

Controlling Invasive Plants on Portuguese Islands Ana Isabel Fagundes

#### Conferenza finale Isola del Giglio 23,24 Ottobre 2024







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## Berlenga *Carpobrotus edulis*





• Rocky Island with 78 ha



- Steep cliffs 80 meters high
- Carpobrotus introduced in the fishermen's

village in the 1950s

In 2014 the area occupied was almost 4 ha







## Methodology

- Manual removal along the contour lines delimiting strips.
- In the beginning strips with 2-4 meters wide.
- The material removed was rolled and left to dry on top of the

Carpobrotus mat immediately below.

• Necessary to abseil to reach the most inaccessible patches.











#### **Results**

- From October 2014 to December
- 2018 we removed ~90% of the
- Carpobrotus area



#### **Problems found**

































## Deserta Island *C. edulis; Acacia saligna; Agave americana*



#### Invasive Plants Barreta Island

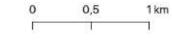
#### Species

- Acacia sp.
- Agave americana
- Carpobrotus edulis



- Sandy Island with 7 Km-long
- 1 restaurant and 1 fishermen house
- In 2020 the invasive plants
  - occupied an area of 1.6 ha









## Control of C. edulis

13,000 m<sup>2</sup> removed manually



1,480 m<sup>2</sup> mulching sheets

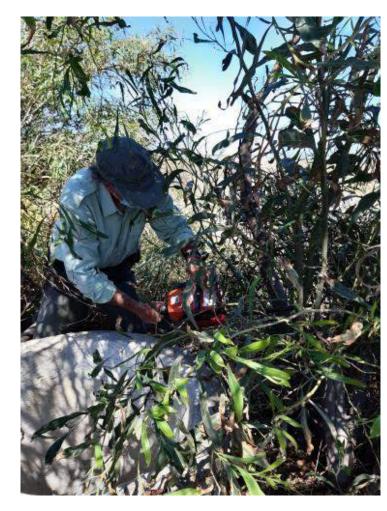






## Control of A. saligna

618 m<sup>2</sup> from a combination of cutting and herbicide application











## Control of A. americana

- 1,000 m<sup>2</sup> controlled
- Smaller plants manually uprooted
- Larger plants a combination of cutting and herbicide application













#### Results

- From January 2020 to April 2023 we removed all invasive alien plants
- All methods had regrowth of the target invasive species, except for the mulching sheet areas
- Areas of *A. americana* had the highest percentage of regrowth
- Native vegetation recovery was significant in the mulching sheets areas





















### Porto Santo Island Arundo donax



- Island with 42 Km<sup>2</sup>
- Resident population of 5,562 people
- 119,000 tourists per year
- Intervention area of 64,653 m<sup>2</sup>









## Methodology

Combination of mechanical removal and herbicide application







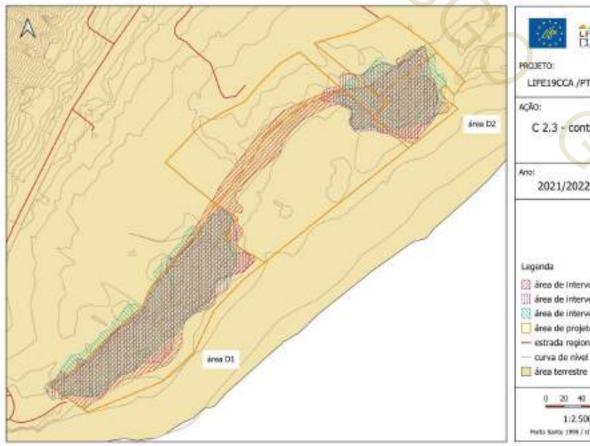




### Results

A. donax controlled in 30,699 m<sup>2</sup>

Presence of native flora increased 25%































### Considerations

- The persistent regrowth, highlights the importance of long-term commitment.
- Continued monitoring and management, to prevent reinvasion.
- Detailed assessment of local conditions and characteristics of the invasive species before selecting a control method.











# THANK YOU!

aisabel.c.fagundes@madeira.gov.pt

