

The Bulletin of the Webster Groves Nature Study Society

Webster Groves, Mo.

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June 1931.

An Experiment in Stellar Photography.

Using a lens taken from a toy projection lantern and having an aperture of 3 1/8 inches and a focal length of 11 5/8 inches an experiment in stellar photography was made with some degree of success. The rest of the camera was made from an old coffee pot and a few odd pieces of kindling wood. The camera was strapped to a 24 inch draw-tube telescope shakily mounted on a camera tripod so placed that with movement in one direction it could be made to follow the diurnal motion of the stars. The main difficulty with the arrangement was that the wind easily shook the whole mounting making sharp images impossible to secure. Besides this, some error in determining the focal length of the lens caused the camera to be so built that the lens was slightly out of focus. In spite of the badly made and poorly mounted instrument a fairly good picture resulted from a 30 minutes exposure. A 3 1/4 x 4 1/4 Eastman super-speed cut film was used.

On December 10, 1930 the exposure was made between 11:12 and 11:42 P.M. of a section of the sky lying between Mu Ursa Majoris and Lambda and 40 Lyncis. The illustration, traced from the negative, shows the goodly number of stars picked up. Twenty four stars brighter than magnitude 6.5 were identified from their position as given in the catalogue of bright stars by Schlesinger. They are listed in the table which also gives their magnitudes and color classes. It is generally known that ordinary photographic films are less sensitive to red and orange light than they are to yellow or green and are much more sensitive to blue or violet light than to yellow or green and are more sensitive to ultra-violet than any other color. This should be born in mind while examining the table and illustration. For the convenience of those who may not be familiar with the star colors, the colors represented by the several color-classes are given here:- b, blue; a, white; f, pale yellow; g, yellow; k, orange; and m, red. In the table names of stars possessing them are given and for those stars not having names the number in Schlesinger's catalogue is given preceded by "BS".

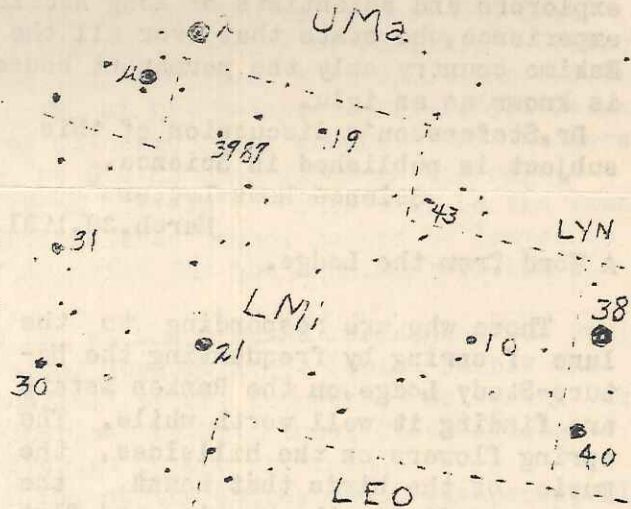
No blue stars brighter than magnitude 6.5 are in the region of the sky photographed. This explains their absence on the film. The brightest star redder than class k in this part of the sky is of magnitude 5.74 and did not affect the film although a class k star of magnitude 6.51 (BS 3987) did show up. Numerous stars below magnitude 6.5 were recorded.

The majority of these must be of color-classes bluer than k and none of them redder.

Table. Data on stars brighter than magnitude 6.5 identified on negative.

Name	Magn.	Color	Name	Magn.	Color
UMa	3.52	a	13 LMi	6.03	f
38 Lyn	3.82	a	BS3811	6.56	f
21 LMi	4.47	a	10 LMi	4.62	g
BS4132	4.84	a	UMa	3.21	k
34 LMi	5.58	a	40 Lyn	3.30	k
BS3686	5.76	a	31 LMi	4.41	k
BS4096	5.80	a	BS3809	4.99	k
27 LMi	5.93	a	11 LMi	5.48	k
32 LMi	5.97	a	43 Lyn	5.50	k
30 LMi	4.33	f	BS4067	5.88	k
19 LMi	5.19	f	BS3993	6.14	k
BS4067	6.98	f	BS3987	6.51	k

Abbreviations of constellation names used: LMi, Leonis Minoris; Lyn, Lyncis; and UMa, Ursa Majoris.



This experiment shows that a cheap lens such as the one used in making this photograph can be put to good use if it is properly mounted. The tracing shown above is evidence of the value of such photographic work in making charts of extended region of the sky and also for recording positions of faint planets and asteroids (Uranus, Neptune and Eros), and for studying photographic and visual magnitudes along with star colors and color indices.

Stuart L O'Byrne

Stone Forest Found.

A newly discovered petrified forest the only one so far found with the trees lying as they fell millions of years ago is reported by the U.S. Bureau of Reclamation. It was found by a road-building expedition on the lower Yellowstone reclamation project, about three miles southwest of Savage, Mont. The petrified forest covers several acres. Some of the trees are ten feet in diameter and over 100 feet long.

Cont, next page.



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Stone Forest Found. Club

#### Stone Forest Found, cont:

They all lie with their tops pointing in the same direction, indicating that all may have been blown down by a storm. The shape of the trunks suggest that they belonged to the same forests that supplied the materials for the nearby beds of coal.

Science News Letter Oct. 28. 1929.

#### The Eskimo Igloo.

The noted Arctic explorer, Vilhjalmur Stefansson, says that our idea of an Eskimo igloo is all wrong. They do on occasion live in the dome-shaped snow houses which they run up hurriedly as temporary shelters from the weather, but they never call them igloos.

The word igloo-which by the way Dr. Stefansson spells "iglu" is applied by the Eskimo only to the solidly constructed houses of earth-covered stone and timber which are their really permanent winter quarters. He also cites other explorers and scientists of long Arctic experience, who state that over all the Eskimo country only the permanent house is known as an iglu.

Dr. Stefansson's discussion of this subject is published in Science.

Science News Letter  
March. 28. 1931.

#### A Word from the Lodge.

Those who are responding to the lure of spring by frequenting the Nature-Study Lodge, on the Ranken Estate are finding it well worth while. The spring flowers on the hillsides, the music of the birds that haunt the woods and fields, the humming and fluttering of insects, and the renewed activity of the denizens of the ponds and streams combine in making the Lodge and its environs a place of joy to all lovers of nature.

For the benefit of any who may be staying away because they do not belong to the Lodge Unit, let it be loudly proclaimed that the use of the Lodge is not conditioned upon membership in the Lodge Unit, but that, on the contrary, all members of the Webster Groves Nature Study Society are entirely welcome at the Lodge at all times, that a cordial invitation to that effect is hereby extended to members and non-members of the Lodge Unit alike.

#### The Lodge Unit.

Dr. J. Edgar Anderson, geneticist at the Missouri Botanical Garden since 1922 and assistant professor at Washington University, St. Louis, Mo., has been appointed arboretist of the Arnold Arboretum of Harvard University.

#### The Island of Penguins.

One of the most enjoyable, amusing and interesting books that I have come across in some time is Cherry Kearton's "The Island of Penguins" published by Robert Mc.Bride & Co. Jan. 1931.

This book contains the story of the penguins, that live on a small island of rock and sand rising above the turbulent waters south of the Cape of Good Hope. This is the island Mr. Kearton so aptly calls "The Island of Penguins" because of the great number of birds that assemble there twice each year. The story should hold the interest of even the hardened nature student, for surely the home life and private affairs of the black-footed penguin are not often so openly discussed by one who literally has lived among them for some months, then again, the book is lightly enough written to please even the unscientific reader.

The style is so clever and fascinating, that after reading, one has the urge to take a trip to the island and to view its comical yet all too serious inhabitants. The book contains a great number of plates, many being "close-ups" of some of the five million characters.

Mr. Kearton does not merely describe the nests, chicks, habits, and like facts, but goes into the reactions, and if I may use the word, the psychology of the bird.

I whole-heartedly indorse this book to all who wish to spend a little while among, (to quote Mr. Kearton) "these creatures who are so very like ourselves and even more like our children. I think the book is obtainable from the Public Library, as I procured mine from the Kirkwood Library.

Margaret M. McDonough.

On May 6 1931. The spacious home of the Rau's held the masses that congregated there to celebrate the farewell to the Holly and Anderson families. Sixtyfour Guests were there to enjoy the great lunch set by the arrangement committee. Assisted by the Ladies Rau, Mueller, Stones, Lange, Satterthwait Jones, Irish and Boyer they spread a feast for a king.

Mrs. Lange furnished the 2 ladies that we will greatly miss from our meetings with a fine bouquet of Poets Narzissus.

Miss Nelly Matlock and her show was a scream, the representatives of the society in comics and the verses to match by our standby, Jones will not so easily be forgotten. O Boy, Not to forget Andy, he was there with his college and camp fire songs and held the audience spell-bound for some time. Space don't permit us for more details, but perhaps you will hear some more about it later. At any rate it was a great sendoff and everybody had a good time.

The Government Printing Office, Supt. of Documents, Washington, D.C. Has for sale a bulletin "YOU CAN MAKE IT FOR CAMP AND COTTAGE" for 10 cents. Send Postal money order.



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

ANNOUNCEMENTS FOR JUNE - 1931

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

**GENERAL MEETING**, Friday June 5, 8 PM, at the U. S. Entomological Laboratory, 527 Ivanhoe Place, Webster Groves. Mr. L. P. Jensen will speak on "Conservation of our Native Plants".

FIELD TRIPS

**SUNDAY JUNE 7.** A "Bird Hike" at Horseshoe Lake. Meet at 5 AM at 9th and Chouteau Ave. Directions for late comers:- cross the Free Bridge to East St. Louis; continue on 10th St. to left turn into 9th St., to follow Highway. Continue on highway under R.R. bridge to intersection; take left highway to second cinder road where sign reads "To Diamond Club". Turn right on cinder road, cross R.R. track on to another "Diamond Club" sign; turn right to Club House. Bring lunch and eat at Diamond Club House.

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 MUSE  
Health Secretary  
MRS. WILLIAM PICKENS  
Junior Secretary  
MRS. A. F. SATTERTHWAIT  
Nature-Melody Secretary

**THURSDAY/SUNDAY June 13-14.** A week-end trip to the Schnedelbach cottage at Allenton. Take Manchester Road to Allenton Road, south to Allenton. Directions left at Gross' Grocery as to route to the "Tom Evans cottages". The Astronomy Group will observe constellations and many other interesting celestial objects. Bring telescopes, field glasses, flash lights, cots, blankets, lunch.

GROUP MEETINGS

**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  
R. C. LANGE  
Editor  
NATURE NOTES  
DR. EDWIN P. MEINERS  
Camp Director

**PHOTOGRAPHY**, Monday June 1, 8 PM, at the Mueller residence, 12 Armin Ave., Glendale Heights. General discussions on photography. Bring your pet nature photographs to be analyzed and placed in the Group's photograph collection.  
**ICHTHYOLOGY**, Monday June 8, 8 PM, at the Rau residence, 549 East Argonne Drive, Kirkwood. "Missouri Species of Families" - Petro-myzonidae, Polyodontidae and Acipenseridae, with specimens. Mr. Vogel.  
**MICROSCOPY**, Friday June 12, 8 PM, at Dr. Meiners' office, 6600 Delmar, University City. Making of Glycerin Jelly Mounts. Dr. Meiners.  
**BOTANY**, Monday June 15, 8 PM, at U.S. Entomological Laboratory. Dr. Edgar Anderson will talk on "Irises". This will be the last opportunity to hear our distinguished member before he leaves to occupy his new position of Arborist for the Arnold Arboretum at Harvard University.  
**ASTRONOMY**, Friday June 19, 8 PM, at the O'Byrne residence, 501 Pacific Ave., Webster Groves. (corner Newport Ave). Topic: "Double and Binary Stars". "Visual Binaries" by Mr. Townsend; "Eclipsing Variables and Spectroscopic Binaries" by Mr. Jones; Observations of Double and Binary Stars, directed by the chairman.  
**ENTOMOLOGY**, Monday June 22, 8 PM, at the Satterthwait residence, 118 Waverly Place, Webster Groves. We will again have the rare opportunity of hearing Dr. I. Parfentjev, this time on "Mechanism of Arsenic Poisoning", and Dr. Devrient, who will speak about Mandragora, a sleeping-draught from ancient times".

**INSECT COLLECTION CONTEST FUND.** Anyone desiring to aid the Entomology Group in financial way will please communicate with Miss McDonough, 423 So. Clay, Kirkwood. All contributions will be used

to purchase prizes for the contestants in the annual contest.

Contest leaders and contestants are requested to report to the Laboratory Saturday June 6, at 2 PM. Contestants bring boxes, pins and nets for practice.

**ORNITHOLOGY**, Friday June 26, 8 PM, at the Entomological Laboratory,

Topic: "Variations in the Color of Irises of Brown Thrashers." Mrs. Satterthwait.

**NATURE-MELODY**, Monday June 29, 8 PM, at the Satterthwait residence, 118 Waverly Place, Webster Groves. "A Chat with Sounds in Nature", by Miss Lorena Alice Hymers, of 31 Crestwood Drive, St. Louis.

**JUNIORS:** A Field Trip to Nature-Study Lodge. Meet at 10.30 on Saturday June 6, at the Presbyterian Church.

On Wednesdays June 10 and June 24 the Girls will meet at Mrs. Pickens' home at 3 o'clock. On Thursdays, June 11 and June 25 the Boys will meet at Mrs. Pickens' home at 3 o'clock.

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\*\*\*\*\* Some of the members have not, as yet, returned last month's post-card enclosure. A full membership reply, either for or against the printing of Nature Notes as stated on the post card, is very much desired.

Anne A. Jones, Secretary.