Paper 102 Text by R. Kral

## **ASTERACEAE**

Balduina atropurpurea Harper. Purple balduina Endorima atropurpurea (Harper) Small

Technical Description

Perennial.

Stems.--The stem erect, usually simple or sparingly branched, purplish, slightly hairy, roundish in cross section but with several low, longitudinal ridges, from a short, thick, erect rootstock with fleshy roots.

Leaves.--Alternate, narrowly spatulate, rather fleshy, numerous and evenly disposed along the stem, ascending, the largest at and toward the base, up to 12 cm long, becoming gradually shorter toward the inflorescence, short-acute, the margin entire, the base long-attenuate, sessile or short-petiolate, the surface yellowish-green, finely pitted.

Inflorescence.--Heads 1-few, usually on long, but stiffish peduncles, when fully open to 2 cm high and 5-6 cm broad.

Flowers.--Ray flowers a rich yellow, fully 3 cm long, spreading, three-to-five-toothed at the tips. Disc florets very numerous on the elevated receptacle, the corollas a deep purplish or deep reddish-brown.

Fruit.--Akenes narrowly obtriangular, finely hairy, capped by a ring of narrow, pale, thin scales.

Distribution and Flowering Season

This showy species is found only in the Coastal Plain of northeastern Florida and in southern Georgia and blooms mostly in August and September.

Special Identifying Features

Its nearest relative,  $\underline{B}$ . uniflora, is a very similar plant with shorter leaves and a yellow disc.

Habitats and Management Implication

B. atropurpurea grows on moist, sandy, peaty clearings among slash pine, or longleaf pine or a mixture of these, with an understory of palmetto, ericaceous shrubs such as blueberry, huckleberry, staggerbush, fetterbush, dwarf kalmia, shrub hypericums, and saw palmetto. It is sometimes associated with pitcher plants, lycopods, xyrids, eriocaulaceous species. Thus, it is a part of the high-hydroperiod, acidic soil complex of vegetation, and like most of these, increases with a decrease of understory shrub and overstory through fire. Selective logging or clear cutting would favor it. Mechanical removal of understory shrubby vegetation would favor its increase as would mechanical disturbance of the soil so long as the organic content were now lowered. However, drainage, so as to lower both the water content and organic content of the peaty soils it occurs in, would eliminate the species.

The species is related to the common bitterweed, <u>Helenium amarum</u>, and, like it, is not usually grazed unless nothing else is available. Thus, its main danger would be from drainage, a full development of coniferous overstory, or land development.

## Suggested Reading

- Harper, R. 1901. On a collection of plants made in Georgia in summer of 1900. Bull. Torr. Bot. Club 28:454-484.
- Harper, R. 1904. Explorations in the Coastal Plain of Georgia during the season of 1902. Bull. Torr. Bot. Club 31:9-27.
- Harper, R. 1905. Phytogeographical explorations in the Coastal Plain of Georgia in 1903. Bull. Torr. Bot. Club 32:141-171.
- Small, J. K. 1933. Manual of the southeastern flora, pp. 1454-1455.

PECTES: #10	2 <u>Balduina</u>	atropurpurea	Harper.	purple	balduina
-------------	-------------------	--------------	---------	--------	----------

	Management Practices								
Expected effect on the species*	Prescribe burn	Bulldoze or root rake	Bed	Chap	Thin over- story	Cut over- story	Establish plantation	Graze	
Destroy		Х		χ					
Damage			Х						
No lasting effect								Х	
Beneficial if done properly	Х				х	Х			

\*Expected effect on the species is an estimate made by Dr. Robert Kral based on his knowledge of the habitat and on knowledge gained from personal field observations. Estimates are rough in many instances. Results of practices may be modified depending upon the degree of application, intensity of treatment, nearness to plant communities, etc. A management practice for which no entry is made indicates a lack of sufficient information from which to predict expected results. As observations are made in the field by users of the data, the expected effect will be refined.

Other Comments. -

Balduina atropurpurea R. Harper

