# VERNONIA GEORGIANA, A NEW SPECIES RELATED TO V. OLIGOPHYLLA.

## H. H. BARTLETT.

Botanists in the southeastern States must have often observed the close similarity which Elephantopus tomentosus bears to Vernonia oligophylla when both are in the rosette stage. Indeed, at the outset of my own collecting in Georgia, I failed to distinguish the two plants until I had seen both in flower. In the pine barrens of McDuffie County there are three species of Elephantopus, — E. carolinianus, with the leaves all ovate and all alike, E. nudatus with lanceolate leaves forming a basal rosette, and much reduced or bracteiform cauline leaves, and E. tomentosus with a basal rosette of ovate or oblong leaves and the stem usually scapiform. The close similarity of Vernonia oligophylla to Elephantopus tomentosus had struck me so forcibly that when I found a third kind of rosette in the pine barrens, with narrowly lanceolate, acute leaves, I passed it by as Elephantopus nudatus. last summer, I did not find this third rosette in flower, and then, to my surprise and pleasure, it proved to be a species of Vernonia, very closely allied to V. oligophylla. In its rosette of large basal leaves Vernonia oligophylla has heretofore been held unique among our ironweeds. This character it holds in common with the newly discovered plant.

On account of the well-known tendency of the Vernoniae to hybridize, it occurred to me that I might have found a hybrid between V. oligophylla and some other species. The idea seemed the more plausible because one of my Vernoniae from the same region is thought by Dr. Gleason to be a hybrid between two such diverse species as V. noveboracensis and V. angustifolia. Vernonia angustifolia is sometimes associated with Vernonia oligophylla, although as a general rule it grows in much drier soil. I was unable to see that there was any clear evidence of the problematic plant, described below as Vernonia georgiana, having had a hybrid origin from these two species. In Vernonia angustifolia the pappus is tawny, in V. oligophylla it is whitish. In a hybrid we should expect the color character of the former species to be dominant, whereas in Vernonia georgiana the pappus is

exactly the same as in V. oligophylla.

Vernonia georgiana sp. nov. Herba erecta, simplex vel parte superiore ramosa, 2-10 dm. alta. Caulis vel viridis vel purpureus, striatus, puberulus. Folia dimorpha; inferiora 7-8 lanceolata, 5-15 cm. longa, 1-2 cm. lata, sessilia, basi valde angustata, acuta vel obtusa, denticulata, supra scabra, subtus puberula; caulinia angustiora linearia, superne bracteiforma. Inflorescentia laxa, capitulis campanulatis pedicellatis. Involucrum ca. 28-florum, 6-7 mm. altum, squamis glabris vel obscurissime ciliatis, interioribus appressis, exterioribus quam interioribus multo brevioribus, apice paulum patentibus. Achenia sulcata pubescentia, pappi setulis pallide stramineis.— Type, Bartlett 1730, pine barrens of the fall line sand-hills, vicinity of Thomson, McDuffie Co., Georgia, 10 Aug. 1909.

Vernonia georgiana is easily distinguished from V. oligophylla, with which it grows, by the much narrower leaves, fewer flowered involucres (flowers about 28 in V. georgiana, more than 40 in V. oligophylla) and by the less spreading and much shorter outer involucral scales. It is known to me only from the one locality.

Bureau of Plant Industry, Dept. of Agriculture, Washington, D.C.

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