

NOTE ON DIOECIOUS MOSSES.

In Mr. Spruce's interesting essay on the Mosses of the Pyrenees, he mentions a curious fact relating to *Fissidens grandifrons*, Brid. (*Dicranum palmiforme*, Ramond), which he describes as the most characteristic moss of the whole Pyrenees. The fruit of this species has never been found, and its flowers were unknown at the time it was figured in the 'Bryologia Europæa.' A few years ago Mr. Sullivant discovered female plants at the Falls of Niagara, and in 1846 he published specimens in his 'Musci Alleghanienses' (No. 186). In January 1846 Mr. Spruce and M. Philippe found a single tuft of male plants on a dripping limestone rock near Bagnères. "These are all the flowers that have ever been found, and it will be a remarkable circumstance, if it be ascertained (as this would seem to show) that *only the male plant exists in Europe, and only the female in America!* The obvious conclusion would be that the plant never had fruited, and without artificial aid never would fruit. It has however ample means of maintaining and spreading itself without the aid of seeds."

In reference to the same subject, some interesting notes occur in M. Schimper's recent work, 'Recherches Anatomiques et Morphologiques sur les Mousses.' He states, that from extensive researches in almost all parts of Europe, and from the examination of specimens from the rest of the world, he has satisfied himself of the fact that the androgynous and monœcious flowers always produce capsules, while the dioecious are frequently without them. This is especially the case when the male plants do not occur in the neighbourhood of the female. Thus, though he has most carefully sought for them, he has never met with fruit-bearing specimens of *Hypnum abietinum* in the valley of the Rhine or the neighbouring mountain chains, although this species is there one of the commonest, and constantly possesses female flowers. In a walk near Christiania he met with a large tuft of male flowers of this species, and his conviction that so soon as he should find female flowers he would also obtain fruit was most agreeably confirmed. He examined a thousand other tufts of this moss from Christiania to Drontheim, where it clothes all the roofs, but he did not meet with a single other capsule, because these tufts contained only female flowers. Only between Upsala and Stockholm, on the shores of the Lake of Mälär, did he again meet with the two sexes together, and at the same time with fruit. *Hypnum rugosum* has been met with only once in Europe, on a roof in Norway, where male plants occur. (It has also been found near Munich by Gattinger.) At Dovrefjeld in Norway M. Schimper has found *Conostomum boreale*, always with capsules, while he never met with other than sterile plants of the same moss in some of the highest points in Switzerland and Tyrol, as well as in the Pic de Veleta in the Sierra Nevada; the female flowers were perfectly developed, but there were no male plants in the neighbourhood to fertilize them.

A similar observation has been made by M. Bruch on *Orthotrichum Lyellii*, according to Dr. Fűrnröhr, the editor of the 'Flora.' M. Bruch has for years found this moss in the forests of Wolfsrach near Zweibrücken, but always sterile; more recently he has found it in another place with abundance of fruit; and it appears that in the latter station male and female individuals occur together; in the former there were none but females.

HYPERICUM ANDROSÆMUM.

St. Mary's Place, Newcastle-upon-Tyne,
February 14, 1849.

Sir,—Being on a visit to Alnwick in the month of August last, I occasionally strolled into the woods belonging to his Grace the Duke of Northumberland. On one of my rambles I met with *Hypericum Androsæmum*, in a situation where I believe the plant is truly wild. This species has not, that I am aware, been previously found in Northumberland. The only recorded localities, in the 'Flora' of the late Mr. Winch, are Birch Carr, near Darlington, and Twinkham Lea, both in the county of Durham.

JOHN STOREY, Jun.

To the Editor of the Botanical Gazette.

APETALOUS VARIETY OF LONICERA CAPRIFOLIUM.

In the 'Flora' of the 14th of August 1848, Dr. Kirschleger of Strasburg mentions the occurrence of the above anomalous condition. Several specimens from a shrub flowering for the first time were communicated to him by Dr. Sulzer of Ban. They were all quite devoid of corolla, presenting the following characters: ovary inferior, crowned with the minute teeth of the calyx; filaments borne on the epigynous disc, quite free, thickened at the apex with long hairs, but without true anthers (very obscurely indicated): style longer than the filaments, crowned at the summit with a bifid stigma.

The entire absence of a corolla is rare in the Monopetalæ; Moquin-Tandon (Tératologie Végétale) cites *Polemonium cæruleum*, *Teucrium Botrys*, *Lamium amplexicaule* and *Verbascum Thapsus*—all hypogynous! No epigynous flower is mentioned. "This special case of *Lonicera caprifolium*," says Dr. Kirschleger, "I had never before observed. I searched in the various Floras, but found no mention of anything of the kind. Whether it is now observed for the first time I cannot determine, from the want of access to books."

COLLECTIONS OF PLANTS.

1. From the 'Botanische Zeitung' we learn that the herbarium of the late Dr. Beilschmied (well known to students of German botanical literature as the translator of many Swedish papers for Hornschuch's 'Archives,' and also of some of the papers in Nees von Esenbeck's edition of Mr. Brown's works) is for sale. There are