



**Campaign for invasive alien
species *Eichhornia crassipes* in
*Lake Nokoué (Benin)***

**By
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OUTLINE

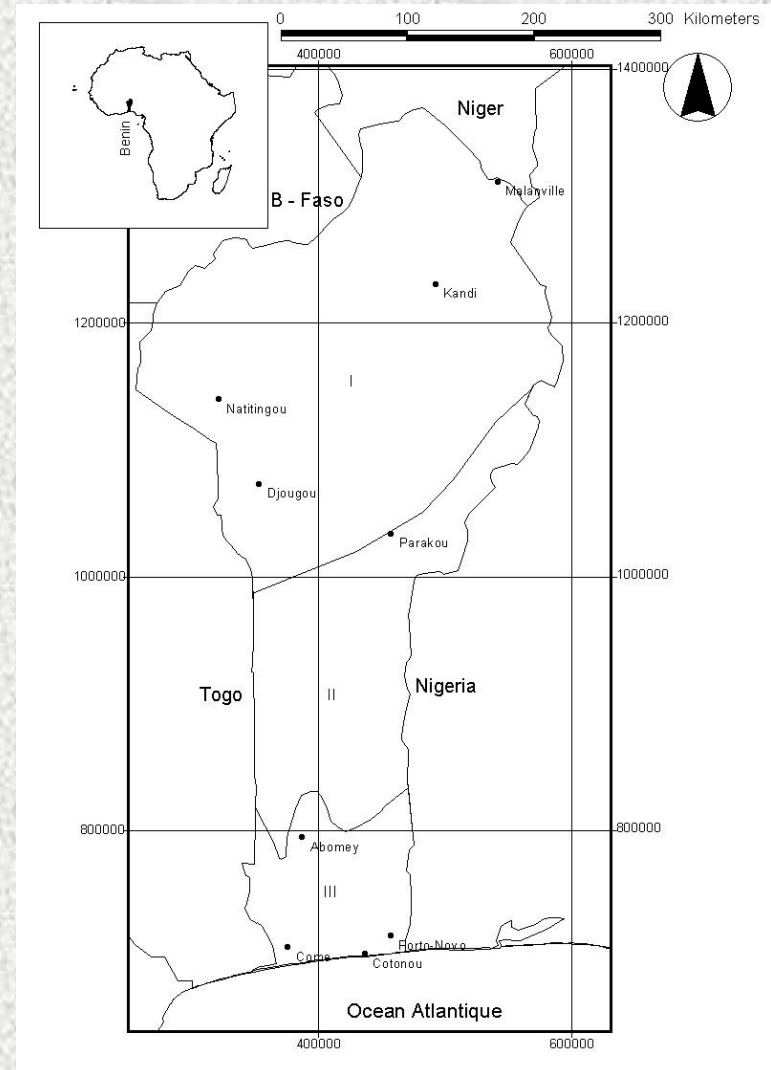
- Introduction
- Back ground information
- Biodiversity and human beings
- Threats on biodiversity
- Problems of *E. crassipes*
- Practices
- Prospects for the future

INTRODUCTION

- **Profession:** PhD Student
- **Research Interest:** Modelling of plant species distribution, niche colonization and adaptation to climate change in West African savannahs
- **Activities:**
 - Grant and scientist papers writing
 - Collection of field data
 - Statistical analysis
 - Search for workshops/fellowships on statistic and Ecological modelling

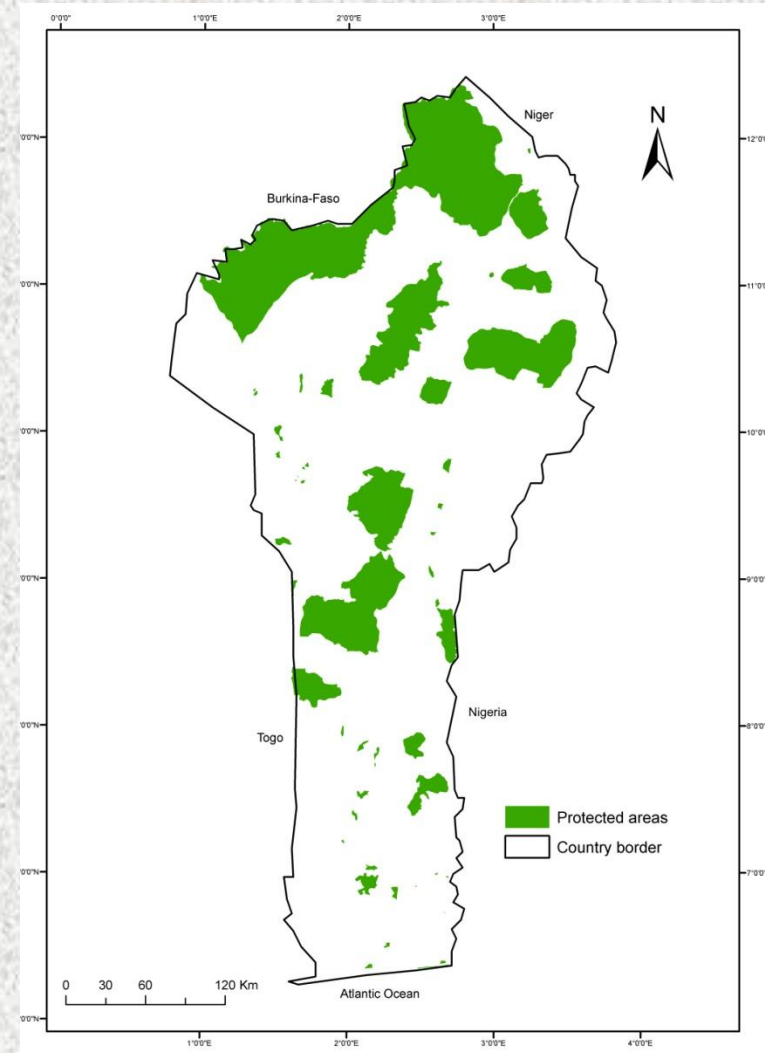
BACK GROUND INFORMATION

- **Areas:** 114,763 km²
- **West Africa:** 6°30'-12°30'N and 1°-3°40'E
- **Climate:** G, GS and S
- **P:** 900-1300 mm
- **T:** 24-31 °C
- **PA:** 23.56 %
- **Ecosystems:** Fields, fallows, savannas, forests, mangroves
- **Population:** 6,300,000



BIODIVERSITY AND HUMAN BEINGS

- **Protected areas:**
 - Biosphere reserves (2)
 - Classified forests (44)
 - Reforestation perimeters (7)
 - Sacred & Community forests
 - Private forests & arboretums
- **Services:** Foods, incomes, medicines, socio-cultural, religious, magic, tourism.
- **Inadequacy:** No coastal and marine PA



THREATS ON BIODIVERSITY

- **Deforestation**
- **Forest fire**
- **Water pollution**
- **Poaching**
- **Overgrazing**
- **Invasion of alien species**

PROBLEMS OF *Eichhornia crassipes*

- Native to South America
- **Importation:** 1977
- **Infested rivers** : So, Ouémé rivers & Lake Nokoué (Ramsar site 1018)
- **Problems:**
 - Biodiversity lost
 - Fall of water productivity
 - Limitation of navigation, fishing & tourism
 - Increase of PET, asphyxia, diseases, pollution, filling up...



NGOs & LOCAL COMMUNITIES PRACTICES

- **Settlement of small groups:** 5 members with a boatman
- **Mechanical removal**
- **Destruction of removed weeds**
- **Limitations:** promote dispersal of diaspore and unstoppable chain of invasion



SCIENTIST APPROACH: BIOLOGICAL CONTROL

- **Insects introduced:**
Neochetina bruchi & *N. eichhorniae*
- **Achievements:** reduction of biomass by 5-100% from 1991 to 1993
- **Limitations:**
 - Low reproduction rate of predators
 - Lack of funding



Neochetina bruchi



Neochetina eichhorniae



"The Mottled Waterhyacinth Weevil"



PROSPECTS FOR THE FUTURE

- Campaign against introduction of alien species
- Strengthen youth actions for biodiversity conservation
- Grant writing on climate change, biodiversity conservation and human beings

A close-up photograph of a cluster of purple flowers with yellow centers, surrounded by large, rounded green leaves. The leaves are covered in numerous small, clear water droplets, suggesting a recent rain or mist. The background is dark and out of focus.

**Thank you
for
your attention**