

California Academy of Sciences.

Post Office Box No. 2247.

San Francisco, July 20, 1885

Dear Dr. Gray:-

Your Chico Mimulus, first in, you seem inclined to reckon in with M. nodosus; but all that sort of thing, and we have plenty of it collected long ago by Bolander. I have put into M. moniliformis, as you can see; for I have referred to Bolander's specimens, which you had named for him "M. moschatu". The moniliform rootstocks you would probably have found later in the season. At least, I have always found them forming as the plants were going out of flower, in August & Sept. They may perish, for aught I know, with the growth of the young plants in spring. The strong external plication of the corolla tube or throat, and the decided elongation of the seed, marks M. moniliformis as distinct from M. nodosus, whose seed lacks nothing but the flattening of its ends to bear it perfectly globular. As for the musky scent: that, I am now convinced, I have made too much of. It is found, Mr. Lyon assures me, in M. nodosus down his way. I am confident I too have been aware of its presence in good M. moniliformis; and I am very certain that the more villous

forms of even M. frimuloides are strongly musty.
I noticed it both in Scott Mts. & in the Sierra years
ago.

We must ask our friends to find out
if the big M. inodorus does, late in autumn develop
the moniliform rootstock. I do not think it
will affect it. But if the species is to be reduced
there is when it must go, or not into M. moniliformis.
Surely we are obliged to drop the odor character; but
those of the corolla and seed are, I think, good for
the maintenance of both M. moniliformis & M. inodorus.
What I have reckoned as belonging to the latter is never
according to my knowledge, a small plant. It will
average two feet high.

I have probably written you enough already regarding
Eunamus; but I enclose a few seeds of E. Bolanderi & E. brevis.
Under a good strong lens you will find these moniliform;
& many other species of Eunamus proper, show a
beaming this way; & so does E. (Mimulostemum) pictus.
The oily viscosity, and the sickening odor of green tobacco, strong
in several species, and traceable in every one of the species
of proper Eunamus and Mimulostemum. Benth. & Hooker
knew nothing about it. Probably Mr. Bentham
if some handfuls of these plants, ^{fresh} had been brought to
him with his eyes blind, would have said: they
were solanaceae but for their opposite leaves:
This would escape the knowledge of the ablest closet-botanist.

but when once known it must be taken into account. I did not make my move audaciously, to show how I could dare set forth an opinion differing from that of the ablest botanists of the century, nor even with the thought that, in future generations, some authorities might take my view. I think no botanist who knows these plants familiarly as we know them who for years have lived among them, will approve of their reduction to Minulus.

It really looks to me like a subversion of all rules for the systematizing of Gamispitola & put under one generic name such crosses of those of Eunurus Douglasii, E. Mohavensis, & Minulus ringens. Surely Bentham could not have done it knowing what he was doing, as you and I know.

It is probably because I have been, for the most part, a field student, and have had ten or a dozen years of almost unceasingly detecting the errors of learned men of the herbarium and library, that - I dissent strongly from your view that Benth. & Hook. should have influence with you, as they do have, in this case. But you have their materials before you. You can tell if they had means of knowing even the fruit characters of a considerable number of species of Eunurus, which I doubt.

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In Mimulus I fear there are some errors of mine
to be corrected. M. guttatus must take in those
annual forms which I ought to restore under
M. microphyllus Benth, & also my M. nasutus;
for in the south part of the state I found
plenty of those peculiar calyces on plants which
had not the winged stem nor the small corollas
& those well marked specimens on which I thought
a species would be well founded. Nevertheless, at
San Luis Bay I obtained what was just like
M. nasutus in its last shape. The species, ^{of M. guttatus,} is,
as a whole, almost annual. Taken as a whole
there are very few plants which propagate them-
selves from one season to ^{another} ~~another~~ by
noting basal joints. I am not sure that
I have detected it in but one instance.
I will send you more specimens by & by.
Diplacus stellatus has foliage of a quite different
texture from those of D. glutinosus. It must
be distinct. Its corollas are only half as large;
nor have I seen that pubescence on any

main-land form.

* D. pallidus you must not confound with D. longiflorus. The pubescence is very unlike, and the corolla is of quite another cut.

The plant you left on my table as "D. latifolius" is only what I should call the ordinary D. glutinosus. D. latifolius comes from the Sierras (or foot hills of them) and has also its own characteristic corolla.

There is one more point, in Diplacis.

D. purpurea flowers four months earlier than does D. glutinosus, and yet there is not a week's difference between the flowering of the same species of plants, in San Diego, & San Francisco.

Now, both species of Diplacis scatter a few flowers through the whole year: but each has its 6 or 8 weeks of profuse blooming. It is March - April with the southern one & July & August with the northern. The trees & shrubs growing with the Diplacis in both counties (as for ex. Liriodendron agrifolia) put forth their leaves in March, and a week or two earlier (!!!) in S. F. than down yonder. But I think you admitted the genuineness of purpurea as a species.

I wonder if it is your purpose to put forth the new issue of the Syn. Fil. before winter.

*

I am sending some Diplacis in a parcel now.

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And, if the newest vol. is also to be revised and amended. I hope not yet. New things are coming in too fast. New alterations are perpetually suggesting themselves. I have already in manuscript one thing which I must tell you of. My *Ms.* is the result of a settled conviction which I have been coming to for several years, that - your *Hesperoides* of *Carpophytum* is a good genus of *Helianthoides*. My late trip along the peninsula gave me the means of settling that question beyond a doubt in my own mind. You would not believe me when I told you five years ago that the flowers were yellow; and I see you have rejected the testimony of every body else to the same fact; you could allow them to be "ochroleucous" because that would admit them where Mr. Bentham placed them, in *Eupatoriaceae*; but evidently neither he, nor you after him, nor carefully noted the akenes, which are such as can not be admitted in *Eupatoriaceae*. Perhaps you never had them mature. I will send you some, in my Cedar bundle, that are so, and you will see that they

slip neatly into Helianthoides, where the deep yellow
flowers, and the rough, sun-flower-smelling
herbage suggests that the species may belong,
in spite of the fulvous aures of the pappus,
a thing which is not new in that tribe.

I have named the genus Bebbia; but I
have not yet told Bebb.

What will you think of this?

I have lots of new compositae in M.S. and you
will not blame me for preferring to print them
myself first, rather than have them go out in
your book as "Green in herb.", if there is time
for me to do so.

The final query is: Will you ever make your
way through this very long epistle?

Very Truly Yours

P. L. Green.



Greene, Edward Lee. 1885. "Greene, Edward L. July 20, 1885." *Edward Lee Greene letters to Asa Gray*

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