

PEST ALERT

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Vitex rotundifolia L.f., beach vitex or roundleaf chastetree, a recently listed State Noxious Weed

Patti J. Anderson, Ph.D., Bureau of Entomology, Nematology and Plant Pathology
DPIHelpline@FDACS.gov or 1-888-397-1517

INTRODUCTION

The perennial shrub, *Vitex rotundifolia* L.f. (Labiatae/Lamiaceae, the mint family), has been added to the Florida Noxious Weed and Invasive Species List. This plant was presented for evaluation to the Noxious Weed Review Committee. Weed assessments by the UF/IFAS Assessment of Non-Native Plants in Florida's Natural Areas and USDA-APHIS Weed Risk Assessment provided background information and analysis of the invasive potential of this species (APHIS, 2013; UF/IFAS Assessment of Non-Native Plants in Florida's Natural Areas, 2020). *Vitex rotundifolia* is also listed by the Florida Exotic Pest Plant Council as an invasive species that has altered natural plant communities (Florida Exotic Pest Plant Council, 2019).

This attractive ornamental was introduced to the North Carolina coast in the mid-1980s for beach stabilization, but the invasive characteristics of the plant were soon recognized. Beach vitex (also called roundleaf chastetree) was recently introduced into Florida and has escaped cultivation in a few northern counties. It displaces native dune vegetation by forming dense stands and spreads rapidly by runners and seeds (Fig. 1).

The committee found that the species exhibits the following characteristics typical of invasive agricultural and environmental weeds:

- Broad climate suitability (environmental versatility)
- Forms dense thickets
- Naturalized beyond native range
- Propagated by abundantly produced seeds
- Propagated by vegetative reproduction
- Seeds spread by water, birds and other animals

Based on evidence of beach and dune invasiveness, *Vitex rotundifolia* is now included on the list of regulated plants in Florida. It is unlawful to introduce, multiply, possess, move or release any noxious weed or invasive plant regulated by the Florida Department of Agriculture and Consumer Services, except under permit issued by the department.

IDENTIFICATION

This creeping, perennial shrub, forming roots at the nodes, grows to 1 m long on beaches, dunes and coastal strands. The opposite leaves are oval or oblong to suborbicular, 2.5-5 cm by 1.5-3 cm in size, blue-green above and light greenish-white to silver-gray downy pubescent below; and have a spicy aroma, when crushed. The flowers grow in both terminal and axial inflorescences with blue-violet, funnel-shaped corollas (Fig. 2). The fruit is spherical, 5-8 mm across, turning from yellowish to dark brown, and remains attached to a persistent grayish calyx (Fig. 3). (Wunderlin, *et al.*, 2019; UF/IFAS Center for Aquatic and Invasive Plants, 2020; Wunderlin, *et al.*, 2020).

SIMILAR SPECIES IN FLORIDA

Other species of *Vitex* have similar flowers, but in Florida, *V. rotundifolia* is the only prostrate shrub in the genus with white pubescent leaf undersides (Wunderlin, *et al.*, 2020).



DISTRIBUTION

Beach vitex is native to Asia and the Pacific, including Hawaii, where it grows in full sun above the high tide line. In the continental United States, it has been reported in Alabama, Florida, Georgia, North Carolina and South Carolina. This new noxious weed has been documented in four North Florida counties: Escambia, Nassau, Santa Rosa and St. Johns (Wunderlin, *et al.*, 2020; Flora of China, 2020).

REFERENCES

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Figure 1. *Vitex rotundifolia*, beach vitex, invading a shoreline.
Photo from Shutterstock



Figure 2. *Vitex rotundifolia*, beach vitex, flowers and leaves.
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Figure 3. *Vitex rotundifolia*, beach vitex, leaves and developing fruit.
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