FLORIDA BONAMIA

Bonamia grandiflora

FAMILY: Convolvulaceae (Morning glory family)

STATUS: Threatened (Federal Register, November 2, 1987)

DESCRIPTION AND REPRODUCTION: The only morning glory vine with large, blue flowers in Florida scrub vegetation (Wunderlin et al. 1980), Florida bonamia is a perennial with sturdy prostrate stems about a meter (3 feet) long. The leathery oval or ovate leaves, up to about 4 centimeters (1.6 inches) long, are either upright or spreading. The flowers are solitary in the leaf axils. The funnel-shaped corolla is 7 to 10 centimeters (2.7 to 3.9 inches) long and 7 to 8 centimeters (2.7 to 3.1 inches) across, pale but bluish purple with a white throat, similar to the cultivated “Heavenly Blue” morning glory. The fruit is a capsule.

RANGE AND POPULATION LEVEL: Florida bonamia is endemic to the peninsula where most of its known populations exist in the Ocala National Forest, Marion County. It also occurs south of the forest in Polk, Orange, Highlands, Hillsborough, and Hardee Counties. It was relocated in Lake County south of Lakes Minnehaha and Susan (1 site) and in Manatee County. The historic range of Florida bonamia was from central Highlands County northward through northwestern Osceola, western Orange, Lake, eastern Marion, and northwestern Volusia Counties on ridges and uplands of the central peninsula. Collections of the plant were made in Sarasota, Manatee, and Volusia Counties in 1878, 1916, and 1900, respectively (Wunderlin et al. 1980). The Florida Department of Environmental Protection (1998) reported that the largest population of this species at Lake Louisa State Park in Clermont appears to be increasing in number and spreading out across the site.

HABITAT: Florida bonamia’s habitat is sand pine (Pinus clausa) scrub vegetation with evergreen scrub oaks and sand pine. Sunny openings in the vegetation are occupied by reindeer moss (Cladonia), lichens, and herbs. In the Ocala National Forest, where most of its remaining populations exist, Florida bonamia is restricted to these bare sunny sand areas, including the margins of sand pine stands on road rights-of-way, fire lanes, and other places which are kept
clear of trees and shrubs. Florida bonamia also occurs in clearcut areas in the Ocala National Forest. In scrub vegetation in Highlands and Polk counties, Florida bonamia co-exists with at least three Federally listed plants: Highlands scrub hypericum (*Hypericum cumulicola*); papery whitlow-wort (*Paronychia chartacea*); and scrub plum (*Prunus geniculata*). Bonamia also occurs with the endangered scrub lupine (*Lupinus aridorum*).

**REASONS FOR CURRENT STATUS:** Urban and agricultural development, especially citrus groves, have extirpated the plant from most of its former range and continue to be the main threats. In Polk, Hardee, Orange, and Highlands Counties, remnant populations are highly susceptible to obliteration of the vegetation for citrus groves and residences. Florida bonamia is also susceptible to trash dumping, invasion by exotic plants and weeds, and damage from off-road vehicles.

Normal ecological succession also poses a threat to Florida bonamia unless the habitat is kept open by occasional fires or equivalent mechanical land disturbance. The state of Florida currently lists this plant as endangered, but the law does not provide for habitat protection.

**MANAGEMENT AND PROTECTION:** Populations of Florida bonamia in the Ocala National Forest appear to be large and quite secure. The species may be spreading from a limited original range within the Forest. The distribution (as mapped from roads) is roughly oval-shaped and does not seem to coincide with any changes in vegetation or soils, suggesting that the distribution may reflect expansion of the plant’s range along roads. Current and planned management practices ensure an abundance of the plant’s early successional habitat. Forest Service management has also limited off-road vehicle use. Florida bonamia is currently protected at 7 sites on the Lake Wales Ridge, and acquisition of additional land is ongoing (Schultz et al. 1999).

Hartnett and Richardson (1989) have shown that Florida bonamia has long-lived fleshy root systems that enable the plant to recover rapidly after fires, and that the plant also maintains substantial seed banks in the soil. A study conducted at Lake Louisa State Park found that Florida bonamia did not seem to be affected by the application of a monocot-specific herbicide applied for the control of non-native pasture grasses; at least two applications of the herbicide in early spring to reduce the grasses (FDEP 1998).

**REFERENCES:**


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