Tennessee's Silent Invader
Chinese Tallow Tree
*Triaca sebifera* (L.) Small

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Outline

- Introduction
- Current Knowledge/Issues
- Future Directions

Introduction

- Invasive species degrade ecosystems
  - Replacing native vegetation (Bruce et al. 1995; Randall & Marinelli 1996)
  - Reducing native species diversity (Bruce et al. 1995; Randall & Marinelli 1996)
  - Negative effect on wildlife (Bruce et al. 1995; Randall & Marinelli 1996)
- Change environmental characteristic
- Impede restoration in the habitats they dominate (Kettenring & Adams 2011)
The Republic of China Distribution

Introduction

- Benjamin Franklin (1772)
- U.S. Department of Agriculture (1920-1940)
- Ornamental tree

The United States of America Distribution
The Chinese tallow tree southeastern U.S.

Introduction

Common Names

- Tallow tree
- popcorn tree
- Florida aspen
- chicken tree

Source: http://srsfia2.fs.fed.us/data_center/data_mapping.shtml

States with naturalized population

Current Knowledge
Invasive species degrade ecosystems

- Competitive superiority (Lin et al., 2004)
- High root-sprout capabilities (Bruce et al., 1997)
- Prolific seed production (Jubinsky and Anderson, 1996)
- Broad moisture tolerances

Current Knowledge
Change environmental characteristic

- Most abundant species (Bruce et al., 1995; Nowak et al., 2005; Harcombe et al., 1999; Rudis et al., 2006)
- Chinese tallow monocultures (Bruce et al., 1997)
- Soil nutrient cycling (Yang et al., 2013)
- Habitat modification (Knopf, 1994)

Future Directions
The following research topics need attention

- Allelopathic properties
- Movement of naturalized Chinese tallow trees along an urban to rural gradient.
- Biological control for Chinese tallow tree invasion
References

Bell, M.I. 1966. Some notes and reflections upon a letter from Benjamin Franklin to Noble Wimberly Jones, October 7, 1772. Ashantilly Press, Darien, Georgia, USA.


Picture Sources


Questions???