

markable is the tendency some of the leaves exhibit to lobate after the manner of *P. trifoliata*. But this tendency is checked in some way in its action, as it succeeds in affecting only one-half of the leaf, thus showing that the elementary characters of *P. racemosa* are dominant over those of *P. trifoliata*.

In the three plants the leaves are bordered with glandular teeth.

#### FLOWER AND FRUIT.

The color of the ray-flowers of *P. mainensis* is evidently intermediate between the pale purple of *P. racemosa* and the straw yellow of *P. trifoliata*.

The inner bracts of the involucre are about the same in outline in the three plants, but they differ much in the amount of pubescence. In *P. trifoliata* these bracts are perfectly glabrous; in *P. racemosa* they are covered with very long ribbon-like flattened hair tipped with a spherical gland; *P. mainensis* shows a pubescence much like that of *P. racemosa*, but very scarce, the evident result of the fusing of opposed characters.

The bract of *P. mainensis* ends in a somewhat fimbriate obtuse point bearing septate hair, very different from those described above; they are much shorter, and consist in a single line of hyaline cells. The bracts of *P. trifoliata* and *P. racemosa* show the same peculiarity.

The bracts of *P. racemosa* and *P. mainensis* are covered with truncate conical papillae, inclined towards the point of the bract. Every cell being papilla-bearing, their number can be estimated in round figures to 10,000 per sq. mm. None of the twenty specimens of *P. trifoliata* from the halophytic habitat of Anse à Persi showed these papillae, but we found them in smaller numbers, and different in form, on a giant specimen collected on the quartzite rocks of the "Gros Pelerin," one of the islands off the Kamouraska coast.

The akene of *P. mainensis* is slightly longer than that of *P. racemosa*, and much longer than that of *P. trifoliata*, even when giant specimens of the latter are considered.

#### DISTRIBUTION.

We do not believe that *P. mainensis* has been before noted outside of the type station on the St. John's River, neither do we think it can be found frequently on account of the distribution of the parent species and their different habitat.

*P. racemosa* is very widely distributed in North America, from Eastern Quebec to Alberta, whilst *P. trifoliata* is distinctly eastern and boreal. In the Province of Quebec there is no sure record west of "Gros Pelerin" island, though some of Macoun's