

rection of surface exposure, of springs and small streams, of sandstone and limestone cliff and talus formations, of vast forest tracts not until the present falling to the axe, and of occasional stretches, narrow to be sure, of bottomland along the larger streams. The great impression is that of many mountains for the most part well timbered. The impression from minute characters is that there is a constant supply of moisture. Although the Summer of 1900 was so dry that many springs and streams reputed to be constant went dry, the mountains not yet deforested were covered with a rich, moist humus; the rocks were hidden under mosses and lichens till the surface looked like a vast tapestry; the fields and open hillsides, exposed to the sun, supported everywhere between the stems and roots of higher plants a filling of mosses and liverworts. These conditions are traceable to the nightly enveloping of every summit and the filling of every valley with clouds.

In making the following records and collections, the writer practically was limited by other requirements to the country immediately adjacent to the roads traversed from camp to camp, along a few of the streams, and to only three summits of mountains. Mr. Wm. R. Maxon of the National Herbarium has kindly determined and described as new a subspecies of *Polypodium*.

The object of publishing this list, containing forty-seven species unreported from West Virginia, and two new subspecies is to show the need of very active collecting in the extreme southern part of the State to approximately complete the knowledge of its flora.*

Thallophyta.

Myxomycetes.

CERATIOMYXA FRUTICULOSA (Muell.) MacB. (Determined by O. F. Cook.)

Along Delashmeet Creek, Mercer County, altitude 2090 feet, July 25, 1900 (*Morris*, 946).

PHYSARUM RUFIPES (A. & S.) Morgan. (Determined by O. F. Cook.)

Along Tugg Creek, Hinton, Summers County, July 10, 1900 (*Morris*, 945).

*Consult Millspaugh and Nuttall, Field Columbian Museum Publication 9. Bot. Ser. 1, 2 (Flora of West Virginia), 1896.

STEMONITIS SMITHII MacB. (Determined by MacBride.)
As the first (*Morris*, 949).

LYCOGALA CONICUM Pers. (Determined by O. F. Cook.)
As above (*Morris*, 947).

Lycoperdaceae.

GEASTER HYGROMETRICUS Pers.

Along Horsepen Creek, McDowell County, July 30-August 1,
1900 (*Morris*, 1105a).

Ascomycetes.

DIMEROSPORIUM COLLINSII (S.) Thüm.

On *Carpinus Caroliniana*, Kegley, Mercer County, July 27, 1900
(*Morris*, 1078).

Discolichenes.

CLADONIA SYLVESTRIS L.

On the mountain between Barrenshe Creek and Dry Fork,
McDowell County, altitude 1700 feet, August 6, 1900 (*Morris*,
1163).

Bryophyta.

Jungermanniaceae. (Determined by M. A. Howe.)

LEJEUNEA LUCENS Tayl.

On dripping limestone along Horsepen Creek between McDowell
County, West Virginia, and Tazewell County, Virginia, alti-
tude 1850 feet, July 31, 1900 (*Morris*, 1116b).

Anthoceraceae.

ANTHOCEROS LAEVIS L.

On dripping limestone along the Guyandot River below Baileys-
ville, Wyoming County, altitude 1200 feet, August 15, 1900
(*Morris*, 1221).

Bryaceae. (Determined by Mrs. E. G. Britton.)

DICRANUM DRUMMONDII Muell.

On the mountain between Barrenshe Creek and Dry Fork, Mc-
Dowell County, altitude 1700 feet, August 6, 1900 (*Morris*,
1165).

BRYUM ROSEUM Schreb.

Along Horsepen Creek, McDowell County, July 31, 1900 (*Mor-
ris*, 1119).

POGONATUM BREVICAULE Beauv.

North slopes on Road Run, Wyoming County, August 12, 1900
(*Morris*, 1176).

RHYNCHOSTEGIUM RUSCIFORME B. & S.

See under *Bryum roseum* (*Morris*, 1117).

Pteridophyta.

Polypodiaceae.

Polypodium vulgare oreophilum Maxon, subsp. nov.*

Rhizoma slender, extensively creeping, covered thickly with spreading chaff; stipe 5 to 8 inches long, greenish to stramineous; laminae very dark green above, lighter below, 7 to 11 inches long, $2\frac{1}{2}$ to 4 inches broad; pinnae distant from once to twice their width, broadest in the middle and tapering to an acute apex, the margin doubly crenate or occasionally nearly entire, the base broadly decurrent, veins sinuous and prominent in drying, the veinlets usually forking twice; tip of lamina long acuminate, as in *P. falcatum*; sori very large, often irregularly disposed.

Type in the U. S. National Herbarium, Smithsonian Institution, collected by E. L. Morris, No. 1215, on rocks, along the Guyandot River below Baileysville, Wyoming County, W. Va., alt. 1100-1250 feet, August 13-19, 1900. This fern has already been briefly characterized† by Dr. Millspaugh as *Polypodium vulgare* forma *biserrata* (sic). The name *biserratum* being already preoccupied by a Mexican fern‡ it becomes necessary, in referring to the West Virginian plant, to substitute a new name. In addition I would refer here Mr. Morris' 1207 collected near the type station; also Pollard & Maxon's No. 25, collected Aug. 21, 1899, at Quinnimont, W. Va., which I have previously referred|| tentatively to the variety *acutum* Moore§. From *acutum* it differs in the narrower and more spatulate pinnae, and commonly in the double crenation, for *acutum* is normally with entire, or at most slightly serrulate, pinnae. Mr. Morris states that typical *vulgare* was common in the general region; from this it differs in its much greater size, its scantier foliage, and in the shape of the pinnae. There are in the National Herbarium at least two specimens, collected in West Virginia and North Carolina, which with plants collected at Great Falls, Fairfax County, Va., by William Palmer, are to be regarded as intermediate with typical *vulgare*. Because of these it does not seem best to regard *oreophilum* as entitled to specific rank.

Selaginellaceae.

SELAGINELLA APUS (L.) Spring.

In a luxuriant mass among the grass and shrubs along the edge

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†Bull. 24, W. Va. Exp. Sta., p. 479. 1892.

‡*Polypodium biserratum* M. & G. Mem. Foug. Mex. p. 38. 1842.

||Fern Bull. 8: 58. 1900.

§Moore, Nat. Pr. Brit. Ferns, 1: 63, pl. II, fig. a. 1859.