

THE DISTRIBUTION OF  
PUBESCENT LEAVED INDIVIDUALS  
OF *CONOCARPUS ERECTUS* (COMBRETACEAE)

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The buttonwood mangrove *Conocarpus erectus* L. grows along the coast of west tropical Africa, the Atlantic and Pacific coasts of tropical and subtropical North and South America and throughout the West Indies. Pubescent leaved individuals are restricted to the northern areas of the West Indies, southern Florida and northern Central America (Fig. 1) and have been variously named *C. pubescens* Schmach., *C. erectus* var. *sericeus* Fors. ex DC., *C. sericeus* (Fors. ex DC.) G. Don, *C. erectus* var. *sericeus* Griseb. and *C. sericeus* (Griseb.) Jimenez.

Stearn (1958) noted the existence of intermediate leaved individuals (*Stearn* 760 from Portland Ridge, Clarendon, Jamaica) and recommended that specific level be dropped in favor of varietal level. (In this article Stearn cited the type-locality of  $\gamma$  *sericeus* Griseb. as Antigua and St. Vincent, Lesser Antilles, but Grisebach (1860) listed *sericeus* only from the Bahamas (*Swain*  $\alpha$ .  $\gamma$ ), a locality consistent with the findings of this author).

Study of the variation in pubescence of material from F, GH, MO and fresh material in the field suggests division of the intermediate leaved condition into three groupings. The first condition consists of a few slightly pubescent leaves on an otherwise silky pubescent leaved plant. The converse of the first condition also occurs giving a plant with a few sparsely pubescent leaves on an otherwise glabrous leaved plant. The third condition consists of individuals with pubescent and glabrous leaves in a cyclic pattern.

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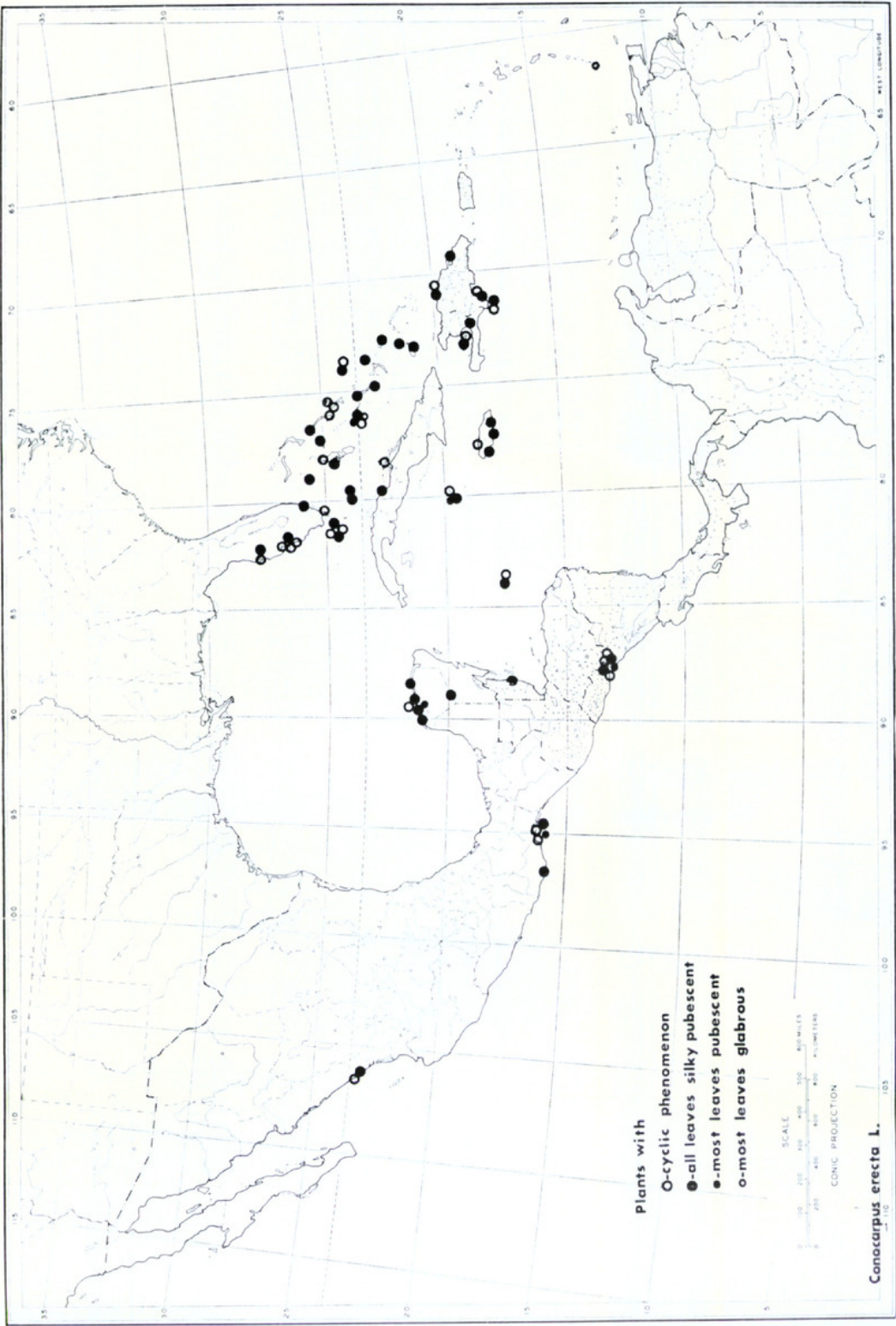


Figure 1. Map of collection locations of *Conocarpus erectus* with some leaf pubescence. See text for distribution of glabrous plants and the entire species.



In the complex phenomenon the degree of pubescence per leaf shifts from a high density of hairs to few or no hairs and back to the initial condition. The pattern of hair distribution on the leaves in the intermediate range of density is similar to the pattern of *Spiraea ulmaria* L. as described by Yapp (1912). The cycle may end with either pubescent leaves at the time of collection (*Elmore* D21 Chachua Bay, Oaxaca, Mex.) or with glabrous leaves at the time of collection (*Semple* 11, Duck Cay, Jewfish Chain, Great Exuma, Bahamas). Collection dates from various specimens indicate that the rate of cycling and the cycling itself are not necessarily seasonal. Cyclic flushing of pubescence has been noted in other species as well, for example, *Phragmites communis*, *Lysimachia vulgaris*, *Mentha aquatica*, *Pseudobarleria* sp. (all Yapp 1912), and *Populus alba* (H. Johnson, personal communication). The variation in leaf shape and degree of pubescence in *Borrchia arborescens* (L.) DC. show a similar phenomenon to that in *C. erectus*. The two can be found growing together in the Bahamas.

The distribution of the glabrous leaved form of *C. erectus* is equal to the full area of distribution of the species. Glabrous forms can be found growing with pubescent forms throughout the area indicated by Fig. 1. On various cays of Great Exuma, Bahamas, the two extremes may be found so close together that the roots and branches intermingle.

The existence of a full continuum of intermediate forms between the glabrous and pubescent extremes even on the same branch dictates that varietal status for the extremes is unwarranted. The only name that can apply is *C. erectus* L. Future descriptions of the species should note that a wide range of leaf pubescence is possible for plants occurring in the northern areas of the species' distribution in the Americas.

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## LITERATURE CITED

- GRISEBACH, A. H. R. Flora of the British West Indian Islands. London. 1860 (1859-1864).
- STEARNS, W. T. 1958. A key to West Indian mangroves. Kew Bull. 33-37. 1958.
- YAPP, R. H. *Spiraea ulmaria* and its bearing on the problem of xeromorphy in marsh plants. Ann. Bot. (London) 26: 815-870. 1912.

Correction in article on *Rubus* Hybrids.

On page 243, line 9, in this volume of *Rhodora* the name *Rubus frondosus* was erroneously given as being equivalent to the hybrid *R. Enslenii*  $\times$  *pensilvanicus*. Actually this hybrid doesn't closely match any named blackberry of which we are aware. To conform with this correction the word most in the third line of page 242 should be changed to all. Thus the sentence as altered would read, "In the following treatment the names in parentheses that are given directly after some of the hybrid designations are binomials, in *all* cases rejected ones, which we consider to be equivalent to these hybrids."

F. L. Steele and A. R. Hodgdon



Semple, John C. 1970. "The distribution of pubescent leaved individuals of *Conocarpus erectus* (Combretaceae)." *Rhodora* 72, 544–547.

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