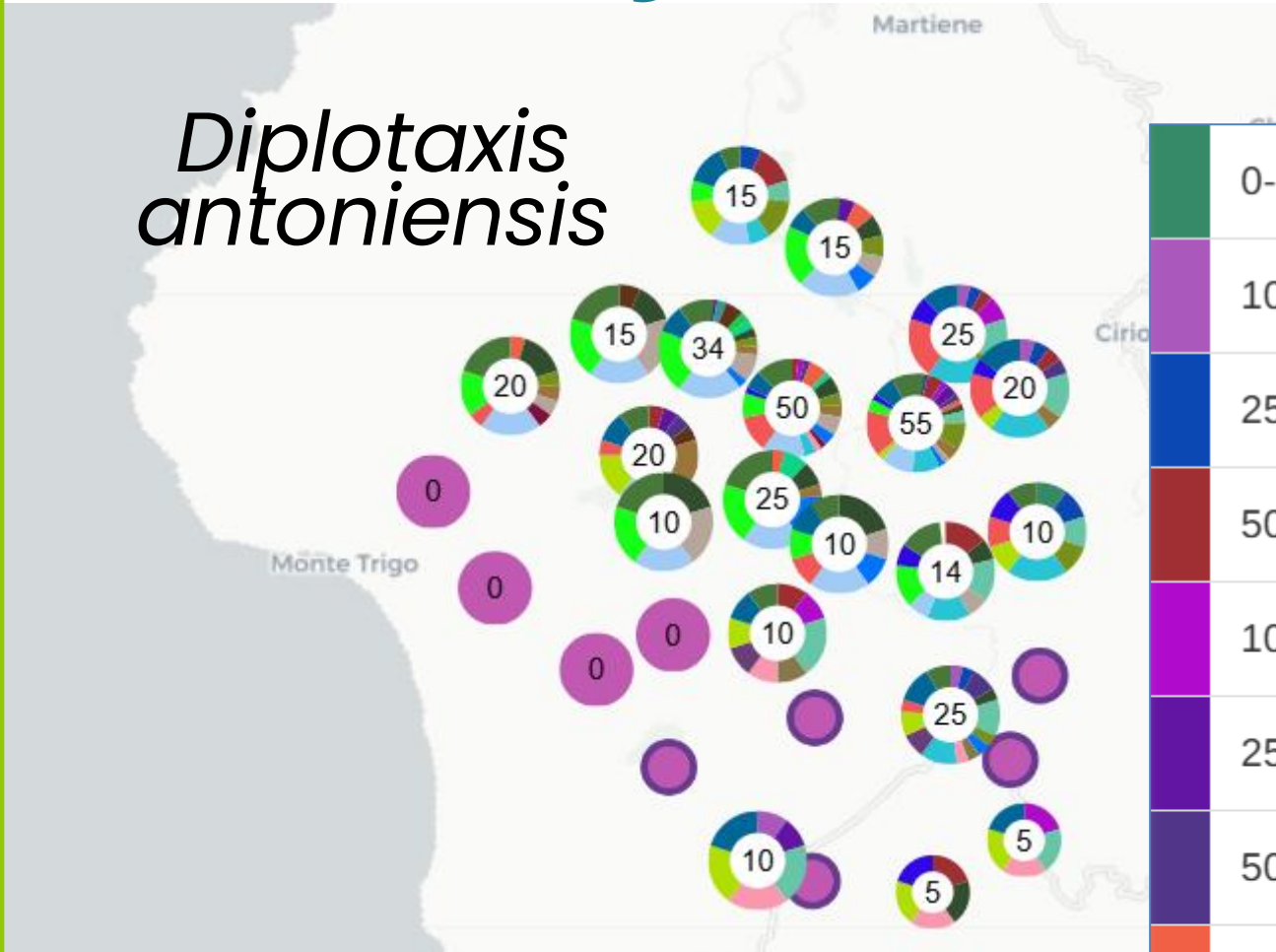
34

Endemic taxa in the TCNP

Previous inventory:
21 endemic taxa



Inventory results



0-10 ind.	1
10-25 ind.	7
25-50 ind.	7
50-100 ind.	15
100-250 ind.	7
250-500 ind.	6
500-1000 ind.	6
1000-2000 ind.	7
2000-3000 ind.	1
3000-5000 ind.	0
5000-7000 ind.	4
7000-10000 ind.	1
10000-20000 ind.	5
Mais de 20000 ind.	20

Grau de cobertura (+)	26
Grau de cobertura (1)	15
Grau de cobertura (2)	11
Grau de cobertura (3)	18
Grau de cobertura (4)	11
Grau de cobertura (5)	2

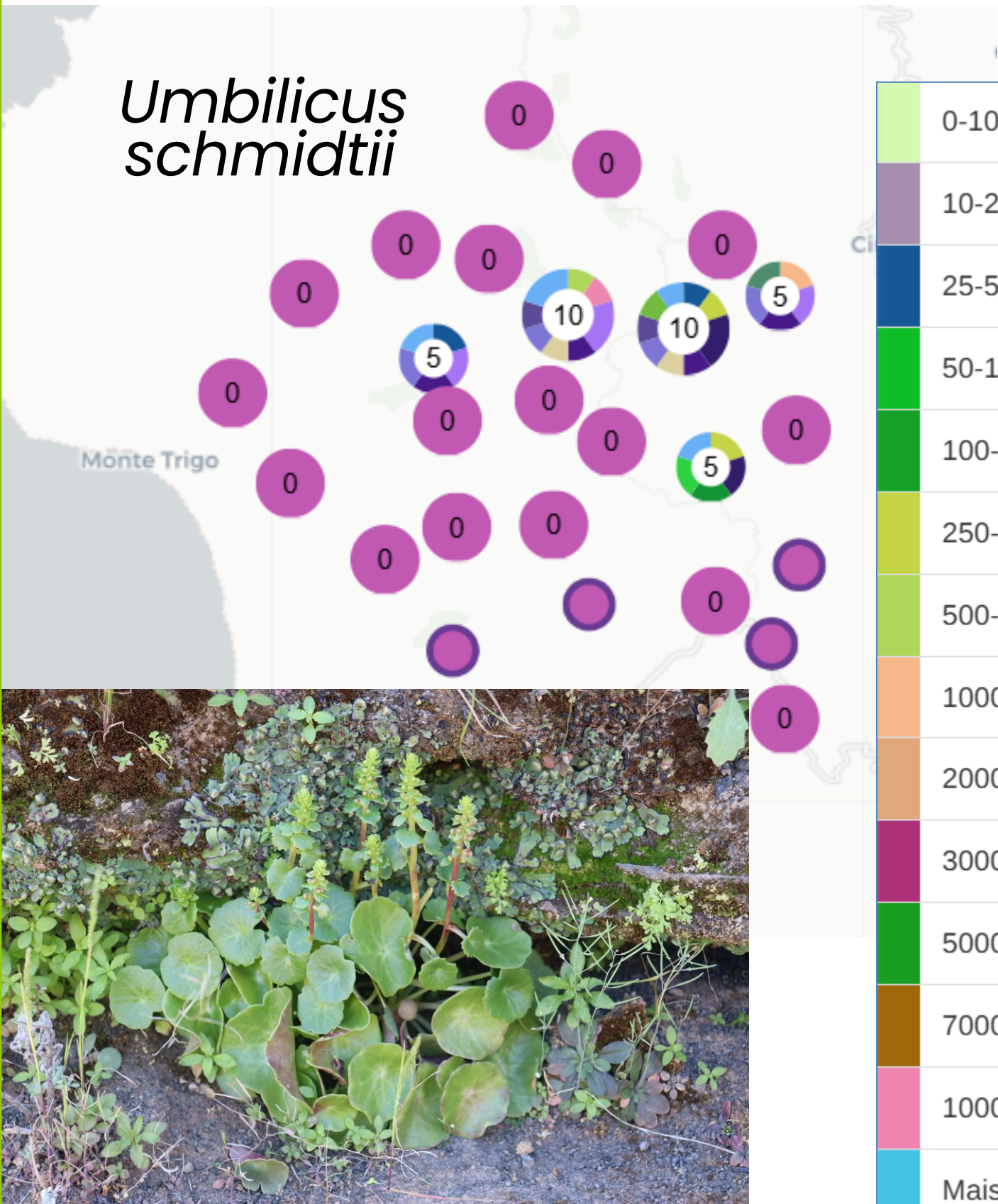
Floração 0%	2
Floração 1-10%	7
Floração 11-50%	33
Floração 51-80%	43
Floração 100%	0

Fruto 0%	3
Fruto 1-10%	16
Fruto 11-50%	32
Fruto 51-80%	33
Fruto 100%	0

Propagação 0%	0
Propagação 1-10%	10
Propagação 11-50%	31
Propagação 51-80%	44
Propagação 100%	0

Inventory results

*Umbilicus
schmidtii*



0-10 ind.	0
10-25 ind.	0
25-50 ind.	2
50-100 ind.	0
100-250 ind.	0
250-500 ind.	2
500-1000 ind.	1
1000-2000 ind.	1
2000-3000 ind.	0
3000-5000 ind.	0
5000-7000 ind.	0
7000-10000 ind.	0
10000-20000 ind.	1
Mais de 20000 ind.	0

Grau de cobertura (+)	3
Grau de cobertura (1)	4
Grau de cobertura (2)	0
Grau de cobertura (3)	0
Grau de cobertura (4)	0
Grau de cobertura (5)	0

Floração 0%	4
Floração 1-10%	0
Floração 11-50%	1
Floração 51-80%	2
Floração 100%	0

Fruto 0%	4
Fruto 1-10%	1
Fruto 11-50%	2
Fruto 51-80%	0
Fruto 100%	0

Propagação 0%	0
Propagação 1-10%	0
Propagação 11-50%	1
Propagação 51-80%	5
Propagação 100%	1

Improve restoration measures for endangered endemic plants in the TCNP



Increased knowledge
of endangered
endemic plants in the
TCNP



Strengthening local
capacity in
germination and
nursery plant
management



Reproduction of
plants in a nursery
for reforestation of
the park /
community nursery



Reusing packaging for planting in a nursery



CAMPANHA DE RECOLHA DE
PACOTES DE LEITE E SUMO

**Reutilizar para
Germinar**

ESTAMOS RECOLHENDO PACOTES
DE LEITE E SUMO PARA
PLANTAÇÃO DE ESPÉCIES
ENDÉMICAS

Entrega na nossa sede em Alto Peixinho ou contacte 988 15 18



10 communities

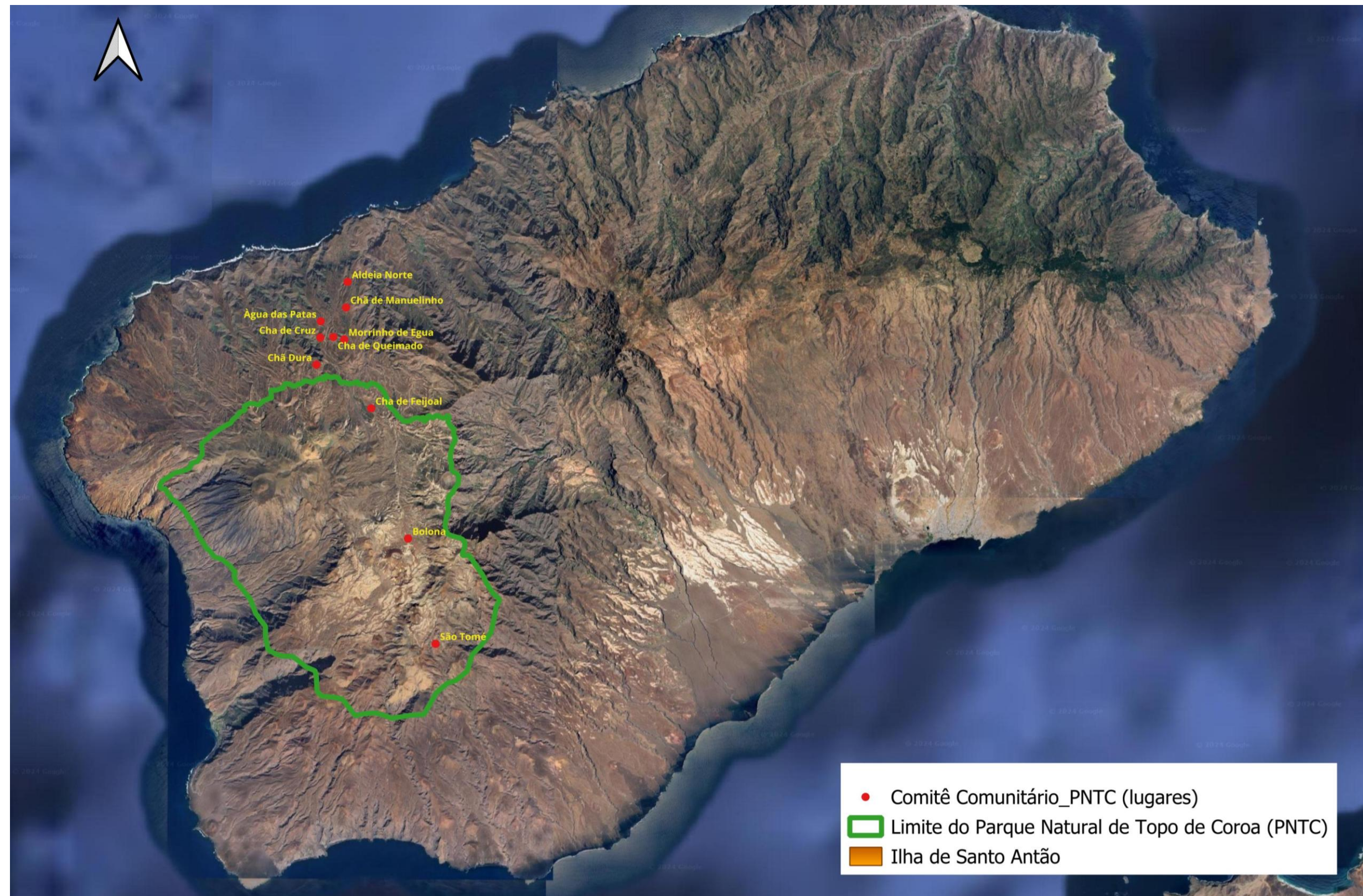
20 representants



Member



Alternate



Improving the governance of the PNTC by empowering local communities



Creation and training of
the PNTC community
committee



Meetings with organisations
leading projects within the
TCNP



Drawing up and
implementing an
action plan and
advocacy strategy



Online News

English

Segunda-feira

06 Novembro 2023

ACOLHIMENTO

ASEMANA

CABO VERDE

100% PRÁTICO

CULTURA

CC

MUNDO INSÓLITO

HISTÓRIA

DIRIGENTES

ILHAS

AMBIENTE

INDICADORES DO PAÍS

AMBIENTE

Porto Novo/Ambiente: Parque Tope de Coroa já dispõe de comité comunitário

02 Novembro 2023

O Parque Natural de Tope de Coroa, Porto Novo, já dispõe de um comité comunitário, que tem o propósito de apoiar iniciativas ligadas à protecção desta área protegida, informou hoje a Associação Ambiente e Desenvolvimento Sustentável (Terrimar).



O comité comunitário do Parque Natural de Tope de Coroa, que se situa no Planalto Norte, é formado por 17 pessoas representantes das oito comunidades usuárias da área protegida, criada em 2003.

Esta iniciativa promovida pela Associação do Ambiente e Desenvolvimento Sustentável (Terrimar), "visa contribuir para a divulgação do maior parque natural terrestre de Cabo Verde, e apoiar iniciativas com enfoque no efectivo funcionamento desta área protegida.

A criação do comité comunitário do parque natural Tope de Coroa insere-se no âmbito do projecto sobre a conservação de espécies endémicas ameaçadas nesse parque, com uma extensão de mais de 84 quilómetros.

A edilidade porto-novense e a Terrimar assinaram, em Agosto, um protocolo de parceria com vista à preservação das plantas endémicas ameaçadas no Parque Natural de Tope de Coroa.

O protocolo visa potenciar o conhecimento dos criadores de gado sobre técnicas de confinamento, visando a implementação de medidas de restauração sobre o "habitat" das espécies vegetais endémicas ameaçadas da referida área protegida.



Presentation letter to Agriculture and Environment Minister



Terrimar – Ambiente e Desenvolvimento Sustentável

Organização Não Governamental

B.O. Boletim Oficial, II Série, Número 88, página 287

Sede: Cidade de Porto Novo, Ilha de Santo Antão

E-mail: terrimar.ajds@gmail.com

Website: terrimar.org.cv

Ao Exmo. Ministro da Agricultura e Ambiente,

Dr. Gilberto Silva

Assunto: Apresentação do Comité Comunitário do Parque Natural Tope de Coroa

O Comité Comunitário do Parque Natural Tope de Coroa (CCPNTC) foi criado pela Terrimar em Outubro de 2023, no âmbito do projeto "Conservação de plantas endémicas ameaçadas no Parque Natural Tope de Coroa", financiado pelo PPI.

A iniciativa de criação e fomento do Comité Comunitário surgiu no sentido de criar um órgão de envolvimento e de governança comunitária, como forma de empoderar as comunidades locais para uma participação cidadã ativa.

O Comité Comunitário do Parque Natural Tope de Coroa reúne um grupo de 18 membros (entre titulares e suplentes), representantes de 10 localidades que se encontram dentro da área do Parque Natural ou nos seus arredores, nomeadamente Chã de Feijoa, Bolona, Sul São Tomé, Chã Dura, Chã de Manuelinho, Morrinho d'Água, Aldeia do Norte, Água das Patas e Chã de Cruz.

Este Comité tem como principal objetivo fomentar, através de uma participação cidadã, iniciativas de apoio à atividades de conservação e desenvolvimento sustentável.



Terrimar – Ambiente e Desenvolvimento Sustentável

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Marciano António Guilherme

Joana Monteiro da Cruz





Raising farmers' awareness of goat confinement



Supporting farmers with forage plants to encourage confinement



Forage field results



340 tree fodder
3500 forage palm
+4000 kg distributed pasture
16 goats
4 beneficiaries



Conservation of Critically Endangered *Carex* *antoniensis* in the Cova KBA





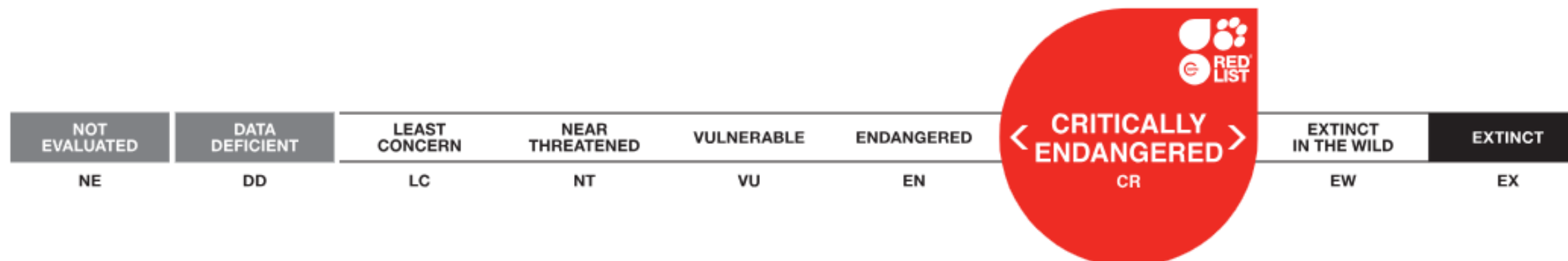
Planta Endémica de Santo Antão
/ *Endemic Plant of Santo Antão*



Criticamente Ameaçada de Extinção
/ *Critically Endangered*



Habitat restrito à zonas húmidas
/ *Habitat restricted to freshwater*





Need to sensitise
communities



Critically
endangered

Main Activities

- Awareness raising
- Inventory
- Planting

- Little-known plant

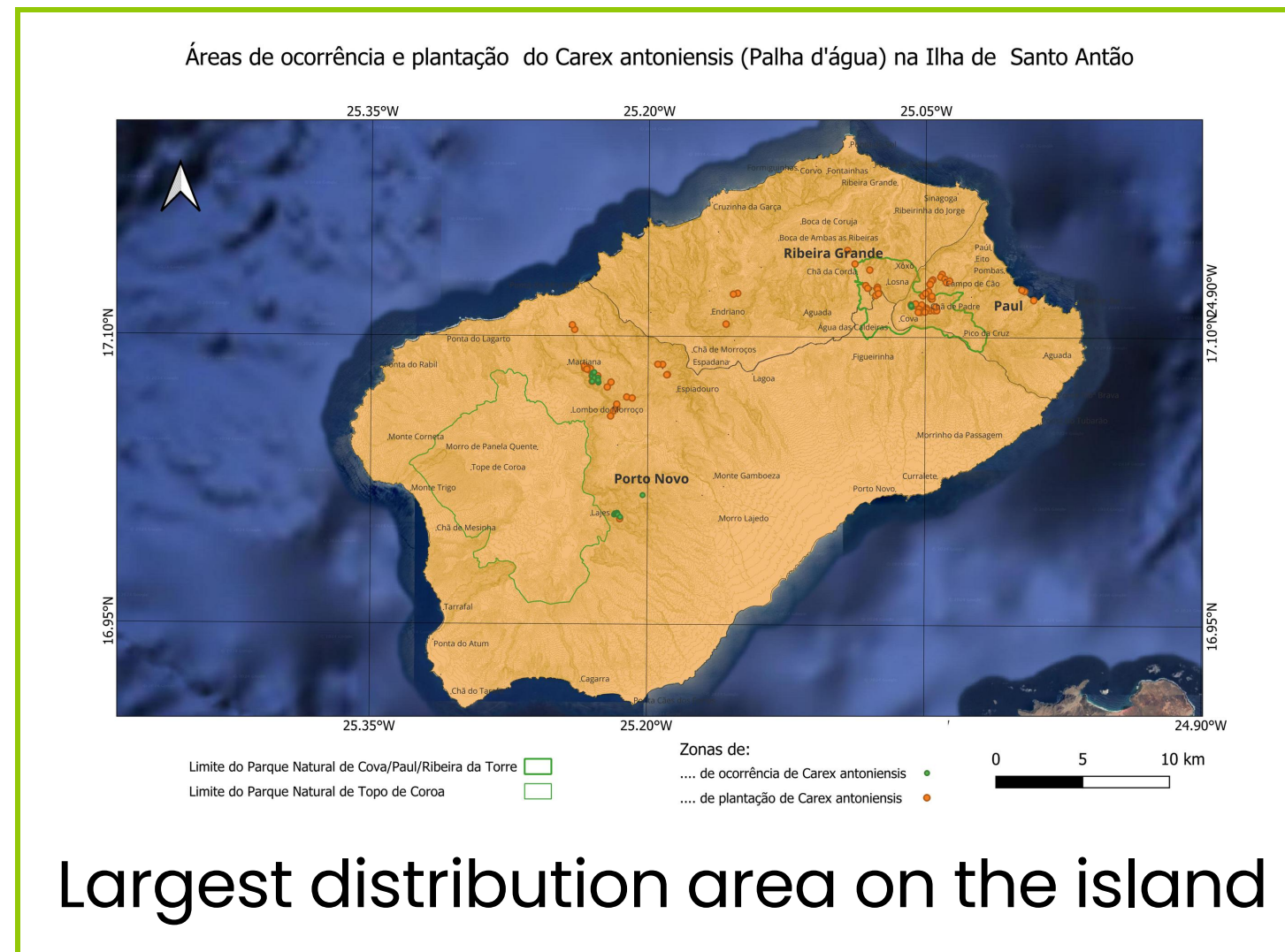


More sensitized
communities



- 691 people sensitised

- 2 points



- 104 points

- 7 specimens



Improved conservation
status



- 3293 specimens



Inventory and Planting Results

29
Occurrence
points

2070
specimens

75
Planting
points

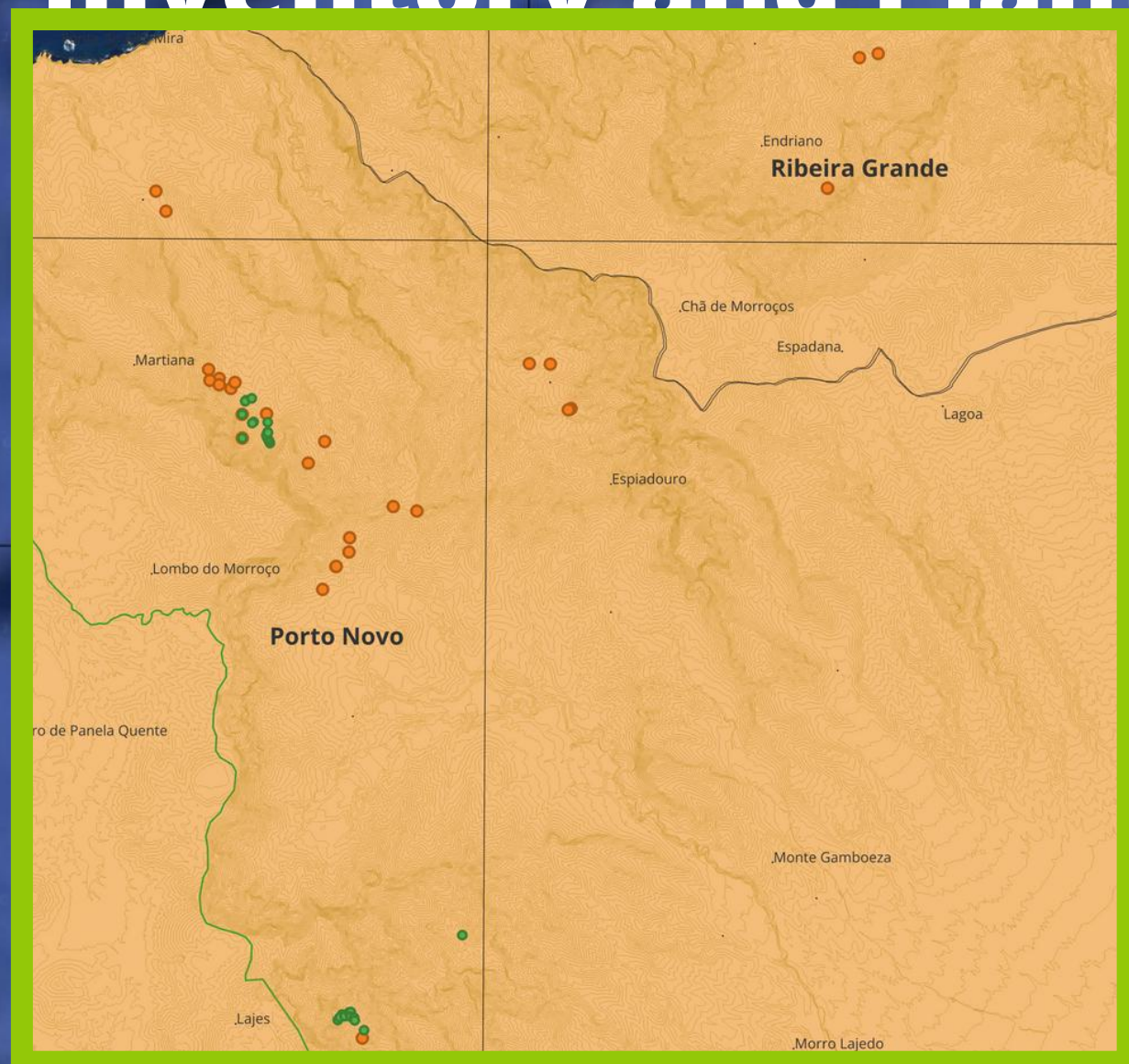
1223
specimens



Inventory and Planting Results

29
Occurrence
points

2070
specimens



75
Planting
points

1223
specimens



Inventory and Planting Results

29
Occurrence
points

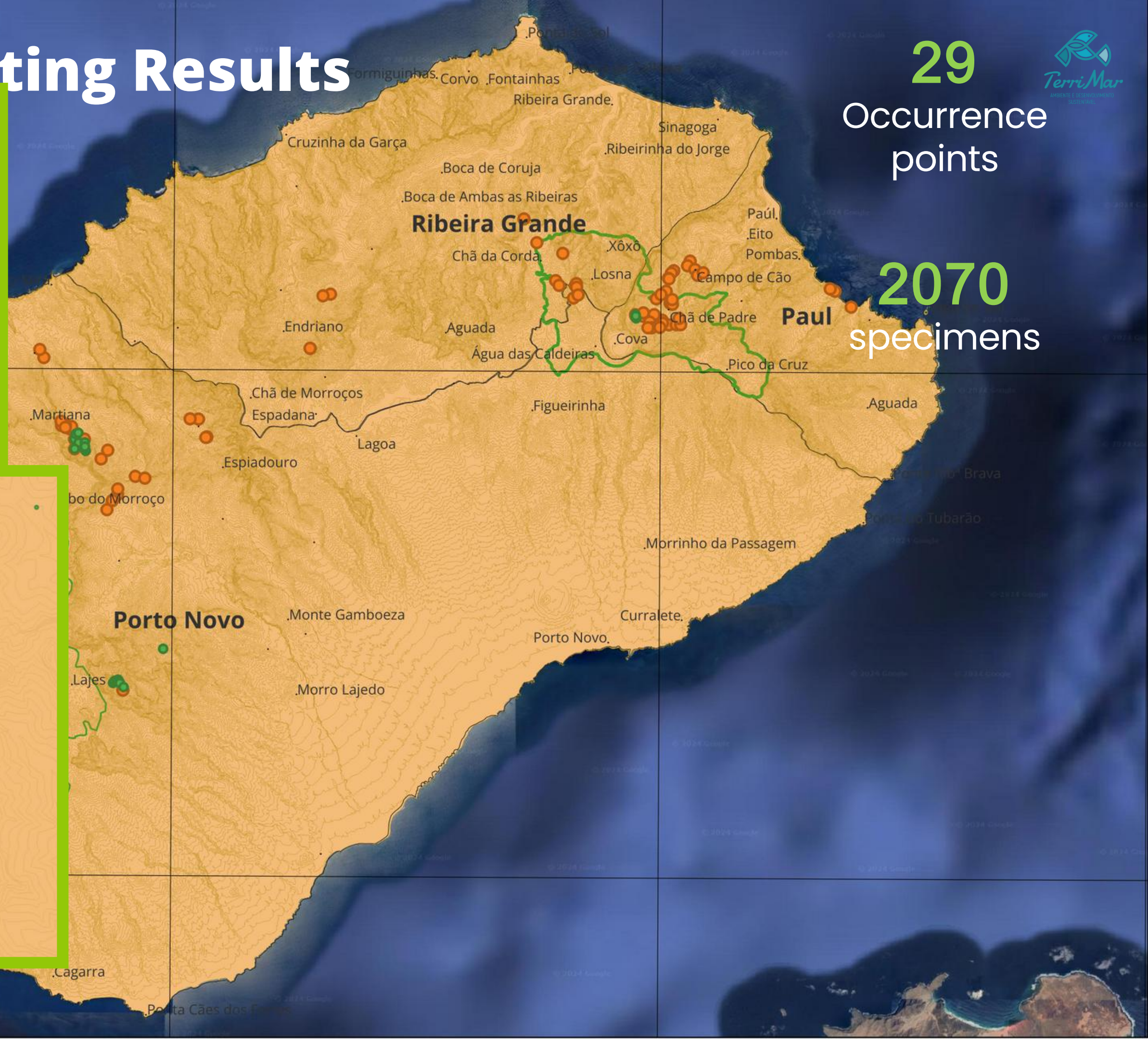
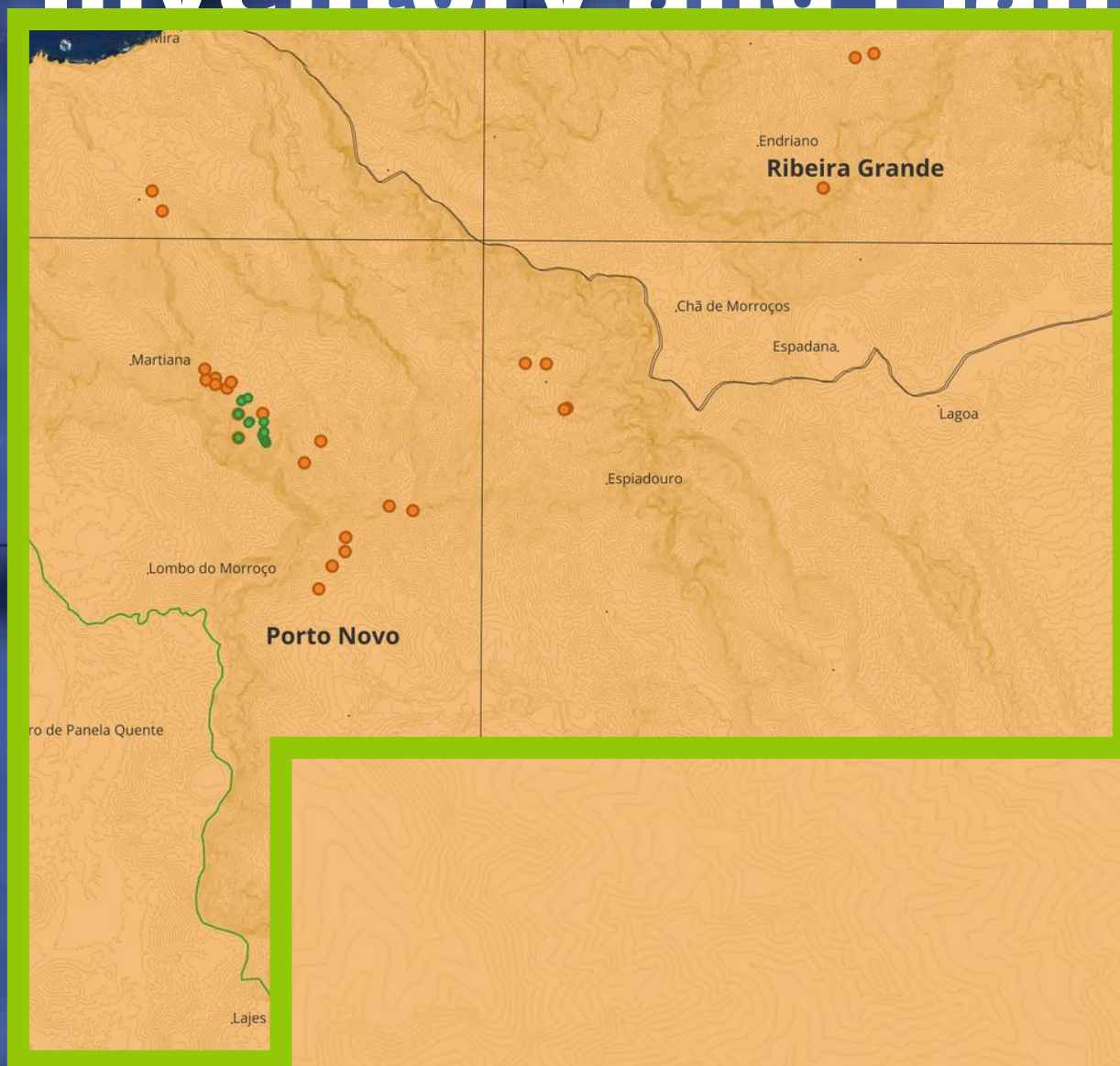
2070
specimens

75

Planting
points

1223

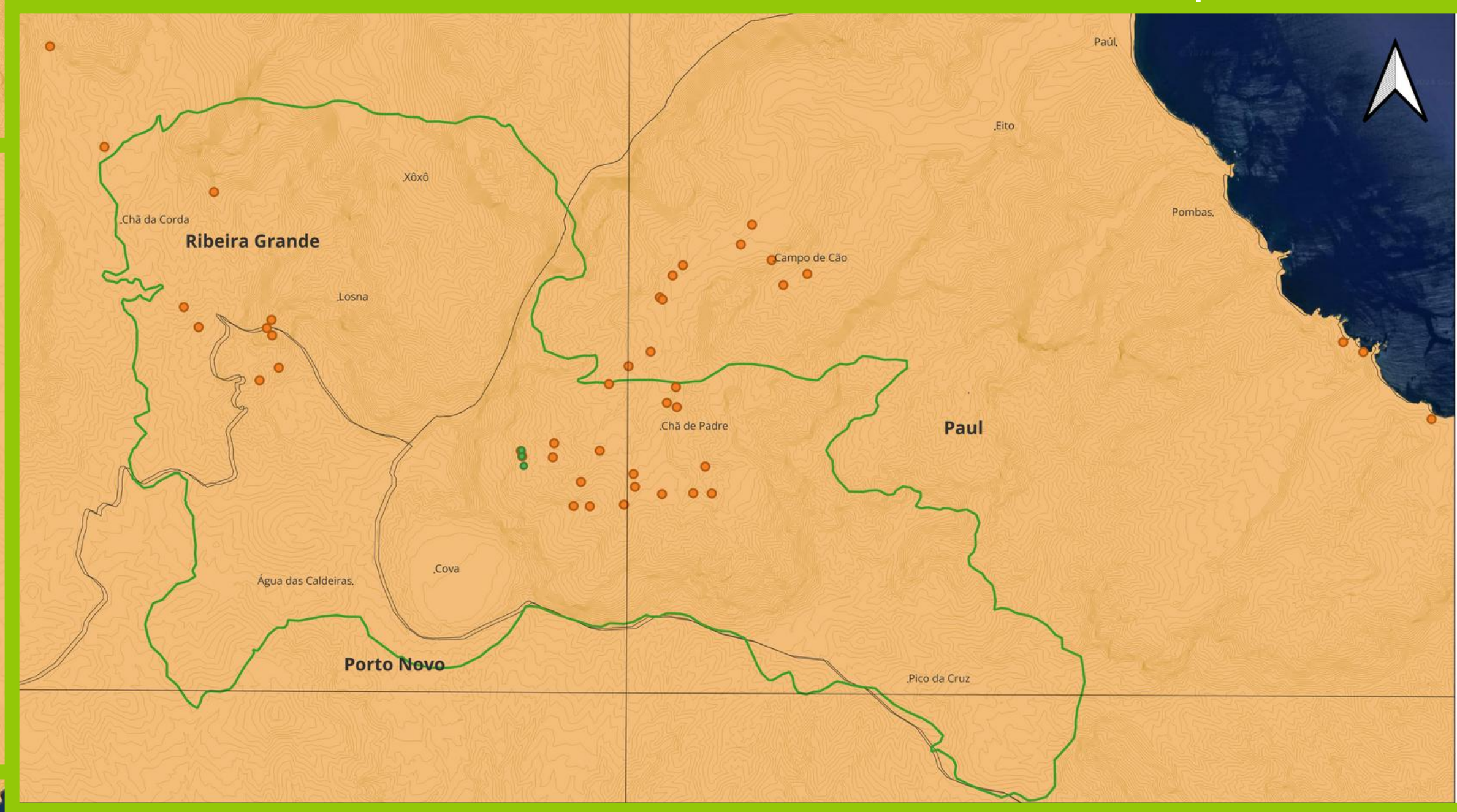
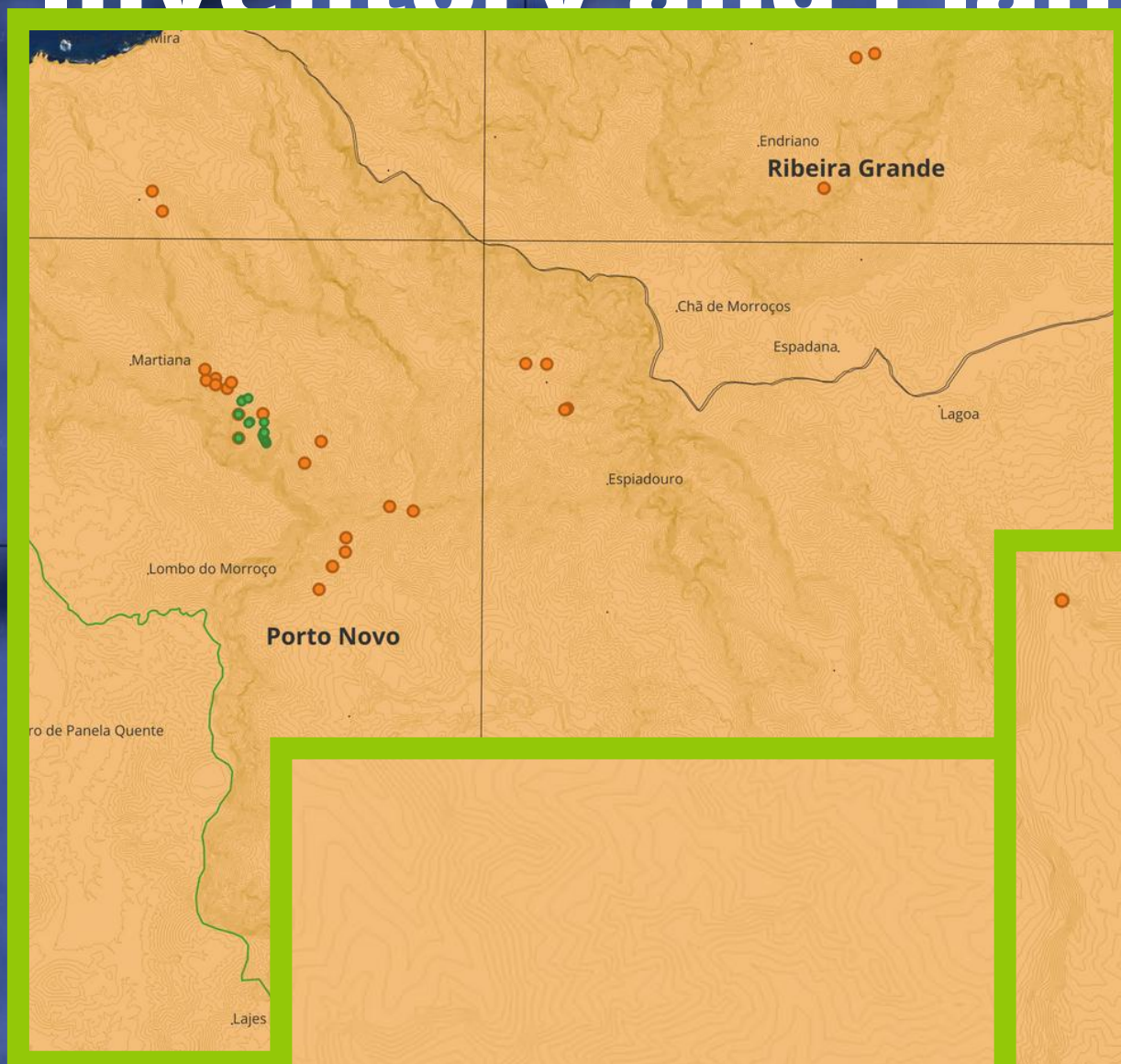
specimens



Inventory and Planting Results

29
Occurrence
points

2070
specimens



75
Planting
points

1223
specimens





Sideroxylon marginatum



Dracaena caboverdeana





Assessment



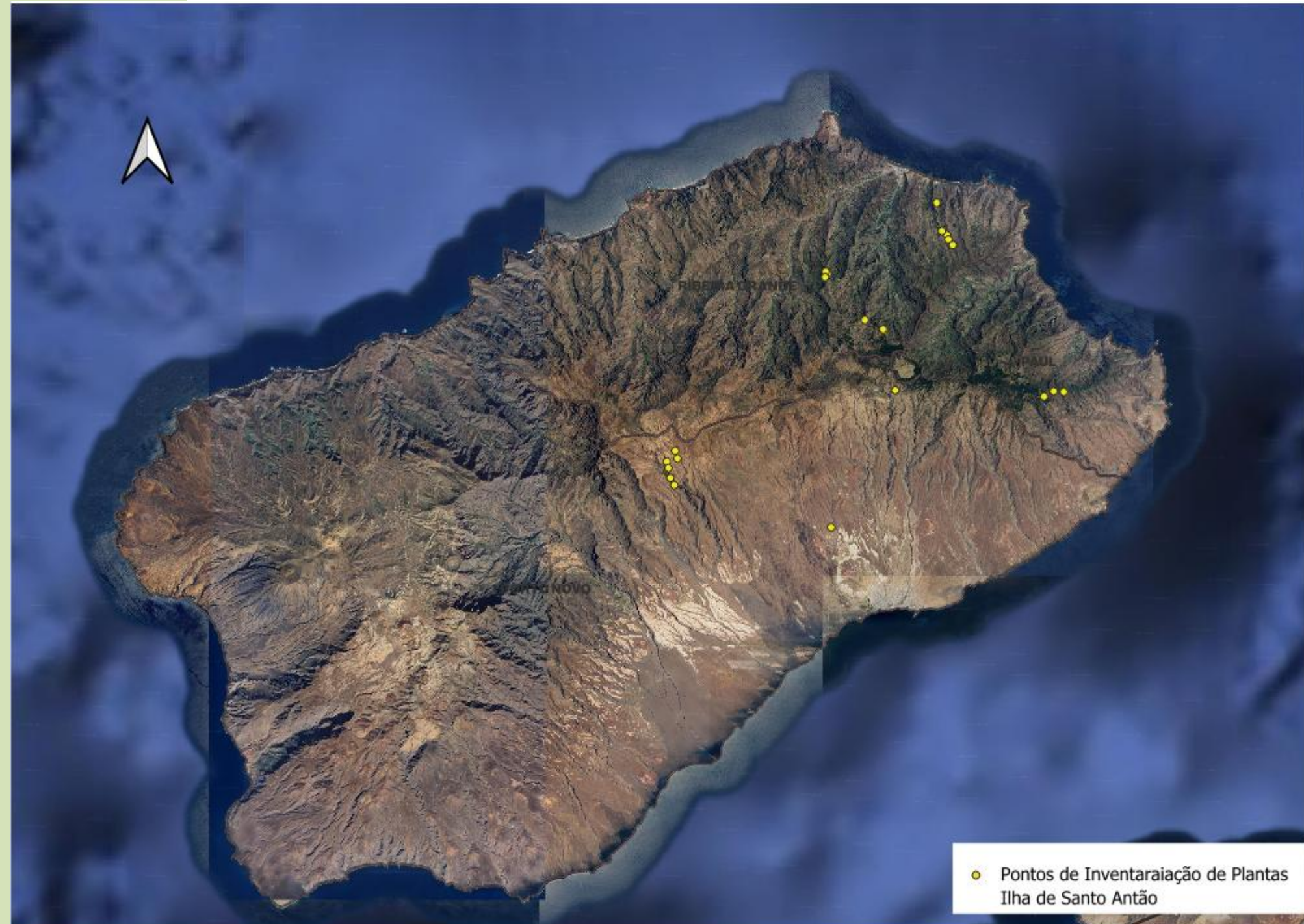
Production and planting
of endemic trees



Disclosure and
awareness-raising
activities



- The topography of the island, which difficult the work field
- The arid climate, and difficulty in accessing water make its harder the plantation is some areas of the island
- The invasive species
- The lack of environmental awareness in communities





***Lantana
camara***



***Leucaena
leucocephala***



Furcraea foetida





***Schkuhria
pinnata***

- The promotion of an intensive program of invasive species removal
- Continuity in the disclosure and awareness-raising about the endemic plant species
- Create alternatives for the water mobilization
- To invest more in new technologies to face the challenges of the island's topography, such as the use of drones.



Echium stenosiphon subsp. lindbergii

ACKNOWLEDGEMENT

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CRITICAL | **ECOSYSTEM**
PARTNERSHIP FUND



Thank you for your attention!



 www.terrimar.org.cv

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 Alto Peixinho - Porto Novo
Island of Santo Antão - Cabo Verde

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Campilanthus glaber