

TOWNSENDIA FORMOSA. Perennial, spreading by short stout stolons, the sterile ones ending in a rosette of leaves, the others in a stout upright very leafy monocephalous stem: basal leaves cuneately to spatulately obovate, very obtuse, entire, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, of thin texture, glabrous, except as to the prickly-ciliolate margins, those of the stem crowded and somewhat imbricated, spatulate-oblong: heads large, 2 inches broad from tip to tip of the broad purple rays: bracts of involucre oblong to lanceolate, thin, broadly scarious-margined.

In the Black Range, in the spring or early summer of 1903, O. B. Metcalfe; specimens sent to me under n. 1434.

HEDEOMA PULCHELLA. Dwarf many-stemmed perennial, at very base suffrutescent, the stems though tufted usually simple, leafy, floriferous from the base, 3 to 5 inches high, all the growing and flowering parts villous-hoary, leaves $\frac{1}{4}$ inch long, ovate, very acute and sharply few-toothed above the middle, flowers very large for so small a plant, 2 or 3 in each axil; calyx strongly bilabiate, the slender-subulate teeth and the tube all equally and strongly hirsutulous: corolla lavender-colored, more than $\frac{1}{2}$ inch long, the tube slender, long-exserted.

Limestone hills at about 6600 feet near Kingston, 18 May, 1905, O. B. Metcalfe, n. 1599. The most beautiful and large-flowered of dwarf species.

URO-PAPPUS PRUINOSUS. Annual, stout, low, subcaulescent, 6 to 10 inches high: leaves but half the length of the scapiform peduncles, consisting of a linear rachis and remote narrowly linear segments, the whole, and also the lower part of the peduncles more or less hoary with short papilliform and some longer and curled white hairs: fruiting heads barely an inch high: achenes short, subcylindric, tapering but slightly, of only half the length of the pappus, paleae of the latter very deeply bifid, the bristle long in proportion.

Common winter annual of southwestern New Mexico and adjacent Arizona, hitherto referred to *U. linearifolia* of the Pacific seaboard; thoroughly distinct by its short achenes and comparatively long pappus, the achenes not beaked, etc. The

best specimens before me are of my own collecting in 1877, and a sheet by Mr. Metcalfe in 1905.

SENECIO QUAERENS is a name that may perhaps be found tenable in place of that of my second *S. prionophyllus* namely that of page 212 preceding.

New Species of Viola.

During the three seasons last past, in relation to our acaulescent violets I have done some field study, some collecting, and not a little silent reflection upon the whole subject, and not so much of writing and publication. The defining of new forms, as well as wise or unwise commentation upon many somewhat newly published I have for the most part left to a number of people who, all of them new in this field as compared with myself, are not yet checked by lack of confidence in the sufficiency of their own knowledge.

In the course of some journeyings made in the month of May, 1902, through Western Maryland, northern Ohio and southern Michigan, I took something like alarm at the great number of undescribed violets that I encountered; and to these were added in my thought not a few forms common in the valley of the Potomac near Washington which I had not yet dared to publish, though I had been studying them, but only too interruptedly, since the year 1896.

One or two of the settled conclusions I seem to have reached during these three seasons of more silent study I may here briefly state.

I think that the number of valid species of so-called acaulescent violets in the United States is very great; that it may amount, eventually, to some hundreds.

I have not the least faith in the existence of any hybrids in this group. Certainly not one case has been proven. Quite a number have been guessed at; not one of them with what to me is the least show of reason or probability. That which to any scientific mind should preclude even any guessing at hybrids, or almost any hope of finding such in the field is the simple fact that 99 out of 100 seeds of these plants are from flowers that