

Since my return I have been working
hard at Compositae for genera I have
got through *Peroniaceae* and have
nearly done *Eupatoriaceae* the two easiest
tribes. In *Peroniaceae* I was much disposed
to place in the first order the characters
you made such good use of in *Eupatoriaceae*
the 5 angled or 10. ribbed achenes - the
difficulty is in the first place as to a
few cases where the secondary ribs are
faint so as to make it uncertain to which
set the plant would belong and in the
next place as to *Peronia* itself which
though in the great mass of species - all
the American and the larger old world
ones - has 10. ribbed achenes yet the section
Tephrodes has them 5 angled and generally
speaking in some species comes as near to
Gnaphis (which has them 5 angled) as to *Peronia*
I should therefore have been inclined to
separate *Tephrodes* generically (including
in it *V. Wrightiana* and one or two near it
it with rather large heads) but that in the
first place it has a very decided *Peronia*
happens and again amidst all the numerous

25, WILTON PLACE.

S.W.

Oct 10/70

My dear Gray

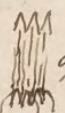
I have been long intending to write
to you but find myself always very
tardy in fulfilling epistolary intentions
I have now to say that I have sent to
Wrightson for you the 5th vol. of my
Flora Australiensis - It was published
in August but I was then out of town
and the horrible state of the Continent
having interfered with the despatch
of two or three copies I sent them I
somehow or other sent none out and
it was only on despatching Dr Candolle's
that I discovered I had forgotten you
Mr Bentham and myself had a very
pleasant summer chiefly visiting friends
but we also spent ten days at Penzance

with beautiful weather which we very much enjoyed and we returned to town this ~~day~~ ^{day} last month in great vigour. I have as yet felt next to nothing of the rheumatism I suffered so much from last autumn and winter. When we left town early in July all was peace and prosperity and it seems impossible to realize the dreadful change that France has experienced. Although she has brought it on herself it is impossible with so much that I have seen in that country to love and to admire not to feel deeply for her and not to have her constantly in one's anxious thoughts and to look out eagerly for any gleam of hope that she may soon be extricated from her calamitous position but I much fear that nothing will ever cure her - rulers as well as the governed - of that unprincipled vanity with which she would meddle with and regulate her neighbours concerns without conceiving

it possible that they should in return interfere with her - and in her present state of complete disorganization with the total absence of principle moral social or political in the dominant party it is very difficult to conceive any satisfactory settlement for 1801 to come even after they may have got rid of the Germans. Botany has of course collapsed like every thing else. Treiana and his family came over here with what things they could carry away - articles of furniture etc they were obliged to leave to their fate at Orléans la Reine. Corron sent over his wife and daughter and her baby and they are here reduced to hearing of him only by rare balloon posts. Brongniart and Decaene ~~who~~ were dwelling when Treiana left we have not heard since. (Cheimier happened to be absent from Strasbourg when the war broke out and has got away with the Swiss party - but the whole thing is too distressing to dwell upon.

I know not what to make of *Trichocoronis*,
the style is not to my eye Eupatoriaceous and
our specimens are only just in flower so
that I cannot see the form of the anthers,
nor the developed pappus.

I suppose we must adopt *Fleischmannia*
Ch. Dip. It is my *Eupatorium*? *quinquevatum*
and *Hora Ari's* *Phania cornifolia* is a second
species.

It seems to me that *Pernoniaceae* have the
anthers sagittate at the base with the
auricles of adjoining
to the end and although  often quite
 acuminate usually  polleniferous
to the end except in *Adenium* *Neurocarpa*
and *Centropogon* where they project into
short tails. whilst in *Carpobolus*, each
anther has a separate point or tail at the
base the whole cylinder of anthers being
5-pointed instead of 5-pointed at the base
in *Eupatoriaceae*. The anthers one of them
is truncate at the base without auricles
below the attachment of the filament.

I find it rather difficult to hunt up
all you have read in your scattered
papers but hope I shall miss nothing
for your observations are capital guides.

Wickes is hard at work at *Pulicaria*
and I hope we shall present in the spring

genera dismembered from *Pernonia* no one
has ever separated *Tephrosia* and it might be
acting too much against the unanimous aspect
of botanists to do so now. With two exceptions
I keep *Pernonia* in the comprehensive sense
adopted by DeCandolle and DC. with the addition
of *Gymnanthemum* (*Oceanium* var DC) *Veltheia*
Distephaneus *Prochium* *Monardella* *Abelaria*
and a number of *Pentstemon* and *Ch. Dip.* African
genera. I separate *Carpobolus* (*Santhornia*
DC. *Monanthemum* Griseb which is *Eup. triflorum*
Aubl and has generally 7 not always 9 flowers
capitula) which has a peculiar habit and
tailed anthers and *Piptolysia* Ch. Dip. which
has a peculiar habit and the very peculiar
pappus of *Centropogon* - In the latter genus
I would include the old world *Styllocephalus*
with Ch. Dip. I would restrict *Albertinia* to
Cape's original species and distribute DC's
other species into *Santhornia* and *Eremanthus*.
I include *Urophoropappus* and *Xyphochloa* in
Milpaopappus and with Ch. Dip. comprise
Adenocorymbus *Odontotoma* *Dialista* and *Polialista*
under *Oliganthus*. *Eremanthus* would
take in *Chresta* *Pycnocephalus* *Hathyanthus*
and *Lophoceros* *hora*. *Piptocoma* and *Lychno-*
cephalus go into *Lychnophora* and I would
repeal altogether from *Pernoniaceae* *Meibomia*
Laguncula *Lynchodendron* (*fecundaria*?) *Noteria*
and the Legume and *Pastilacae* there are still two
or three doubtful ones.

The Eupatoriaceae as far as I have gone
(I have not yet done the European genera.)
besides the good subtribeal distinction
you pointed out in the achenes I would
make a third subtribe *Piqueriaceae* with
5 angled achenes and exappendiculate
anthers. This would include 1. *Piqueria* to
which I would refer the true *Thalassia*
(not the Brazilian ones which are *Alouana*)
2 *Phania* ^(not *Notosticta* which is an *Ageratum*) 3 *Decacheta* (2 sp. both Mexican
the Brazilian ones belong to *Ageratum*)
4 *Notosticta* as to *Ch. baccharoides* including the
Caryophoreae *Eupatorium piquerioides* &
Melania chandoni Ch. *Piqu.* etc. excluding some
of *Copini* & which are *Stictis* & *Gymnocoronis*
and 6 *Adenostemma*.

Coelstinia cannot I think be separated
from *Ageratum* the two are closely connected
by Griseb. *A. muticum* and some others.

Should *Caryophoreae* be really kept up
distinct from *Leiotis*? - there is certainly habit
as well as the paleae of the receptacle - but then
Leiotis (*Prillia*) is perhaps more distinct in
habit and the paleae are of no avail in *Ageratum*
(*Coelstinia*) or in *Eupatorium* (*Chromolaena*)
where they are variable and always desirable,
not like the paleae of *Helianthemum*.

Have you done anything with *Larrea* or
Leiotis trichotoma? It is near *Eupatorium*
but with very deciduous pappus, occasionally

1 or 2 secondary ribs to the achenes and a
rather remarkable style.

I cannot keep up the small genera
separated by De from *Eupatorium*
(*Chromolaena* *Campuloclinium* *Conoclinium*
Hebeclinium *Occlinium* *Cratonia*) except any
more than *Strophosia* and the Brazilian
Heliotis which you have already treated
nor yet adopt what Pres. Ch. Rich proposes
in some *Leiotis* *Prillia* for the *Leiotis*
Heterostema for some of the subumbellate
Leiotis for the *P. Brazilian* species with
strongly borbollate pappus and *Ageratum*
for a very *Ageratum* - looking Brazilian
species with the pappus of *Eupatorium*
different as the extreme in structure are
they are too much connected by numerous
intermediates to be available for more
than series of species - and the more or
less convex receptacle and minute hairs
on some of them are but very vague
characters of degree.

I should be most obliged to you for
your opinion on any of these points
and for any suggestion you may make.

With kindest regards to all
I am, believe me,
Ever your sincerely

[1871?] G. S. George Bentham
28. 22 turned over



Bentham, George. 1870. "Bentham, George Oct. 20, 1870." *George Bentham letters to Asa Gray*

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