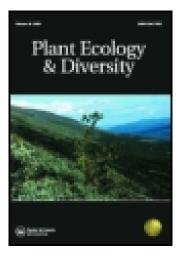
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XXI. On the correct Nomenclature of the Lastræa spinosa and L. multiflora of Newman. By Charles C. Babington, M.A., F.L.S., F.G.S. &c.

## READ 10TH APRIL, 1845.

Lastraa spinosa.—In Newman's 'History of British Ferns' this name is adopted for the plant usually known in England as Aspidium spinulosum (Sw.), on account of Roth having been the first botanist who, in Mr. Newman's opinion, properly distinguished this plant from the fern known in this country by the name of A. dilatatum, and called by Roth Polysticum multiflorum. That Roth deserves the credit of very carefully distinguishing the plants will be allowed by all who read his observations upon them, but I am not inclined to admit that he was the first who understood them.

All the older writers who have noticed this plant refer to Weiss, Crypt., who describes it most satisfactorily as Polypodium filix-fæmina,  $\gamma$ . spinosa, but states expressly that this and three other varieties are "unius solummodo speciei notabiliores varietates." His term spinosa therefore, being only employed to designate a variety, has no claim of priority over one used specifically, for it certainly is not imperative, although an excellent practice, to adopt that name for a plant as a species by which it was known as a variety. Weiss refers to Müller's 'Flora Fridrichsdalia' for a description and figure of his plant: that description is very short but satisfactory, and the figure (which only represents one pair of pinnæ) cannot be doubted.

If now we refer to the earliest writers who have used the term spinulosum as applicable to a species, we find Müller employing it\* in the 'Flora Danica' in the year 1777, and Retz in his 'Flora Scandinaviæ' in 1795. The figure in the 'Fl. Dan.' is far from being satisfactory, as indeed is the case with many of the plates in that work, but it, and Müller's own figure in his 'Fl. Fridrich.,' which is certainly our plant, are quoted as belonging to Asp. spinulosum by all the best authorities. There cannot, I think, be any doubt that Müller, when applying the name of Polyp. spinu-

<sup>\*</sup> The assertion that "spinulosum" here is a misprint for Weiss's term "spinosum" is surely unfounded. Müller's name was doubtless suggested by that of Weiss, and substituted, we may well suppose, as agreeing better with the character of the plant.

losum to the plate in 'Fl. Dan.,' supposed that the artist intended to represent the unnamed plant noticed by him in his 'Fl. Fridrich.' as *Polypodium* no. 841. This settles the point as to the priority of the names, for *spinosum* was not applied to a species until used by Roth in the year 1800.

Even if Müller had been unacquainted with the plant named Polysticum multiflorum by Roth, we should have had quite sufficient proof that his *Polyp. spinulosum* is identical with the *Polyst*. spinosum of Roth, and also that he well understood the species; but if we turn to the 'Fl. Fridrich.' we find upon the same plate the representation of another pair of pinnæ belonging to his unnamed plant *Polyp*. no. 845, and this is a very good figure of Roth's Polyst. multiflorum, being indeed referred by him to that species. Müller's short description also is satisfactory. It seems then that although Roth may have been the first who "properly" (that is I presume according to modern ideas) distinguished the species, yet that thirty-three years previously Müller had separated them specifically, and described and figured them according to the modes usually adopted at that date. Müller having afterwards given a name to one of them (but still anterior to the publication of Roth's work) ought not to have his name superseded, because the artist employed on the 'Fl. Dan.' was not of a high order of merit, or because he was careless enough to admit the bad figure engraved on tab. 707. to be a representation of his previously unnamed species, and took that opportunity of conferring a name upon it. That Müller did not confound his own plant (Polyp. no. 841, Fl. Fridrich.) with the P. cristatum (Linn.) will be seen by attending to an observation upon p. 195 of his 'Fl. Fridrich.' which is as follows: "Tria Polypodia, no. 841, 844, 845, nullo modo cum Linnæanis descriptionibus aut aliorum satis juste conciliare potui, hinc peritis descriptiones ac figuræ foliolorum traduntur." Of these plants no. 841. is Polyp. spinulosum (Müll.); no. 844. is Athyrium ovatum (Roth.), A. dentatum (Hoffm.), which seems to form part of the A. molle of Newman; no. 845. is *Polyst. multiflorum* (Roth). Thus it appears that Müller had endeavoured to refer his plants to a Linnæan species, but without success, and that succeeding botanists have confirmed their separation from the plants of Linnæus.

Having done my best to show that spinulosum is the earliest specific name belonging to Polyst. spinosum of Roth (who indeed quotes both the 'Fl. Fridrich.' and 'Fl. Dan.' in his 'Tent. Fl. Germ.,' but, apparently by accident, does not notice the specific name given in the latter, although he had previously quoted it in his 'Catalecta,' pt. 1.), it is not necessary to waste space upon an examination of later descriptions of plants so named, some of which describe the indusium as having a fringe of stalked glands,

and therefore probably refer to the *Polyst. multiflorum* (Roth), and others expressly notice its absence. I find no reference to these glands in the original authorities for *Polyp. spinulosum*, and do not think that there is any *P. spinulosum* which possesses them, and at the same time is specifically distinct from *P. multiflorum* (Roth). I possess three continental specimens named *Asp. spinulosum*, in neither of which are there stalked glands to be found. Two of them are from Prussian Saxony, and the third is from Bitche in Lorraine. There does not seem to be the slightest reason to doubt these specimens being *Polyst. spinosum* (Roth) and *Polyp. spinulosum* (Müll.), and they tend to confirm the opinion that the true *Asp. spinulosum* of Germany is the same as our plant (*Lastræa spinosa*, Newm.), and that it has not the stalked glands on the edge of the indusium.

The synonyms seem to be as follows:-

Polypodium, no. 841, Müll. Fl. Fridrich. 193. tab. 2. fig. 2. (1767).
Polyp. filix-fœmina, γ. spinosa, Weiss, Pl. Crypt. Fl. Gött. 316. (1770).

Polyp. spinulosum, Müll. Fl. Dan. 707. (text and probably figure,) (1777). Retz, Fl. Scand. ed. 2. 250. (1795). Wither. Bot. Arr. ed. 3. iii. 778. (1796). Wahl. Fl. Upsal. 345. (1820).

Polyp. multiflorum, β. spinosum, Roth, Catalecta Bot. i. 135. (1797).
Polysticum spinosum, Roth, Tent. Fl. Germ. iii. 91. (1800). Catal. Bot. ii. 149. (1800).

Aspidium dilatatum,  $\beta$ . spinulosum, Wahl. Fl. Lapp. 282. (1812). Asp. spinulosum,  $\alpha$ . Wahl. Fl. Suec. ii. 675. (1826).

Nephrodium spinulosum, Kunth, Fl. Berol. ii. 418. (1838).

Lastræa spinosa, Newm. in Nat. Alm. for 1844; Hist. of Brit. Ferns, 209. (1844).

Lastraa multiflora.—As to the supposed priority of Roth's name (Polysticum multiflorum), it may be remarked that Roth having continued to employ his own specific name, given in the 'Catalecta,' is no proof that he "claims for it priority," as he seems in other cases to prefer his own names to those previously used by Hoffmann without assigning any reason. In the present case he takes no further notice of Hoffmann's name (Polyp. dilatatum) than by quoting it as a synonym of his own Polyst. multiflorum. Roth's 'Catalecta Botanica,' part 1, appeared in the year 1797, whilst vol. ii. of Hoffmann's 'Deutschlands Flora' (which I have not seen) was published in "1795." It appears therefore that the claim of priority is in favour of dilatatum, which Roth (Tent. Fl. Germ.) gives as an undoubted synonym of his multiflorum, and also quotes Müller's figure in the 'Fl. Fridrich.,' to which I have already referred. There does not seem to be sufficient reason for any doubt being thrown upon the identity of Hoffmann's Polyp. dilatatum with Roth's Polyst. multiflorum; and if they are identical, Roth's admirable description is surely not a sufficient reason for adopting a name which has not been used by any botanist (as far as my observation extends) except its author and Mr. Newman, and rejecting one of prior date, and at least as good, which has been correctly employed by many authors.

In the first part of his 'Catalecta' Roth did not distinguish this plant from the preceding, but included them both under the name of *Polypodium multiflorum*. In the second part he separated them, employing the name of *multiflorum* for the var. a, and spinosum for the var.  $\beta$ . of the former part. The 'Catalecta,' part 2, was printed after vol. iii. of the 'Tentamen Fl. Germ.,' which is quoted in it, and we must refer to the 'Tentamen' for the separation of the synonyms of the respective species, which are mixed together in the 'Catalecta,' part 1, but carefully referred to the species to which they belong in the 'Tentamen.'

It is unnecessary to go further into an examination of the synonymy of this species, as the whole question turns upon the above points.

In conclusion, it may be as well to add, for form's sake, that I now adopt the old names of *spinulosum* and *dilatatum* for these species, from conviction that they have the claim of priority.

St. John's Coll., Cambridge, March 1845.