

BOTANY

Chairman: J. H. MAYSILLES, Hanover College

P. A. ORPUT, Manchester College, was elected chairman for 1964

ABSTRACTS

A New Station for *Butomus umbellatus* L. in Indiana. S. W. WITMER, Goshen College.—This species, thus far unreported for Indiana, was discovered by the author in the hydraulic canal off the Elkhart River at the city of Goshen, Elkhart County, Indiana on July 4, 1952. The plants were in full bloom and growing in shallow water. Later the plants were also found along the bank at different points in the main body of the river. The past summer of 1963 the species was seen at many points for a distance of about 3 miles along both canal and river. It should be considered as a new addition to the flora of Indiana. Introduced in some unknown manner from the Eastern Hemisphere, this species was first observed in North America in the St. Lawrence River in Quebec about 1897. Later (1929) the plant was reported from the New York and Vermont shores of Lake Champlain. Within the next two decades the plant appeared on the Michigan, Ohio and Pennsylvania shores of Lake Erie. *Butomus umbellatus* may encroach upon some indigenous species but is desirable for teaching material and has special advantages for morphological and cytological studies.

Loss of Rubidium⁸⁶ and Phosphorus³² from Forest Leaf Litter at Three Seral Levels, Parke County, Indiana. ROBERT PETTY, Wabash College.—Decay release and soil mobility of two radionuclides is reported for three seral levels of mesic vegetation, viz. an abandoned field, a mid-seral oak stand and a virgin beech-maple forest. The study concentrates on early mineral release as a function of physical versus biologic phenomena. Leaves of beech (*Fagus grandifolia*), maple (*Acer saccharum*) and tulip poplar (*Liriodendron tulipifera*) were utilized. Findings indicate that beech, which decays slowest of the three, loses rubidium most rapidly (as RbCl and considered here analogous to K), while tulip poplar, which decays fastest, is slowest in initial salt loss. Release of rubidium is related primarily to physical factors in the three vegetation types, while rates of phosphorus loss correlate to actual decay (dry weight loss). Methods of introducing radioactive materials into woody plants is also discussed.