

some Eragraceae and in some true
Polygonaceae the ovary pass into distinct
stipules - they are also alternate but you
will observe the flowers are not strictly
speaking axillary but between the axillary
branch and the larger branch - that is in
the *pothos* dichotomous stem in
the whole group. I will take care to state you
view ~~where~~ here they differ from mine

In a paper of yours "read Sept 20 1837" you
have very well pointed out the relationship
of *Ceratophyllum* to *Labourea* and *Chamaecrista*
have you ever followed it up? I see you
do not allude to it in your Manual or *Volcan*
anywhere else. *Carnel Nov. Journ. Bot.*
Plat. VIII. I from an examination of
living specimens say that the terminal
horn is not the style as is generally supposed
but that the true stigmatal style is a slight
protuberance at its base - I cannot verify
this on dried specimens and it is not in
flower yet. I have no doubt he may
be right but if so I cannot agree with
him that what we call the perianth^{the}
the female is not homologous to the male
perianth but an involucre and that the

25, WILTON PLACE.
S.W.

June 4/39

My dear Gray

Many thanks for yours of the 19th
May I have spent the morning over
the plants you mention and am very
sorry to say I cannot be convinced
by your arguments although I have
always so great a reliance on the
correctness of your views that I bring
forward my own in opposition with
the greatest reluctance

I still think that *Santareia* *Memacanth*,
and *Holkiterea* - and *Pterostegia* and
Koenigia form one or if you like it
two groups intermediate between
Eragraceae and Polygonaceae differing
from the former in the want of the
involucre from the latter in

inflorescence and in the reduced or
absent area.

The whole of *Polygonum* are so uniform
in essential floral and carpological
characters that one is obliged to class
them chiefly upon habit inflorescence
^{looking} and outward modifications of the
fruit all secondary characters, and
in such secondary characters the above
genera form the connection between
Eriogonum and *Polygonum*.

The involucre of *Eriogonum* is constant
and to my eye has no eye representation
in other groups of *Polygonum*.

You say the three leaves forming the
involucre of *Chorizanthe rigida* correspond
to the three outer empty bracts of the
whorls in *Lactaria*. I cannot agree that
the arrangement of the bracts in *Lactaria*
is difficult to trace the specimens are so
very brittle but by boiling I get them to

show rather better - within the whorl of
stemleaves I find the lowest flower sepals
within one of the leaves of the whorl and the
others within distinct narrow bracts, of which
some appear to be without flower but I cannot
trace these to each flower nor any three
as forming one whorl whilst in *Eriogonum*
the involucre is quite like that of other
Chorizanthes except that the bracts are
separate & rather below the middle and
are only of the usual smaller intermediate
ones quite wanting.

Then you say that of the involucre
of *E. angulosum* and you have just
Nemacaulis - begging your pardon I
think that is rather a *Bacillaria*
saying "take away the essential characters
of a genus and you have something else"
I find no representative of the involucre
of *Eriogonum* in any other tribe of
Polygonum. I cannot admit as such the
three outer empty bracts of *Nemacaulis*
for they are on the main stem and
not axillary as is the involucre of *Eriogonum*
and correspond to the long curved bracts of the *Chorizanthes*.
The leaves of *Helioscra* you send are
as you say triplicate so are they often in

horn belongs to the true perianth
If he is right as to the style then the
terminal as well as the basal horns
are mere tubercular excrescences of
the pericarp as occurs in many
plants

Yours very sincerely
George Bentham



Bentham, George. 1879. "Bentham, George June 4, 1879." *George Bentham letters to Asa Gray*

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

Permalink: <https://www.biodiversitylibrary.org/partpdf/261251>

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>.