

Notes on Scottish Devonian Plants

Since the publication of my memoirs on Devonian plants in the Journal of the Geological Society of London, and in the Reports of the Canadian Survey, I have watched with some interest the progress of discovery in the Devonian Flora of Scotland, and desire now to make a few remarks on new and critical forms and on opinions expressed by workers in this field.

Prior to the appearance of my papers on the Devonian of North America, Hugh Miller had described plants apparently similar to those for which I proposed the generic name of *Perlophyton* and I referred to them in this connection in my earliest memoir. He had also recognized what seemed to be plants allied to *Lycopods* and *Conifers*. Mr Peach and Mr Duncan had made other discoveries, and Dr Hooker and Mr Lutter had described and determined some of these remains. More recently Messrs Peach, Carnochan and Mr Chubb, and Messrs Lach and Stenroos, ^{have worked in this field,} adding new facts and sometimes criticizing old conclusions.

In my earliest description of *Perlephyta* I have
used as purchase generic affinity with *Ulex* Muller's
dichotomous plants with Sultas rootlets and
with Goeppert's *Halimolobos* *Dechenianus*, and stated
that I had "little doubt that *Neotoma* exist in fact
the old Red Sandstone of Scotland for the con-
struction of at least one species of this
genus." * Since however my plants were for
young sand plants and the clench & fruit were
known I could not adopt Goeppert's name and
Miller's plants had been referred by Sultas to
Carifera rootlets, a conclusion about in one
respect does credit to his remarkable accuracy
in almost any state of preservation.
As an experienced eye can at once see
that they are not *Ulex* but wood plants.

The type of *Perlephyta* is my *P. princeps*
with this I have placed some other plants apparently
similar. If then my *P. robustus* has without ap-
proach well characterized *perlephyta*. *P. elyptus* where
fruit name called "oval scales" usually of the thin
appearance as preserved no doubt had sac-like
spine cases like the others. These three species un-
questionably conform to the generic characters as
follows:—

Stems dichotomous with rudimentary subulate
leaves, sometimes obsolete in terminal branchlets
and fertile branches; on decorticated specimens in
pinnate by minute pinnatifid scars. Young branches
circinate; Rhizomorphs glandular with circular
root areoles. Internal structure of stem can cross
of Sclerenchyma bundles in a sheath of imperfect woody
tissue, enclosed in a cellular bark densest at the
summit, naked, sac-like spine cases in pairs or clusters, terminal
in clusters.

In Belgium M. Crepin has described a new species from the Upper Devonian of Condroz under the name *P. condormanum*. * It wants however some of the more important characters of the genus and differs in having ~~the~~ aspect of a pinnate ramipetate form at the aspect of a fern. In a later paper (1875) the author refers to this species as probably distinct from *Psilophyton* and proposes for it the name *Rhacophyton*. In a note he states that Mr. Carrothers informs him that he believes the genus *Psilophyton* to be founded on the axes of *P. Lepidodendron* and on the fruit of ferns of the genus *Rhacopilum*. If these doubts ~~was~~ had reference to the species *P. condormanum* then might be ~~some~~ foundation for them but they have no application to the true *Psilophyton* which has a stem and when fruit has no resemblance to that of *Rhacopilum* which is merely a pinnate fern to accompany some doubtful hypnophyllid ferns. In the same note M. Crepin states that Mr. Carrothers has abandoned his *Psilophyton dechenianum* published by him the same of Notus in 1843, and ~~the~~

* Description des végétaux fossiles de la Belgique, Bruxelles 1874

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I have not met with any published statement
of the kind in the part of the C. or any
leaves for it but the whole history of
this supposed species wants some
investigation.

In the paper of 1843 the C. has
placed the plant described by Salter as
Symplocos Nullem along with the shrub
by distinct name referred by the
same author to *Sep. Nutt.* and
also presumes that *dehemus* is
an species under the name *Poll. dehemus*
The character for this species is very short
a lower branches short and frequently
branching giving the plant an oblong
circumscript? Is this character
does not apply so far as known to
presumes plant nor to *Symplocos*
Nullem but it may express the peculiar
work of lateral branching already referred
to in *S. Nutt.* The whole
character appears to rest on the
very ground of a proclivity of young
near the base of stems or roots of
small shrubs or whole as *Symplocos* plants
that take my belief to an species of *Persea*
and that there are the humilis of
hills, *dehemus*, what species coming

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which the numerous its short stem
branches and the upper of which are
of some of them. Sutter's description of
his ~~own~~ species plant is quite different
and accords pretty well ^{in general} with ~~the~~ specimens.
"Stems 1/2 an inch long tapering little, branches
stout set on at an acute angle blunt at
their terminations, leaves in 7's to 10 rows, leaves
key shaped but a line long of oval acuminate form
and ^{Sutter} spreading than deep umbels. These char-
acters as far as they go are not those of
Sedum in of *Psiloph.* My are really those
of *Syrphodites* and the whole
habit of the plant is very near to
that of *S. clavatum*, which when Miller compares
it (*Sedum* of *Psiloph.*) there should therefore
be no hesitation in referring this plant to
Sedum *Syrphodites* and as it seems
not impossible that the difference of plant
depends on soil in case of *S. mulleri*
rather depends on perennial and annual
of plant then expected I am inclined
to refer the whole of the plants
to *Sedum* *S. mulleri*. They distinctly
resemble of the species they have some
resemblance to *Psiloph.* there is no evidence
that they are connected with the species *Psiloph.*

Diff to diff
in no leaf
lower of
leaves
of *Psiloph.*
in *Psiloph.*
darker
leaves
of *Psiloph.*
of *Psiloph.*

branches with circinate tendrils during
spring; they with a tendril —
little hooks like the tendrils of a pea and
which we shall look to find they the
fruit will get around. Some other plants
are with any purpose, he refers to areas
of Lepidotea or any other plant the strongly
show erectest surfaces.

In the paper already referred to
Carruthers refers to a specimen placed in
his hands by Sr P. de M. Gesta and in
which I was surprised to recognize the
^{a circinate part} ^{now in my collection} of a specimen given to me in
1840 by Sr Wyville Thomson at Belfast and
to which I referred in my Report on some
Golumifera plants in 1873 in the following
terms.

My report was printed in June 1873 but
had not been seen by the Committee when
any can named but have looked to
for a notice of a Potted dec. plant, which ap-
peared as undoubtedly in connection with a
Cognate species from the same class
confusion. Carruthers gave allusion to
no doubt to be established that he
has had in his paper the help of ^{the} ^{Thomson} ^{from}

As to the affinities of the singular type
of plants to which this specimen belongs
I defer quite from my Report
above referred to
B. Hall

on the whole these plants are
most probably allied to Lycopods or
Ferns, but as they constitute a
distinct small group and
found in so far as I know in
all ages they probably deserve a
distinct generic name and
I would propose for them that
of *Psilophyton* or feather plants
a name suggesting distinct from
Psilophyton just suggesting the fern
relationship to that genus. I would
define the genus as follows

Branchy plants with slender
leaves and long linear leaves
in two or more ranks from them
a feathery appearance. Venation cordate
first ranked but anastomosing and not
that it might be in two ranks of leaves