

The Bulletin of the Webster Groves Nature Study Society

Webster Groves, Mo.

Vol. 3 No. 3

July 1931

Birds listed at Horse Shoe Lake, Ill.
 May 16 and 17 1931.

Sixty nine birds were listed, many of them seen in flocks of 30 and 40.

There was a Sand-hill crane flock of 30.

Greater Yellowlegs in flocks.

Least Sandpipers in flocks.

Semipalmated Sandpipers.

50 Black Crowned Night Herons.

Black and White Warbler

White Throated Sparrow

Scarlet Tanager

Red-winged Blackbirds

Purple Martin

Field Sparrow

Song Sparrow

Yellow Warbler

Magnolia Warbler

Purple Grackle

Great Blue Heron

Warbling Vireo

Prothonotary Warbler

American Goldfinch

Tree Swallow

Crested Flycatcher

Downy Woodpecker

American Bittern

Redstart (many)

Tennessee Warbler

Blue Jay

Green Heron

Sora Rail

Baltimore Oriole

Carolina Rail

Brown Trasher

Indigo Bunting

Cedar Waxwing

Hairy Woodpecker

Savannah Sparrow

Blue-winged Warbler

Red-headed Woodpecker

Chestnut-sided Warbler

Maryland Yellow-throat

A Night Hawk was seen in flight, turn over in the air, dip, touch the water and rise again.

On the island were found masses of the Daisy Fleabane; also the Golden Ragwort (Senesio Aureus), that seen growing at the water's edge being about 3 feet tall. Amsonia tabernaemontana was very beautiful, blue, and masses of it.

28 members enjoyed the trip.

Anne A. Jones.

Work for Amateur Astronomers.

The general opinion among "stargazers" is that there is no opportunity for them to do useful work in astronomy. They believe that the million-dollar outlays of the great observatories entirely shut off all fields for them. This popular opinion is utterly false. There are at least three lines of endeavor that are left almost entirely in the hands of the amateur astronomers.

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They have to do with three of the many unsolved mysteries of the sky.

Most important of the three is the observation of long period and irregular variable stars. Dr. Harlow Shapley, Director of Harvard College Observatory, believes that these stars are the "key to stellar evolution" and that when their mysteries are explained we shall have pushed back our knowledge of the "life histories" of the stars to their real beginning as such. There are hundreds of these variables and many thousands of observations must be made of them in order to determine their characteristics accurately. Only a few of these observations can be made by the great observatories, so amateurs must make the bulk of them. Those engaged in this work are members of the American Association of Variable Star Observers (with headquarters at Harvard Observatory) which, not as its name implies, has members in many foreign countries as well as all parts of the United States and Canada. The work is quite interesting and some members so enthusiastic that they report several thousand observations in a single year.

The connection between comets and meteors is not yet fully understood and many meteor records (the more the better) must be made to aid in advancing our knowledge of these celestial space-wanderers. The American Meteor Society, Flower Observatory, Upper Darby, Pennsylvania is the clearing house for meteor observations. There are many people interested in this work. Some of them who observe more frequently than others turn in a record of more than a thousand meteors each year. It may surprise and interest some Nature Notes readers that the Astronomy Group is planning to make meteor observations a part of its program this summer.

May we suggest, if you are at all interested, that you attend the coming Astronomy meetings and outings so as to get in on this interesting part of our program.

Of all astronomical phenomena the Zodiacal Light receives the least attention on the part of both professional and amateur astronomers. Almost nothing new has been advanced as to the true nature of the Zodiacal Light since Barnard published a few papers on the subject away back in the latter part of the last century. At the present time Rev. W. E. Clanville of New Market, Maryland, is taking the lead in the study of this phenomenon. He has secured the cooperation of the two observatories in the eastern hemisphere (one in Japan, the other in New Zealand) but many more points of observation are needed. It is rather strange, although the Zodiacal Light is the easiest phe-

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phenomenon in the sky for the amateur to observe, that professionals should be the ones to exhibit the most interest. Our future knowledge of this apparent "tail" of the earth may depend upon the number of amateurs who will take interest in it.

Reports and records of amateurs' observations of all these phenomena are regularly published with due credit to the individual observers who make them.

An Enlightened Star-Gazer.

Butterflies And The Botanist.

Some Butterflies are so widely distributed as to be practically cosmopolitan; others are found plentifully over large areas restricted only by their habits. A few are found only in very restricted localities and so infrequently that they are classified as "rare". It is this group which makes butterfly collecting interesting, in that the collector is always in hopes of finding such specimens. A number of such butterflies are to be found in St. Louis County and lucky is he who finds an occasional specimen. Among these may be mentioned: *Argynnis idalia*, *Phyciodes ismeria*, *Thecla m-album*, *Anthrocharis olympia*, *Euremia mexicana*, *Melicapaena isola*, *Melitaea phaeton*, and *Haliphelis borealis*.

Some of these species may be stragglers from surrounding regions where they probably are common. The freshness of many, however, justifies us in assuming that such have bred here and a knowledge of their food plants will often help one to locate them, providing, of course, that we appear on the scene at the right time. The very close relationship of butterflies to plants (all of our butterflies but one are vegetable feeders), forces the entomologist to become somewhat of a botanist, and when we study butterflies and plants together one must of necessity become a student of geographical distribution of both. Thus, we know that the monarch (*Anosia plexippus*) feeds only on milkweed. Therefore, wherever the monarch is found we are sure to find some species of *Asclepias* growing there. This relationship should be of interest to the botanist and undoubtedly if the botanist and entomologist worked together our knowledge of geographical distribution of plants and insects would be much advanced.

As an example we find *Melitaea phaeton* has been taken in St. Louis Co., on rare occasions. This butterfly is known to feed only upon one plant, *Chelone glabra*, and the manner in which its larva adapts itself to the life-history of this plant is a very interesting one.

Cont. next column.

We entomologists do not seem to have located this plant here and would like to hear from the botanist concerning it. Perhaps this butterfly indicates a here-tofore unknown plant in St. Louis Co., or we have more to learn concerning the life history of this butterfly.

Edwin P. Meiners.

A Word From The Lodge.

Visit The Lodge--- and when you do, kindly register in the book which has been provided for that purpose.

Amateur Photographers--- take pictures at and near the lodge, and when you do, if you will have an extra print made of each of the more interesting ones, to paste in our photo book, it will be much appreciated by all.

The Lodge Unit.

An Interesting Case Of Sitotropism.

In biology, the reaction which plants and animals exhibit to the influences of various external substances are called tropisms. Thus, the roots of a plant are positively geotropic, while its stems and leaves are negatively geotropic. The case of a moth flying into the light is called heliotropism. Likewise when a caterpillar goes up a tree until it reaches the leaves upon which it feeds, this influence which causes it to eventually find its proper food is called sitotropism.

Some years ago I was collecting butterflies in an old meadow. Here, in a low spot where the weeds were thick, were growing a number of plants of the nightshade family. Feeding upon these I found the caterpillar of the Hawkmoth, *Protoparce quinque-maculata*. This caterpillar, also known as the tobacco worm, grows to be quite large and can consume a goodly quantity of its food-plant. One or two such plants would not be sufficient to bring it to maturity. The plants upon which it was feeding were scattered so that many were at least three feet apart with many tall weeds between. Imagine a human being lost in a jungle forest with the only tree from which he could obtain edible food scattered at intervals of a mile apart. How often would he be likely to find this particular tree. Yet the evidence showed that these caterpillars had found a number of their foodplants and were thriving.

Edwin P. Meiners.

NOTHOLAENA DEALBATA (Pursh) Kunze

On May 31 st. 1931 I saw for the first time the magnificent little cloak fern *Notholaena dealbata*. Clusters were growing out of crevices and attached to the sides of projections of sponge-like limestone rocks near Price hollow, one half mile west of the Lodge. Mr. Kollogg of the Missouri Botanical Garden identified it and said there was no previous record of it ever being found this far north, and that it is rare in southern Missouri. We will have a picture of it in next issue.

Pierre A Vogel.

Webster Groves Nature-Study Society
 A BRANCH OF THE AMERICAN NATURE-STUDY SOCIETY
 (Organized in 1920)
 Webster Groves, Mo.

MISS ANNE A. JONES
Secretary-Treasurer
 690 Bonita Avenue
 Webster Groves, Mo.
 (Webster 831-J)

ANNOUNCEMENTS FOR JULY - 1931

FIELD TRIP

SATURDAY/SUNDAY JULY 17/18: Week-end Trip to Nature-Study Lodge.
 Bring star maps, telescopes, field glasses, flash lights,
 blankets, cots and - oh! yes, - food.

DR. O. W. BRANDHORST
President

MISS NELLIE MATLOCK
Vice-President

HAROLD I. O'BYRNE
Vice-President

MRS. JASPER BLACKBURN
Flower Exchange Secretary

DR. IRENE BLANCHARD MUELLER
Health Secretary

MRS. WILLIAM PICKENS
Junior Secretary

MRS. A. F. SATTERTHWAIT
Nature-Melody Secretary

 GROUP MEETINGS.

ASTRONOMY, FRIDAY JULY 10, 8 PM, at the Jones residence,
 690 Bonita Avenue, Webster Groves.
 Mr. Mueller will tell about Galactic Star Clusters and Mrs. Mueller about Globular Clusters.

PHOTOGRAPHY, MONDAY JULY 13, 8 PM, at the Bradley residence,
 7111 Nashville Avenue, Richmond Heights. Mr. H. M. Sohrmann
 will tell about the Leica Camera and accessories, and show some of
 his pictures. Mr. Bradley will describe his "home-made
 enlargers".

GROUP CHAIRMEN

STUART L. O'BYRNE
Astronomy

MISS EDITH E. GLATFELTER
Botany

MISS DOROTHY BOYER
Entomology

MRS. ARTHUR FEAGER
Geology

PIERRE A. VOGEL
Ichthyology

DR. EDWIN P. MEINERS
Microscopy

ARTHUR E. MUELLER
Nature Photography

MISS NELLIE MATLOCK
Ornithology

ENTOMOLOGY, MONDAY JULY 27, 8 PM, at the Satterthwait residence,
 118 Waverly Place. Dr. Devrient will give his
 postponed talk about "Mandragora", a sleeping draught
 from ancient times; Mr. Anthony M. Ward will speak on
 "Termites" and Mr. Satterthwait on "Sunflower Insects" with a
 discussion of the effect of the drouth on insects.

: Contest leaders and contestants are requested :
 : to meet at the Laboratory Sunday July 12, 2 PM :
 : with Mr. Satterthwait. :

JUNIORS: GIRLS will meet on Wednesday July 1st and 15th;
 BOYS will meet on Thursday July 2nd and 16th;
 A FIELD TRIP for all on Saturday July 25th;
 Time, place and other details to be announced
 by phone.

R. C. LANGE
Editor

Anne A. Jones, Secretary

NATURE NOTES

DR. EDWIN P. MEINERS
Camp Director