

The evidence in hand indicates major phytogeographic regions: I. For *Zamia integrifolia* Ait., discovered by John Bartram,—the pinelands as noted above locally throughout the peninsula, with the plants most abundant near the northern and southern ends, with a northward extreme at Perry in Taylor County and a southern outlying extreme on Big Pine Key. II. For *Zamia umbrosa* Small¹, discovered by William Baldwin, as noted above,—the temperate hammocks of the upper eastern coastal region with outlying extensions in the Saint Johns water-shed and the Ocklawaha water-shed. III. For *Zamia media* Jacq., of the West Indies, discovered in Florida in 1917, by C. A. Mosier, John De Winkeler and the writer,—the tropical and semitropical hammocks of the lower eastern coastal region.² IV. For an undetermined species of *Zamia*—the tropical everglade prairie hammocks of the Cape Sable region.

Rumored more northern localities for *Zamia integrifolia* and *Z. umbrosa* await verification. The former species has been reported as growing south of De Funiak Springs, western Florida and the latter north of Saint Augustine, eastern Florida.

Thus, one after another some of the mysteries have been solved. The one, however, connected with the general distribution of these plants over the state is unsolvable. Whether, after they were generally established, subsequent to the immigration of their ancestors from the West Indies, they have increased in range or abundance, naturally, or through the agency of the aborigines, as a cultivated crop, or have decreased through natural agencies or through the abuse of the supply by the aborigines, we shall never know. However, at present it is clear that the plants are most abundant at the sites of the former places of settlement or activity of the aborigines.

¹*Zamia umbrosa* n. sp. Plant with arching, dark-green leaves: leaflets typically numerous, the blades narrowly spatulate at least broadened upward, 20-30-veined, finely several-toothed at the apex: mature, ovulate cones ellipsoid or cylindrical, 1-2 dm. long, or rarely smaller, scarcely umbonate.—Hammocks, shell-middens, and sand-dunes, northeastern peninsular Florida.—Type specimen from Hammock, between Volusia and Ocean City, Florida, J. K. Small & J. B. DeWinkeler, May 4, 1821.

² Journal of the N. Y. Bot. Gard. 18: 102. 1917.

Zamias are ornamental as well as esculent plants. In Florida they are commonly cultivated in gardens, not only in the localities where they grow naturally, but at distant points. They decorate the front yards of both humble and pretentious houses, planted either in clumps or as hedges. When the Everglade Keys were settled, every one had fine plants of *Zamia integrifolia* in his front and back yards. These usually grew so plentifully that it was a case of eliminating instead of introducing the plants.

The plant thrives in cultivation. Garden specimens often surpass in luxuriance any seen in their natural habitats. Thus we have found such specimens of *Zamia integrifolia* in Apalachicola and in Perry in northern Florida, and likewise in towns down through the peninsula. *Zamia umbrosa* is in cultivation west of its natural range in Gainesville and in Ocala. Northward of its geographic range it may be seen in abundance in the gardens of Saint Augustine and in Jacksonville, and even in the little, remote, but old, settlement of Mayport at the mouth of the Saint Johns River.

Numerous inquiries in Saint Augustine and in Jacksonville brought out the fact that the cultivated plants were brought originally from the Halifax River region, but long before the present owners or occupants of the premises were there.

The individual plants grow rapidly from seed. Seedlings may become mature enough in two or three years to bear cones, even under unfavorable conditions. They, too, seem to be long-lived, and several centuries may not be too great an estimate. An evidently old plant, moved to a garden in Pasco County, Florida, over thirty-five years ago thrived and was sent to the New York Botanical Garden within the past few years but unfortunately, was frozen en route.

Under natural conditions the plants are scattered broadcast by the dispersal of their seeds by various animals; but vegetative propagating may be easily accomplished. The curious-looking caudex is evidently a much abbreviated and condensed plant axis, for it may be sliced into numerous wafers, each of which will promptly develop into a new individual if planted. It seems strange that in spite of these numerous nascent buds, the caudex of our zamias is either simple or very sparingly branched, both in the wild and in cultivation.

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