

Shortly after this specimen of *Trillium* was found, the writer noticed in his garden, an *Iris* flower of the horticultural variety *Germaine Perthuis* with a similar reduction. In this case however, but one flower of the entire inflorescence had this characteristic, four others on the same peduncle being normal.

Since *Trillium* has so many teratological forms, the presence of a specimen with a reduced number of parts might be considered only unusual, and perhaps not unexpected, but in the case of the genus *Iris*, this is the first reported abnormality of its kind, so far as is known. The writer is indebted to Professor A. G. Moseley for the photographs illustrating the plants.

MARSHALL COLLEGE  
Huntington, West Virginia.

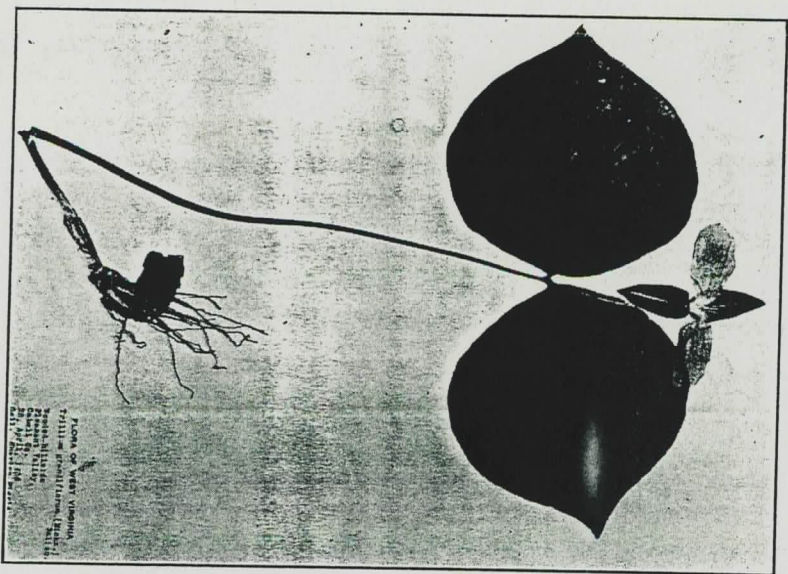


Plate 1. *Trillium grandiflorum* (Michx.) Salisb.  
Specimen illustrating dimorphism.

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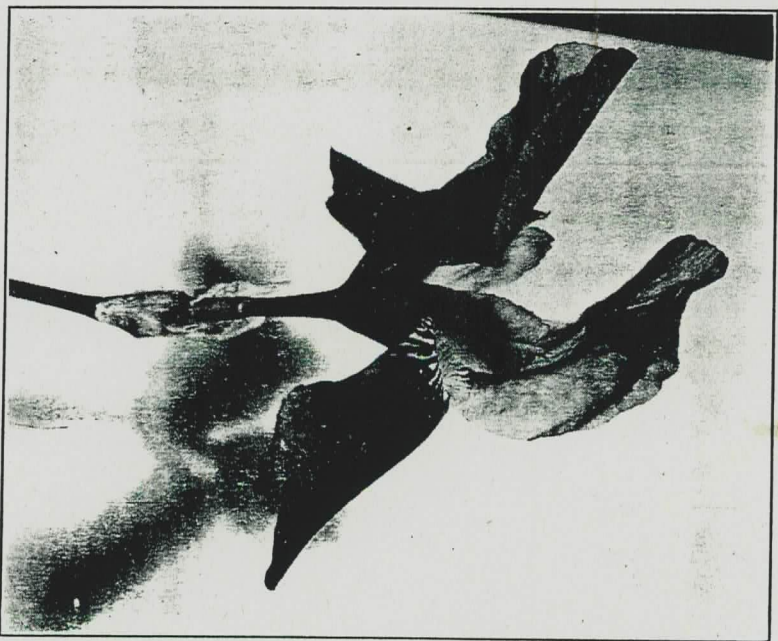


Plate 2. *Iris* sp. hort. var. *Germaine perthuis*. Specimen  
illustrating dimorphism.

*Abies intermedia*, The Blue Ridge Fir, a new species  
E. H. FULLING

Since 1817 when Poiret transferred Pursh's 1814 description of *Pinus Praserei* to the genus *Abies*, two species have been regarded as the sole representatives, except for certain varieties, of the genus in eastern North America. The ranges of natural distribution of these

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two, the northern *Abies balsamea* and the southern *Abies Fraseri*, seem to meet in the West Virginia-Virginia section of the country and from this region have appeared various expressions of doubt concerning the identity of certain trees.

Fir trees appear to be rather rare in West Virginia and Core (2) reports them as being known in at least two localities. In 1892 Millsbaugh referred these trees to *Abies balsamea* Miller but twenty-one years later in 1913 he called them *A. Fraseri* (Pursh) Lindl.\*

In 1925 Rydberg (7) collected in the higher Alleghany Mountains of Virginia, West Virginia, North Carolina and Tennessee. Concerning *Abies* he expresses only problems when he says "we found no balsam on the mountain (Spruce Knob) though it has been reported for the region. I wish we had, as the species found in West Virginia has been in dispute. Some claim that it is *Abies balsamea*, others that it is *A. Fraseri*". Elsewhere, he says, referring to White Top in southern Virginia, "I did not see any balsam but the balsam, *Abies Fraseri*, is said to be found on the top of Mt. Rogers, a mountain northeast of White Top and of about the same height". In still another place Rydberg says that a Mr. Castian of the United States Forest Service was of the opinion that the balsam of West Virginia is *Abies balsamea*.

In 1934 Core (2) revived the question by publishing drawings of cone scales, bracts and seeds of *A. balsamea* from Vermont, *A. Fraseri* from North Carolina and of the West Virginia form. He leaves the matter unsettled, however, but remarks that the West Virginia trees "may represent a distinct species, possibly derived by hybridization" from the other two.

In 1933 Freer (4) was confronted with this question in Virginia and reported that E. H. Walker of the National Museum regarded a collection in 1901 of *Abies Fraseri*, at Crescent Rock in what is now the Shenandoah National Park, as incorrectly named. The specimens were of *Abies balsamea*, according to Walker, in accordance with the determination of Freer who also visited Crescent Rock.

In June of 1936 W. H. Camp (1) visited this same Crescent Rock area and gathered fallen cone-scales, presumably from the same trees which attracted Freer's attention. Though Camp was unable to secure mature cones from the trees because of the earliness of the season, the fallen scales which he collected have induced him to

\*Attributing the generic shift to Lindley is incorrect because Poiret recognized the present status 16 years earlier.

express the opinion that they belong to neither *A. balsamea* nor *A. Fraseri*.

On September 2 of the same year the present writer ascended Hawksbill Mountain, near Crescent Rock, whose summit just exceeds 4,000 feet in elevation. Scattered over the summit and in isolated spots along the ascending trail near the peak were fir trees whose cones attracted the writer because of their slightly exserted and recurved bracts. It is interesting to note that though Freer observed the firs along Crescent Rock and mentions a club-moss and a fern on Hawksbill Mountain, he appears to have overlooked these trees. Their cones were obviously different from those of *Abies Fraseri* whose recurved bracts are so far exserted and recurved over the scale next below that the scales are almost entirely concealed. They were different, too, from those of *Abies balsamea* whose bracts are not at all visible, being concealed at maturity by a surpassing growth of the scale as it elongates. When young, the bracts of *Abies balsamea* do project beyond the scales and also in mature cones of the variety *planoolepis*, but in neither of them, however, are the bracts recurved.

Subsequent examination revealed that most of the scales were distinctly auriculate at the base, a feature which is indicated, but less pronouncedly so, in *A. Fraseri*. And the number of stomatal lines on the leaves appears to overlap those of the two species as reported by Rehder (6) and which the writer (5a) has found to be relatively true when a great number of leaves are examined.

In spite of these intermediate characters it appears as neither necessary nor desirable to emphasize a possible hybrid nature of these trees for, after all, are not hybridization and geographical isolation recognized as contributing factors in plant evolution and might not the same status pertain to any other well established species? Likewise, respecting the variety *vs.* species question, might not a variety of today be an incipient species of the future and might not a species of today have been regarded by botanists *cons. aro.* as a variety, had botanists then existed?

In view of these facts, the following species is herewith proposed, founded upon the fir trees on Hawksbill Mountain in the Shenandoah National Park of Virginia:

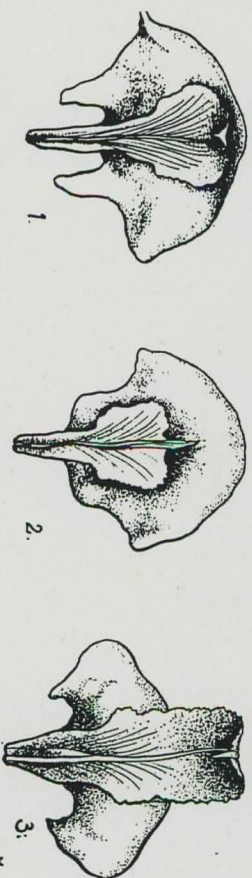
*Abies intermedia* sp. nov. Blue Ridge Fir; strobilis ovatis; laminae ovuliferis maturis 15-20 mm. longis, 15-20 mm. latis, ad basin auriculatis; laminae membranaceis 10-12 mm. longis, satis exsertis, reflexis.

Type collected by E. H. Fulling and deposited in the Britton Herbarium.

The writer is not in a position, as yet, to say how widely distributed this new species may be. He does, however, have one specimen of several cones from a tree in Canaan Valley, Tucker Co., W. Va., kindly given him a few years ago by Dr. Core, and has since examined two others from the herbarium of the University of West Virginia. Freer's two specimens from Crescent Rock and now in the National Herbarium have also been studied. Though one of Freer's (1566192) appears to be true *A. balsamea*, as labeled, the other as well as those from West Virginia share with the Hawksbill specimens the feature of slightly exerted and recurved bracts. The distinct auriculate nature of the Hawksbill bracts is modified or lacking, however, and further study is necessary, therefore, to determine whether or not *A. intermedia* is sufficiently variable to include the other aberrant forms. In any event, the scales and bracts from the type locality, Hawksbill Mountain, are sufficiently distinctive to merit separation from both *A. balsamea* and *A. Fraseri*.

Finally, the writer wishes to correct an earlier and hasty erroneous report of his in referring to the Hawksbill trees as Fraser's firs (5).

**Cone scales and bracts of the three species of fir in the eastern United States.**



**A. intermedia, from Hawks- A. balsamea, from Halifax**  
bill Mountain, Va., 1936. Harbor, 1901.

**A. Fraseri, from Mt.**  
Rogers, Va., 1936.

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New York Botanical Garden.

## Constitution of the

### Southern Appalachian Botanical Club

#### ARTICLE I

Section 1. The name of this society shall be The Southern Appalachian Botanical Club.

Section 2. The purpose of this Club shall be to promote botanical interest and to disseminate information concerning the flora of the Southern Appalachian region. To this end, there is authorized the publication of a periodical to be known as the Journal of the Southern Appalachian Botanical Club.

#### ARTICLE II

##### Membership and Dues

Section 1. Membership shall be open to all persons interested in the botany of the Southern Appalachian region.

Section 2. Each member shall pay annual dues of \$2.00, payable at the beginning of the fiscal year, and this shall include a year's subscription to the Journal.

Section 3. Applications for membership shall be accompanied by a payment covering the first year's dues.

#### ARTICLE III

##### Officers

Section 1. The officers of this club shall consist of a President, Vice-President, Secretary and Treasurer. The President and Vice-President shall be elected biennially and the Treasurer and Secretary each for four years.

Section 2. The officers of the club and the Editor-in-chief of the Journal shall constitute a Council which shall have the management and control of the Club and of its property and affairs, and shall direct the expenditure of its funds.

Section 4. Each biennium the President shall appoint a committee of three members, who shall not be members of the Council, to nominate officers for the ensuing term. The report of this committee shall be open to inspection and shall be filed with the Secretary. Other nominations for officers endorsed by three members may be sent to the Secretary.

Section 5. The officers of this club shall be elected by a majority of the members voting.

Section 6. The term of office of the Editor-in-chief of the