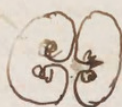


meeting in the centre near the lower
placenta

placenta
to the ends of
dehiscence

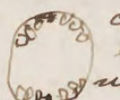


and this
remains attached
the valves in

(*Centium laetitia Holmsii* etc.)

In the third tribe Sweetest, the placenta
exceedingly thin & often scarcely discernible

line the walls of the
cavity of the ovary
each side of the ovule
a single row on each



cavity of the
either in
ends of the

ovule which is usually not
even in those Holmsii

ovary is a purious & cells
attached to the sides of the

the involute end - all this passes into the
placentation of Obstaria and Bastonia

where the four placentae are somewhat
thickened and cover almost the whole inner
surface

The fourth tribe like Menyanthes
have nearly the placentation of Sweetest
but the pairs of placenta are more crowded
and adjoined the dehiscence the capsule
usually bursting irregularly over the short
valves & not at all.

Now *Heperochiron* will do for
none of these the placentation is neither
extramarginal nor marginal nor intramarginal
(of the capsular valves) but the capsule
is locubridally revolved with the placenta

25, WILTON PLACE.
S.W.

Nov 1/74

My dear Gray

I return you your *Acerates* &
cannot unite the genus with *Asclepias* unless
you draw in the whole of *Gomphocarpus* If you
make the genera purely geographical without a
character you must do the same with *Asclepias*
Mardenia *Metastelma* etc which have species
in the old and the New world and if you do so
what would you do with *Asclepias curassavica*
for instance There is a tropical African *Asclepias*
which has been hitherto described as a *Gomphocarpus*
(and unfortunately so named in *Spoken* *Grati*
State though corrected in the text) but also has
been named *Asclepias*, with a very prominent
horn in the raceme corolla tube and indeed
closely allied to *A. curassavica* in habit colour
etc & only specifically different in the few large
flowers & minor points There is also a true
Asclepias amongst *Polypodiaceae* The
presence or absence of an inner horn or
appendage to the corolla tube, which separates
Asclepias from *Gomphocarpus* *Schizoxylum* from
Cynanotium *Cynanotium* from *Pineetopium*
(including *Cynanotium*) is a bad character and
forms unnatural combinations but I at least

cannot find a better one to divide these very large series of species and when two large genera are separated by a character existing in the great majority of species I am not for uniting them on account of one or two ambiguous species without very good collateral reasons.

As far as our present knowledge goes the American species of *Aculepis* and *Gonophoxys* (*Acerates*) would form a natural genus - natural as compared to American *Aculepidium* - but in Africa it is very different some have the character and habit of the American *Aculepis* some have the habit but not the form (the typical & fruticose or more like a tree ^{resemble} *Aculepis* in habit than most it does many of its congeners) and many have a distinct habit. The whole series of *Aculepis*, *Stygalobium*, run into each other and the differences in the corona form very unnatural groups but better ones certainly cannot be found without a long and careful study of every species and perhaps not even then. I should therefore under present circumstances keep up *Gonophoxys* and when there is a redimentary appearing within the *Aculepis* series I would put the species into that genus where it is most at home in other respects.

I observe in the enclosed an inner or upper series of small coronal scales between the serrate ones on the anthers and alternating with them as I have occasionally found in a few species of *Metastelma* and some other genera. I had not observed them in the *Aculepis* group but may have overlooked them as I have found them elsewhere of no generic consequence and after examining two or three sp. of American *Aculepis* and *Acerates* I thought it well to go through them all.

I have now done *Lognema*, *Galassia*, *Polemoneum* and almost finished *Hydrophyllum* and want your advice about *Hesperochiron*. I have carefully examined flowers & fruit of both species *H. californicum* and *H. florin pumila* and cannot make up my mind to bring them into *Gentiana*. I divide that order into 4 tribes chiefly according to the placentation discarding the connective and pericarp of the style as absolutely impracticable in *Eragrostis* which are all old world the ovary is completely encased with fleshy placentae left free (the two united or separate) by the dehiscence of the capsule   In the great mass of *Chironia* the margins of the corollary leaves more or less intruding in the cell and sometimes

in the centre of the valves, a state of things
unknown in *Gentiana* - Grisebach,
saying that the placental are along the
edges of the carpels in the *Andean* is I
think all bark - I find nothing of the kind

But ought not *Heperochiron* to go
into *Hydrophyllum*? - besides the corolla & habit is totally unlike any
Gentiana. Pray look into it and give
me your opinion.

The three genera of *Menyanthes*
are scarcely distinct but may be main-
tained if *M. crenata* is kept in *Menyanthes*
and *Villoria* restricted to the 1 African
and Australian species.

In *Polemoniaceae* you have saved
me a world of trouble. In *Hydrophyllum*
I follow you in reducing *Eutoca* to
Chaulia - of course *Whittavia* & *Micro-*
gaster must go too - as well as *Cornanthus*
though I cannot help thinking that
two genera might have been kept up.
You however know best having
examined more species than I have.
Melittia of course goes into *Eumecurus*.

Indeed your *Epacris* is I believe
identical with the original *M-lutea*

I see you keep up *Conanthes* which
may be done chiefly on the remarkable
habits.

Wigandia is another genus which
connects *Hydrostaceae* with *Hydrophyllae*
the placentas in several of the flowers
I have examined do not quite meet
in the centre

I believe in a former letter I told
you of my three tribes of *Loganiaceae*
Schismia *Eulogonium* & *Goethea*
the *Eulogonium* divided into 5 subtribes
Spigelia, *Raddiana* *Lagroea* *italiana*
and *Wrightia*

I am now going into *Roraginaceae*

Ever yours

George Donnell



Bentham, George. 1874. "Bentham, George Nov. 1, 1874." *George Bentham letters to Asa Gray*

View This Item Online: <https://www.biodiversitylibrary.org/item/226393>

Permalink: <https://www.biodiversitylibrary.org/partpdf/261200>

Holding Institution

Harvard University Botany Libraries

Sponsored by

Arcadia 19th Century Collections Digitization/Harvard Library

Copyright & Reuse

Copyright Status: Public domain. The Library considers that this work is no longer under copyright protection

License: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.