

Sternberg remarks, have been a fern. Lindley and Hutton place it merely provisionally among the Cycadaceæ, in deference to the judgment of Adolphe Brogniart, and point out its resemblance to *Polypodium pectinatum*; and a small Helmsdale frond which I have placed beside it bears the impress of a character scarce less equivocal. The flora of the Oolite was peculiarly a flora of intermediate forms.

We recognise another characteristic of our Oolitic flora in its simple-leaved fronds, in some of the species not a little resembling those of the recent *Scolopendrium*, or Hart's-Tongue fern,—a form regarded by Adolphe Brogniart as peculiarly characteristic of his third period of vegetation. These simple ferns are, in the Helmsdale deposits, of three distinct types. There is first a lanceolate leaf, from two and a half to three inches in length, of not unfrequent occurrence, which may have formed, however, only one of the four leaflets, united by their pseudo-footstalks, which compose the frond of *Glossopteris*,—a distinctive Oolitic genus. There is next a simple ovate lanceolate leaf, from four to five and a half inches in length, which in form and venation, and all save its *thrice* greater size, not a little resembles the leaflets of a Coal Measure *neuropteris*,—*N. acuminata*. And, in the third place, there are the simple leaves that in general outline resemble, as I have said, the fronds of the recent Hart's-Tongue fern (*Scolopendrium vulgare*), except that their base is lanceolate, not cordate. Of these last there are two kinds in the beds, representative of two several species, or, as their difference in general aspect and detail is very great, mayhap two several genera. The smaller of the two has a slender midrib, depressed on its upper side, and flanked on each side by a row of minute, slightly elongated protuberances, but elevated on the under side, and flanked by rows of small but well-marked grooves, that curve outwards to the edges of the leaf. The larger resemble a *Tæniopteris* of the English and Continental