

F. C. Baker presented a paper which is given in abstract below:

THE ECOLOGY OF THE SKOKIE MARSH AREA WITH
SPECIAL REFERENCE TO THE MOLLUSCA.

The present paper is an attempt to place on record a minute study of a small territory with special reference to its molluscan inhabitants. The area chosen is in the Skokie Marsh Region north of Chicago. The territory actually surveyed included a tract of land three miles long and one mile wide, extending from Glencoe west to Shermerville. It is situated in the Glacial Skokie Bay, which, by natural drainage, has become a swamp of large extent. Three streams traverse the area in a southerly direction: (1) a small stream through the center of the marsh near Glencoe, which is for the most part of a transient character; (2) the east branch of the Chicago river; and (3), the north branch of the Chicago river, flowing through Shermerville. This area divides into five subordinate areas: A, the marsh, which is low and wet with the characteristic *Typha* and *Calamagrostis* plants; B, an intermediate ridge west of the marsh, which is low and wet on its eastern edge, but which rises to a height of twenty feet above the Skokie stream on its western edge; this region contains several forested areas of oak, cottonwood, maple, elm, and other large trees; C, the east branch of the Chicago river which embraces a wide flood plain bordered by rather high terraced banks, and supporting a characteristic swamp and bog vegetation, notable among which is the button-bush; D, a large area west of the east branch, which rises to a height of forty feet above the river and is heavily forested with large trees of elm, oak, cottonwood, maple, etc.; E, the north branch of the Chicago river, which flows through a flat, more or less marshy plain.

Each of the above five areas is divisible into several stations,

each more or less characteristic. Thirty-six such stations have been closely examined and a study made of their biotic contents. The mollusca were exhaustively studied, the associated animals (as birds, reptiles, batrachians, insects, and crustaceans) being also listed. As a study of animal ecology is not complete without a consideration of the associated plants, this important branch of biology has been studied and lists made of the important plant societies.

A taxonomic study of the mollusca of this region shows the collections secured to embrace two classes, three orders, fourteen families, twenty-three genera, thirty-eight species and varieties, all living within the area three miles long and one mile wide. Of interest in this connection is the discovery that, apparently, several species in two families were founded upon age variation. One, *Lymnaea reflexa* Say, included *Lymnaea palustris michiganensis* Walker (young) and *Lymnaea crystalensis* Baker (immature); the other, *Physa gyrina* Say, included *Physa oleacea* Tryon (immature.) Twenty terrestrial and eighteen fluviatile mollusks were identified.

The typical molluscan societies and their habitat relations may be summed up as follows:

TERRESTRIAL SPECIES.

In swamp with Typha or Iris.

Succinea retusa, *Succinea avara*, *Agriolimax campestris*.

On low ground subject to overflow.

Agriolimax campestris, *Polygyra thyroides*, *Polygyra fraterna*, *Pyramidula alternata*, *Zonitoides arborcus*, *Vitrea hammonis*.

On higher ground, raised above overflow

Succinea ovalis, *Agriolimax campestris*, *Polygyra albolabris*, *Philomycus carolinensis*.

On dry ground.

Strobilops virgo, *Helicodiscus parallelus*, *Vitrea indentata*, *Euconulus fulvus*, *Bifidaria contracta*, *B. pentodon*.

Living under "started" bark, etc.

Zonitoides, *Vitrea*, *Strobilops*, *Helicodiscus*, *Vertigo*, *Euconulus*, *Bifidaria*, and *Carychium*. *Pyramidula* is frequently found

under "started" bark, and *Polygyra albolabris* haunts holes and large crevices in dry weather.

FLUVIATILE SPECIES.

Found in all varieties of habitat.

Physa gyrina.

In large summer-dry ponds.

Physa gyrina, *Planorbis trivolvis*, *Planorbis parvus*, *Planorbis exacuus*, *Segmentina armigera*, *Musculium partumeium*, *Ancylus parallelus*, *Lymnaea reflexa*.

In small pools of very transient character.

Lymnaea caeperata, *Aplexa hypnorum*, *Sphaerium occidentale*.

In the river, which does not run dry.

Sphaerium stamineum, *Musculium transversum*, *Lampsilis*, *Anodonta*, *Anodontoïdes*, *Physa gyrina*, *Planorbis trivolvis*, *Ancylus rivularis*.

Semiaquatic; on the edge of river and pools.

Lymnaea parva sterkii.

In brooks and overflow from river.

Lymnaea caeperata.
