

Lycopodium complanatum L. Collected by the writer in the woods at the upper end of Swan Lake; in the woods at the base of Mt. McDougal; and near Belton on the way to Lake McDonald. Infrequent except near Belton, where it was common. Collected at McDonald's Lake by R. S. Williams.

Lycopodium selago L. Collected in the vicinity of Lake Terry by R. S. Williams.

Lycopodium obscurum L. Collected in the vicinity of McDonald's Lake by R. S. Williams.

ISOETACEAE.

Isoetes bolanderi Engelm. The writer collected this species in quantity in shallow water along the shore of Swan Lake and along Flathead Lake near the club house, both stations being in the Flathead valley. The species was also collected at East Boulder by Mr. Tweedy.

Iowa City, Iowa.

NOTES ON AMERICAN FERNS: VII.*

BY WILLIAM R. MAXON.

THE STATUS OF *POLYPODIUM FALCATUM* Kellogg.—Several years ago the writer, in describing † *Polypodium hesperium*, the common polypody of the *vulgare* type in the mountain region of the Western United States, suggested incidentally that the description of *Polypodium vulgare* var. *occidentale* Hook. was, so far as it went, applicable to either of two forms occurring in western North America: (1) The so-called *P. falcatum* Kellogg, and (2) another form, especially abundant in Alaska, rather coriaceous in texture and commonly somewhat serrated as the var. *occidentale* was originally described. It was not suggested that these forms were specifically distinct; nor, in the light of further studies of recent large collections, does this appear to be the case. Rather are the two to be merged under one name, and the earliest name available is *occidentale*. A definite decision upon the identity of *occidentale*, however, involved an examination of Hooker's types preserved in the British Museum.

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†Proc. Biol. Soc. Washington 13: 200. 1900.

For the benefit of such an investigation the writer is indebted to Mr. W. F. Wight, who in the course of his studies abroad in 1903 kindly compared with the types a series of specimens from the U. S. National Herbarium.

Hooker's description of *P. vulgare occidentale* reads as follows: "Frondis laciniis acutis acute serratis," with the following data: "N. W. Am. On rocks and decayed wood, common near the confluence of the Columbia with the sea. Douglas. Sitcha. Mertens (in Herb. nostr.). * * * * * Mertens' plant from Sitcha, described by Bongard, is identical with the Columbian one." The statement that the Columbian and Sitcha plants are identical is substantiated by Mr. Wight's photograph of the types. The print shows plants about intermediate between the common coriaceous Alaskan plant and the ordinary Washington type with long attenuate pinnae. Under these circumstances and with much material to substantiate such a disposition the writer has little hesitation in giving the name *occidentale* to the whole series. The synonymy, then, will be as follows:

POLYPODIUM OCCIDENTALE (Hook.)

Polypodium vulgare L. var. Spreng. Syst. Veg. 4: 52. 1827.—
Bongard, Mem. Acad. Petersb. Vi. Sci. Math. Phys. Nat. 2: 175.
1832.

Polypodium vulgare occidentale Hook. Fl. Bor. Am. 2: 258.
1840.

Polypodium falcatum Kellogg, Proc. Calif. Acad. Sci. 1: 220.
1854.

Polypodium glycyrrhiza D. C. Eaton, Am. Journ. Sci. II.
22: 138. 1856.

As thus delimited the species include plants ranging from California to Alaska, where it seems especially abundant in the Sitka region. It is highly variable, and if intermediate specimens immediately dependent upon habitat for their peculiar features were to be disregarded it would be possible to recognize several forms. There is, in the U. S. National Herbarium, a good series of plants from Washington, collected by Mr. J. B. Flett. Such of these as grew about the roots of trees or upon rocks, and thus more or less exposed, are unmistakably the same as the average Alaskan plant; it is only those which grew in well shaded situations, on rotten logs and in living trees (Flett 2031, 2033), that

show the greater size of the frond and the long attenuate pinnae hitherto regarded as distinguishing *P. falcatum*. But certain individual plants of 2032 show the transition from the one form into the other in the shape of the pinnae. Other diagnostic characters upon which to base a segregation there are none; and the conclusion is inevitable that the entire series, however different the extremes, represents but a single species. The propriety of recognizing the so-called *falcatum* as a mere local form is a matter for individual judgment, but it appears to the writer to be neither desirable nor necessary.

The writer proposes to publish soon a series of illustrations indicating the more noteworthy normal variations of this species along the western coast, mainly in Washington and Alaska.

ASPLENIUM PYCNOCARPON Spreng.—*Asplenium angustifolium* Michx. (Fl. Bor. Am. 2: 265. 1803) is invalidated by *Asplenium angustifolium* Jacq. (Collect. 1: 121. 1786.—Ic. Pl. Rar. 1: pl. 199. 1781-1786), a name applied to plants from the Straits of Magellan. The next name available for our "narrow-leaved spleenwort" of eastern North America appears to be *Asplenium pycnocarpon* Spreng. (Anleit. Kennt. Gew. 3: 112. 1804), which in its allusion to the crowded sori is as appropriate as Michaux's name—in its reference to narrow *leaves* rather than narrow *pinnae*—is unfortunate.

FALL FRUITING OF OSMUNDA.

BY W. C. DUKES.

Strolling along the eastern shore of Mobile bay, September 25th, searching for *Botrichium dissectum*, I happened upon a colony of *Osmunda cinnamomea*, and my attention was arrested by two plants in the middle of this colony with two well developed fertile fronds, although each pinnae was broader than those carried by the normal fertile frond in the early spring time.

It surprised me, as I had never before seen this fern set spores at this season of the year. All of the other members of this colony were devoid of any attempt to show fertile spikes. A close examination also failed to show any indications of injury, which might account for this condition.