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The Bell Natural History Museum, An Aid to Teaching Botany

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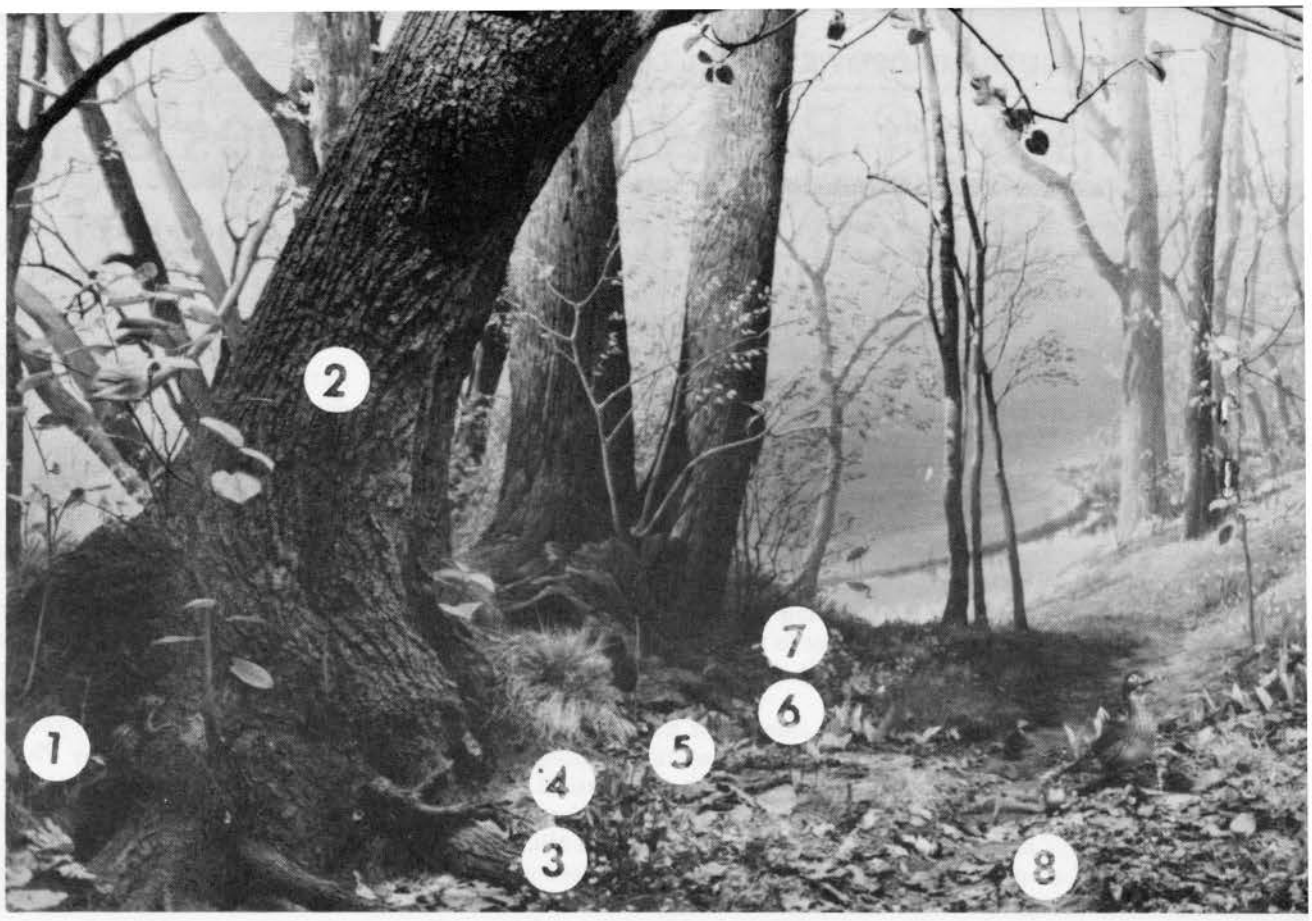

Fig. 1 - Number key to plants in Maple-Basswood Forest photograph

1. *Asarum canadense*
Wild Ginger
2. *Tilia americana*
Basswood
3. *Isopyrum biternatum*
False Rue Anemone
4. *Mertensia virginica*
Virginia Cowslip, Bluebells, Lungwort
5. *Arisaema triphyllum*
Jack-in-the-Pulpit, Indian Turnip
6. *Aplectrum hyemale*
Putty Root, Adam and Eve
7. *Phlox divarticata*
Wild Blue Phlox, Wood Phlox
8. *Hydrophyllum virginianum*
Virginia Waterleaf
9. *Viola pubescens*
Common Yellow Violet
10. *Allium tricoccum*
Wild Onion, Wild Garlic, Wild Leek
11. *Cornus alternifolia*
Alternate-leaved or Pagoda Dogwood
12. *Trillium cernuum*
Nodding Trillium
13. *Trillium grandiflorum*
Large-flowered Trillium
14. *Dicentra cucullaria*
Dutchman's Breeches
Dutchman's Breeches
15. *Sanguinaria canadensis*
Bloodroot
16. *Maianthemum canaden*
False Lily of the Valle

The Bell Natural History Museum

HAROLD W. HANS

ABSTRACT — Much of the regular academic year does not lend itself to observation of plants in their natural habitat outdoors. The museum exhibits can serve as study aids in the off season, although they should not be utilized as substitutes for field work. This study systematized some materials available for class use. Museum files, display legends, and original observations were used. From the Bell Museum of Natural History, 112 exhibits were listed and coded for location; 384

The James Ford Bell Museum of Natural History at the University of Minnesota contains a wealth of material for students interested in plants, especially those native to Minnesota, their identification and their environmental associations. Of the 112 exhibits included in this study, only two are exclusively titled by the plants which they feature (Maple-Basswood Forest and Spruce-Fir-Pine Forest); one, Wild Lupine and Lark Sparrow, bears a title shared with a bird.

While virtually all the exhibits are titled by the names of the animals, they nevertheless contain fine examples of plant life as a part of the natural habitat for those animals.

Exhibits certainly should not be used as a substitute for field work or in place of a detailed laboratory study of plants, but they may indeed serve as a valuable learning aid during winter months, for convenient reviews, and for appreciating the plants associated together in various habitats.

Exhibits usable in "off-season"

Museum visits have been particularly helpful to my students who register for a course in Taxonomy taught during the January Interim or for a course in Spring Flora. Field recognition of plants is impossible for the first of these courses; it may be unlikely for the second, depending on the lateness of spring and an academic calendar in which

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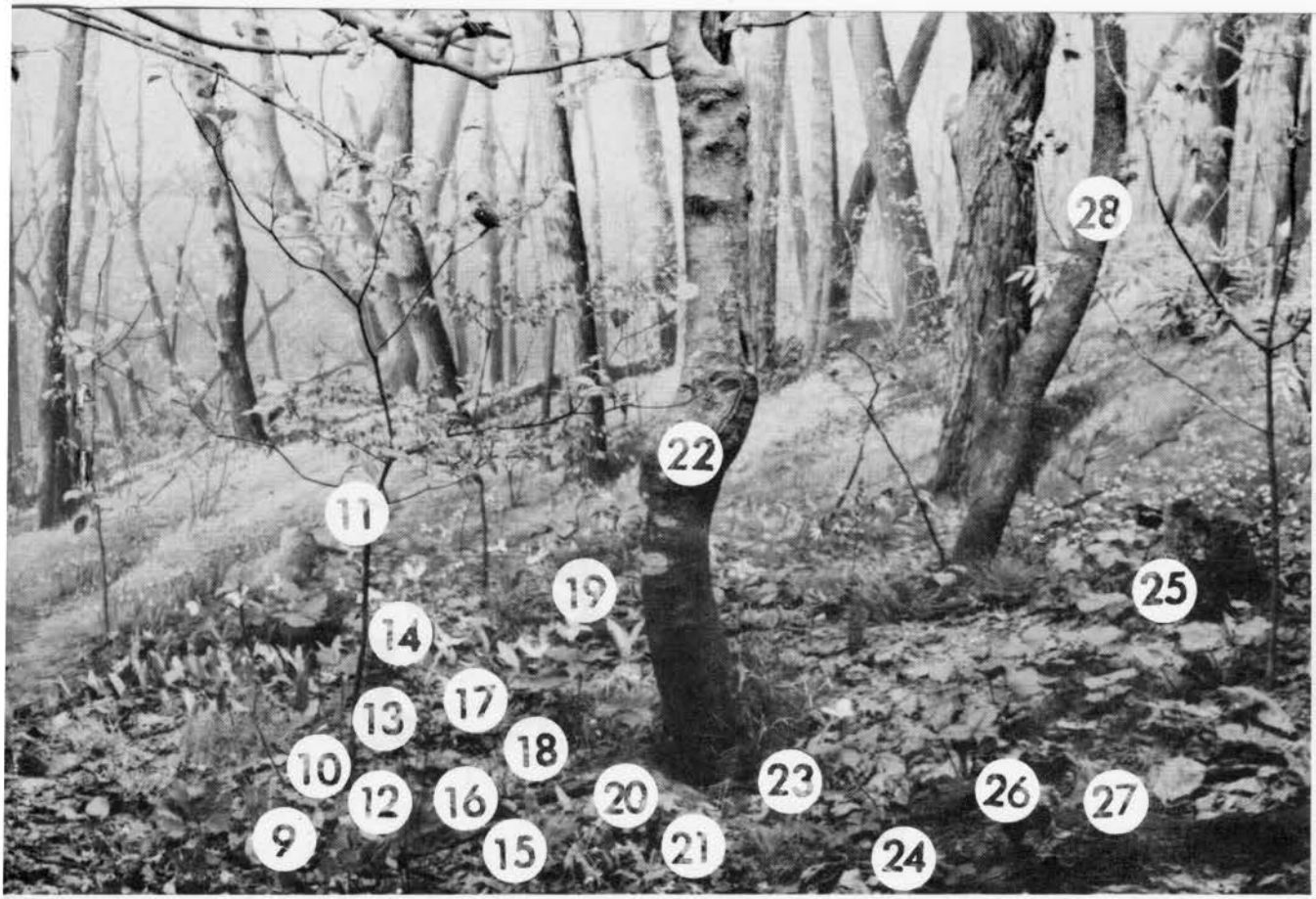

(Photo, courtesy of Bell Museum of Natural History)

um grandiflorum
e-flowered Trillium, Wake Robin
tra cucullaria
hman's Breeches
hman's Breeches
uinaria canadensis
droot
nthemum canadense
Lily of the Valley, Mayflower

17. *Claytonia virginica*
Spring Beauty
18. *Erythronium album*
White Dog-tooth Violet,
White Trout Lily, Adder's Tongue
19. *Uyularia grandiflora*
Large-flowered Bellwort
20. *Erythronium propullans*
Dwarf or Minnesota Dog-tooth Violet

21. *Trillium nivale*
Snow Trillium
22. *Acer saccharum*
Hard, Rock, Sugar Maple
23. *Hepatica acutiloba*
Sharp-lobed Hepatica, Liverleaf
24. *Viola sororia*
Common Blue or Sister Violet,
Downy Blue Violet

25. *Collybia velutipes*
Velvet-stemmed Collybia
26. *Urnula craeterium*
Black Urn Fungus
27. *Sarcoscypha coccinea*
Scarlet Cup Fungus
28. *Ostrya virginiana*
Ironwood, Hop Hornbeam

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specimens of 247 species were listed from individual displays; a massed alphabetized species index was prepared. The exhibit "Maple-Basswood Forest" was studied in detail; a photograph with spot identifications was prepared. It is hoped that this modest beginning will encourage others to use the exhibits and to prepare more detailed botanical studies of this material.

classes are frequently concluded before mid-May.

This paper summarizes the information which has been accumulated as resource material for the use of students.

The 112 exhibits were identified with a coded system to enable students to quickly find a given display. Based on the display legends, material from museum files and from personal recognition of some, the names of the plants in each display were listed. A total of 384 plant entries were thus accumulated, representing 247 species. This information was edited with computer facilities to produce a listing by individual exhibits as well as a massed species list with reference(s) where a particular species may be found.

The Maple-Basswood Forest was singled out for detailed study because of the wealth of material it contains. A photograph of the exhibit was prepared with spot identifications (Figure 1) of the locations of specific plants. Line drawings were prepared of the plants, which together with a brief description of flower color and size of plant, would further assist the student in identifying items. (Figure 2,3,4).

The listing includes locally-used common names to facilitate reference to the material by a person who may have only casual interest in plant identification. More serious students would, of course, wish to use additional references for more extensive taxonomic descriptions. Photo machine copies, even of the photograph, proved t

Fig. 2 - Sanguinaria canadensis, Bloodroot

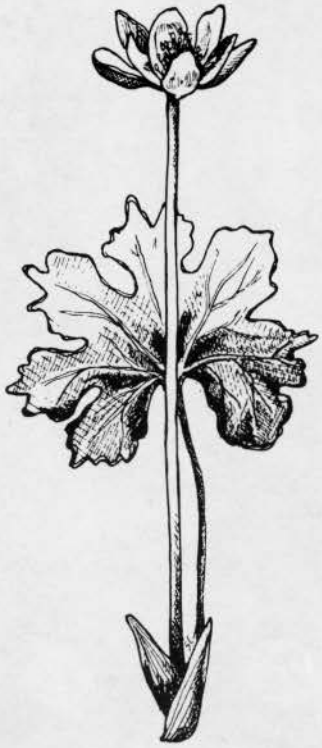

Fig. 3 - Ostrya virginiana Ironwood

Fig. 4 - Collybia velutipes Velvet-stemmed Collybia

be adequate for student use, but a printed version is planned for the future.

It is hoped that others will be encouraged to use the museum exhibits in this way and that additional detailed studies will be added by this approach.

ACKNOWLEDGEMENTS

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