

the Lower Carboniferous plants of Canada, in which I have described an allied species, *L. plumula* :—

"The botanical relations of these plants must remain subject to doubt, until either their internal structure or their fructification can be discovered. In the mean time I follow Goeppert in placing them in what we must regard as the provisional genus *Lycopodites*. On the one hand they are not unlike the slender twigs of *Taxodium* and similar Conifers, and the highly carbonaceous character of the stems gives some colour to the supposition that they may have been woody plants. On the other hand, they might, in so far as form is concerned, be placed with algae of the type of Brongniart's *Chondrites obtusus*, or the modern *Caulerpa plumaria*. Again, in a plant of this type from the Devonian of Caithness to which I have referred in a former memoir, the vernation seems to have been circinate, and Schimper has conjectured that these plants may be ferns, which seems also to have been the view of Shumard."

On the whole these plants are allied to Lycopods rather than to Ferns; and as they constitute a small but distinct group, known only in so far as I am aware in the Lower Carboniferous and Erian or Devonian, they deserve a generic name, and I would propose for them that of *Ptilophyton*, a name sufficiently distinct in sound from *Psilophyton*, and expressing very well their peculiar feather-like habit of growth. This genus may for the present be defined as follows :—

Branching plants, the branches bearing long slender leaves in two or more ranks, giving them a feathered appearance; vernation circinate. Fruit unknown, but analogy would indicate that it was borne on the bases of the leaves or on modified branches with shorter leaves.

I would name the present species *Pt. Thomsoni*, and would characterize it by its densely tufted form and thick branches, until specimens more fully developed shall be found. The other species will be :—

*Pt. pennæformis*, Goeppert, L. Carboniferous.

*Pt. Vunuxemii*, Dawson, Devonian.

*Pt. plumula*, Dawson, L. Carboniferous.

Shumard's *Filicites gracilis*, from the Devonian of Ohio, and Stur's *Pinites antecedens*, from the Lower Carboniferous of Silesia, may possibly belong to the same genus. The present specimen is apparently the first appearance of this form in the Devonian of Europe.