BOTANICAL OBSERVATIONS AT THE RANKEN ESTATE - MARCH 23, 1930.

A short afternoon hike over the Ranken Estate revealed many familiar floral acquaintances and several new ones. The Bloodroot (Sanguinaria canadensis) and the Spring Beauty (Claytonia virginica) were blooming in profusion. Several minute botanical gems were found. They were Draba caroliniana, Myosurus minimus (Mouse Tail), Houtonaria minima (Bluets), Anacampseros occidentalis and Cordylus aurora (Golden Cordyline).

Other observations were: - Capsilla Purse-pastoria (Shepherd's Purse), Anomonea thalictroides (Rue Anemone), Dicentra cucullaria (Dutchman's breeches), Viola macrantha (Wild Pansy), Viola cucullata (Common Violet), Fumaria hederacea (Ground Ivy), Mortanisia virginica (Virginia Cowslip), Verbenam candansis, Phlox devericata (Blue Phlox), Antennaria Plantaginifolia (Pussy Toes), Acer saccharum and Stellaria mellea (Chick Weed), Palemonium cognita (Jacob's Ladder) was found in bud ready to bloom in a few days.

A few flowers were found en route to the Ranken Estate; the Periwinkle (Vinca minor), Dandilion (Taraxacum officinale), Spice Bush (Zeaolisa nuttallii), and the Box Elder (Acer negundo). The total number of species found was twenty six. Those present on this hike were: Mr. Peterson, Dr. Hogstad, Mr. Lange and myself.

- Albert Heinze.

THE JUNIORS VISIT THE ZOO.

On April 5, 1930 the junior Nature Study went to the zoo. Mrs. Roeder, Mrs. Brandhorst and Mrs. Thomas took us.

First we went to the snake house. There we saw a Mexican Rat Snake laying eggs; they were oblong with rounded edges, white with a tough skin.

We asked a man how they caught snakes without hurting themselves. They take a long stick and they have a sack; the stick has a hook on the end, they catch the snakes around the neck with the hook and put them into the sack.

Then we went to the other end of the house and saw birds called Java Sparrows, White Java Sparrows and Himalaya Tits.

Next we went to the monkey house. One would spit if you got near him.

(EXPLORATION OF A RECENTLY DISCOVERED CAVE. A new cave has been recently discovered during the past winter in Jefferson County, Missouri near Antioch; it is on Mr. C. A. Rice's country estate. I had the very good fortune of exploring this cave on February 23rd.

The cave is of Ordovician age in the Paleozoic era and was formed from the flat thin or "honeycomb" limestone. There are multitudes of fantastic formations of stalactites and stalagmites, numerous coral and flower-like growths and all sorts of exquisitely adorned chambers. One room is called the "Jail" because the stalagmites and stalactites have grown together forming numerous vertical bars and producing a jail-cell effect; one looks between the bars into the deeper recesses ahead and sees countless stalactites adorning the roof of this "jail."

There are numerous long winding corridors that have no fantastic formations, but whose walls are formed of this honeycomb limestone. Some chambers are quite massive, a couple about fifty feet high.

One bat, a little one (Pipistrelle subflavus) was found near the excavated entrance. Numerous salamanders were found. They were of two different species: Spotted Tail or Hunter's Salamander (Spelerpes maculatus) and Cave or Long Tailed Salamander (Spelerpes longicaudatus). Every time the light was shone on their places of concealment they would protrude their little heads from between crevices and stare blankly about. Raccoon and probably mink tracks were found in the soft mud close to the underground stream.

Several peculiar flies appeared from time to time. Some were found in the cave, others at the entrance outside.

- Julian Steyermark.

THE JUNIORS VISIT THE ZOO...

There was a lot of monkey chattering and noise.

After that we went to the raccoons. We fed them popcorn; they would throw up their paws and catch it. Some rubbed their paws against your hands.

Then we went to the bear pits; there they stood up and begged for food. We saw grizzlies, brown bears, black bears and cubs. Then it was time to go home.

- Katherine Pickens.
EVOLUTION OF WASPS’ HUNTING HABITS

At the March meeting of the Entomological section, Mr. Rau gave an illustrated talk on the Evolution of the Nesting Habits of Wasps. After showing the nesting habits of some of the hymenopterous ancestors of wasps, slides were shown depicting the egg-laying habits of wasps that make no nests, than the habits of wasps that sting the prey, lay an egg on the body and drag it to some crevice and then the wasps that sting the prey in its own burrow, lay an egg on its paralyzed carcass and fill the burrow with soil. The pictures later showed a large assortment of fossorial wasps whose nesting, hunting, egg-laying and hoarding habits are indeed intricate and where on psychic foundation of instinct often behavior is observed that is akin to intelligence.

From the solitary Vespidae transition stages leading to socialization were shown, with the final pictures of complex colonies of social wasps in the tropics and the intricate and little appreciated colony of the bald-faced hornet found at our very door.

Taxonomists have named about 10,000 species of wasps. Out of this number only about 800 have had the life histories worked out with any degree of completion; but the 800 studies cover a sufficient number of forms to show that psychic evolution parallels beautifully structural evolution.

Mr. Rau further had charts showing how the social wasps are derived from the fossorial wasps; how the fossorial wasps are in turn derived from the Ichneumon wasps. Another branch of the family tree showed how ants are derived from the mutillid wasps and how bees are derived from the fossorial wasps.

A CARDINAL TALK

A cardinal whistled what sounded like "phut phut-ee-ee-er." I answered as well as I could whistle, "Fmit phut phut-ee-ee-er." He whistled back, "Phut phut phut phut phut-ee-ee-er." I told him, "Phut phut phut phut phut phut phut phut phut phut-ee-ee-er." He asked, "Phut creased in size 5" to 10" of arc phut phut phut phut phut phut phut-ee-ee-er and the crescent is somewhat thicke." I could not whistle well so in proportion to its length than to lengthen the number, so he before. In brilliancy it has shown raised it further than I could count little change, if any." - Stuart L. O'Byrne.

In a small telescope she appears as the moon, going through various phases depending upon her apparent position in reference to the sun. At the present time, Venus (that is her name) appears as the moon at third quarter. She has just recently passed behind the sun, is now swinging along her orbit and is quickly overtaking the earth.

Just before catching up with us she will appear as a thin crescent even through a 10X or 20X field glass, and as large as a two-day moon through a 75X telescope. Any effort to watch this wonderful world as she changes her position and phases will certainly repay one by enhancing his knowledge of the real and apparent motions of the planets and actually seeing the differences between other worlds and stars.

For those interested, I append two observational records made last year in Webster.

"May 19, 1929; 4:10 A.M. Atmosphere clear. Instrument 2" telescope, 33X eye-piece, no mounting. "The crescent phase of the planet showed unusually clear. The color of the planet was a silvery yellow with the edges greenish fading toward the center. The apparent size of the crescent was 60" of arc from tip to tip."

"May 30, 1929; 4:00 A.M. Atmosphere clear. Instrument: same as above. "The crescent phase clearly seen in spite of blurring of the edges due to the excessive brilliancy of the object. In color it seemed more silvery than usual; a color impossible to duplicate with the brush. The apparent size of the planet was about 50" to 55" of arc from tip to tip. In comparison with the previous observations May 19, 1929; the planet has decreased in size 5" to 10" of arc and the crescent is somewhat thicker, more I could not whistle well so in proportion to its length than to lengthen the number, so he before. In brilliancy it has shown raised it further than I could count little change, if any." - Stuart L. O'Byrne.
ANNOUNCEMENTS FOR MAY, 1956

GROUP MEETINGS — Meet and Greet the New Chairmen:

PHOTOGRAPHY Group. Monday May 5, 8 PM, at the Mueller residence, 12 Armin Ave., Gensel Heights.
"Photo Microscopy." Mr. Rea, Chairman.

MICROSCOPY Group. Friday May 9, 8 PM, at the U.S. Entomological Laboratory, 327 Ivenslo Place, Webster Groves.
"Making of Paraffin Sections with Macromat." Dr. Herbers, Chairman.

ENTOMOLOGY Group. Monday May 12, 8 PM, at the Entomological Laboratory.
"Commensalism and Symbiosis of Animal Life." Mr. Rubright, Chairman.

GEOLOGY Group. Thursday May 15, 8 PM, at the Entomological Laboratory.
"Forces of Weathering." Miss Marty, Chairman.

ASTRONOMY Group. Saturday May 17, 8 PM, at the Stockwell residence, 226 Euclid Avenue, North Webster.
"Stellar Observations from the Lawn" with telescope field glass and camera. Bring yours.
Mr. Townsend, Chairman.

BOTANY Group, Monday May 19, 8 PM, at the Entomological Laboratory.
"Complexity and Simplicity in the Structure of Flowers." (The sunflower is complex in its structure,—the buttercup simple. Do you know why? It will make the talk very interesting if you everyone will bring in some wild flowers.) Miss Glatfelder, Chairman.

ENTOMOLOGY GROUP, Friday 23, 8 PM, at the Entomological Laboratory. "The Occurrence of Frosts"—as a result of artificial temperature extremes.
Mr. Harold O'Byrne, Chairman. Assisted by Jack Neary.

ORNITHOLOGY Group, Monday May 26, 8 PM, at the Entomological Laboratory. "A Discussion of the Warblers Observed on the Recent Bird-walks." Mr. Neary.

THE JUNIOR Group will meet on Wednesday afternoon at half past three at Mr. Pickens' home, 72 Marshall Place.

BIRD WALK AND ANNUAL FIELD TRIP TO BOSCHERTOWN, on Sunday May 11th, assembling at the East approach to the St. Charles, Mo. bridge at 5 o'clock AM. At 5:15 cross the bridge to St. Charles and follow Highway 94 North about five miles to the Boscheartown school house. Bring your bird books, note books, field glass, lunch enough for two meals and wear hiking boots.

Other Bird Walks for May will be: (All starting at 5:30 AM)—Sunday May 18, Bach Station on the Manchester/Ozark Hills car line; Wednesday May 18, Junction of Watson and Grant Roads, the best route being Big Bend to So. Rockhill Road to Watson Road to Grant Road. Sunday May 25 will be the last Bird Walk, at the new Nature Study Society Cabin five miles beyond Valley Park and an even three miles beyond the Ranch School on gravel road leading South from the Antire Road. Bring lunch, as this will be a combined bird walk and house warming.

There will be a GARDEN TRIP on Saturday afternoon May 10th, assembling at Mrs. Sattertinwit's home "Ivy - Iris", 118 Waverly Place. Other gardens to be visited will be announced there.