

you gave out that the four foliaceous appendages
of the fruit in both the Japanese & the American
species are bracts (or rather I should say a pair of
leaves) is further confirmed by comparison. Our
female specimens both from Mexico and Japan
are all in fruit and I have only been able to
examine one female flower and that one far
advanced in it the 4 petals of the terminal
bracts formed very prominent ribs on the tube
although the fruit becomes nearly equally

P. noted these petals and the venation of the
lamina seem to me to indicate that a uppermost
pair of leaves placed immediately under the
flower with their petiole adnate to it. Petiolate
sepals would be very anomalous.

Next in *Manodora* and especially *Oryziolobos*
where the stem leaves are alternately scattered
a few of the uppermost are crowded close under
the fruit and one or two of them often adnate
to its base which is some approach to the adnate
floral leaves of *Brickellia*.

Gray considered all this and let me know your
revised opinion. Miq. has made a shocking mess
in calling the bracts of *Corymbus* calyx and the disk lobes
of *Cervantesia* petals - they are exactly like those of
Lantatum & both *Cervantesia* and *Lantatum* have
the ovary in the bud almost or entirely free though
as the lower part enlarges it becomes at length
almost so entirely inferior. Miq. places the
filament of *Cervantesia* upon the disk instead
of behind it and has not found out that

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Feb 24/79

My dear Gray

Received yesterday yours of the 10th about
Sabzia and *Brickellia*.

I finished *Brickellia* about three weeks ago
having carefully examined all the genera and as a
result I find the tuft of hairs at the base of the
perianth lobes behind the anthers a very general
character throughout the order but to a certain degree
variable and of no generic value for where it is
wanting it is generally in some species only of a genus
and in other genera it is in some species it connects
with the anther in others it is very small and short,
the disk being the entire part of many perianths
affords generally good characters here as in *Thymus*
the anther characters are also pretty constant and
sometimes in flower cases etc. I make three tribes
1. *Thymus* with the perianth tube more or less produced
between the ovary & the lobes without any prominent
disk (*Guinekamallium* *Argyria* *Thymus* *Thymidrum* and
Oryzidiacarpus) 2. *Oryzidiacarpus* lobes of the perianth divided
to the disk (which sometimes does and sometimes is not
produced beyond the ovary) divided into two groups
* Anther cells parallel opening longitudinally (13 genera but in
10 of them precociously reversion) and * Anther cells divergent or
terminal distinct or confluent (*Kenilworthia*, *Schizogon*

Chonetium leptomeria (Myzodeandra) *Pentastemon*
Ovary free with an erect ovule - very near *Orythya*
(*Chetocholus* *Epocarpus* and *Champesia*)

The 13 genera enumerated under the first
group of *Orythya* are separated by characters
of little importance - often more by habit
inflorescence or corolla than by floral characters
and might be much amalgamated or further
divided upon very fair grounds they are

+ Disk produced between the stamens into scalelike
distinct lobes. Often generic

Ceroantia and *Lodina* from *Adasia* or
extratropical both America are remarkable for
the adnate perianth tube showing especially after
flowering the prominent somewhat fleshy parts of which
it is composed

Synularia *diversa* Inflorescence terminal female
solitary. Fracts large lobes alternate (America) and
Himalaya (*Sphaerocarya* Wulf but not *Chetocholus*)

Chetocholus *grisea* (*Orythya* sp. *grisea*) from South India
Hermaphrodite with peculiar apothecy spines etc.

Comandra. Hermaphrodite with alternate leaves
two distinct sections 1. *Eucomandra* Umbels in the upper
axils or terminal 3-5 flowered. Placenta linear. Fr. ovoid
not very succulent crowned by the perianth lobes or *Chetocholus*
and Europe 2. *Haplocomandra* Peduncles slender apically
1-2 flowered Placenta rather thick fruit globose very
succulent not crowned *P. linearis* *Chetocholus*

Santalum Hermaphrodite does mostly opposite to
in little loose panicles. Placenta with a long point India
Australian region and Pacific islands

+ Disk with an entire or sinuate margin
not produced into distinct scalelike lobes

a. The mostly hermaphrodite

Lycium (Dr. not alluv.) 2 Australian and 1 N. Zealand
species forming erect shrubs *Colpoon* (Dr. *Lycium* *ellav.*)
from S. Africa including *Rhoicarpus*. *Nanodea* from
Chagellan all with a broad concave disk and *Chetocholus*
from Chile with a flat disk

b. *H. dracuncul.*

Baccharis *Chetocholus* and Japan with a concave
or broadly campanulate disk. *Orythya* with a flat disk
two very distinct sections one European the other African
and Asiatic and *Orythya* *Chetocholus* a peculiar Australian
genus

According to this plan (judging from a male
specimen in my herbarium which you identified
as *Baccharis*) *Baccharis* can only come next to *Baccharis*
if not in it.

Now as to *Baccharis* you think it may not be
Baccharis *Chetocholus* on account of the slightly imbricate
perianth segments but they are much more distinctly
so in one species of *Chetocholus* a tropical Indian
genus which is certainly *Baccharis*

2. On account of the supposed double perianth
of the female flower but I think that the opinion

what he calls the peculiar squamella in the
inside of the perianth. lobes after flowering
are nothing but the persistent base of the
filaments. If before excluding genera from
Catalpa he had examined the typical *Catalpa*
and *Thesium* he would have come to very
different conclusions. The Cape *Thesia* are
particularly instructive from the great
diversity in their inflorescence perianths
etc. But poor *Thesia* is old and past good
work - I hope somebody will stop me before
I get to that

Baillon has just circulated another disgusting
attack upon DeCaisne - there may be faults on
both sides in the dispute but Baillon is now
disgracing science by his mode of attack I
wrote to him last year to remonstrate strongly
against his proceeding and urging him to
give them up and only get a violently expressed
answer with the grossest abuse of DeCaisne

I have for the last three weeks been
absorbed in *Loranthus* which I keep entire
but divide into 20 sections besides a few
subsections I shall tomorrow proceed to
Thorndendron which I see Eubler divides
into two or three

I am quite tired of this long cold winter now
returned within these two days in full force
Yours very sincerely George Bentham



Bentham, George. 1879. "Bentham, George Feb. 24, 1879." *George Bentham letters to Asa Gray*

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