

but stunted *P. trifoliata* and *P. racemosa*, whilst the rest appeared somewhat puzzling and intermediate between the two. We determined to prepare a large series of specimens to facilitate a thorough study, but, alas! the next morning the marsh was found neatly mowed, and the *Prenanthes* were no more.

Later study and comparison with type in the Gray Herbarium have shown our doubtful forms to be equivalent to *P. mainensis* Gray. There can be hardly any doubt now that the so-called *P. mainensis* is a natural hybrid: *P. racemosa* x *P. trifoliata*. Gray's text reads as follows: "About two feet high, leafy up and into the panicle; leaves nearly those of *P. racemosa*, but thinner and less glaucous; the radical ovate, commonly with abrupt or rounded base; upper, subtending clusters of the interrupted narrow thyrus; heads all drooping both before and after anthesis, resembling those of the following species (*P. virgata* Michx). Shore of the St. John's River at St. Francis, North Maine, *Pringle*. Growing with or near *P. racemosa*. And a looser form of the latter, "very common on the St. John's River," (*Goodale*) is somewhat between the two; so that this may be a hybrid between *P. racemosa* and *P. serpentaria*." (*)

It should be borne in mind that when these lines were written (1886), *P. trifoliata* had not yet been separated from *P. serpentaria*. From the description of Gray it appears that the plant named by him *P. mainensis* was an extreme form of the hybrid, differing from the "looser form of *P. racemosa*" only quantitatively, and that both are but distant terms of a Mendelian series.

We will now give the result of our own study based on the comparison of 15 specimens of *P. racemosa*, 20 of *P. trifoliata*, and 8 of *P. mainensis*.

STEM.

An important reduction in size is first noticeable, which is doubtless a response to the semi-halophytic habitat. In normal conditions *P. racemosa* reaches fully 2m., whilst here its maximum is 30cm. *P. trifoliata* generally grows to a height of 1.50m., and exceptionally to 3m.; in this locality no specimen higher than 32cm. was found.

It is well known to breeders, as well as to students in hybridism, that crosses between nearly related forms are more vigorous than either parent. The following tabulation will emphasize the law as applied to the present case:—

*Gray, Asa, "Synoptical Flora," I., 433, 1886.