
XEROPHYTIC ADAPTATIONS OF APOCYNUM HYPERICIFOLIUM.

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In the January, 1905, Ohio Naturalist, the writer presented some observations on the occurrence and development of mat plants, showing that some plants which are erect in an ordinary environment become prostrate, with radiating branches, when growing in exposed situations as on a sandbar or newly plowed prairie. While studying the xerophytic vegetation of Cedar Point, at Sandusky, Ohio, my attention was called to the pros-

FIG. 1. Apocynum hypericifolium growing on a sand blow-out on Cedar Point.

trate condition of *Apocynum hypericifolium* Ait., the Clasping-leaf Dogbane, growing in the blowouts and on the sand-dunes. This is a rather rare plant in Ohio, being at present known only from this locality. The plants growing in less exposed conditions were nearly or quite erect.

The prostrate condition is brought about by a curve of the single main stem an inch or two above the ground. The lateral branches spread out in a more or less radiating fashion, producing a very close superficial imitation of a typical mat plant (Fig. 1). The bending over of the steam and branches brings most of the leaves into a more or less vertical position. The peculiarity seems to be an adaptation to the light, but other factors may also have an influence. The cause of the habit could probably be easily determined by experiment. The stems develop abundant anthocyan and the leaves are very glabrous and glaucous. This Dogbane is, therefore, a very perfect xerophyte being able to endure more easily perhaps than any other plant of the locality the intense light and heat often present in summer on the bare sand of the blow-out.