



Number 252

May, 1970

' C E C R O P I A '

by Patricia Norgate

During the past two summers I was fortunate enough to be involved in a fascinating experience, the raising and close observation of our largest and very beautiful Giant Silk Moth, the 'Cecropia'.

In June 1968 my husband found a mated female sleeping on a sunny wall near the house. We didn't know to which species she belonged until our son obtained a book from the school library which clearly identified her. The moth's heavy fur-covered body was surely female, and her wingspan was nearly six inches of beautiful design. The outer bands of red, white and buff, stood out sharply on the finely mottled brown of all four wings. A delicate red and white petal-shaped 'eye' decorated the centre of each graceful structure which she held upright at rest as does the butterfly. If disturbed, the wings would open out to their full extent then gracefully the moth would close them again at rest. In a tank containing twigs, the Cecropia deposited 50 or more eggs during two nights of activity which left her very tattered and nearly lifeless. The following day we placed her in a killing jar to end her captivity.

On July 1st the eggs hatched, revealing active 1/4" hairy black caterpillars. Using leaves from a handy maple tree we succeeded in caring for them. Several died along the way partly because the maple is not the best leaf for the cecropia moth, and due to our lack of knowledge in the raising of caterpillars. During the period of seven weeks they molted about 6 times, resulting in colour changes each time until the final size and colours were achieved. The largest larva measured 3 inches, and though rather small they were quite beautiful. A pretty blue along the top shading to bluish green underneath, they were festooned with 6 rows of tubercles. Two rows of yellow ones standing up on top, and another two rows protecting the sides, front and rear were a lovely robins-egg blue. Four large orange spheres

protruded above the thoracic segments, the entire number were tipped with thick hair-like black stubs. The close of summer found us with close to 20 small brownish cocoons, and after taking several to the entomology department of the Ontario Museum, we learned that they were small for the species. After the painstaking job of feeding them on the maple leaves which dried rapidly and were difficult to obtain, I didn't consider trying again. I just kept four cocoons outside that winter in the hope that at least one *Cecropia* would emerge, providing for myself and family a sight we never had witnessed before.

The awakening days of spring re-kindled my interest in the waiting cocoons, and I began to watch them closely. On the afternoon of June 5th, we were rewarded by the wonderful sight of a female *Cecropia* emerging from her cocoon. We were spellbound as she climbed up a twig, her damp folded wings hanging away from her heavy body which was covered with red, white and brown fur in an intricate design. Very slowly her wings opened out as she pumped fluids through the veins, and at last her wings firmed and dried revealing them to be about 4 inches across. She was the only specimen to success in completing her metamorphosis, and for the next nine days she patiently clung to the twig near the cocoon, waiting for a mate to fly to her. As her life was fading I was becoming desperate at my unsuccessful attempts to acquire a male. On the night of the 13th I set the little beauty out on an open stretch of lawn in an uncovered tank, using two desk lamps to illuminate the area. Making myself comfortable, I settled down to spend the night hardly daring to hope for a miracle. The female had already deposited 20 infertile eggs during the two nights previous, and was obviously fading. Suddenly at 2 a.m. during the space of a few seconds there were 6 or 7 male *Cecropias* flying in large circles over the area. Their powerful wings were clearly visible, the white markings especially bright as they beat very rapidly to sustain their search for the elusive female. After a minute, perhaps two, they were gone, all but one! He fluttered about the lights momentarily then alighted nearby.

As the *Cecropia* hold their wings upright when at rest, it only remained for me to grasp them and place him in the tank. However, on coming within two inches with my outstretched hand, I found with great apprehension that I couldn't touch him. Everything depended on containing him safely inside the tank and I was afraid I might lose him. So I enlisted the aid of our son Jeff '13' who kindly climbed out of bed at 3 a.m. and placed the male in the tank for me. In a deepening voice he mumbled: "now you've got a mate for your female". The mating was successful and the female deposited 80 eggs that same day as her life was quickly coming to an end.

Of the 80 eggs only 44 hatched, but considering the condition of the mother when mating, we were fortunate indeed. Using the recommended lilac leaves in '69 I devised better methods of feeding, and after only 4 molts and 7 weeks of growth the largest larvae were 4 inches in length. They were magnificent specimens in comparison with the sickly group of the previous year, and only one died during the first few days after hatching. On August 6th the first caterpillar began to spin his cocoon. Constructed from a single continuous strand of pure white silk, the outer layer measured 4" long and $2\frac{1}{2}$ " wide at the midsection. Forty-eight hours later we could still hear him moving within, finishing the inner layers. On the 17th the last larva stopped eating (it was quite a relief) and proceeded to construct the cocoon.

Since September the cocoons have been outside on the same sunny veranda where their mother emerged last June. A golden brown now, they are waiting for the warmth of summer. NOTE: Any interested member or friend is welcome to write to me, or telephone me at 924-6573, after 2 p.m. please. Mrs. P. Norgate, 40 Rathnelly Ave., Toronto 190, Ontario.

SPRING'S REBIRTH

Oh I have loved the vibrant English Spring,
That great upsurge of life, when everything
Casts off the drab of Winter's duns and grays
To greet with joyous welcome Spring's warm days.
I've flung myself upon a forest floor,
To breathe my fill of all its heady store
Of earthy smells: toadstools, dank leaves, new moss;
Old fir-cones and winged seeds the breezes toss;
Pine-needles deep, now falling to decay,
As all things must in Nature's wise old way.
Bright eyes I've seen gaze out from nest so small
None but the tip-tailed wren could move at all
Amongst those dainty eggs she guards with care,
Her nearing parenthood all centred there.
I've loved the kingcups gold in shallow streams,
Reflecting with proud grace the sun's bright beams;
While gentle pussy-willows peep and purr
In softest little coats of silv'ry fur.
And I have peeped into a fairy wood
So full of bluebells that I humbly stood,
And marvelled at God's lavishness profound
That laid this carpet blue upon the ground.
There are so many other things I've seen
And loved: the tender leaves of softest green
On beech trees, and the emerald tips of brush
Around the elm-tree's bole; the meadows lush,
Gold-starred with buttercups; primroses pale,
That, every English Springtime, never fail
To bring a thrill of gladness and new joy
To little questing girl or bright-eyed boy;
Dainty mauve flowers on wild thyme 'neath my feet,
(A million tiny flowers, pungent yet sweet);
Wild daffodils a-nodding in the breeze;
Gay crocuses on lawns beneath low trees.
All these I've loved, and many wonders more
Are mine to keep in memory's well-filled store.
So, when in time this wealth I have to leave,
I shall relinquish it and shall not grieve.
All will be well, so long as there'll be Spring
In England, and rebirth for everything;
For these my loves will always others bless,
Who, loving them, will find rich happiness.

Eva Parsons

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F L O W E R P O W E R

by H. Huggett

During the swinging sixties that have just vanished over the horizon, one of the phrases we learned to use was 'Flower Power'. In 1960 it didn't mean a thing, but it does now. However, the potency of some plants has been known to mankind for a long time, and I would like for a few minutes to focus attention on one of them that has been useful to humans for something like two thousand years.

The pyrethrum is a member of the chrysanthemum family, and it has its own way of dealing with insects. Many flowers like to attract insects, but the pyrethrum repels them by means of a poison developed in the floral heads. The substance is called pyrethrin and it is only slightly toxic to humans. For this reason, it is widely used as an insecticide. What its effect is on birds, I do not know, but at least it is a much safer product than DDT, aldrin, dieldrin, heptachlor and other dangerous substances.

One of the best features of pyrethrin is that you can make your own from the flowers of the plant. I was fortunate enough to find a couple of recipes in an old garden book:

- 1) One pound of ground-up pyrethrum flowers
Three pounds of talc or pyrophyllite
- 2) One ounce of ground-up flowers
One and a half pounds of dusting sulphur

A check with the garden department in one of the big downtown stores and also with one of the wholesale seed houses showed that the seeds of pyrethrum are readily available. Plain talcum can be procured in prescription drug stores for about thirty-five cents a pound.

There's a project for 1970, growing some of these intriguing flowers. Personally, I can hardly wait to see the flowers blooming and observe what happens to the insects. Apparently pyrethrin is deadly not only to many garden pests, but also to house flies and mosquitoes. Remember the slogan: DOWN WITH MOSQUITOES AND UP WITH FLOWER POWER!

I would like to tell you what pyrophyllite is, but I couldn't find out. Maybe some of our readers will know. Dusting sulphur is evidently the substance in powdered form....the garden book warns against using it on squashes, melons and cucumbers. But don't bother looking it up in your Funk and Wagnalls--that's where I got most of my information.

(ED. Mr. Huggett adds a warning to those making the above: Hay fever sufferers and pyrethrum dust just don't go together!)

CLUB POSTER COMPETITION

The Board of Directors invite entries from members, in a competition for a Club poster that can be displayed at annual functions such as the Sportsmen's Show, F.O.N., General Meeting, Toronto Flower Show, etc.

- 1) Each entry shall be 11" x 17" and may have three (3) colours plus black and white. It must include the Club crest in colour and be about 3" high.
- 2) The lower right or left-hand corner should have an area of about 2" x 3" left for the later attachment of a pocket to contain information leaflets.
- 3) The pictorial design of the poster is left to the competitors, the only requirement being a relationship to the Club and its aims. We want to develop an image of an active and socially conscious group of people with outdoor interests.
- 4) Deadline will be October 31st, 1970 and entries should be mailed to Mr. S.A. Corbett, 12 Kitson Drive, Scarborough, Ontario.
- 5) Prices: 1st: \$25.00 F.O.N. credit token. Any other poster accepted for use by the T.F.N.C. will be awarded a \$10.00 F.O.N. credit token. All entries will become the property of the Club.
- 6) All entries must have the artist's name and address printed on the back of poster.
- 7) The Club reserves the right to accept any or all entries and to reproduce winning entries for any purposes whatever.

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TORONTO ISLANDS

The following list is the result of approximately 45 visits Mr. Ernest Warne made with his daughter Vivian to the Toronto Islands and wildlife area during 1969. The bird list consists of 176 species seen over the twelve calendar months. Some species were seen during the four seasons. The frequency of their visits depended largely on the spring and fall migrations. The largest number of birds were seen in the third week of May when they recorded a list of 90 birds in one day and a low total of 15 birds in a day during the second week of July:

Bird Species Observed on the Toronto Islands Over a Period of Twelve Months of 1969

w - winter sp - spring s - summer f - fall

Common Loon	sp	American Bittern	sp	f
Red-necked Grebe	sp f	Mute Swan	sp	s f
Horned Grebe	sp	Whistling Swan	sp	
Pied-billed Grebe	w sp s f	Canada Goose	w sp	s f
Great Blue Heron	sp s f	Mallard	w sp	s f
Green Heron	sp s f	Black Duck	w sp	s f
Black-crowned Night Heron	sp	Gadwall	w sp	s f

Green-winged Teal	w	sp	s	f	Rock Dove	w	sp	s	f
Blue-winged Teal	w	sp	s	f	Mourning Dove		sp		f
American Widgeon		sp			Yellow-billed Cuckoo				f
Wood Duck		sp	s	f	Black-billed Cuckoo		sp	s	f
Redhead		sp			Great Horned Owl	w	sp		f
Ring-necked Duck	w	sp		f	Long-eared Owl		sp		f
Greater Scaup	w	sp		f	Saw-whet Owl		sp		f
Lesser Scaup	w	sp		f	Common Nighthawk		sp		f
Common Goldeneye	w	sp		f	Chimney Swift		sp		f
Bufflehead	w	sp		f	Belted Kingfisher		sp	s	f
Oldsquaw	w	sp		f	Yellow-shafted Flicker		sp	s	f
Harlequin Duck	w	sp		f	Red-headed Woodpecker		sp		f
White-winged Scoter		sp		f	Yellow-bellied Sapsucker		sp		f
Surf Scoter		sp			Hairy Woodpecker	w	sp	s	f
Common Scoter		sp			Downy Woodpecker	w	sp	s	f
Hooded Merganser	w	sp		f	Eastern Kingbird		sp	s	f
Common Merganser	w	sp		f	Great Crested Flycatcher		sp	s	f
Red-breasted Merganser	w	sp		f	Eastern Phoebe		sp	s	f
Goshawk	w	sp			Yellow-bellied Flycatcher		sp		
Sharp-shinned Hawk		sp			Least Flycatcher		sp		
Cooper's Hawk	w	sp			Eastern Wood Pewee		sp	s	f
Red-tailed Hawk		sp			Olive-sided Flycatcher		sp		
Red-shouldered Hawk		sp			Horned Lark		sp		
Rough-legged Hawk	w				Tree Swallow		sp	s	f
Marsh Hawk	w	sp	s	f	Barn Swallow		sp	s	
Sparrow Hawk	w	sp		f	Purple Martin		sp	s	
Ruffed Grouse		sp		f	Blue Jay		sp	s	f
Ring-necked Pheasant	w	sp	s	f	Common Crow	w	sp	s	f
Sora		sp		f	Black-capped Chickadee	w	sp		f
American Coot	w	sp	s	f	White-breasted Nuthatch	w	sp	s	f
Semipalmated Plover		sp		f	Red-breasted Nuthatch	w	sp		f
Killdeer		sp	s	f	Brown Creeper		sp	s	f
American Golden Plover		sp			House Wren		sp		
Black-bellied Plover		sp		f	Winter Wren		sp	s	f
Ruddy Turnstone		sp	s	f	Carolina Wren		sp		f
American Woodcock		sp	s	f	Long-billed Marsh Wren		sp		
Common Snipe		sp		f	Catbird		sp	s	f
Spotted Sandpiper		sp	s	f	Brown Thrasher		sp		f
Solitary Sandpiper		sp	s	f	Robin		sp	s	f
Lesser Yellowlegs		sp			Wood Thrush		sp		
Pectoral Sandpiper		sp	s	f	Hermit Thrush		sp	s	f
Least Sandpiper		sp	s	f	Swainson's Thrush		sp	s	f
Dunlin		sp	s	f	Gray-checked Thrush				f
Short-billed Dowitcher		sp			Veery		sp	s	f
Semipalmated Sandpiper		sp	s	f	Golden-crowned Kinglet	w	sp	s	f
Sanderling		sp	s	f	Ruby-crowned Kinglet		sp		
Wilson's Phalarope		sp			Water Pipit		sp		
Glaucous Gull	w			f	Northern Shrike	w			
Great Black-backed Gull	w	sp		f	Starling	w	sp	s	f
Herring Gull	w	sp	s	f	Solitary Vireo		sp		f
Ring-billed Gull	w	sp	s	f	Red-eyed Vireo		sp	s	f
Bonaparte's Gull		sp	s	f	Philadelphia Vireo		sp		f
Common Tern		sp	s	f	Warbling Vireo		sp	s	f
Caspian Tern		sp	s	f	Black and White Warbler		sp		f

Tennessee Warbler	sp	Rusty Blackbird	sp	f	
Orange-crowned Warbler	sp	Common Grackle	sp	s f	
Nashville Warbler	sp	f	Brown-headed Cowbird	sp	f
Parula Warbler	sp	Scarlet Tanager	sp	s f	
Yellow Warbler	sp	s f	Cardinal	f	
Magnolia Warbler	sp	f	Rose-breasted Grosbeak	sp	f
Black-throated Blue		Evening Grosbeak	w		
Warbler	sp	f	Purple Finch	sp	f
Myrtle Warbler	sp	s f	Hoary Redpoll	w	
Black-throated Green		Common Redpoll	w	sp	
Warbler	sp	s f	Pine Siskin	w	sp
Blackburnian Warbler	sp	f	American Goldfinch	sp	s f
Chestnut-sided Warbler		f	Rufous-sided Towhee	sp	s f
Bay-breasted Warbler	sp	s f	Savannah Sparrow	sp	s f
Blackpoll Warbler	sp	f	Grasshopper Sparrow	sp	
Overbird	sp		Sharp-tailed Sparrow		f
Northern Waterthrush	sp		Slate-coloured Junco	w	sp f
Connecticut Warbler	sp	f	Tree Sparrow	w	sp f
Mourning Warbler	sp	f	Chipping Sparrow	sp	f
Yellowthroat	sp	s f	Field Sparrow	sp	
Wilson's Warbler		f	White-crowned Sparrow	w	sp f
Canada Warbler	sp	s f	White-throated Sparrow	w	sp f
American Redstart	sp	f	Fox Sparrow	sp	f
House Sparrow	w	sp s f	Lincoln's Sparrow	sp	f
Eastern Meadowlark	sp		Swamp Sparrow	sp	s f
Red-winged Blackbird	sp	s f	Song Sparrow	w	sp s f
Orchard Oriole		f	Lapland Longspur	w	sp
Baltimore Oriole	sp		Snow Bunting	w	f

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PHOTOGRAPHERS

Sometime in the early part of next season, it is hoped to hold an informal evening when members can show their holiday slides to other members. So...keep this in mind when taking your photographs this summer. More details will be in the October Newsletter.

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METROPOLITAN TORONTO & REGION CONSERVATION AUTHORITY

For the past 8 summers the MTRCA has sponsored a photographic contest in conjunction with the annual re-opening of the Black Creek Pioneer Village. The Authority is again, for the 9th season, inviting all amateur photographers to visit the Black Creek Pioneer Village, take pictures and enter the competition.

The 1970 season at the Village will officially open April 24th and will be filled with pictures. Entry forms are available from the MTRCA, Box 720, Woodbridge. Closing date for entries - 1st December 1970.

GOOSEY, GOOSEY GANDER

Once upon a time, though not so very long ago, a funny-looking gosling was being raised (courtesy of the Niska Wildlife Management), along with a couple of Canadas, at the Island Nature Science School. They were mainly in the care of Mr. Peter Middleton, whom they fondly believed, in their silly-goose fashion, to be their mother, and on whom they bestowed their affection. They received plenty of attention and admiration from the children (and the staff!), were well-housed, well-fed, and really "had it made."

However, when the restlessness of adolescence came upon them, they decided they'd had enough of school, Nature Science or not, and determined to become drop-outs. So one day, when the opportunity came, and Mother wasn't looking, they made their escape, and in no time at all were swimming happily in the nearby lagoon and heading for the bay. In due time they fetched up on the beach near the Humber, just west of Sunnyside, where a large deputation of the local Canada goose population was on hand to welcome them.

For many weeks now, as you've watched the flock gather for hand-outs from kind-hearted citizens, especially on Sundays, you may often have heard someone say: "What's that queer-looking goose over there?" Queer he certainly does look amongst all those smart Canadas. Lightish brown in colour, with dingy white down the front and sides of his long neck, he is not very distinguished-looking, but you should not have much difficulty in picking him out from the herd of Canadas. He is usually to be found in the company of one of his buddies with whom he was raised.

This is the swan goose, a native of China, the species from which the Chinese domestic geese are derived. (Actually I should say the swan goose winters in China and breeds in Siberia, but I don't want to get involved in politics!) So you cannot put him on your life-list -- sorry about that.

He has successfully survived the winter there, and can at times be seen flying or swimming with the Canada geese, creating quite a bit of interest. Let's hope he stays, and lives happily ever after. (My apologies if "he" is really "she" -- I wouldn't know!)

Eva Parsons

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METRO PARK TOURS

If any member is interested in knowing when tours of the parks will take place he should contact Syd Nicol at 367-8176 and have his name put on the mailing list.

There are also two very good maps put out by the Parks Department entitled 'A Walkers Guide to Central Don Park'. These are the first of a series to be issued. They can be obtained at City Hall, 10th Floor, East Tower, Toronto 1.

FEBRUARY 21st - 22nd OUTING OF THE ECOLOGY AND CONSERVATION CLASS

In Toronto by the middle of February, the winter can be a bore. What's left of the snow has turned into an ugly brown mass of ice and frozen sludge that almost makes the sidewalks look attractive by comparison.

But out in the countryside, ah, that's different! On Saturday, February 21st, a group from the Ecology and Conservation Class drove north to the Haliburton Highlands to spend a short week-end at Camp Allsaw on Soyer Lake, about ten miles north of Minden. Mr. Sam Hambly, a member of the class and owner of the Camp, was their host. In the summertime, Camp Allsaw is full of boys and girls, and no doubt it is a lively place, but in mid-winter the noisiest creature around was a blue jay. Except for his screaming, and an occasional snowmobile, there was hardly a sound to disturb the peace of winter. The woods and waters were still fast asleep under the white blanket. Outside of an odd squirrel, we didn't see any wild animals, but the record of their movements was there in the snow.

However, the ten people who visited Camp Allsaw did not go there just to refresh their spirits with the beauty of a winter woodland or to check on Nature's bookkeeping on the snow. What we were seeking was under the snow and also under the ground. Below the frost line life goes on all winter, so below the frost line we went. Several samples of earth were dug up, identified and stowed away for examination later. Near the Camp there is a bog buried deep in snow where the water lies unfrozen just below the ground. The samples taken here should prove interesting.

Here and there in the snow outcroppings of rock were visible and some pieces were chipped off for laboratory examination.

On Saturday evening the group had the opportunity of looking at some "living earth" through a microscope. Mr. Hambly, being a student of ecology and a conservationist, maintains a compost pile in connection with his camp. Samples of the earth from this pile are taken away in the autumn for further observation, and some of these were brought along on the weekend so that we could examine the life to be found there. The writer, who has a very modest compost heap buried under the snows of Muskoka, will return to it in the spring with greatly heightened interest.

There was even a brief visit to a beehive, where the hard-working creatures were enjoying their winter vacation. For Sunday morning breakfast we sampled the honey that they had made the previous year and can testify that those bees had earned their holiday.

All in all, it added up to a most pleasant and rewarding outing, and the enjoyment of it was greatly enhanced by the hospitality of Sam Hambly.

H. Huggett

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BREWER'S BLACKBIRD

Phil Stepney, Graduate Student, R.O.M., 100 Queen's Park, Toronto 5, has asked for help in documenting the range of the Brewer's Blackbird (*Euphagus cyanocephalus*) in Ontario. He writes:

"The data I require involves the location and date of the nest, number of eggs in it, height of nest above the ground, number of individuals in the area, the habitat-type the nest is in, the distance to the nearest tall, unobstructed observation perch or what could be used as one and the estimated distance to the nearest permanent body of water.

"By writing to me at the above address, a more complete version of the record form can be obtained for ease of recording and the recording of other less essential data.

"I would like to have the reports of the observations as soon as possible so that it will be possible for me to observe the birds in question. Also if anyone has any sightings from previous years, these would also be appreciated."

For the convenience of members, record forms can be obtained from Mrs. Robson at the May meeting.

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A warm welcome is extended to the following new members:

Mr. Derek Boles	Mr. Frank Krause
Mr. O. V. Boynton	Miss Maria Leschaloupe
Mr. Walter J. Councill	Mr. John Mackenzie
Mrs. G. Dorbin	Mr. & Mrs. C. E. Moolenburgh
Miss Rosemary Forbes	Mrs. E. R. Munro & Miss Elen Munro
Mrs. T. Gilbert	Mr. & Mrs. Wm. G. Murray
Miss Sharon Girling	Mrs. E. M. Pounds
Mr. & Mrs. Wesley S. Hancock	Miss L. Quack
Mr. I. K. Harrop	Mr. & Mrs. E. Sawatzky
Mr. & Mrs. Alfred J. Hobberlin	Mr. & Mrs. C. J. Stanwick
Mr. & Mrs. Thomas R. Howard	Mr. & Mrs. Keith Taylor
Mr. J. A. Kelley	Mr. H. Tupholme
	Mr. V. H. Whillier

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THE GIANT PUFFBALL (*Lycoperdon Giganteum*)

.... produces 7,000,000,000,000 spores each of which could grow into a puffball a foot in diameter and which collectively could cover an area of 280,000 sq. miles - greater than the size of Texas! Fortunately only one of the spores actually becomes a puffball, the others all die.

THE HEAVENS ABOVE - MAY TO SEPTEMBER

MAY

- May 1st Sun rises 5.11 E.S.T. Sun sets 7.21 E.S.T.
5th New Moon
5th Aquarid meteors - 20 per hour
6th Venus 6° N. of Aldebaran. It is an evening star prominent in the west after sunset and setting north of the west point two hours or more after sunset.
13th First Quarter
18th Jupiter 6° N. of moon. In Virgo, it is well up in the southeast at sunset and sets before sunrise.
20th Full moon
21st Mercury stationary. It is too close to the sun for observation.
27th Last quarter.

JUNE

- June 2nd Sun rises 4.37 E.S.T. Sun sets 7.54 E.S.T.
3rd New Moon
4th Mercury greatest along.W. 24° . It will be difficult to see - only 10° above eastern horizon at sunrise.
11th First Quarter
15th Jupiter 6° N. of moon. In Virgo near Spica it is nearly to the meridian at sunset and sets about an hour after midnight.
19th Full Moon.
21st Solstice. Summer begins.
23rd Jupiter stationary.
25th Last quarter.

JULY

- July 2nd Sun rises 4.39 E.S.T. Sun sets 8.05 E.S.T.
3rd New Moon
4th Earth at Aphelion
6th Mercury in superior conjunction. Still too close to the sun all month for observation.
11th Venus 1.1° N. of Regulus. Passing close to Regulus it is prominent in the western sky from about two hours after sunset.
11th First quarter.
18th Full Moon
25th Last Quarter
26th Saturn 8° S. of moon. In Aries it rises about four hours before the sun.
29th Aquarid meteors. 20 per hour.

AUGUST

- Aug. 1st Sun rises 5.05 E.S.T. Sun sets 7.43 E.S.T.
2nd New Moon
2nd Mars in conjunction with sun.
5th Mercury at descending node - still too difficult to see.
10th First quarter
12th Perseid meteors. 50 per hour
15th Saturn at quadrature W. Moving into Taurus it rises about midnight.
16th Full moon. Partial eclipse of moon.
23rd Last quarter
31st Venus 0.2° S. of Spica.
31st New Moon. (Eclipse of Sun but only visible in the South Pacific Ocean.)

SEPTEMBER

- Sept. 1st Venus greatest elong. E. 46° . It is now becoming much brighter.
2nd Sun rises 5.41 E.S.T. Sun sets 6.53 E.S.T.
8th First quarter
15th Full Moon. Harvest Moon.
22nd Last Quarter.
23rd Equinox. At 5.59 E.S.T. the sun crosses the equator moving south enters the sign Libra and autumn commences.
28th Mercury greatest elong. W. 18° . For about 5 mornings before and after this date it should be possible to see it low in the east just before sunrise.
30th New Moon.

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May I take this opportunity to thank all of you who have sent in material for the Newsletter and also to those of you who have 'phoned or written to me. Also to Elmer Talvila for his encouragement and to Hattie Beeton who has guided me in the workings of this publication.

I have been asked to remind you to watch out for those pop-cans and disposable bottles (don't buy them); beware of your detergent (make sure it's low in phosphate); keep an eye open for the Pollution Probe's 'ban cars downtown' day (support it); be concerned about the Spadina Expressway (write to the Metro Chairman); demand action re: pollution (write to your M.P.); watch out for the wildflowers (don't pick 'em).

If you have time after doing, or not doing, all the above, have a very happy holiday. Perhaps we will meet at some of the various outings. In any event, drop me a line and tell me what you have been up to this summer. The next issue of the Newsletter will be going to press September 1st.

Sincerely,

Margaret A. Jeffery,
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