ARTICLES 2833

## X. THE FERN HERBARIUM AT THE KOMAROV BOTANICAL INSTITUTE, LENINGRAD

The Herbarium is arranged according to Christensen's Index Filicum (1905). I examined all the Old World specimens in Dryopteris and Aspidium, both in the general herbarium and in the separate herbarium for China and Japan. It appears that the genera segregated by Christensen from Dryopteris (e.g. Pteridrys) in the Third Supplement to the Index (1954) have not been segregated in this herbarium.

Type specimens have been removed by Dr. A. Bobrov and are in a separate series arranged alphabetically under basionyms. Selection of types was done rather hastily, and many of the specimens need critical study. For example, most Wallich specimens are filed as types of the names in Wallich's catalogue, with no check as to whether the names have been subsequently validated. An additional complication is the fact that (especially in Thelypteridaceae) Wallich in several cases included specimens of two or three species under one number.

The most important series of holotypes of ferns is in the <a href="Chamisso">Chamisso</a> collection, on which Kaulfuss based many new species; it appears that very few isotypes exist in other herbaria. I examined the types of Thelypteridaceae in this series, also of one other fern (Niphobolus varius Kaulf.) on which I have long felt uncertain.

There is a fairly complete set of <u>Cuming</u>'s Philippine ferns, usually two sheets of each number, but in no case had Presl's names published in 1851 been written on the sheets. In several cases specimens of the same number were filed under different names. I checked all Cuming's specimens and labelled those which are isotypes; these will now be added to the type series in the herbarium.

There is also a fairly good set of <u>Elmer</u>'s Philippine collections. Some of these were made the types of new species after distribution under other names. I checked all Elmer's numbers and marked isotypes.

There are a few specimens, from various sources, named in Fée's handwriting, including an authentic specimen of Aspidium dasycarpum Fée which belongs to the genus Ctenitis.

The general series of tropical ferns under Dryopteris and Aspidium have received very little critical study at any time, and in many cases there were mixtures of species under one name. In all such cases I re-labelled and re-sorted the specimens of Thelypteridaceae and also the genus Pleocnemia. Some specimens were sent on loan to Christensen and bear his identifications dated 1929 and 1932.

Apart from the Cuming and Elmer collections, there are no other considerable series from Malesia, the most numerous from one person being Zollinger's, of which I found 17 out of

a total of 41 numbers in Thelypteridaceae known to me from other herbaria. There are some unnumbered specimens of Korthals from Sumatra and Borneo; a few of Kunstler, Scortechini, Norris and Yapp from Malaya; a few of Bamler (in Rosenstock's exsiccatae series) from New Guinea, also of Zahn from Sattelberg; a few of A. & V. Kryshtofovich (1921-22) from the Philippines and of dela Savinierre from Celebes; very few Philippine specimens in the BS series.

From Thailand and Vietnam there is little material; one specimen of Dickason from Burma. The principal set of Indian specimens is from C.B. Clarke, who collected a large number of ferns, all numbered; there are some Clarke numbers at LE not represented at Kew, but these are of well-known species. There are a few Wight specimens from southern India, and a fair number of Ceylon specimens in the CP series of Thwaites; also a few of Wall's from Ceylon. There are evidently a good number of Wallich specimens but (as above noted) they are mostly in the type series and I did not examine most of them.

Specimens from mainland Africa are rather few, but there is a good set of Sieber from Mauritius, also odd specimens of Balfour from Rodriguez and of Humblot from the Comoro Islands. From China there are a fair number of Henry's specimens, also some of Hance, and of Hancock and Oldham from Taiwan. I could not check Chinese specimens of Parathelypteris Ching, as I failed to take my notes on this genus; there was considerable confusion among specimens in the herbarium belonging to it.

From the Pacific, there are a good many Hawaiian specimens, including those of Hillebrand and Faurie, with a few from Miss E.S. Boyd (though not of Aspidium boydiae Eaton). There are several Brackenridge specimens from various islands in the Pacific, also interesting collections from Ualan (Marianas) by Mertens, a few of Franc from New Caledonia and of Horne from Fiji; two or three of Forster, unlocalized.

There are very large collections from tropical America, especially Brazil, which (in Dryopteris of Ind. Fil.) have received no critical study.

Kew, England

R.E. Holttum