ASPECTS OF THE BIOLOGICAL INVASION OF *NICOTIANA GLAUCA* GRAHAM (SOLANACEAE) IN THE BRAZILIAN SEMI-ARID[1]

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Introduction

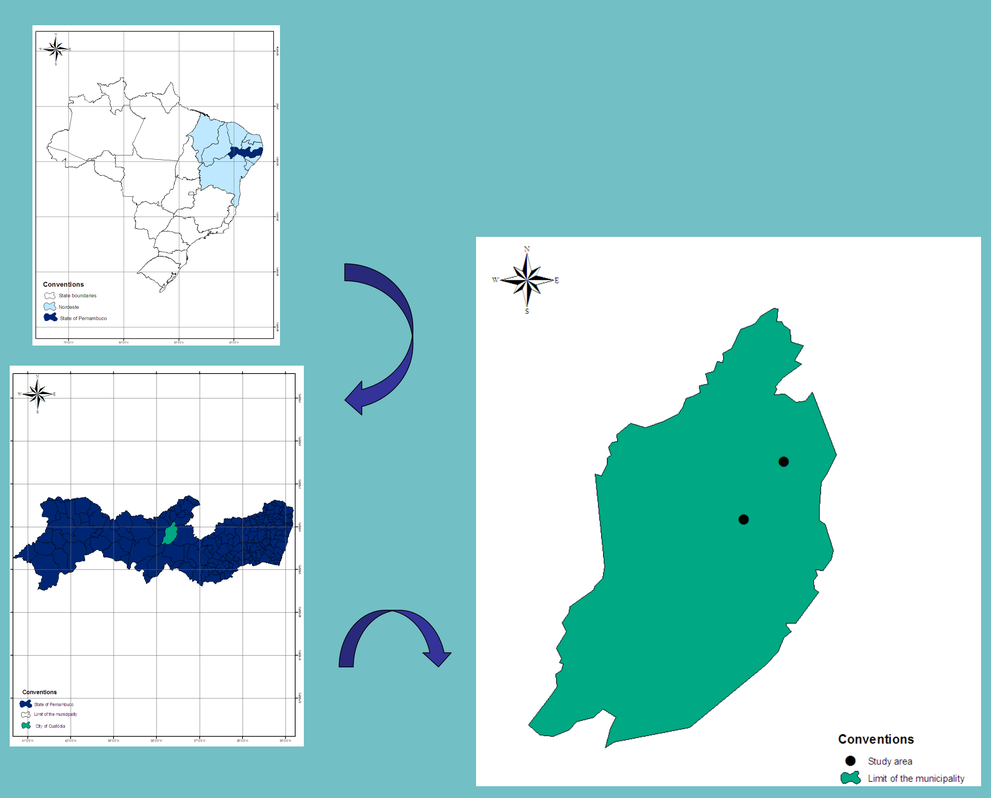
The species *Nicotiana glauca* Graham is originally found in Argentina and Bolivia, however it is spontaneously distributed in different regions of the globe, especially those dominated by dry forests. All parts of plant are toxic to humans and animals. Due to their high rates of transpiration, *N. glauca* alter the availability of water resources and may compromise the development of the native community.

Objective

The aim of this study was to evaluate the ecological aspects of weed populations and than to demonstrate the current situation of the problem and guide future mitigation efforts.

Materials and Methods

The studied area is located in the Eastern Axis of the Project of Integration of the São Francisco River with the Hydrographic Basins of the Northern Northeast (PISF), in the Municipality of de Custódia, PE (8º7'38.5" S and 37º26"54.3" W, 512 m alt.).

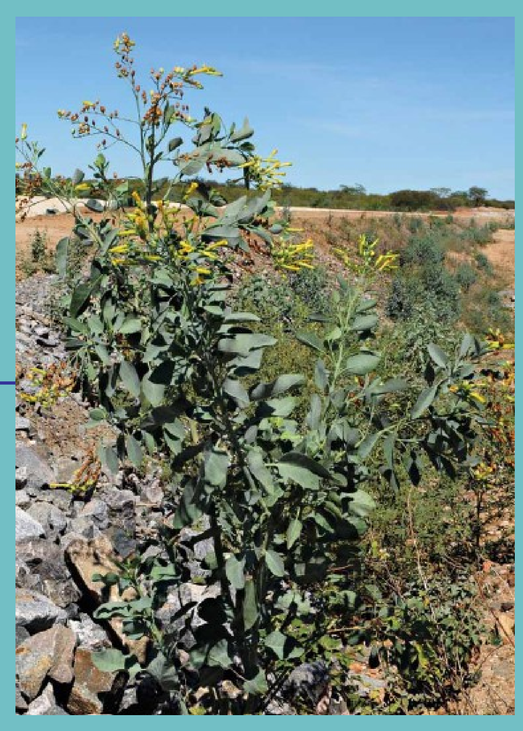


Were evaluated:

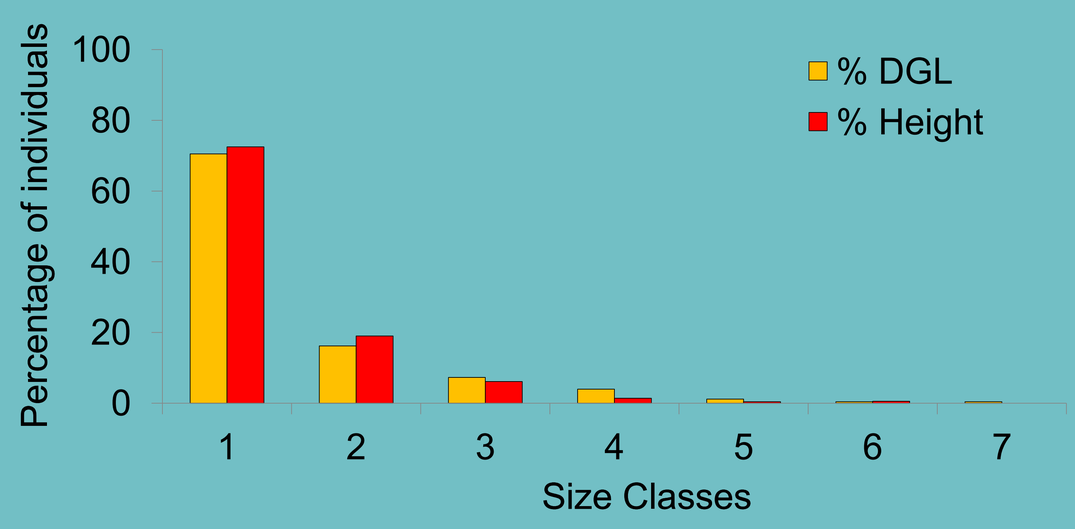
i) The population structure through the parcels system;
ii) The numbers of fruit per plant and seeds per fruit were also counted;
iii) The propagules' germinability.

Results and Discussion

- Density estimated: 37,280 individuals/hectare



- Average diameter at ground level (DGL): 1.08 1.01 cm.
- Average height of the population: 0.73 0.89 m.



Average number of fruit/plant: 2,120.9 939.6.
Average number of seeds/fruit: 643.9 49.9.

The germination percentage was 95%.

Conclusion

Nicotiana glauca presentes elevated abundance in the study area, much higher than the one found for the autochthon species of Brazilian dry forests. Part of this reproductive success is probably due to the expressive amount of fruit and seeds produced by the species, associated to high germination rates. The ecological characteristics observed for *N. glauca* favour recruiting in intensely degraded areas, which makes other areas in the region susceptible to the invasion of the species.