

THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol. 1 No. 1

January 1995

The Christmas Count

Dick Ryan, who has compiled Christmas Counts since the '50's, remembers reading about the very first Christmas Count. The purpose was to wean sportsmen away from killing birds at Christmas into counting and reporting them. Folks went to Central Park and Princeton in 1899, then urged others to do likewise and tabulate. The new bloodless blood sport caught on with rugged individualists among the bird watchers.

The first national count was held Christmas Day, 1900 and 25 reports were published in the January 1901 issue of *Bird Lore*. Central Park was tenth on the list and Charles Rogers reported 12 herring gulls, a downy, 4 starlings, "abundant" white-throated sparrows, 2 song sparrows and a robin. A year later Charles Rogers, Clinton Abbott and George Hix each made a report for Central Park. Hix went early. He saw 4 species of which 1000 were herring gulls and 51 were starlings. Charles Rogers came next when it was damp and overcast. He saw the gulls, about 100 white-throats and a golden-crowned kinglet. He also reported seeing 3 bluebirds on Dec. 15. Clinton Abbott arrived late morning to count birds in light rain and south winds. His report added fox sparrow, cardinal and brown creeper to the park list and a total of 10 species. Abbott, Rogers and Isaac Bildersee each made reports the following year. Abbott and Bildersee counted birds on Christmas Day in snow and sleet with snow on the ground. The wily Rogers went a day early. He spent four hours under cloudy skies on bare ground and was rewarded with a **chaffinch**, which with all those starlings, was imported from England.

Seven people made six reports for the fifth census in the park. It was cold and one of them reported 4 inches of snow on the ground. All of them saw the black-capped chickadee, most saw the hairy woodpecker and two saw the hermit thrush. There were single reports of junco, red-shouldered hawk and American crow. Isaac Bildersee was high man with 13 species of birds. The following Christmas four people made three counts of the park. George Hix came early and censused the north end of the park. He broke for church and/or lunch returning to cover the Ramble in the afternoon. His find of the day was **European goldfinch**. Hix listed 2000 herring gulls. Rogers reported 1400 gulls two hours later. Abbott and Maunsell Crosby in their joint report declared 775 herring gulls, a huge population decline in just a few hours.

The weather for the seventh count was cloudy, windy and cold. Rogers and Hix covered the park, but not together. Each of them saw 14 species including red-tailed hawk, red-breasted nuthatch and purple grackle. On Dec. 23 Abbott and R. E. Stackpole saw a **chaffinch** and a grackle. Mortimer Leonard reported the grackle on Dec. 26 but missed the exotic. The following Christmas it was a balmy 50 degrees and cloudy when Abbott and Hix came to count. Hix censused early and late and was rewarded with a brown thrasher and 5 cardinals.

Three people made reports for the ninth count on Dec. 24, 25, and 26. Anne Crolius began. She saw 16 species including American goldfinch, towhee, and Carolina wren. Hix reported the wren. Rogers saw the goldfinch and 11 golden-crowned kinglets.

Farther east during that count *all* the birds were exotic except the wren. That's because the reports came from Cambridge and Winchester, England. Imagine seeing fieldfare, skylark, linnnet, bullfinch, rook, jackdaw, yellow bunting, corn bunting and five-and-twenty blackbirds for Christmas!

Back in Central Park Anne Crolius returned for the tenth count. She reported a high total of 16 species including winter wren, brown thrasher, sharp-shinned hawk, goldfinch, and best of all, Baltimore oriole (male). It was freezing and beginning to snow as she left the park. When the storm had passed, 10 to 12 inches of snow covered the ground. Hix and Rogers reported seeing the wren and the oriole which had been hanging around for several weeks, Rogers saw a horned grebe "the first record" and a woodcock.

No one came to census birds in Central Park for two years. Crolius and Rogers never returned and Hix stayed away for a decade. John Kuser made the 13th count on Dec. 26 shortly before sundown in 6 inches of snow. He saw 4 species and only 4 or 5 individuals but he thought one of them was a pigeon hawk (merlin) which must have gladdened his heart. He returned a year later for an hour in the morning and reported a rusty blackbird and white-throated sparrows. Earlier that day Mr. and Mrs. G. Clyde Fisher and J. C. Wily went to the park together. They missed the rusty and white-throats but saw downy woodpeckers and a robin. The Fishers returned two years later to see 8 species, 110 individuals.

For the 17th count during World War I, an all-woman team reported Central Park birds, perhaps for male relatives in the war. Mrs. Fisher, Ruth Fisher and Farida Wily saw 10 species and 631 individuals, including 13 chickadees, but not the brown-capped ones that were thrilling local birders. George Hix returned for the 20th count. He spent two hours in the morning reporting 5 species, 7 individuals. He did not return after lunch but subways north to see vesper sparrows somewhere else. That same day Bernard Tread persevered. Living up to his name, he walked the entire park from 59th to 110th St. He reported 9 species, and 132 individuals, including a sparrow hawk (American kestrel) and 112 starlings.

Central Park lay deserted, neglected and unreported throughout the roaring '20's. But on December 24, 1929, Walter Sedwitz spent two hours there for the 30th Christmas Count. The morning was cold and there was snow on the ground. He saw just 6 species of birds, 53 individuals. But one of these birds was an American tree sparrow, which could certainly take one's mind off the stock market.

Allan Cruickshank graced the park for the 31st Christmas Count. He started at 10 A.M. at 110th St., walked to 72nd and returned by 1:30 P.M. The temperature was above freezing but it was dark with "heavy, sticky snow falling" blown by northwest winds. Despite the weather he saw 143 herring gulls, 5 black ducks, 7 pheasants (1 cock), 1 sparrow hawk, 114 starlings, 2 tree sparrows, 1 junco, 21 song sparrows (in two flocks) and 1 swamp sparrow. Also 241 English sparrows (house) for a total of 9 species and about 293 individuals. He discovered the covey of pheasants "nestled under some bushes at the northern end of the park". The sparrow hawk, swamp and song sparrows he found "in the old reservoir basin". The following year when Cruickshank returned it was dark and cloudy, changing to fair. The temperature rose from 52 to 62 degrees as he traced his route of the previous year. This time he saw red-winged blackbird, bronzed grackle and goldfinch for a total of 12 species, 701 individuals. Many of the day's birds were found in "the small unfilled section of the old reservoir". Geoffrey Carleton was also in the park that day. He saw 7 species including red-winged blackbird "in empty reservoir" and a chipping sparrow in the north end "observed at about 17 feet through 8-power glasses".

The 36th Christmas Count was compiled by Irv Canter. It was cold, clear and snow covered the ground. He spent five hours and saw mallard, 175 black duck, pintail, green-winged teal, 18 wood duck, pheasant, herring gull, rock dove "if they are included on census", hairy, downy, chickadee, starling, 355 house sparrows, junco and song sparrow for a total of 16 species, 943 individuals. The following year he deserted the park, went to the Bronx and with Cruickshank and some 15 others found 91 species, including, the first European widgeon.

During World War II Geoffrey Carleton reappeared in Central Park on Dec. 30, 1945 for the 46th annual bird count. He covered all the park, 8 miles in 8 hours on foot. The day was overcast with a south wind and temperatures in the 30's and 40's. Three inches of snow covered the ground and all the lakes were frozen over except the Reservoir. It was there he saw a common loon, an American golden-eye (common), 42 American mergansers (common), 3 great black-backed gulls, and 580 herring gulls. That day he also saw a duck hawk (peregrine falcon), 3 sparrow hawks (Am. kestrel), flicker, hairy, downies, jays, chickadees, white-breasted nuthatch, 93 white-throats, fox sparrows and 12 song sparrows for a total of 23 species, 1267 individuals. He adds that on the 23rd he saw 2 canvasbacks.

The following year, the Central Park count was merged with Inwood, Ft. Tryon, Riverside and Harlem River Speedway. Since that time our count has been subsumed in other counts called Manhattan, Manhattan and North Bergen, and more recently, Lower Hudson NY-NJ. It's a pity so many records have been lost, but a blessing, too, for reasons of space in this newsletter and the sanity of your editor.

On Sunday, Dec. 18, 1994 we completed the 95th National Audubon Christmas Bird Count in Central Park. The prediction for rain and sleet never materialized. The day was sunny and warm, and 45 people came to count all birds except starlings which are censored (not enough) at a roost.

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| pie-billed grebe 1 | saw-whet owl 1 | common grackle 128 |
| mute swan 3 | rock dove 1429 | northern cardinal 51 |
| Canada goose 4 | mourning dove 58 | house finch 274 |
| Am. black duck 13 | flicker 10 | American goldfinch 2 |
| mallard 522 | red-bellied woodpecker 30 | dark-eyed junco 32 |
| canvasback 7 | yellow-bellied sapsucker 8 | white-throated sparrow 255 |
| northern shoveler 94 | downy woodpecker 55 | fox sparrow 4 |
| wood duck 1 | blue jay 206 | song sparrow 8 |
| ruddy duck 51 | American crow 55 | swamp sparrow 1 |
| bufflehead 4 | black-capped chickadee 8 | Seen within count period |
| great black-backed gull 40 | tufted titmouse 36 | on December 16: |
| herring gull 412 | brown creeper 4 | catbird 1 |
| ring-billed gull 477 | Carolina wren 1 | hairy woodpecker (f) 1 |
| American kestrel 3 | ruby-crowned kinglet 7 | total species 50 |
| sharp-shinned hawk 1 | golden-crowned kinglet 5 | total individuals 5564 |
| red-tailed hawk 10 | American robin 28 | |
| red-shouldered 1 | hermit thrush 1 | |
| turkey vulture 2 | mockingbird 12 | |
| long-eared owl 1 | house sparrow 1206 | |
| | red-winged blackbird 2 | |

Studying bird lists from the early decades of this century, it is reassuring to see bird names that keep reappearing. It's also interesting to think about some of the population shifts that have taken place. For instance, did you notice that none of the early counts list a tufted titmouse? These birds moved north slowly and three appeared on a Manhattan area count in 1958. Another southern bird, the red-bellied woodpecker, first appeared in 1976. This year 30 were counted in the park. The house finch came from the west via pet stores. It was released here in the 1950's and began to multiply in the wilds of Long Island. In 1965 three appeared for the first time in our area count. This year 274 were counted in Central Park alone. Red-tailed hawks have returned to the park. The first in many years appeared in 1980. This year we counted 10, we think. The trick with high-flyers like the red-tail is not to count them over and over. All these birds represent population increases. Then there are the nuthatches. Their numbers declined in the '80's but seemed to be making a comeback. This year there were *none* on the count. We can only hope they are sitting out a mild early winter somewhere north of the city.

Comparing this year's count with early ones, you can see there's been a five-fold increase in the species of birds censused in Central Park. And 5566 individuals is a huge population of birds. Add to that about 1000 starlings not censused here and the number of living, bouncing, fluttering birds is truly awesome. Urban sprawl has made so many places unlivable that more and more birds squeeze into the park for all or part of the winter. The people counting birds have also changed. In the beginning half a dozen lone rangers came to the park on or near Christmas. Individualists all, they seem to have arrived any hour of any day and gone anywhere in the park. Now a group seven times that large assemble on a Sunday before Christmas. (Dec. 17, in '95.) We meet at the Reservoir at 8 A.M. (before the gulls depart), divide into 6 or 7 teams, and armed with maps and tally sheets, spread out over the park. Around noon we regather at the Loeb Boathouse to tabulate each of the sections for a grand total. Here birders learn the whereabouts of rare or unusual birds they can visit in the afternoon.

I like exotics so I usually add the 2 **Chinese geese** that live on 59th St. pond. They were born in the zoo, are handsome to look at, seem devoted to each other, and if they produce young we can *count* the goslings. One of this year's unusual birds not seen on a count for 20 years, was a long-eared owl. Mobbing jays led Tom Fiore and team to the bird resting in pines near lamppost 6119. A saw-whet owl has been wintering in mid-park and spent the count day in a hemlock at the top of Shakespeare Garden. At the north end 3 mute swans were seen floating in Harlem Meer. I told Dick Ryan I thought three mute swans and two species of owl were park count firsts. No, he said, Mrs. Messing saw swans and *three* owls on her counts. I searched the records for human names and found Pauline Messing. Sure enough she saw 3 mute swans in 1962. In 1963 the area owl records were hers. She saw barn, screech, and long-eared owls in Central Park.

On the afternoon of the 95th count people stayed to enjoy the sunshine and see good birds. That evening Tom Fiore called to add a hermit thrush, swamp sparrow, red-shouldered hawk and a turkey vulture. Helene Tetrault phoned to say they saw a pair of turkey vultures in the southwest part of the park. Finally Marty Sohmer made his report. "We saw 2 turkey vultures over a long-eared owl", he said. Now that *must* be a park first.

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Nature Notes from Central Park

Vol. 1 No. 2

February 1995

Winter Waterfowl Count

Every January the Federation of New York State Bird Clubs asks volunteers to go out and count waterfowl for a state-wide census. In Central Park the count consists almost entirely of ducks, most of them mallards. Some years the weather is bitter cold, but this year was warm and foggy.

When I met Jeff Nulle at Harlem Meer it was missing (a Jane Austin crossword of mist and drizzle). Our first sight was of 2 mute swans. They looked graceful as they glided but funny as they tipped up large bodies to search for food under water. We counted many mallards and one black duck before moving south. We counted more mallards and blacks at 100th St. Pool, then hiked to the Reservoir for a surprise. There in small parties were 220 ruddy ducks. We thought the fog brought them in; a stop on their way south. We also counted mallards and blacks and cross matings of mallards and blacks.

The crossbreeds look very odd in a variety of ways. The males wear green crowns but the green is missing from the rest of the head and neck. The breast is dark russet, the back feathers are light and look air-brushed. The tail feathers are dull tan or buff. Female crosses are darker than female mallards with dark gray heads and necks. Some of the speculum or wing patches looked violet and some blue to me. But look for yourself and see what you discover.

We were happy to see an American coot and a pied-billed grebe before leaving the Reservoir. As we walked through the grove of black locusts we heard red-bellied woodpeckers and met Tom Fiore. We looked over Turtle Pond but saw only 2 mallards squatting in the grass. We detoured to Shakespeare Garden and searched the hemlocks. No owls.

South of the Lower Lobe and Bank Rock Bridge Tom pointed out a female pheasant just stepping into the reeds. From Balcony Bridge we saw northern shovelers out in the Lake. They circled round and round swirling up a collective lunch. We moved to Ladies Pavilion for a closer look but wary shovelers stopped circling and streamed south. We counted 33, about a third of the number on the Christmas Count. Tom said good-bye and we went to the Lower Lobe to count mallards and 2 mallard-black crossbreeds.

It was a brisk hike to 59th St. Pond. Huge flocks of ducks were crowding round to be fed by two vagrants. Clustered in the water were 200 mallards, 12 black ducks, and 8 mallard x blacks. We watched a frisky bufflehead splash and dive exactly where it was seen on the Christmas Count. At our feet were a pair of wood ducks waiting for a handout. Andrea Evans who is an artist has said that if you invented a bird it would never wear all the colors of a wood duck. On the west side of the pond Jeff and I admired the Chinese geese. They were joined by a bird which looked like a mallard drake at the head but got bigger and whiter farther back on the body. It was a cross of a mallard and a Peking or domestic duck. Mallards are rapers.

Jeff had to leave. I moved northeast to Conservatory Waters. There I counted 50 mallards, one black, 2 mallard x black and no model boats. Our countable birds for the day were: 1 pied-billed grebe, 2 mute swans, 2 wood ducks, 16 American black ducks, 426 mallards, 12 mallard x blacks, 33 northern shovelers, 1 bufflehead, 220 ruddy duck and 1 American coot. Warm weather helps.

Owls and Evergreens

According to Dick Ryan, screech owls once lived in Central Park. Back in the '60's one nested half way down the Point My guess is that the nesting tree died. These days we are lucky to see long-eared and saw-whet owls. Long-eared owls are crow-sized birds named for the feathers that stick up like ear tufts on their heads. They sleep near the trunk of dark conifers, waiting for night.

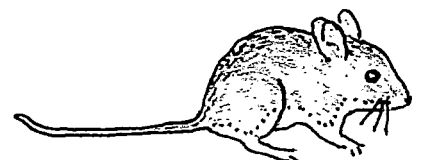
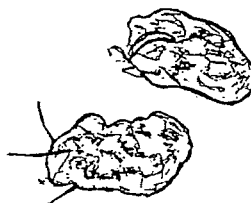
Saw-whet owls are smaller, weigh less, perch lower, and sleep more soundly through the day. They are named for a call we seldom hear and probably wouldn't recognize; the sound of a saw being sharpened on a whetstone. This small owl's head is "earless" and looks too large for its body. My sketch of it comes from a photograph taken by Howie Moskowitz. In life, photo and sketch the sleeping bird appears benign. But at night it opens yellow eyes to hunt for rodents.

When owls kill their prey they swallow it whole and head first. (Yum!) Then as they rest, they digest. Powerful juices dissolve all the useful food. The leftovers--fur, bones, teeth and feathers are compacted into pellets. The owl's sleep is disturbed. It's head and neck begin to pump. Pellets are pushed out of the stomach, up to the throat and out of the mouth. They fall to the ground or branches below.

On the Christmas Count I watched the saw-whet owl suddenly begin to retch. Susan Fischer and I searched the ground and branches of the owl's roost. We found two very wet pellets. I brought them home to dry and sketch. They are small, just over an inch, and lumpy. They have hairs that stick out of them and something that looks like a tail. To learn more about them I decided to call Nathaniel Burkins.

In 1990 when Nate Burkins was a Central Park Ranger, he collected 6 to 9 saw-whet owl pellets in a grove of pines high above Harlem Meer. He soaked them, separated the contents and used a mammal key to determine what the owl was eating. He took his samples to the mammal department of The American Museum of Natural History where his diagnosis was confirmed. The owl was eating white-footed mice *Peromyscus leucopus*. Nate was shown many skull specimens that looked just like his samples. Until this time no one knew there were white-footed mice in Central Park and they did not appear on any park census.

This February 10, Sharon Freedman found a whole white-footed mouse in the Ramble. It lay near the rustic bench that overlooks the Gill and Iron Bridge. When I called her a day later Sharon said there were no marks on the mouse and she thinks it probably froze to death. As we spoke she pulled it out of her refrigerator and examined it. It is a male, 6 and 1/4 inches long from nose to tail tip. The head and body are 3 inches long which means the tail is 3 and 1/4 inches. According to the mammal guides, the tail is usually shorter than head and body, but this little mouse didn't read a guide. It's ears are medium long, not round. The fur coat is tan, somewhat darker on the top, with a white belly and white up the legs. The feet, said Sharon, look rather pink. How nice that the park's smallest mammal was discovered in the last decade of this century.

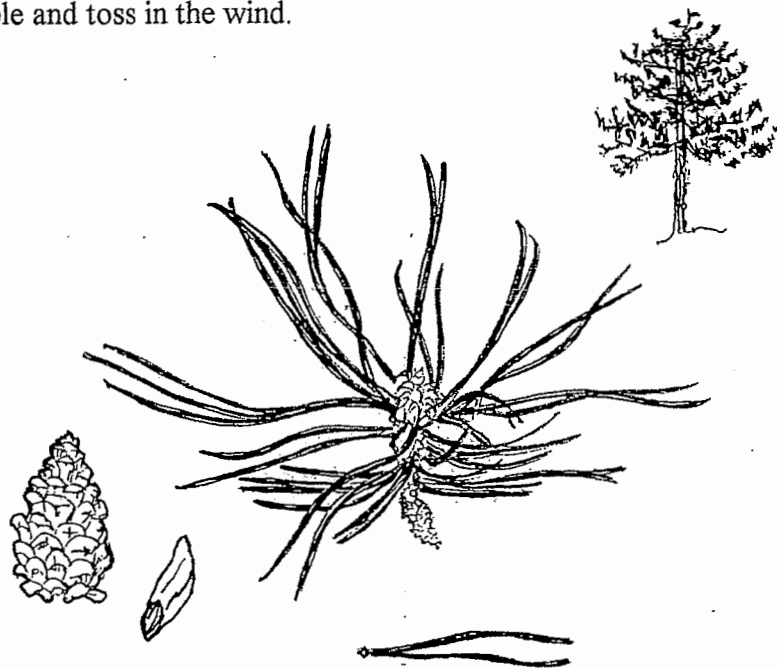




Dick Sichel got me into the habit of searching the evergreens of Central Park for owls. I don't think we discovered an owl without aid of mobbing jays or helpful birders. But we enjoyed the exercise. Even if they are owlless, evergreens are good to look at. Here are some to enjoy this month.

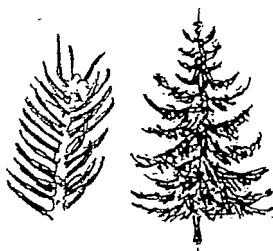
White pine *Pinus strobus* is the most common evergreen in the park. The long-eared owl on our Christmas Count was in one of these trees at Pine Bank Arch. The groups of pines around the arch are young trees. Their needles are 3 inches long and the slender cones are less than 4 inches. The white pines near Bowling Green are bigger and older. Their needles are 6 inches long and one of the cones I found in the snow under the tree was 8 inches long. Young or old the arrangement is the same; needles are attached to the branches in bundles of 5. The white pine is our only eastern tree with 5 needles to the bundle. The bundles are grouped in clusters that look like brushes for a drum set. But unlike steel brushes the needles are flexible and toss in the wind.

Austrian pine *Pinus nigra* grows stiff, coarse needles 3 to 6 inches long. They are arranged in 2-needle bundles that circle the branch. The cones are tight, round triangles only 2 to 4 inches long. The sample I brought home has opened since I sketched it and out slide winged fruits meant to blow away from the tree. Cone and tree tip come from the snowy hill just south of Loeb Boathouse. In 1981 a long-eared owl was photographed in these pines looking funny and fierce. Its photo made the front page of "The New York Times".



Eastern hemlock *Tsuga canadensis* has flexible branches which dance in the wind. Hemlock needles and cones are small, less than an inch long. The needles are attached singly and the cones dangle from branch tips like small brown bells. The tallest hemlock in Central Park stands beside a fenced walkway northeast of the Boathouse garden. I stood before this whispering tree one November day in 1975 and was dazzled as a flock of black-capped chickadees zipped into its boughs. With them was a brown-capped bird with bay-breast-pink flanks; the only boreal chickadee I've ever seen in Central Park.





North of Pilgrim statue near the East Drive is a handsome **Norway spruce** *Picea abies*. Its branches droop from the trunk then rise to the tips, making graceful scallops. The needles are stiff, attached singly, bend toward the tip, and seem thicker on top of the branch. The short, sharp-tipped needles spring back when you squeeze and release them. In the '80's Norway spruce were planted by a fence north of Dog Hill. They grew tall and thick and attracted long-eared owls.

Dog hill has been fenced, landscaped and named Cedar Hill. Norway spruce still stand at the base of the hill nearest Fifth Ave. Higher up the hill are redcedar and a cedar of Lebanon. Near East Drive there are still some Austrian and white pines. **Eastern redcedar** is also called **red juniper** and its scientific name is *Juniperus virginiana*. The leaves look like tiny triangles or green scales that overlap along the branch and tips. I took a sample from one at the south edge of Strawberry Fields near the 72nd transverse. White-throated sparrows were darting into it for protection from hard snow and bitter winds.



Nothing seems more sturdy and secure than an evergreen. But many of our trees are at risk. My hemlock sketch is thick at the top but mangy at the bottom. Look at hemlocks in the park and you will see needles and branches covered with white powdery fuzz. This fuzz is an insect, the **hemlock wooly adelgid**. They pierce the branches, suck out the sap and give back a toxin which eventually kills the tree. Hemlock wooly adelgid is killing trees all over the northeast.

Austrian pines which M.M. Graff has called "the most durable evergreen conifer in the park" have lost their durability. The culprit is **Diplodia tip blight**, which attacks 2 and 3-needle pines over North America. This fungus causes pine tips to die back, forms branch cankers, blights cones.

Neil Calvanese is Deputy Chief of Operations for Central Park and specializes in horticulture. His crews check the lower branches of Austrian pines for tip blight. Diseased branches are cut right back to the trunk to retard the spread. Hemlocks are more problematical because they are sprayed. Frequent spraying is not possible because of the many birds that visit hemlocks throughout the year. In spring when the forsythias bloom "there is a small window of opportunity", says Neil. The trees are sprayed with dormant oil which smothers insect pests. The spray is particularly effective against scale and is sprayed on lilacs, junipers, white pine, and hemlock. They follow up this spraying with a lighter summer oil for hard-hit trees. This oil also smothers insects. And what of our tallest hemlock? Neil says it should have received frequent spraying. But that would mean oiling the feathers, feet and bills of the birds that dart in and out of it. The tree will be dead in a year or so

On a less gloomy note, Nick Wagerik and Norma Collin report a pheasant, swamp sparrow and rusty blackbird for February. Stand at Balcony Bridge with your back to runners and skaters on the West Drive. Look into the water and reeds at the edge of the Lake. Farther east in the Oven (the big brush pile between the Point and Willow Rock) is a woodcock. Frank Chapman once shot a saw-whet owl because it looked exactly like a woodcock in flight. That won't be your problem with binoculars. Happy hunting.

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Messengers On March Winds

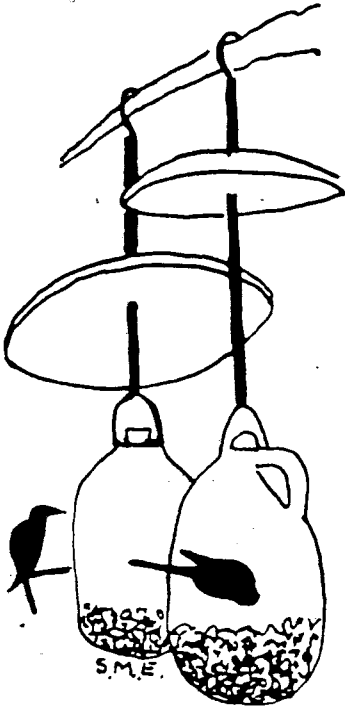
From the ides to the end of March you can see new faces in the park. Robins and redwings, those harbingers of spring are increasing in numbers all over the park. Even so, the feeders around the Azalea Pond are still the best place to see birds. There you can hear half a dozen redwings proclaim self to each other. As they click and screech "con-gar-eee" you can separate individual voices. Their calls vary in pitch and gruffness.

Underneath the feeders juncos work the ground for seed. They flick their tails with each hop and fast as a wink, flash their white panels. I found larger flocks in the Evodia Field and listened with pleasure to their high tinkling call. Downy and red-bellied woodpeckers giggle and chortle from high trees but are wary, active, and silent at the suet feeders. If your timing is right, you will see American goldfinch at the niger thistleseed stockings. Their dull winter coats are beginning to turn yellow around the bill and above the black wing. Now they are low enough to see well. In May they will be high in the elms eating seeds and you will have to lie down for a pleasant view.

Any time now you should see brown creepers, red-breasted and white-breasted nuthatches pecking grubs from tree trunks and branches. And March is a great time to see sparrows. You will see more and more white-throats and flocks of song sparrows. But the one to gladden the ear and eye is the fox, our biggest sparrow. There are six subspecies of fox sparrow in North America but the one we see here is the most beautiful. Like the others, it wears large spots on its breast. Unlike the others, perfectly balanced shades of gray and rust cover head, neck, back and tail..

The ruby-crowned kinglet which has wintered at a suet feeder should be surrounded by golden-crowned kinglets by the time you get this newsletter. This male ruby flashes red when excited. But the goldens, both kings and queens, wear their crowns at all times. Kinglets seem concerned about bugs but not about people so you can get close looks as they flutter after food.

Look up and you might see a hawk. Kestrels are being seen over the park and Joe Fiore says a pair are at 80th St. and Broadway by Zabar's. A cooper's hawk patrols the Ramble, turning little birds still and silent. Out on Fifth Ave. facing the Hans Christian Anderson statue, a pair of red-tailed hawks are building this year's nest in last year's



location. Birders tell me it is the same male with a new female. Perhaps this new pairing will bring forth young.

At the Reservoir and Lake you should see migrating ducks; bufflehead, hooded merganser, scaup, ruddy, wood and shoveler have been reported. Also a pied-billed grebe. Mute swans, perhaps the three here for the Christmas count, now spend their time in the Lake. They all accept handouts from humans. One swan feeder told me he gives peanuts. Another says they rejected his matzos but thinks it was the garlic. If two of the swans are a mated pair they are telling junior to get lost. He is on his own.

On the last two days of the month check the woods for a first warbler scout. As you walk about think PINE....PALM....YELLOW-RUMP! You may summon one up.

In March smaller wings also take to the air. Usually between March 13 and 21 (or not until month's end after a bitter winter) a large butterfly suddenly appears before us to flutter in thin sunshine. The mourning cloak *Nymphalis antiopa* is also found in England where Brits call it the Camberwell beauty. Their *Nymphalis antiopa* summers in Europe and flies south to Africa. A new generation fly north with the spring and reach Britain in June. Our North American butterfly migrates between Mexico and Canada. But some winter over. In fall, they crawl deep into a tree crevice to sleep through winter's bite.

After hibernation this butterfly emerges and flies to hilly and lightly wooded places to mate. The female lays her eggs in trees and hatching caterpillars will feed on willow, elm and poplar twigs later this spring. If you see a mourning cloak sunning itself on a twig, the wings may look as black as the mournful garments of death. In fact, they are deep chocolate brown. The edges are dotted with light blue beads and trimmed with pale yellow. Some cloak! Some beauty.

If the third week of March is the usual time to see mourning cloaks, Nick Wagerik is the usual person to see them. He calls them last year's leftovers but that's indifference. This year I went to the park on March 13 (thinking I was perhaps a day early) and discovered that Nick and Michael Bonifanti saw 4 of them that morning. I encountered Michael watching the cooper's hawk eating a pigeon. I said hello and good-bye to the people photographing this event and Michael led me to the place of butterflies.

Sure enough it was a hilly thin forest just south of the weather station. Michael said they saw 2 of the 4 mourning cloaks mating. I felt quite glum to miss this rite of spring and even glummer to see no butterflies whatsoever.

But then I heard a phoebe call. The bird landed in front of us in a tangle of bare branches, showing his back. Suddenly he leapt into the air for an invisible bug and returned to the branch. With radiant smile, Michael shook my hand for our first spring phoebe. This scout will be joined by many others as part of the early group. A second group will arrive later this spring.





March Blooms

My friend Mary Doherty drives to work through Central Park every morning. On February 1, she was startled to see snowdrops in a small meadow north of the 100th St. Pool near the West Drive. She looked again the next day. Yes.

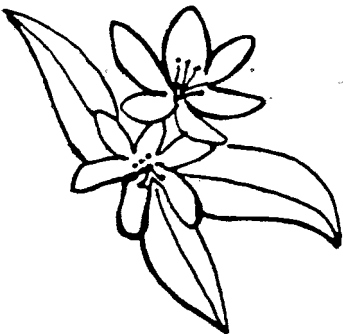
Snowdrops. That weekend it snowed and Mary assumed the flowers died. But no. Half a month later they were thriving. They were still blooming when I sketched them March 12 though there were only a few flowers left.

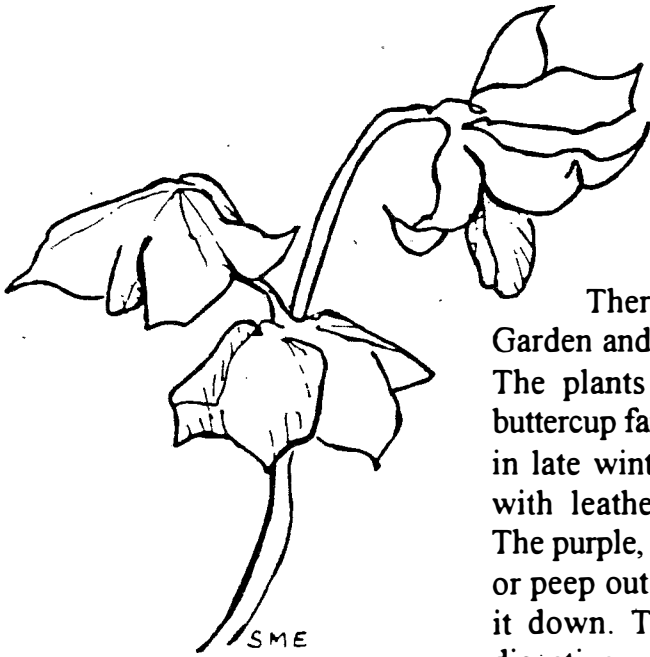
Snowdrops are well named for their season of growth and the ground cover they pierce. They are members of the amaryllis family (as are daffodils) and grow from bulbs. Their leaves are smooth and flat. Single white bell shaped blossoms droop from erect stalks. There are many varieties of snowdrop with wide or narrow leaves, green markings or yellow wash. I think the ones I sketched are common snowdrops or *Galanthus nivalus*. Several birders told me of snowdrops in Strawberry Fields. They may be the same variety but they bloomed later and look slightly different. Three long petals are separated by three short ones with green tips that curl under the flower. The petals of the flower center are green, ruffled, and tightly packed. These green petals are white tipped and the center looks like a tiny cabbage dipped in yogurt.

Between the snowdrop meadow and 100th St. Pool there is another small meadow dotted with yellow crocus. The flowers have six upright petals and the plant has grasslike leaves. They come in other colors and I sketched beautiful white ones behind the statue of Hans Christian Andersen. They were protected by a layer of dead leaves. In Shakespeare Garden I saw gorgeous purple ones and bumped into Chris Seita who works there. She told me park animals are very fond of crocuses. Rabbits and groundhogs eat the tops in spring and squirrels dig up the bulbs in fall to hide them somewhere else. The following spring Chris finds crocuses have migrated to new and surprising locations.



I asked Chris about the plants under the mulberry tree. When I first sketched them only the flowers had escaped the earth. Later leaves and stalks appeared. Chris called them **Lebanon squill** or *Pushkinia scilloides*. Squill have shiny smooth leaves and star-shaped flowers four to six on the stalk. Their blue-white flowers look ultraviolet and probably are to any passing bee. I counted over 100 bees moving from flower to flower.





I called Barbara Stonecipher and we talked of squill. Wonderful woman, she gleaned eight encyclopedias and bulb books and sent me what there is to know. Lebanon or striped squill is a native of Asia and the Middle East. *Pushkinia scilloides* is named for Count A. A. Mussin-Puschkin (not the Russian poet who has no *c* in his name) and is related to *scilla* (which does). Squill grow 4 inches high.

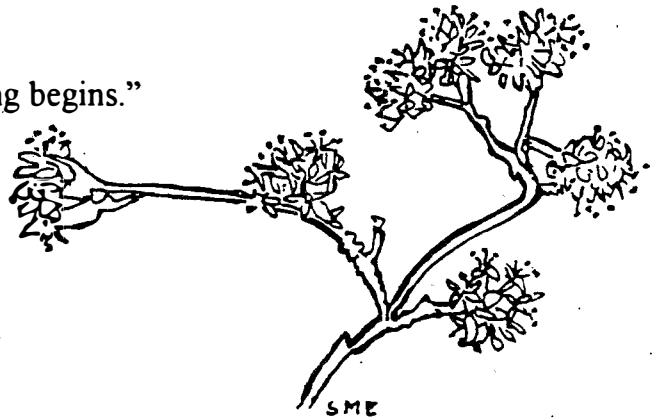
There are strange, large, spring blooms at Shakespeare Garden and Henshead, the greenery near the Ladies Pavillion. The plants are called **Lenten rose** but are members of the buttercup family. The Lenten rose *Helleborus orientalis* blooms in late winter and early spring. It grows a foot and a half high with leathery green leaves.

The purple, pink or white bowl-shaped flowers face the ground or peep out shyly. If anyone offers you Lenten rose soup, turn it down. The meal will make your heart race and give you digestive upset. The bulb has been considered poisonous since the Greeks and Romans tried it out on each other.

One of the few shrubs in Central Park I hear birders call by its scientific name is *Cornus mas*. The common names are **cornelian cherry** and **Eurasian dogwood**. Right now the winter-bare branches of this small tree are covered with bunches of tiny yellow flowers. They look like tufts or tiny bouquets. When the flowers fade leaves will appear. In fall olive shaped fruits turn scarlet then deep red. Some people gather them to make jelly. You can find this tree all over the park. Their feathery finery lines Fifth Ave. and Central Park West, becoming a clamor of color around the Tavern on the Green. But since you are visiting Hans Andersen for the hawks and the crocuses, look around you and you will see this dogwood's fuzzy blooms.

Swinburne wrote, "Blossom by blossom the spring begins."
(In Central Park the robin sings!)

I will lead a spring walk April 1 (rain/snow date April 2). Please call 212-689-2763 to join; come to the Boathouse at 10 AM. with \$7 exact. If you like, bring a friend. Spring classes begin Sunday April 23 and Wednesday April 26. To register, send me a \$35 check and call for details.



THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol. 1 No. 4

April 1995

Many Happy Returns

"April is the cruelest month", as that other Eliot wrote, mixing computer chaos with tax returns. For most of this month I have toiled and moiled at my desk rather than skipping through Central Park to lift my spirits and prepare your newsletter. It's an example of first things last.

On April Fool's Day a group of us tramped through the Ramble looking for 33 parrots. We did not see them. But we did see a monarch butterfly basking on a rock, a rusty blackbird and thanks to Marcia Lowe, a pine warbler. All these delights were at the Oven or around the Willow Rock. The pine came back later for a bath. We had long looks at a very ruffled bird. The feathers on his head fluffed out in all directions which made me think he'd not only had a bath but an express flight with tail winds to get here. It's not easy being a scout.

By April 7, lots of birds had returned. We saw 2 Louisiana waterthrush, one with a tail and one without. Both did their little rhumba at the waterside but I thought the stubby one had less bounce to the ounce. Balance must be a problem while you grow a new tail. That day I also saw 6 winter wrens, 10 hermit thrush, and 6 palm warblers bugging high in bare trees near the Lower Lobe.

April 18 was my third treat of the month. I saw many bird watchers and birds. A phoebe, pine and palm warbler were flipping about just south of the Summer House. In willows along Warbler Walk we saw a ruby-crowned kinglet and a yellow-rumped warbler. At the Indian Cave there was a winter wren in the rocks and hermit thrushes were everywhere. As Herb Baden noted, one hermit wore dark chest spots big enough for a wood thrush. We wondered if it was a cross-breed. I have never read that thrushes can interbreed, but then, neither have thrushes.

The big news of the day was that the swans have decided to stay. I was taken to Bow Bridge where we peered into the phragmites. She's on the nest, I was told and he's guarding the water nearby. This nesting is not a park first. Joe Richner remembers that when he was a child (about 1927) he played in peddle boats at the 59th St. Pond. Once while splashing through water he crowded swans at their nest. Out lunged a swan and struck him with its wings. Joe backed off.



In 1990, I saw a mute swans at a nest in Massachusetts. It was a huge pile of reeds rising out of the water. Mrs Mute was completing the rim of her nest and Mr. Mute was handing up pieces of nest material to her. This nest was totally exposed, placed near the shore and a grade school. Imagine how much teaching it took to prevent young swan watchers from attacking the birds at their nest.

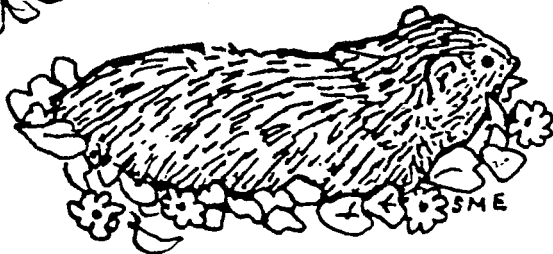
Hal Harrison writes the nest can be 5 to 6 and ½ feet across, and 20 inches high. But the inner cavity is only about a foot and a half wide; enough to hold 5 to 12 gray to green-blue eggs. Young females lay fewer eggs, older females lay 9 to 12. Half the cygnets may survive their first year. The nest is made of roots and reeds, lined with fine grass and some feathers. Our swans have tried to conceal their nest deep inside the phragmites which hides them and was used to make the nest. It cannot be seen from the bridge but you can see her if you stand on the west shore of the Lake. That is what Howie Moskowitz did and my sketch is a composite of his photos. The swans can also be harassed and poked from that direction by joyful warriors in rowboats armed with oars. Perhaps we could get a notice put up at the rowboat concession with a warning and fine. These biggest birds to come to our park deserve our protection.

Mute swans are Eurasian and according to John Bull were imported to parks in the Hudson Valley (1910) and Long Island (1912). Some of them went wild, spread over the northeast coast and have been seen as far inland as Michigan. They are not entirely mute. When provoked they hiss. Adults grunt to each other and hungry cygnets are noisier. Listen hard if you see one fly by. Their wingbeats are supposed to "sing". Adults can be five feet long, a lot of it neck. The wingspread is an awesome 8 feet. Mutes wear white feathers and have black legs and feet. The bill is orange topped with a black knob and black eye mask. His knob is bigger during mating season. The bills point down and the birds raise and fan their secondary wing feathers. Let's hope you get a chance to see what the cygnets look like. They should hatch by mid-May and we could see them following their parents about in June.

The other exciting news is that the red-tailed hawks are successful. On April 23 we watched a hawk arrive at the Fifth Ave. nest with dangle-down food. She landed and bent over to ram the meal deep inside. Birders tell me they have seen mice being carried to the nest and say that this has been happening since April 20. All sorts of people line the benches and watch the male fly through clouds of pigeons. These New Yorkers gladly tell you the latest news and look about as jaded as little kids.

Salad Days and Secret Gardens

One morning as I was leading a group of birders to Indian Cave we were lucky enough to surprise a woodchuck down in a carpet of green leaves and yellow flowers. The animal was munching celandine salad. Lesser celandine *Ranunculus ficaria* has glossy green heart-shaped leaves and shiny eight-petaled flowers that look like big buttercups. That's not surprising as it belongs to the buttercup family. Flowers and leaves come one to the stalk and the plant is arranged in a clump. Small tubers around the roots spread out and grow into new plants. Soon the clumps become a carpet. Wordsworth and sister loved this flower and it is engraved on his tombstone. Woodchucks love it too. The plants were so tasty our woodchuck was slow to move off out of harm's way. (Sketch from photo by H. Moskowitz.)



At 2 feet, woodchucks or groundhogs are the largest member of the squirrel family. Their bodies are compact and heavy like a tank, and they amble along on short powerful legs. They wear claws on 4-toed front feet and 5-toed hind feet, the better to dig with. They have flat skulls, small ears and a short tail. The coat is grizzled gray. After a long winter's nap they are ravenous for spring greens. Later they will run into rock crevices to get away from human predators.

It seems as if woodchucks have always lived in Central Park but that's not so. The first birder to notice the animal wrote "woodchuck" in the bird book on July 25, 1979. "Woodcock?" quarried some kindly soul. "No! A WOOD CHUCK!" was the snappy answer. About the same time, more woodchucks were seen and bird watchers began reporting raccoons as well. Some suburbanite, tired of property pests but unwilling to kill, must have trapped them and brought them to Central Park. Both mammals have reproduced (if not exactly multiplied) and are still here 16 years later.

The woodchuck in celandine was later seen running around Indian Cave picking up litter. Newspapers, plastic bags, dirty clothes, and wet cardboard were grabbed in the mouth and dragged along the ground to an opening in the rocks. The animal kept a wary eye out for us but continued trundling odd treasures into the den. Later that summer she reappeared with young. The litter was nesting material and judging by her haste it must have been a near thing.

Woodchucks mate in March or April. After about a month's gestation, 2 to 4 young are born in April or May. They are tiny, blind, naked and helpless but settle right down to suckling and growing. They are weaned in late June or July and follow their mother out into the world for adult food. If you are around this summer you may get to see woodchuck families near the 79th Street Yard at the West Drive or at Hallett Sanctuary near 59th St. You may even see 59th St. Phil (so named by Beth Bergman) who ambles along near the benches of lunchtime picnickers looking for handouts. This creature rejects bread but accepts other offerings, probably sprouts or greens.

Woodchucks also eat peanuts. One day about a decade ago Lambert Pohner and I were walking out of the Ramble when we saw a man tossing unshelled peanuts to a woodchuck near large rocks. "Squirrel," said the man proudly. "No. Woodchuck." Lambert said firmly. They repeated these words several times. The man looked doubtful, then anxious. He had little English but eventually he understood the correct name for the animal he fed every day. He was pleased to learn from Lambert's gestures that his pet was *larger* than a squirrel. The man's aim was as poor as the animal's vision. Some of the peanuts hit the woodchuck on the nose and bounced away. It would sniff around, find the peanut and sit up. Supporting each treasure palms up, claws curled, the woodchuck chewed peanut shell and all. It munched from left to right, always facing its benefactor. That was the day I realized woodchucks hold their peanuts like flutes and eat them like corn on the cob. Squirrels hold their peanuts like clarinets and eat from the top down.

Deep in the Ramble at the southeast corner of the Swampy Pin Oak there are lesser celandine close to the sidewalk. Behind and south of them is a large healthy patch of trout lilies or *Erythronium americanum*. Single bell-shaped yellow flowers nod on slender stalks just a few inches high. Each large flower has six backward curving petals that look like a lily or perhaps a jester's cap. Six red stamen (male parts) grow from the center. The flowers are flanked by glossy green leaves mottled with dark purple. The blotches are stretched horizontally across the leaf surface. The underside is solidly green with veins running vertically from a very short stem to the pointed tip. On April 26 most of the flowers were gone. The leaves are pale green. Dark spots have been replaced by white patches. Descriptions vary in the windflower books and no wonder. This plant is a master of disguise!



When I first saw these trout lilies, the patch was small. Now deep-seeded bulbs have spread the patch at least four times that size. I have been told it blooms when the trout begin to run in the rivers, hence the name. There are a number of British names for *Erythronium* such as adder's-tongue and dogtooth violet but they don't describe this American flower.

Hard on the heels of last month's squill at Shakespeare Garden I found more squill at the Ladies Pavilion. I also found some electric blue *Scilla sibirica*. Siberian scilla have such brilliant flowers little children want to pick them. I saw one child crouched beside a patch on the sloping lawn north of the Upper Lobe. She had obviously been told 'don't pick' but was yearning palpably and was about to succumb to temptation when we joined her. We admired the flowers together and then I moved off to another patch where I could swipe samples for this newsletter.

Except for the difference in color the flowers of scilla and squill look similar. They both leave the earth flower-first like people buried alive up to the face. That may be Mother Nature's way of seeing they are pollinated by early insects before risking the rest of the plant to late frost. The scilla I saw were half the size of the squill with fewer flowers on the stem. Both plants had smooth leaves half an inch wide or more. Squill leaves end with round points that curl over backwards. Scilla leaves are upright with pinched tips like a tulip.

More blue flowers dot the slope just north of the Boathouse parking lot. There's a spreading carpet of dead nettle *Lamium purpureum*, a mint that is also flourishing between the Castle and the Weather Station. Heart-shaped leaves circle the plant's square stem and overlap each other. The flower spike consists of whirled blue-purple blossoms that look like tiny orchids. I brought home a sample to sketch but taxing times delayed me and my sample turned moldy. However, dead nettle will be around until October so there is plenty of time to see and sketch them. Violets also speckle the parking lot slope with blue. Some are deep purple-blue and others are white with blue streaks radiating out from the center. Violets thrive in our park and you should be able to see them in every area. Butterflies are supposed to lay their eggs on this plant. In summer I see tooth holes in the leaves but have never seen a butterfly in the act. If you do, please let me know!

The Eurasian dogwood which yellowed the park last month keeps its flowers. But now each fuzzy cluster has turned a lime green to match the emerging leaves. This month's yellow shrubs are forsythia. Four-petaled horn-shaped flowers dot each long bare stem of the bush. I particularly enjoy the forsythias just east of Central Park West on the 81st St. Transverse. Seen from a bus their glory is captured sunshine that could revive dead-soul commuters if only they would look. This season of new life is our reprieve.



THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol.1 No. 5

May 1995

Cornucopia

On May 12, I awoke early to see the streets paved with rain. The New York Times forecast "low clouds, fog, and patchy drizzle". It would remain "gloomy and cool", a good reason to go back to bed. But it was the day to lead a walk for the Linnaean Society so we were out in it watching a Northern waterthrush far from the water. In the Ramble birds filled the tree tops chasing bugs. The light was so dim we were tantalized by swarming silhouettes. Frustrating! Later and at lower altitude, limited sunshine made color identification possible. Common yellowthroats were high in trees, a worm-eating warbler worked the base of a bush, catbirds and thrushes carpeted the ground. At midday the volume of birds was undiminished. In afternoon heat and brightness, they were everywhere. By day's end I had seen between 10 and 15 Blackburnian warblers; a record. I decided to leave by 72 St and Fifth Ave, passing some trees north of Pilgrim statue near the crosswalk on the East Drive. It was an area of former golden-winged warblers. There at eye-level was a warbler with a yellow cap, off-white wingbars, gray breast and black line through the eyes. The cap seemed small, more like a visor, the wingbars yellowish, the belly without a yellow spot, and the mask like two diamonds on a string. It did not sing. I decided it was a Brewster's all right, but a female. The first female I've seen. What a spectacular way to end a spectacular day!

Tom Fiore and Dawn Hannay covered the park and interviewed other birders. He was most surprised by a whimbrel flying over. He reported that Bob Baines saw 10 Eastern kingbirds in one tree and John Suggs saw 25 bobolinks in another. There were black-billed cuckoo, ruby-throated hummingbird, belted kingfisher, 5 great-crested flycatchers, 20 rough-winged swallows and over 100 barn swallows. Plenty of thrushes and mimic thrushes were about; 30 wood, 50 Swainson's, 40 veery, 3 brown thrashers, 2 mockingbirds and 200 catbirds. Birders saw several flocks of cedar waxwings, a white-eyed vireo, 8 red-eyed, 4 yellow-throated, 5 solitary and 5 warbling.

Tom reported 29 species of warblers plus 2 subspecies. They included 30 black and white, 2 prothonotary, several worm-eating, 10 blue-winged, 1 golden-winged, several Tennessee, 8 Nashville, 25 parula, 12 yellow, 30 magnolia, 3 Cape May, 25 black-throated blue, 20 black-throated green, 200 yellow-rumped, 10 Blackburnian, 8 chestnut-sided, 8 bay-breasted, 15 blackpoll, 6 prairie, several palm, 1 Kentucky, 30 common yellowthroat, 1 yellow-breasted chat, 1 hooded, some Wilson's, 12 Canada, 80 American redstart, 50 ovenbird, 20 Northern waterthrush, plus 1 Lawrence's and 1 Brewster's. Among the bigger birds there were 2 rusty blackbirds, 30 Baltimore orioles, several orchard orioles, 8 scarlet tanagers, 2 rufous-sided towhee, 8 rose-breasted grosbeaks, 20 chipping sparrows, 2 white-crowned, 200 white-throated, songs, field, and a Lincoln's plus 30 goldfinches. I was sorry to miss the 4 snowy egrets, 3 great egrets, 2 great blue herons and the greater yellowlegs, but even so it was the biggest wave day I have ever seen in the 35 years I have been birding in Central Park. It was huge not only for the variety of species but for the number of individuals. Most of Tom's figures, except for the single rarities, were followed by +, ++, or +++, meaning at least this number and probably even more. Tom's total in the Boathouse bird book is 111 birds for the day, the highest ever recorded for our park. Three cheers for the lousy weather that brought us this avian bonanza.

Fast Food in Trees

When we see hundreds of birds gleaning our park trees what do they seem to be eating? Sometimes you see a little bird tease a dangly caterpillar from the bark of a branch and swallow it in stages. There goes a future moth or butterfly. But more often you see the bird daintily picking little bugs from the underside of the leaf. The food is too small for us to see but there seem to be lots of them under the leaf. Last year I sketched samples from four trees that are very popular with birds in spring. On the undersides of the leaves I found lots of small, white, squishy things or aphids.

Aphids have the highest reproductive potential of all insects. Some of them infest one kind of tree. Others have alternate hosts and still others don't care what trees they attack. They overwinter as eggs on twigs and buds and hatch in early spring when the buds begin to open. They feed primarily on the underside of leaves. Sometimes the damage is minimal. But left to their own devices they can stunt leaves, fruit, twigs, and reduce tree population.

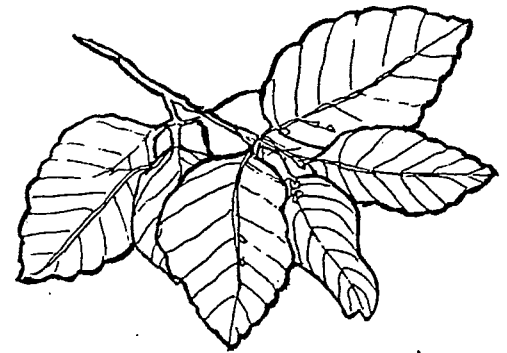
One of the most beautiful trees in our park is the **European beech** or *Fagus sylvatica*. This beech has a smooth gray bark, easily cut so it bears the initials of silly humans. It grows tall and widely branching and has rounded egg-shaped leaves with pointy ends. The leaf undersides are hairy. Nature produces all sorts of mysterious faces on upper trunk and branches. You can see several huge beauties just north of the King of Poland Statue. The ones on Cherry Hill behind the huge rock that became the birders' bleacher were enormously popular with birds last spring.

For the wooly beech leaf aphid, *Phyllaphis fagi* beech is the only host. This aphid has waxy filaments that look like wool strands sticking out of its body. You will find them almost exclusively on leaf undersides. Huge populations of this aphid don't seem to bother our beeches but in Europe, where they started, they do a lot of damage.

Another wooly aphid is the beech blight aphid *Grylloprociphilus imbricator*. It feeds on the bark of twigs and small branches. This aphid is thickly covered with snow white down and alternates life between beech and bald cypress trees, which also live in the park.

I first learned the pin oak *Quercus palustris* because the tree is popular with birds, especially warblers. The trees grow to 75 feet with 4-inch leaves. As you can see from my sketch, the leaves are deeply cut with 5 (7,9) fingers tipped with bristles. Two lines of these trees grow at right angles to each other on top of Cherry Hill.

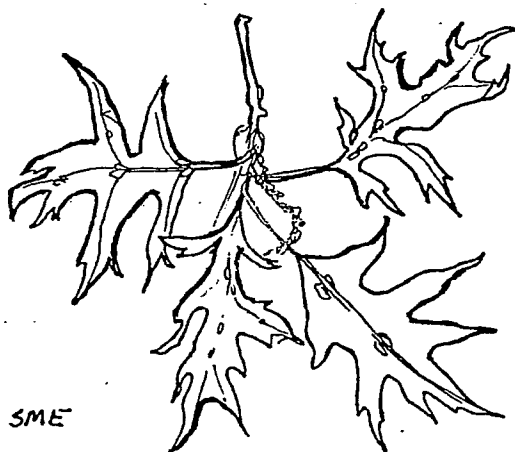
Pin oaks are infested with the oak wooly aphid, one of 5 species of *Stegophylla*, but I don't know which one. My guess is *Stegophylla quercifolia* because it lives in eastern states. These aphids spend part of their lives on either side of oak leaves in mixed colonies of wingless females and winged males. They produce several generations of aphids each year. A large colony of these aphids can cause oak leaves to curl, but that seems to be the extent of the damage.



SME



SME



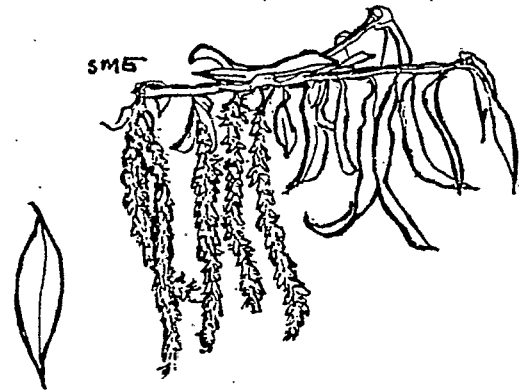
SME



Also on Cherry Hill you can see a large **tuliptree** *Liriodendron tulipifera*. Tuliptrees grow tall, straight and strong. For that reason early colonists used them for the masts of sailing ships. This particular tree is remarkable because it leans toward the east. It must have been crowded in that direction by a tree which no longer lives in the park. The leaves of this yellow poplar are deeply notched at the tip and have 4 lobes. The green and orange flowers are shaped like tulips, produce sap, attract bugs. Some of these are aphids.

The tuliptree aphid *Illinoia liriodendrii* grows everywhere there are tuliptrees. They reproduce from mid-June through October. Large populations cause the tree's outer canopy to turn brown and drop leaves early.

Willows are very popular with migrating birds. This spring we were happy to see a cerulean warbler at eye level in a willow below a large rocky outcrop at the Lower Lobe. This tree in my sketch is *Silax alba* or **white willow**, an import from Europe that grows 50 to 80 feet tall. The lance-like leaves are pale green above, silver below. White willows are common in the park. **Weeping willows** *Silax babylonica* come from China grow 30 to 40 feet high, have long drooping branches and longer, thinner leaves. There is a huge weeping willow at the north end of the Upper Lobe. Stand on a rocky cliff at the west side over the water and you can look right into the upper branches of this tree.



Aphids infest the leaves of willows from spring to late summer. The giant willow aphid *Pterochlorus viminalis* grows to 1/4 inch and when disturbed, kicks its hind legs like a mule. The willow aphid *Aphis saliceti*, is smaller, green to rust-red, and eats willow, carrots and parsnips. Whatever the aphid species on park trees, it's chow-down for birds.

Winged Banquet

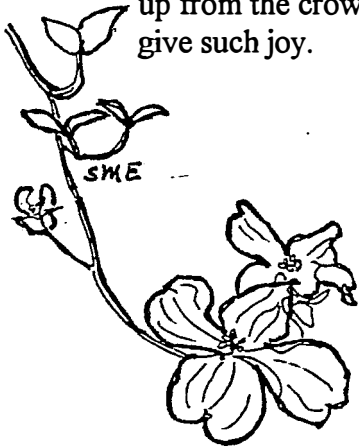
If birds like aphids, they are wild for termites. There is only one specie of termite in our park and state, *Reticulitermes flavipes*. A native of North America, it has become an undesirable alien in Austria, Germany and France. These termites live underground in colonies of a queen, king, workers and soldiers. They are pale and blind and have a head, thorax with 6 legs, and abdomen. In spring, a new generation of reproductives mill around the nest waiting for a signal. These termites have wings, eyes and dark pigment. When the ground is moist from rain and the day is warm (mid-May in the park) swarms of winged termites, pushed by the soldiers, move out of the nest. Some soldiers come out to guard above ground. The reproductives rise in the air, using their wings and eyes for the first and last time. As they fly they seem to spin and glitter in the light. They may float up 10 feet and drift 200 feet away. They land, drop their wings (shed along break lines at the wing base) and find a mate. The male grips the female from behind and they march off single file to start a new colony. That's the plan and maybe 1% of the reproductives carry it out. The rest are eaten by birds, ants and other predators.

When termites begin to swarm every nearby bird rushes to snaffle them up as fast as possible. In a feeding frenzy birds ignore the humans around them and birders are thrilled by propinquity. On



May 13, I covered the Ramble and missed 4 termite hatchouts in succession. Sunday was cool so I returned on Monday. I was lucky to meet Valerie and Kumar Krishna who are new bird watchers in the park. Kumar is a world expert on termites and kindly sent me his article on them from Encyclopaedia Britannica. I begged the Krishnas to let me know if they saw a swarm. In less than 5 minutes they did. Kumar led me to the spot, helped me collect winged termites and even found a soldier. Watchers told us to get out of the way so the birds could come down from the trees. House sparrows and a robin were the first to arrive. Rising termites were eaten in the air by a black-throated green warbler. She was joined by a parula and a male and female Blackburnian. When the Blackburnian male came right down to the ground and showed himself in bright sun, a great sigh went up from the crowd. Who would think a bug about 1/4 inch long and double that with wings could give such joy.

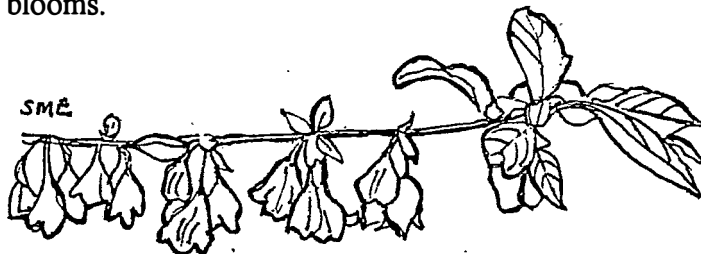
Blossoms Along the Bough



When I first came to New York I was amazed to see **flowering dogwood** or *Cornus florida*. The tree grows as far west as Ohio and Indiana but not Illinois. Flowering dogwoods look as exotic as wood nymphs to me. In spring the small green-white flowers are surrounded by white or pink petal-like bracts. The blooms grow in horizontal layers over the tree. Leaves sprout opposite each other on the branch and the tree grows 15 to 40 feet high. Young trees have smooth dark bark, old trees have scaly trunks.

The spring tree of my youth is **redbud**, *Cercis canadensis*. Redbud are lovely if seen in sunlight. Seen on a misty morning they are memory haunting. Clusters of tiny pink pea-like flowers sprout from trunk and branches. They look like glued on bouquets. Later the tree will be covered with heart-shaped leaves and purplish peapods. This sketch is of an old tree east of the Castle at Turtle Pond. In Oklahoma they just planted redbud in memory of the people who died.

In May I search out **silverbell** trees in memory of Bert Hale, a man of wit and charm who greatly improved my birding skills and taught me plants, including this tree. Their scientific name is *Halesia carolina*. It's pronounced Ha-LEE-see-uh, but Bert preferred HALE-see-uh, in honor of one of his famous relatives. The common name describes the off-white bell-shaped flowers that hang in clusters along every shoot. Later there will be egg-shaped leaves and large seed capsules with wings down the sides. Every year Bert took home cuttings but they never rooted. When he died suddenly at 43, half a dozen grieving friends dedicated books to him. This May 10 he would have been 65. The trees have never looked lovelier. Cool spring days prolonged the blooms.



THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol. 1 No. 6

June 1995

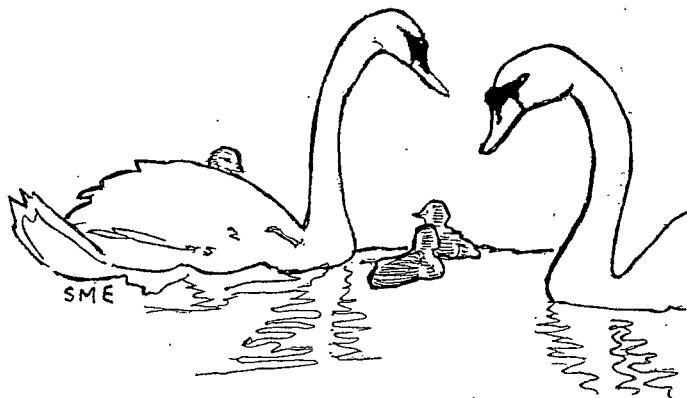
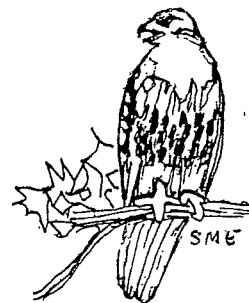
Hawks Aloft, Swans Afloat

The vigil is over. The first young red-tailed hawk cleared the nest just before 6 A.M. on June 4. It landed safely on a nearby building. On June 6 shortly after 6 A.M. bird 2 took off. It did not achieve enough height to reach a roof or ledge, but ricocheted off walls before crossing Fifth Ave. to land in a tree. No sooner settled, the surprised bird was attacked by a posse of blue jays. Presently it moved to a less contentious area in an adjacent tree. Bird 3 left the nest about noon on June 7. It flew across Fifth and landed, passing through trees until it came to rest in a sickly plane tree northwest of the Alice in Wonderland statue in the blue spruce field. When I saw this bird in mid-afternoon, it was still panting with the bill open. Maiden voyages must be hot and tiring work.

For Marie Winn, the most surprising discovery about the young red-tails was the orange feathers--on their chests, but not in the literature. The chest and brow looked apricot in the sun. Many observers were delighted to see parents teach the young to soar. Charles Kennedy watched a parent pass back and forth in front of bird 1. Next time that bird flew, said Charles, it was gliding like a hawk, not flapping like a crow. For Patricia Miller, Marcia Lowe, Beth Bergman and Howie Moskowitz rat capture was memorable. Patricia and Marcia saw the bird at the nest look, stoop, and conquer behind the Hans Christian Anderson statue. It flew back to the nest with dinner almost before they understood what they had seen. Beth and Howie got to see a prolonged attack at the Band Shell because the rat put up a good fight and the hawk was attacked by jays while it had its feet full. As soon as the young were out of the nest, said several observers, the parents dropped off whole food. The young were expected to tear it apart for themselves. Patricia watched the mother bird tuck food under the foot of bird 2. Bird 3 had great difficulty holding the food and keeping its grip on the branch. Eventually it was fed on a flat rooftop where balance was less crucial. That bird has an injured or mal-formed left foot.

The red-tail family seem remarkably unconcerned by the hundreds of humans who come to watch them through a slice of their lives. They fly over the roof tops between 72 and 79 Streets and into park trees. My thanks to Merrill Higgins and Anne Shanahan for their many photos to help the drawings on this page.

While the hawks soar, the swans glide. They also have 3 young, which looked like gray fluffballs at first. We were alarmed to see the adults visit a swan-feeder, but they kept the cygnets at bay and beyond his reach. The young climbed up on mama's back to rest, look out, and nap. Now they are lighter, almost mallard-size, and seem safe from danger. Be glad there are only 3. Swans take up lots of space.

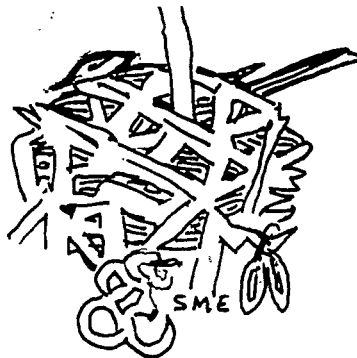
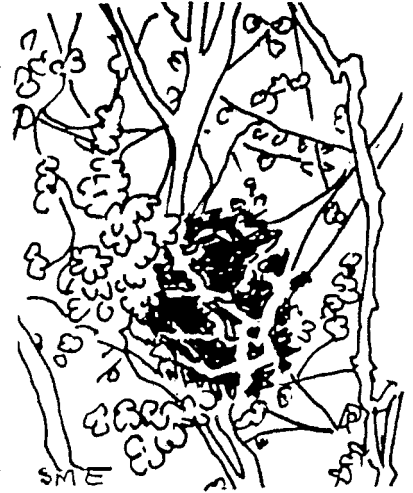
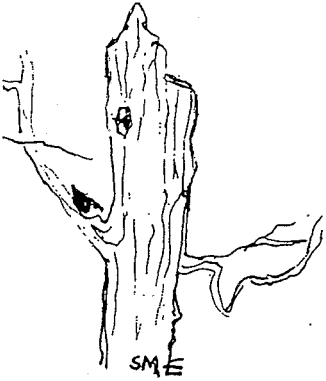
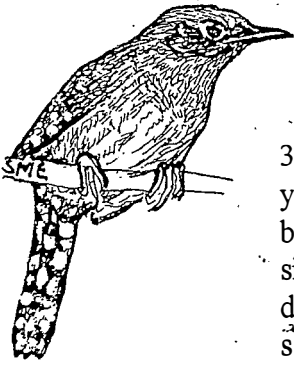


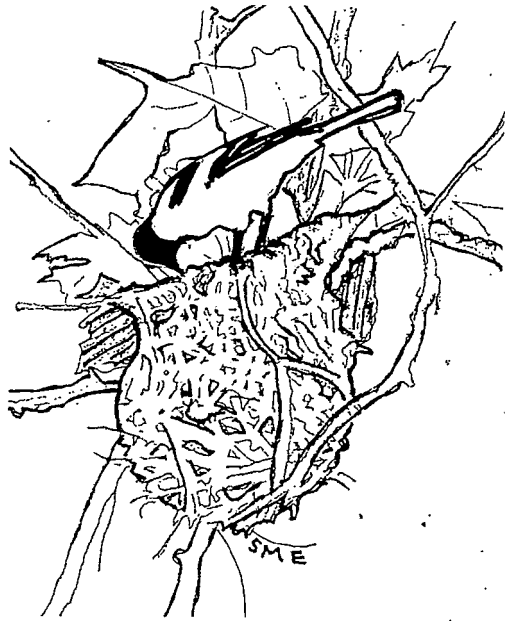
The Nests of Spring and Summer

Three seems to be a magic number this year. We have 3 house wren nests and 6 adults working on families. Some years we get one nest but usually there are none so this is a bonanza. The first nest was built in April, judging by male singing that went on for weeks. The birds used an abandoned downy hole in a small tree at the beginning of the Point. The second singing male led us to a scraggy tree west of the weather station and south of the Castle. Again it was last year's downy nest for this year's wrens. The female downy in a new nest and the female wren in the hand-me-down shared the food territory in feisty togetherness. Deborah Allen, who took the photo used for this sketch, says mama wren was collecting insects and little spiders to feed her young. The third nest is in a bird house supplied by Bari Stevens Greene, Banquet Director for the Boathouse. As party guests disport themselves to loud music, mother wren slips in and out with food for the young. Usually her mate is up the hill singing his head off in meadow and woods, but when I sketched the bird house he was right there to keep an eye on things. By the time you read this, all the young should have fledged.

One year wrens built a nest in a lamppost overlooking 79th St. transverse and fed young from Shakespeare Garden. Most city house sparrows also favor lampposts and build nests in the crossbars. But they are weaver finches and every spring a few of them revert. If you see a lump of twigs without leaves high in a tree, it is a house sparrow nest. Occasionally they build low enough so that you can see the twigs and straw woven into a ball with a hole in the side. This sketch comes from 2 photos taken by Nate Burkins at my request. The male does the building. Then he stands beside his mansion and sings for a mate. Soon you will see her going in and out with toilet paper or other soft nest lining. If the nest is not blown away in a rainstorm, the parents bring forth young.

Some birds make traditional nests but add man-made material to it. Blue jays make a cup nest of twigs. But they have a fondness for unlikely hang-down decorations. One year a jay found plastic circles from a six pack and placed them all around her nest like a wreath. The next year I put a piece of six-pack plastic on a limb and it was snatched for a nearby jay nest. This year a jay nested right beside a walk west of the Azalea Pond. I walked over and waved plastic up and down to get her attention. I hung it from limbs, left and returned an hour later. Sure enough she had tucked all the plastic under her nest.

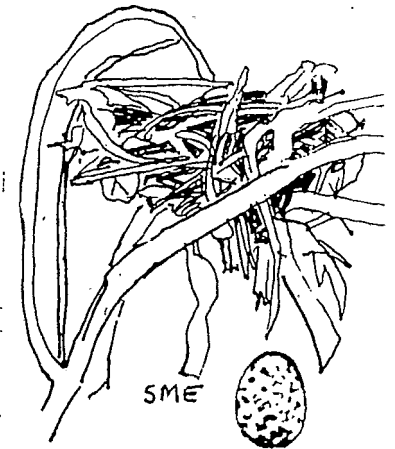
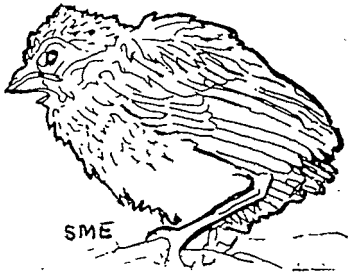




Baltimore orioles are probably our most beautiful park nesters. Back in the old days they used horsehair and wove bag nests with slender necks. Now they build with plastic fish line. The bags are shorter, wider and last through hard winters. Orioles seem to like adding a touch of color and will accept our ribbons of blue, green and red. They also like tinsel, which glitters in the sun. Many park birds accept fuzz from your drying machine and use it to line their nests. One year I whistled to a male oriole near his nest. When I had his attention I put fuzz on the barberry bushes and told him to show her. He certainly did. Later when I saw her land on the nest she bounced in the air as if she were on a feather bed. I believe the young survived so she may have pulled out some of the stuffing as they got bigger. Orioles make a new nest every year. One year when fish line was scarce, they pulled apart old nests and recycled. The nests looked tangled, lumpy and graceless. They worked fine. This nest is decorated with an oriole from a photo by Howie Moskowitz.

Our next most colorful nesters are cardinals.

Unlike orioles they nest twice over. That's a good thing because the first nest has few leaves to hide it and the eggs and young are often taken by rats. The second nest is usually successful. This one was very exposed and I found it in August with an abandoned egg. Birders told me the parents had successfully raised young. This sketch of a young tailless cardinal comes from a photo by Nate Burkins. There is no space for tails in a crowded nest and they are not so vital as wings. The tail will grow rapidly. As you can see from the bump on the head, the bird is already growing a crest. New-hatched cardinals without down or feathers have pink skin where the feathers will be.



If cardinals like streamers hanging from their nests, thrushes adore them. In 1988 a pair of wood thrush built a nest six feet off the ground at the top of an arrowwood or *Viburnum dentatum*. Elise Boeger took dozens of pictures of the birds and their nest, the source for this sketch. When they completed their first family, birders looked into the nest and found one egg. Joe Richner took it and accidentally dropped it. He said the egg stank. No sooner was the egg removed than the parents returned. At the end of July, birders saw her reline the nest with muddy wet leaves and begin a second brood. By the time the young fledged, lots of streamers had been added to the nest. The longest was 2 feet, a strip of plastic. One of the shortest was the paper envelope for a drinking straw. At that time we thought a recycled wood thrush nest was unique. But apparently many thrushes do it, probably when materials are scarce or time is short. Wood thrushes are safer from humans if they nest higher. This year a pair have a nest in the woods just north of the Oven, perhaps 20 feet off the ground.





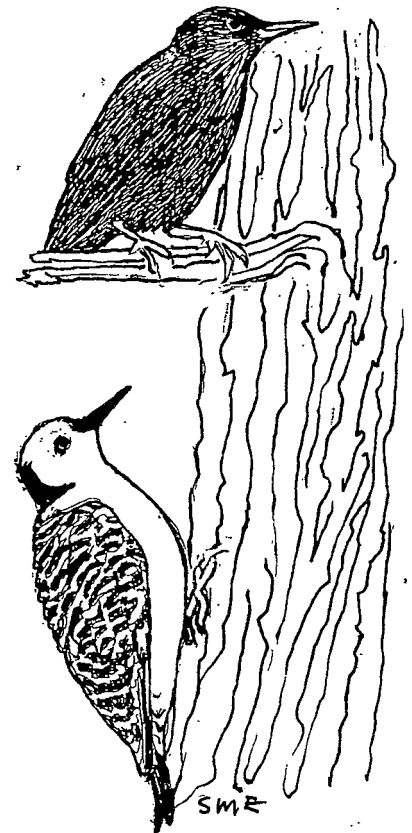
Many catbirds nest in Central Park, near the ground. Like song sparrows and brown thrashers they like the protection of thick bushes. The barberry bushes just south of Bow Bridge are a popular nesting spot with all three birds. One year Howie Moskowitz took a picture of this catbird in the knotweed, just south of the Summer House. Vegetation was scarce and the birds were pestered by voyeurs. But catbirds are fearless. That was the year Beth Bergman taught me they will eat peanuts if you break them up into small pieces. We dropped peanut crumbs, first at a distance and then at our feet.

Soon the birds were beside us, looking up for more. When we obliged they took bits over to the nest. They returned until their noisy babies were stuffed into silence. This year there are catbirds in the same place. The male sings a song of the red-eyed vireo while the female meows from the thicket. I think they have plenty to eat, unlike the ravenous peanut-eaters of yore.

It seems odd to talk about thrushes without mentioning the American robin. Robins are wildly successful and build hundreds of nests in the park. They begin nesting in mid-April and continue doing so until mid-September. Robins feed worms to their young in the nest. They all eat black cherries in July and August. As the berries ferment the birds get drunk and seem unconcerned about you. I feel sure robins produce three nests in a season. But the following year the number of returning robins is about the same. That means the kill of first-year birds is enormous. Some birders find them boring but I always enjoy watching them. I don't feel the same about starlings.

Starlings were imported and put into Central Park a century ago by persons who wanted to see all the birds mentioned in Shakespeare. Many died but starlings have pushed their way to success. From Central Park they have spread from coast to coast, north into Canada and Alaska, and south into Mexico. They prefer to nest in holes but their bills are not strong enough to drill. So they wait for woodpeckers to do it for them. When the hole is finished and the woodpecker family is well along, the starlings attack. They smash eggs, kill young, strike adults and drive them off. Then they take over the nest. In the south, red-headed woodpeckers fight back fiercely and are killed. Red-bellied woodpeckers are more timid and the adults escape with their lives, but no young. Flickers are in decline all over North America. If we could discourage starlings we would have many more woodpeckers on our continent and in the park. Only the downys are safe because they make entrance holes too small for starlings to shoulder their way into. The few larger woodpeckers that manage to raise young here do so because they delay their families until all the starlings are busy with nesting and before they start a second starling brood.

I considered redressing the starling problem with a slingshot, but have been told it's against New York State law. A birder from Britain says that the starling population is dropping rapidly there. He doesn't know what is wrong but thinks it's a virus that's wiping them out. Now if we could import some sickly starlings for a reunion with their American cousins.....



THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

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Out Upon A Summer's Night



If you must spend hot summer nights in the city, it's fun to get up a party and go to the park. While streets and skyscrapers retain the heat of the day, trees and grass in the park cool more quickly and you are soothed by breezes rustling the leaves. Twilight in the park is so nice I did it twice. July 10 was pleasantly cool but July 14 was a blistering Bastille Day. Even so, the sights and sounds of summer will linger long after we've forgotten the weather.

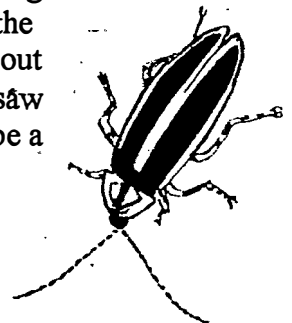
At the edge of Cherry Hill we found a primordial rock twinkling mica messages to the late day sun. Basking on the rock, wings flat-open, was a red admiral butterfly. The U on its back turned a deep rich orange at sunset. As

we watched it through our binoculars, we were startled to see a flicker's head bob up. He seemed to be dining on ants in the grass behind the rock. Nearby in shadow, another butterfly, a tiger swallowtail, fluttered large yellow-and-black wings. It sipped nectar from the tiny, pink-and-white flowers of the abulia shrubs that line the horse-carriage-circle. On the crown of Cherry Hill a lingering Baltimore oriole sang from the top of the pin oaks. High enough for the rim of light, his chest flashed fire as he moved through the leaves. Suddenly he fell silent and flew north, perhaps the last oriole to leave the park now that their nesting is over. Both nights, a song sparrow sang repeatedly from barberry bushes just south of Bow Bridge. I think he was discussing his real estate to another song sparrow on the north side of the bridge. We saw a flock of young robins enter a tree and settle for the night; fluttering, pushing, clucking and yipping as they did so. The last fluting call of a wood thrush floated from the woods disclosing that he mates twice over. From a darkened meadow we watched three great blue herons, high in a Magritte sky. They flew out of sight, then returned almost immediately to circle above us, snatching bugs from the perimeters of a thermal.

Shortly before eight we saw the first firefly cross our path. Soon they were flashing through trees and over meadows, low to the ground. We scooped them up and put them into a plastic box, from which they could climb out easily. We tried to study the color marks on their shoulders before they flew off. I think I saw a yellow shield containing a red disk with a black spot in the center. If so, that would make it *Photinus pyralis*. English names differ. One insect guide calls it the "common eastern firefly", another guide names it the "pyralis firefly". There's a second eastern firefly that could be in the park. It is *Photuris pennsylvanica*, which has a dull-yellow shoulder shield and a red disk with a black line running vertically through the center. One guide names this "Pennsylvania firefly" and another the "woods firefly". Both are about ½" but the Pennsylvania is 2mm larger. Its head peeps out in front of the shield, and the antennae are longer than half the length of the body. If we saw black spots, not lines on the shield and didn't notice huge sweeping antennae, it could be a

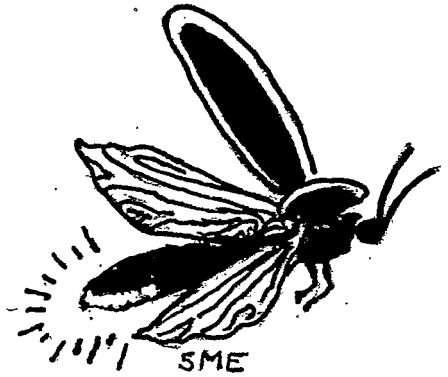


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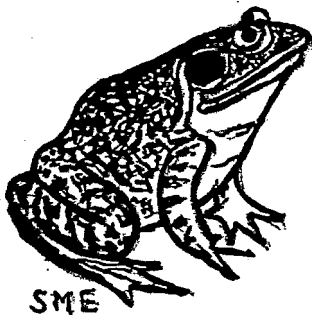


pyralis victory. There are over 2000 species of fireflies in the world; my guides list 2, which certainly limits identification.

Fireflies, also called lightningbugs, are really slender flat beetles with hard sheath-wings that cover and protect the body. The shell is dark in many species, some with a light dull-yellow border around the sides and up the center. When the firefly takes to the air, the sheath splits and spreads. Like origami in reverse, delicate hind wings unfold into shape and carry the creature slowly forward. Fireflies are famous for their flashes and males flash as they fly. Wingless females and young glow-worms flash from the ground. The adults flash to find each other and mate. Perhaps the larvae flash to protect themselves from predators. Night birds find them distasteful.



All fireflies flash on and off at will. In the light-up part of their abdomens is a pigment called luciferin. When oxygen in the air hits the pigment, the result is a cool flash of light. Each specie flashes its own light pattern. Some start before sunset, others after. Some signal for 30 minutes, others may spend 2 hours. Some flash short messages, some flash longer ones, some in green, some gold. We timed what most of us thought were white-gold flashes on the 14th, and decided they occurred about every 3 ½ seconds. According to Swan and Papp, pennsylvania emits a bright green light. According to Alexander and Elsie Klotz, it flashes every 2 to 3 seconds. But at what temperature? The night we tried timing, it was about 90° F. Fireflies flash faster in hot weather and slower in cool weather. Whatever their specie they made a lovely carpet of silently flickering lights on a summer night.



We surprised bullfrogs in the rushes by the Lake. They plopped into the water at our approach (a mighty splash) and resurfaced to eye level. Some sat farther off with their backs to us, their great goggle eyes perched like eggs on the top of their heads. Below and behind each eye was a round, flat eardrum to hear themselves and each other. When it grew dark, they sang. Each call was a single utterance containing layers of sound where reedy contralto and gravelly bass sang the fifths. Solemn blasts, repeated 2,3, and 4 times in succession, were a threat to others and a call to battle.

Bullfrogs are mighty warriors. They are the largest frog in North America. In July, male bullfrogs do plenty of wrestling and gouging for mating territory. Females keep a low profile until they are ready to mate. Then they enter the chorus, check the singers and pick one. Large males are popular and mate often. They guard desirable deposit sites where a safer neighborhood means more eggs survive. A small young male has no chance against a big bruiser unless he darts in and grabs a female who doesn't want him and didn't choose him. Either way, propinquity eventually propinks. The male clasps the female and loosely holds her under water until she is ready. In ten minutes she expels 6 to 20 thousand eggs which he fertilizes in the water. This activity takes place around 3 A.M., which is why no one studies mating bullfrogs in Central Park.

Bullfrogs have voracious appetites. They prey on insects, crayfish, smaller frogs, small mammals and birds. One park birder was distressed to watch a bullfrog snatch and swallow an unsuspecting myrtle warbler before her eyes. Still, it's a thrill to hear that eerie croak in the dark. Imagine listening at midnight when separate calls become a collective roar!

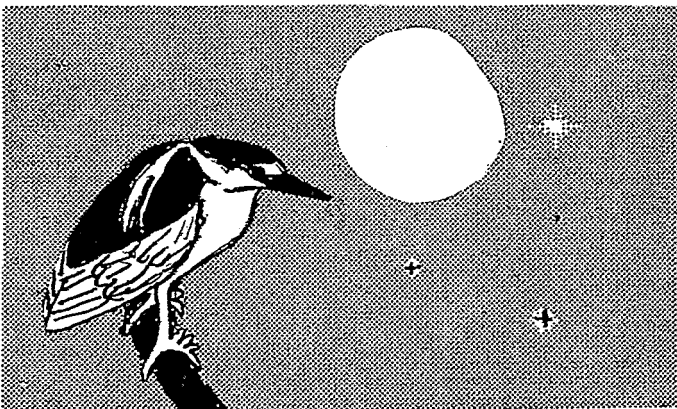
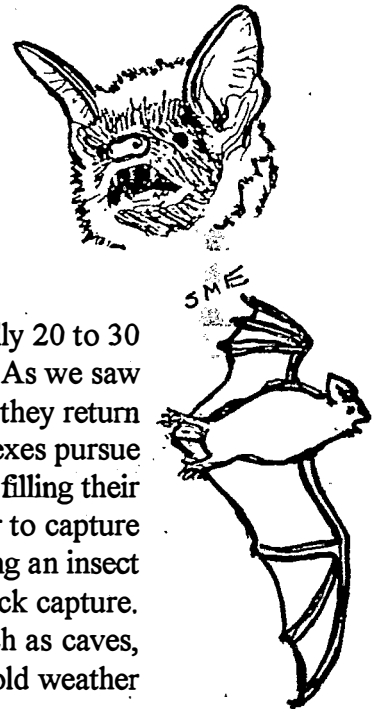
One Bastille night about 7 years ago, we saw a mass of bats flying over the water. I hoped to see them again but it was not to be. This year duckweed, tiny confetti-sized plants, cover the

water. Eventually this lime-green coating will be snaffled up by mallards and the swans. Park personnel can live with duckweed but not algae, which is unsightly and hogs the oxygen from fish and other water life. Herbicides were added. Dog owners told each other not to let their dogs swim in the Lake for a while. Bats are very sensitive, and whatever removed the algae may have also affected the supply of insects bats eat.

Only the first group of observers was lucky enough to see 2 bats. Just at sunset, we saw one at Turtle Pond. It had cleared a runway through the duckweed and swooped along the water to catch surface insects. It would rise, circle and swoop the path again. We moved close to the shore just as it completed a pass. The bat flew up over our heads and disappeared. All bats can see and this one probably saw our shapes and felt our approaching bulk through its radar system. When we arrived at Turtle Pond on the second night, we could see several slashed runways out in the center of the water, but the bat or bats were gone. In Shakespeare Garden, the first group saw another bat fly over in the last pink of sky. It was the size of a sparrow on foot-long wings. The flight was strong and steady, about 20 feet above us. That night Anne Shanahan brought me a picture of a bat she found last year, tangled in plastic fish line. She said the late sun made it look redder than it really was. She tried to untangle the line and hid the bat, but found it dead next day. Anne's picture showed a semi-trussed bat in grass and common plantain. Its body looked to be the size of a plantain leaf.

I took the picture to Dr. Karl Koopman, Curator Emeritus in the Department of Mammalogy of the Natural History Museum. A bat expert, Karl had no trouble reading Anne's picture. He pointed to a hump at the back, calling it an interfemoral membrane, or skin that separates the back legs. The membrane was hairless, which eliminated several possible species. Next he pointed to the head, commenting on the broad round muzzle. That eliminated little brown bat, which has a narrow muzzle. Some individuals like this one have dark faces. Yes, he said, a big brown bat, *Eptesicus fuscus*. They have large, dark ears that come to rounded points, the better to hear with; 32 teeth, the better to crunch with.

Big brown bats fly with slow, steady wingbeats in a straight line and usually 20 to 30 feet up. If tasty bugs are near, they can change direction frequently and rapidly. As we saw at Turtle Pond, they fly the same course over and over again in an evening. And they return to the same spot on other nights. A bat flying alone is probably a male but both sexes pursue insects over ponds, meadows, pastures and above city traffic. They eat rapidly, filling their stomachs in an hour. Juvenile bats are slower eaters because it takes them longer to capture insects on the wing. Echolocation must be a difficult skill to learn; not only hearing an insect in ultra-high sound, but learning to judge its size, direction, and speed for a quick capture. During the day bats rest upside down, hanging by their toes in cool places such as caves, tunnels, chimneys and basements. Big brown bats dislike hot weather, tolerate cold weather and don't migrate.



Many black-crowned night-herons hunt in the park at night. On the 10th we surprised one fishing by the light of a street lamp. Across the water in deep shadow, another night-heron gave a carrying croak-call. We listened and so did the nearby bird. Shining above us, an almost-full moon lit up the sky with Jupiter to keep her company.

Slipping Through The Dog Days

“The dog days” is a phrase from the ancient Romans for the hottest period of the year when Sirius, the dog star, rose and set with the sun. They considered this a sultry and unwholesome time when dogs ran mad in the streets. People still watch Sirius and speak of the dog days as a time to endure. Shakespeare used the phrase in Henry VIII, and a century ago, Thoreau wrote of hearing the dog day locust in Maine.



Today we call it dog day cicada, *Tibicen canicularis*, an insect which lives right here in Central Park. It is large with a black and green body and clear wings washed with green at the shoulders. The males have small drums on their bellies which they rapidly pull in and pop out to attract mates. The vibration sounds like a buzz-saw cutting through wood and they can change the volume at will. Nymphs take 3 years to mature, sucking root juice underground. A generation hatches each summer and we will hear their summer serenade well into September. This drawing is of the underside of a cicada found dead in Central Park. The dots on the top of a broad head are eyes, the zig-zags are 3 pairs of legs and the circles at mid-bug are drums.

One way to distract yourself from the heat is to study life in the cracks. There are many green plants growing in the walls all around Central Park. You will find them at eye-level and above on walls of the 72nd and 79th Transverse. There's a bus stop on 79th just east of the steps leading up to the castle. Tell the bus driver to put you down there. Go early on the weekend when the air is cooler and the traffic light. It is hard to concentrate while you melt in the sun with cars whizzing by at your back. If you prefer a sidewalk set farther back from the road, you might try Central Park West. There are patches of green in the 60's and 80's. But the plants are scarce because that wall gets hot late-day sun. It may be more rewarding to look along the inside of that wall. You should take a weed or wild flower book with you (try the library) and a small pair of scissors to snip a specimen. Restrain yourself. One or two specimens are enough and they wither quickly in the heat, usually before you get them home. Snip off a leaf and tiny flower from your specimen. Don't rip or yank it because you could pull the whole plant out by the roots. Life in the cracks is precarious. Press the specimen in your book and take it home to study further.

If you like ferns, there's a lovely patch on Fifth Ave. facing the Guggenheim Museum. There you will see 2 species that like to grow in rocks and walls where they can absorb calcium from the calcium carbonate in the limestone. I took young and older fronds to the library where I photocopied them and reduced the silhouettes. The long thin one shows a plant that grows small leaves or **pinna** that march their alternate way along a very black stem. There is no stalk and each pinna is jammed right up against the stem. The name of this plant is ebony spleenwort *Asplenium platyneuron*. The fertile fronds stand erect, turning toward the sun. The sterile fronds curve out and down and spread. The ebony spleenwort were thriving in July, helped by frequent showers that trickled down the wall.

The other fern has taken me years to identify. I wasted a lot time on pictures of blunt-lobed woodsia, to no avail. I was examining young fronds, like the one silhouetted here, not mature, battered ones (see next page). Each frond is divided into **pinnae** arranged alternately like hands along the stem. The pinnae are connected to the stem by stalks which give a graceful limp-wrist effect. Each pinna is divided into **pinnules**, like



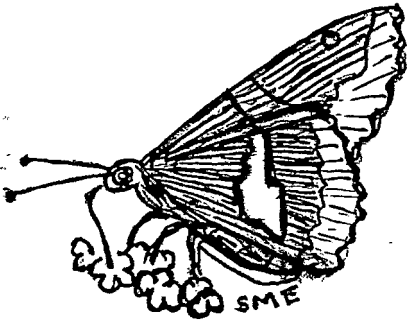
tiny fingers along the hand. That little black blob in the margin is an enlarged pinnule. The pinnules are arranged alternately, and have scalloped edges with toothed margins. In jumbo enlargements you can really see the teeth. The fronds grow more than a foot long if they can, and are widest in the middle, tapering at both ends. Two pinnae in the middle of my long specimen each measure 2 ½ inches. They are only 2 ¼" at the base. The smaller specimen on the previous page is a young thing, too young to taper. The stem of both fronds is green but dark at the base. I now think this is fragile fern *Cystopteris fragilis*. And fragile it is! There are only 2 or 3 of these plants struggling for life on the wall. A fern guide says they are one of the earliest ferns of the year. They produce spores that ripen and spill, and the plant disappears in July. But we may see new ferns springing up in August.



If, after days of great heat, you can leave the coolth of your summer cave, try visiting Conservatory Garden some morning around 9 or 9:30. Once inside, make your way to the South Garden. You will see beautiful flowers being visited by butterflies. Here is a place where you can look closely at both. Before your very eyes a butterfly will uncoil its tiny tubelike tongue, or proboscis, and insert it into the heart of a flower. The proboscis acts like a straw and the butterfly sucks out nectar, a sweet juice for quick energy. When one flower is drained the insect moves to the next, rolling and unrolling its tongue as it goes.

Not all butterflies hold still for your observation. The silver-spotted skipper likes to frisk about. When it lands, it lifts wings over body and shows the undersides. In the center of the hindwing is a large silver-white spot that reminds me of bird droppings. The spot is so big and bright you will see it even when the butterfly flutters again.

If you entered the garden at 105 St. and Fifth Ave., a long carpet of grass carries your eye back to the fountain. Just behind the fountain is the Wisteria Pergola, a half-circle of latticed vines over a shady walkway. Climb the steps to the Pergola, stand at the railing and look down at the bushes.



All the ones with cones of fuchsia flowers are *Buddleia davidii* or butterfly bush, which comes originally from China. It is well named. The leaves are downy and narrow with silver undersides. The tiny flowers that make up each cluster or spike smell so good they draw in butterflies like filings to the magnet. *Buddleia* bushes continue to flower for weeks even in very hot weather and can grow 8 feet tall and 8 feet wide. The richly scented flowers attract red admiral, tiger swallowtail, black swallowtail, monarch, and painted lady butterflies. You will have plenty of time to identify them in bright sunlight while you stand in comforting shade.



In the North Garden tall bushes encircle plants arranged in twisting formal patterns. When we were there for a July walk, 2 hummingbird moths chased each other over the low flowers. These moths fly by day to get nectar. They have small heads and clear wings, with rust markings near the body. The head and shoulders are lime green. There's a wide gold band around the middle and a fan-shaped tuft at the end. Actually the tail looks like a stiff peplum which the



hummingbird moth can twist like a rudder. To get deep inside inviting flowers, this small insect has a proboscis as long as its body. Imagine unwinding that for a drink!

North of Conservatory Garden we walked along the edge of the newly improved Meer, peering at dragonflies. They darted over the water, slipping around the arrow arum plants. In just minutes we saw green clearwing, blue pirate, black saddlebags, and amberwing dragonflies. Around the bend on a new walkway, we enjoyed a small flower garden across the water from the Dana Center. This little garden attracts both butterflies and dragonflies.

“What’s that?” asked one of the group. “What do you see?” I countered. They were saying “black, and maybe...”, when it reappeared flashing chalk-blue and black in its wings. “A widow!” I shouted. “Try to see it, it’s rare!” The widow streaked past and then there were *two* chasing each other, and tantalizing us with brief glimpses as they circled.

In 1987 when I produced a dragonfly pamphlet, widows or *Libellula luctuosa* were fairly common in the park; common enough to put into the pamphlet. Then they completely disappeared. One or two were seen this decade, but not by me. Seeing them again felt like a curse had been lifted. Six years is an almost biblical wait.

If you want to look at dragonflies, start with whitetails and amberwings. Whitetails have wide, flat, very white abdomens. Their wings are clear with wide black bands in the middle. They sit still and flat on rocks when they aren’t chasing rivals out of their air space. Amberwings are tiny, only an inch. But they are so colorful you can see them far out on the water. I wonder now, how I ever survived all those hot summers before discovering the joys of learning bugs.

Birds, Butterflies, Dragonflies, and Surprises

I will be offering 2 insect and bird walks in the north end of Central Park. They are:

August 19 or 20 and **September 3 or 4**. In both cases the second number is a rain date. Or if it is heavily overcast. We will meet in Conservatory Garden, **105 St. and Fifth Ave.** at **10 A.M.**, the fee is \$7 exact. To register, call **212-689-2763**.

Fall Bird Classes and Leaf-peeping

If you want to see migrating birds on crisp fall days with congenial people, I will be giving morning classes in September and October. We meet at **9 A.M.** for **5 sessions**.

Wednesdays meet at **76 St. and Fifth Ave.**, beginning **September 13**.

Sundays meet at **Loeb Boathouse**, beginning **September 17**.

For crazed New Yorkers with busy schedules, I give one make-up class. To register send a check for **\$35** to Sarah Elliott, **333 East 34 St., NYC 10016**. Checks are due by **Sept. 5**.

Birding in the Tropics, 1996

Dick Ryan has been leading bird trips to Central and South America for years. He will be leading three trips to **Guyana** (north of Brazil and east of Venezuela). The dates are **Jan. 27 to Feb. 7** (filling now), **April 17 to 28**, and **August 10 to 21**. If you wish to join him and perhaps me, and you can hike and step into a boat, call or write the numbers above.

THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol.1 No. 8

September 1995

Sweet Peppers, Snouts and Solitary Wasps

When the summer of our discontent seemed unending, it was a pleasure to visit the sweet pepperbush or *Clethra alnifolia*. This plant is a native of the northeast. Unlike many plants that migrated to America with the help of immigrants, sweet pepperbush went the other way. *Clethra* was introduced into England during the 1700's when colonial American gardens were in vogue.

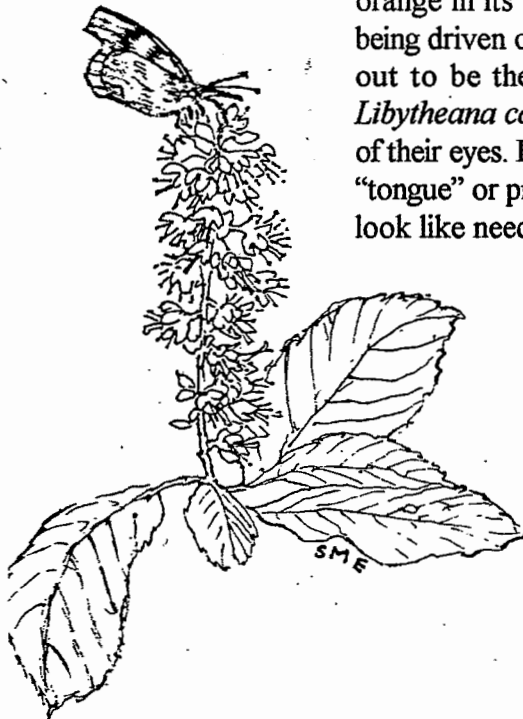
In August when other plants curl and die from the heat and sun, *clethra* puts out white spires of little fuzzy blooms. The flower clusters stand upright at the end of every branch. The leaves are long, thin and green and turn either gold or red in the fall. (Sources differ, so keep checking.)

There's an old stand of *clethra* on the eastern edge of Swampy Pin Oak, where the benches face the Summer House. If you sit on the southernmost bench and put out your right hand, you will all but touch the *clethra* beside you. Now in September the blooms have turned to tiny seeds. There is more sweet pepperbush across the sidewalk among many broken limbs. These bushes received a direct hit from a branch of the sweet gum tree. My sketches are of sprays broken in the crash.

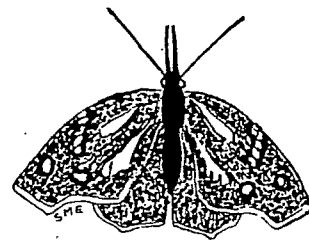
Over in Strawberry Fields there's a plethora of *clethra*. Seventeen bushes line the east and west sides of the long green lawn. The leaves don't look quite the same and the flowers are tinged with pink, so it may be a slightly different variety of the plant. In August the flowers smelled wonderful, like old-fashioned perfume. *Clethra* spread their scent around, which allows sniffing from a distance without having to get your nose right into the flowers. That's a good thing because the plants attract bees, wasps, and butterflies.

The day I was counting *clethra* bushes I saw a medium-sized butterfly flash orange in its wings and disappear. I saw others that looked a dirty gray-brown, all being driven off by large wasps. Eventually, they found a waspless bush and turned out to be the *Cyrano de Bergerac* of the butterfly world; the American snout or *Libytheana carinenta*. Peering closely, I could see the long fleshy beaks just in front of their eyes. Each beak is made of 2 palps that stick out on either side of the butterfly "tongue" or proboscis (the curling straw that sucks up juice). From above the palps look like needle-nosed pliers.

The snout of a snout is hairy as well as long. But what is it good for? Nobody knows. Scientists used to think it was a sense organ for smelling. But palps have been examined and rejected as sense organs. One current theory is mimicry. When the butterfly folds its wings it looks like a dead leaf and the snout looks like a stem, dull enough to be overlooked by a predator. Another theory is sexual selection. If you've got it up front--flaunt it. The bigger the better. There certainly is variation in size. Some of the palps I saw were long and thick. Others were shorter and much thinner. I was lucky enough to see 4 of them from just a few inches away.



Usually we see snouts fairly high in hackberry trees where the females lay their eggs. When they flutter and open you see rounded forewings with square tips. They are dark brown with orange streaks and white spots. The underside can be light gray or dark taupe, but always subtle (dull).



The wasps working over the sweet pepperbush in August and shoving out butterflies, were great golden digger wasps, *Sphex ichneumoneus*. A wasp has a short proboscis and must select shallow blooms. These wasps visited every flower, working too rapidly to sketch. I owe this drawing to a marvelous photo by Deborah Allen. Great golden digger wasps are an inch long, have black bodies but the front half of the abdomen is red-orange. Most of each leg is also orange and the wings, which they fold straight down the back, are amber-orange.

Golden diggers are solitary wasps. The adults take nectar from flowers. But the females are also predators. They pounce, sting and paralyze their prey. Then they carry it to an underground nest where it will be stored for the young. All solitary wasps specialize and golden digger wasps take grasshoppers and crickets. Solitary wasps hunt by the chemical smell of their prey and cannot be fooled by mimics. Their choice is prey-specific but not their sting. If disturbed, the female will deliver one of the most powerful stings of any insect, so don't rile them.

Before hunting, the female drills a hole down into hard earth or cinders and digs several tunnels radiating off of it. She hauls crickets and grasshoppers to her nest and places one or two in each cell. Then she lays an egg on each anesthetized victim. The larvae hatch and eat their prey. They pupate or rest over the winter and emerge in the spring as a new generation of great golden digger wasps. Try saying the name aloud. It makes a dandy expletive!



My friend Jeremy writes nature notes in England where the summer was also very dry and hot. It was a great year for flying insects and the swifts and swallows who fed their broods on them. Suddenly, he said, wasps were everywhere, as they were here. In August our park rang to the shrill burr of the cicadas. They were easy to hear but hard to see--except to cicada killers.

Cicada killers or *Sphecius speciosus* are large black and yellow wasps. In August you can see them chasing each other over the flower beds in Conservatory Garden. My drawing comes, in part, from a photo by Nate Burkins. His mating pair sparkle sedately, unlike my description.

Cicada killers, like great golden digger wasps, have an unusual mating style. The male mounts in the usual manner but after contact dismounts and faces in the opposite direction. They remain together 45 minutes or more. If they are disturbed, they fly about with the larger female carrying the male behind her.

Mating over, she's ready to dig. She selects a nest site near a roadside, under a sidewalk, or along a stream bank. She digs a tunnel 6 inches deep, turns a right angle and digs another 6 inches, ending with one or several globular cells. When construction is finished she blocks the entrance with a few pebbles and goes out hunting. My drawing of wasp and prey comes from a grand old photo of the killer by Jim Trehey, and an old cicada from my front hall closet.

Sometimes she swoops down on a cicada in flight, grabs it and tumbles it to the ground. More often she grabs them on tree trunks. She jabs the cicada with her stinger and stuns it. A paralyzed cicada, bigger than she is, becomes a dead weight. How to get it home? She grips it close with her middle and hind legs, climbs a tree, launches them both into the air, and glides



to ground for a bumpy landing.

She hauls it up another tree, aims, and glides, repeating the process over and over. Each new glide moves her nearer to her nest. This sounds exhausting but it is easier than trying to drag her prey the whole distance, which is why solitary wasps both fly and drag. At the nest entrance she rolls back the stones and pushes the prey down the tunnel and into the cell. She lays an egg with one or two cicadas for food. When the larvae hatch they feed on living but helpless cicadas. Then they rest and change shape. When the new generation climb out of their tunnel nests next spring, they will look like adult wasps, ready to search for flowers and each other.

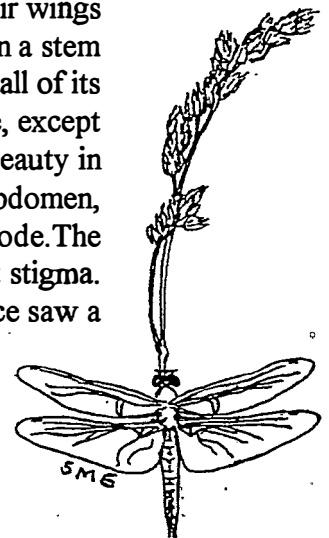
Solitary wasps are specialists pursuing one kind of prey and no other. Depending on the specie, it may be bees, or beetles, or grasshoppers and crickets, or cicadas. This grand plan avoids a food shortage and each prey is abundant during the nesting season of its predator.

If insects adore sweet pepper bush, the birds adore wild black cherry trees. Black cherries *Prunus serotina* have sprays of fruit that keep giving and giving. They are the chief source of food for park birds from July far into September. This year we had a bumper crop, much needed in the drought. The fruit is small with a large pit and not much pulp. The berries turn from green to red to black. Plump black cherries are the sweetest of the bitter-sweet. They have an odd musty-metallic taste, but if you are thirsty, a handful will slake your thirst for an hour. It's an acquired taste and some of us have acquired it.

Robins fill the trees and swallow cherries, pits and all. Warblers pierce the skin and suck out the juice. Cedar waxwings travel in flocks from tree to tree. Young robins peck fruit on the ground. So did a family of September crows. The parents pecked precisely but kept a wary eye out for us as junior gobbled. Small cherries at the end of a large bill look odd, but numbers and juice made up for bite size. We got quite close before the crows unwillingly left their picnic. Now the ground is covered with dried fruit and seeds. Cherries still cling to the trees but the fruit is mostly dark and shriveling rapidly. Fermenting berries mean drunk robins. They will sing oddly, look clumsy, and seem careless about human predators.

The day we saw the crows we also saw a pair of hummingbirds. One hurtled out of the sky and dropped like a plumb line to investigate a cardinal flower. A quick check proved it was nectarless so the hummer, a female ruby-throated, elevated up to her friend. Flashing lime-green backs, they bounded away over the treetops. It looked like a boisterous game of avian tag.

At the end of August and the first part of September, golden dragonflies patrolled the grassy meadows of the park. These are *Pantella flavescens*, insects that can beat their wings 39 times a second. Anything that zips that fast is mighty hard to see but one sat down on a stem of orchard grass in the meadow that leads down to the Loch. There we could study all of its glorious color. One of its common names is the globe trotter. They are found worldwide, except near the poles, and migrate in huge numbers over Africa. To see one still is to see beauty in miniature. The word that comes to mind is tawny. Lion tawny is the color of the long abdomen, and tiny black markings with red accents trickle down the center, like some secret code. The eyes are rust red and the face bright yellow. The clear wings are tipped with ruby-rust stigma. All the right colors for fall. Peter Tozzi, who was a great birder and naturalist, once saw a globe trotter 15 miles out to sea. Usually, we see them over grass.



Fish Stories

I felt nervous about asking a fisherman at the 100 St. Pool what he was catching. Nothing. What did he catch most often? Mostly largemouth bass and sunfish. Goldfish are hard to catch because they're too sly. What did he use for bait? They go for worms and dough; flour and water, like when you make biscuits. The best time to catch a fish is 8 AM, when they are hungry. If the catch is big he takes it home, if it's small he throws it back. Does he cook his own fish? Sure. You clean the fish and roll it in corn meal with salt and pepper. Then you fry it in lard or cooking oil. Cook the fish 1 ½ minutes per side or 3 minutes total. I never ate park fish but that man sure is right about the cooking time.

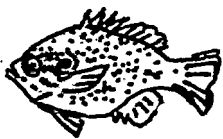
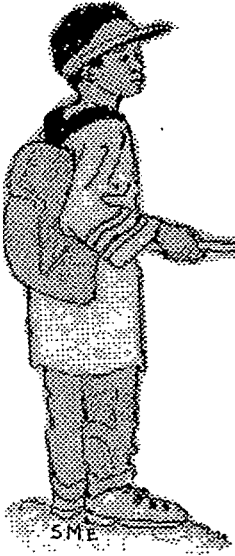
A young man was leaning over Bow Bridge with a pole and line. What did he catch there? Not much. Would he eat what he caught? He turned and eyed me. "Would you?" he asked. "No," I admitted. "I plan to throw them back," he said. "I don't do it for the food, just for the fun of it!" He gave me a terrific smile.

Vaughn Desmond is 11. He catches catfish and carp. He brings a container of Pillsbury biscuit dough to the park and tweezes off pieces to put on his line. I tried to sketch

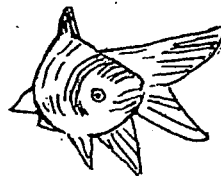
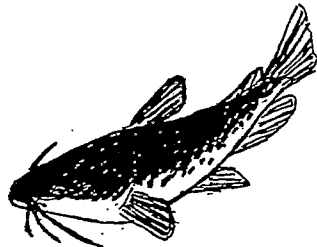
him as he fished but he was catching bluegills so fast, a sketch proved impossible. Luckily, Howie Moskowitz snapped his picture and I used it to make a sketch to put in my new scanner. Vaughn carefully unhooked each fish he caught and threw it back. Too small to take home. The day Vaughn was catching bluegills as quickly as he put his line in the water, another boy was fishing Rowboat Lake with no bait at all. Using only a lure he caught 2 largemouth bass, one of them probably weighing 1 ½ lbs. Detective Chris Cassano of Central Park Precinct told me this bass story.

Here is a little information about the most common fish in our park, pictured below:

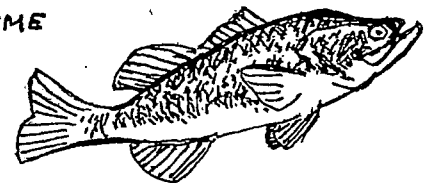
1. Pumpkinseed, *Lepomis gibbosus*, is a sunfish, deep from top to bottom, skinny from side to side. It has a small mouth and there is an orange-red spot on the gill cover. The fins on top are sharp and spiny, able to cut when rubbed the wrong way. Herons flip them in the air and swallow head first.
2. Brown bullhead, *Ameiurus nebulosus*, is a catfish with 4 pairs of whiskers or barbels around the mouth to feel its way along the bottom and find food. They have no scales.
3. Goldfish, *Carassius auratus*, are native to Asia and were introduced in North America in the 1600's. They have bright orange coats and large scales. In lakes, they breed with carp, and the offspring lose all but faint spots of color. Duller colors are safer for the young.
4. Largemouth bass, *Micropterus salmoides*, has a mouth that extends back behind its eye. The fish is long, robust, can live for 16 or more years, but probably not in our park.
5. Bluegill, *Lepomis macrochirus*, is a sunfish with the same deep rounded profile as its cousin, the pumpkinseed. The gill cover is dusky blue and blue bars extend back from mouth and chin. I added this fish because Vaughn was catching so many of them.



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THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol. 1 No. 9

October 1995

Warm and Wet

Even at the beginning of October, black cherry trees continued to put out a bumper crop of fruit for migrating birds. This heavy-laden tree east of the Castle was host to warblers, catbirds, robins, Swainson's thrushes, and scarlet tanagers turned yellow-green for winter. The tree was so loaded with cherries, I asked Howie Moskowitz to snap its picture to make this sketch.



Then at last, the rains came. Mother nature began with days of steady gentle rain followed by days of deluge, hard enough to slow city traffic and reduce visibility to a few yards. Suddenly all the brown earth turned spring green with small plants.

Aster divaricatus or white wood asters, clinging to life under trees, suddenly stood up and put out white flowers. The flower clusters are flat-topped and each flower is a thin circle of daisy petals. In deep shade the flowers are very pale lavender. All the lower leaves were heart-shaped and toothy earlier this summer but now are brown and shriveled.

Clumps of pink-topped smartweed cheered up the landscape. I brought home a specimen to sketch and view with a magnifying glass. The tiny flowers grow in thin spikes and look like the seeds they become. A sheath surrounds each joint of stem and stalks. Long filaments grow up from the sheath like Halloween hair. This is long-bristled smartweed or *Polygonum cespitosum*, part of the buckwheat family.

White snakeroot, *Eupatorium rugosum* put out clusters of downy, very-white flowers. The plant has thin, toothy, smooth, dark green leaves set on slender stalks and grows to 3 feet in woodlands. The juice is poisonous and if cows eat it their milk is unsafe for human consumption.

Sunny warm days interspersed with drenching rains produced mini marshes, tiny insects, and small seeds. Birds arrived in awesome numbers. The widespread drought north of us caused billions of hungry birds to fly south. They were in trees, in bushes and on the ground chasing food. The feeding frenzy went on each day, all day, with no let up for siestas. Chickadees flew through northern parks and suburbs, filled every tree along the Hudson River and spilled into our park like Grand Central Station. Some called "dee-dee-dee" but mostly they ate. I saw more chickadees in one week than I have seen in ten years. They were joined and followed by tufted titmice in even greater numbers. A steady and reassuring trickle of white-breasted nuthatches arrived and excitedly "yank-yanked" their way around trunks and branches. We were startled to see an upwardly mobile brown creeper forget decorum and somersault after an aerial snack before returning to grooved bark. Ruby and golden-crowned kinglets darted through trees and bushes so intent on insects they nearly poked us. Yellow-rumped warblers swooped and looped through the air. As we watched their acrobatics, we saw that they moved through a blanket of midges drifting sideways like tan rain over the meadows.



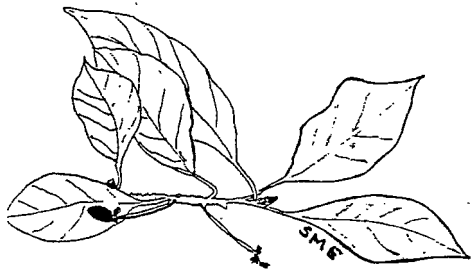
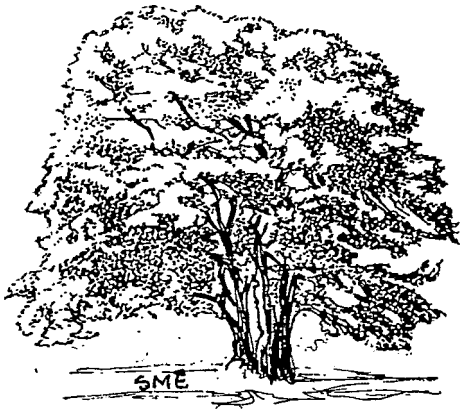
After a drenching night of rain, birds carpet the lawns. Large numbers of white-throated sparrows are usual, but this year there have been so many you all but kick them aside as you walk. They are joined by chipping sparrows, field sparrows, song sparrows and several white-crowned sparrows. More surprising, juncos and tufted titmice work the turf side by side. You can compare their size, shape and shades of gray. Chickadees and yellow-rumps join the throng. It's rare to see such a varied collection of birds all feeding on the ground.

On October 22 in Maintenance Meadow, we saw an indigo bunting in a clump of smartweed. The head and back were a rich brown and the tail and wingtips were dark. The face seemed light yellow just behind the bill and under the eye. The side of the bill was yellow but dark over the bridge. We called this a female. But the illustrations in the National Geographic Guide suggest it may be a first fall male because the tail was quite dark. The bird gobbled seeds and looked wary but fairly calm compared to some of its jittery neighbors. ~~who downright jittery~~. Any loud noise or quick movement and they leapt as one to the trees. When noisy humans and dogs moved off, they returned ~~in~~ slowly in two's and three's to resume feeding at speed in the grass. If seriously disturbed by ballplayers finishing off the grass, they moved southwest to flock on the flat meadow just around the corner.

This meadow becomes famous each year for a great sour gum or tupelo tree, *Nyssa sylvatica*. In fall its dark, shiny, egg-shaped leaves begin to turn, freckling the crown with scarlet. Then small clusters of lower branches catch flame. Finally the entire tree turns from scarlet to claret red. New Yorkers and visitors stand in the clearing, silent except for the click of cameras. Some birders told me an article in The New York Times predicted this tree would reach its full glory October 19. A visit on the 18th showed the tree beginning to turn, but most of it, like most of the park, was still green. A week later on October 25, it was noticeably redder but still not in peak condition.

Usually the sour gum puts out quantities of blue-black fruit and draws large numbers of thrushes, catbirds and flickers on their way south. Feasting birds draw predatory sharp-shinned and Cooper's hawks. When hawks enter the tree it explodes with escaping birds to the excitement of birders below. Not this year. The tree was strangely silent and devoid of most birds except little insect-gleaners. We stood under the canopy and looked in vain for fruit. I brought home a specimen to sketch and only one ripe fruit is on it. All the others did not mature. My sketch of the tree comes from an old photo taken by Howie Moskiwitz. Comparing this year's appearance with the photo, you learn how it survived a drought. Fewer leaves and almost no fruit.

If you walk to the southeast corner of the flat meadow you cross the sidewalk and come to the Gill. Take the path on the left and you will see the stream just before you make a sharp right turn to descend into the Evodia Field. Left of you and across the sidewalk from rocks and benches is a 25 to 30 foot tree with dark gray bark like elephant skin. The top of this tree is shiny and green with pinnately compound leaves. Five to eleven leaflets 5" long grow opposite each other on foot-long stalks. This is the evodia (ee vo dee uh) tree for which this field is named. Its common and scientific names are the same. Two evodia trees were listed in the Vegetation Inventory of the Ramble, October 16, 1978. They grew on the east and west side of this field. Parks Department equipment rammed the east-side tree, gouged off the bark, and rot set in. Slowly the tree died and fell to the



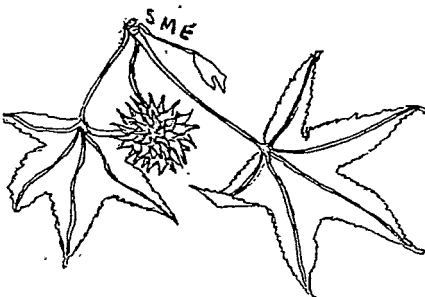
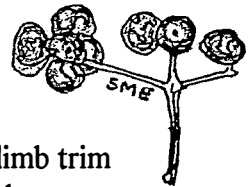
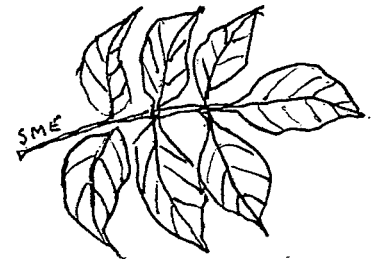
ground. Now only one of these trees remains. It is shaded and crowded by surrounding trees. Shade helped it through hellish August, but at a cost.

The tree was late to flower in September. Full clusters of fuchsia flowers covered the surface when I asked Howie to snap its picture for a sketch. We waited for hordes of birds to come, but the tree was much less active than usual. Rain-sodden flower stalks dropped to the ground in October. I took them home and they dried overnight. The capsules split, curled back, and shiny black seeds were revealed. The fruit is small, like the back end of an ant. We plan to plant seeds in hopes of raising evodiettes. They are supposed to sprout quickly, transplant easily, and live free of insect pests.

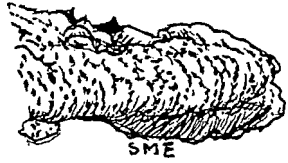
There are 50 species of *Evodia* in the world, both evergreen and deciduous trees. Evodias are natives of Madagascar, East Asia, Australia and Polynesia. Hardy species survive the heat and cold of Northern China and Korea. They were introduced into North America in 1905. People think ours is the Korean evodia, *Evodia daniellii*. But that has white flowers, not bright pink ones. Whatever the specie, it is very attractive to birds. I am grateful to Barbara Stonecipher, Chip Horton and Doris Heitmeyer for research and to Charles Kennedy for kindly hooking down leaves, which dried and curled before I could make a proper sketch.

Evodias are related to cork trees, *Phellodendron amurense*. The arrangement of opposite leaflets on the stalk is the same for both trees but cork leaves are larger and there are more of them on longer stalks. Cork trees produce separate male and female trees. The females bear hard green fruit which turns juicy black and attracts catbirds, vireos, flickers and many thrushes. The only bluebird I ever saw in Central Park was eating cork berries. A majestic group of cork trees stand north of the evodia tree at the apex of Evodia Field. They may be 70 or 80 feet tall and have turned bright gold. Cork trees are named for thick corky ridges between deep fissures in the bark. (These are **not** the Spanish oaks from which bottle stoppers are made.)

Between the evodia and the cork trees is a giant sweet gum tree. This one needs a limb trim where it crowds the evodia, but is gorgeous. There are sweet gums in the flat meadow and over at the north side of Bow Bridge. All of them have star-shaped leaves with 5-7 points and turn color in patches of yellow, orange, scarlet, lilac, purple and brown. They belong to the witch-hazel family and were named *Liquidambar styraciflua* by Linnaeus because of the fragrant yellow sap which oozes from the bark. They put forth prickly fruit balls on long stems. The spikes reminds me of the floating mines of World War II. The 1-1 1/2" seed balls turn from green to brown and open small holes. When struck like a piñata they disgorge seeds and lots of dust particles. The woody capsules hang on trees all winter and if you're lucky, you will see chickadees poke the holes for seeds.



After the rains began to fall, strange new growths appeared on downed logs in the park. I know zip about mushrooms so when I bumped into Merrill Higgins I asked him to photograph these mysteries. He not only agreed but generously sent me prints. We examined a growth on a living oak across the sidewalk from the entrance to the Point. The stuff looked like white cake frosting with brown speckles oozing over the roots. I used Merrill's prints for this sketch.



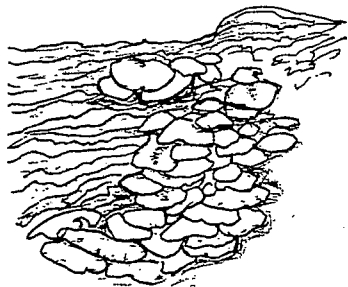
Then I called David Patterson, who has forgotten more about mushrooms than I am ever going to know. We met October 17 for a tour of the Ramble and began with the growth on oak roots. In less than a week it had turned darker, lumpier, and more ominous. Dave seized a clump of it, turned it over, and to my dismay, began scratching my name in the surface. He called it *Ganoderma applanatum* and was demonstrating the common name, artist's conk. The pore surface on the underside scratches easily and can be etched to make pictures.

I showed Dave the logs edging the east side of Evodia Field. We admired small red polypores dotted along an old cherry tree. Cinnabar polypore or *Pycnoporus cinnabarinus* are semicircles or kidney-shapes that grow flat with no stalks. They remind me of dried apricots but the orange is deeper and redder. You can see them this fall and winter as they grow duller and harder.



Most of the growth on nearby hardwood logs was turkey-tail, *Polyporus versicolor* or *Trametes versicolor*. Mushroom experts are forever reclassifying the genus of mushrooms. Some guides index them by species as those names don't change so often. Turkey-tails show many zones of color on a flat surface, some zones smooth and some hairy. They are leathery, overlap and look good when new or after a rain. These were old and dry when we saw them.

After Merrill took photos, new growths emerged. They are oyster mushrooms, *Pleurotus ostreatus*, and are shaped like the shell. They were wide, thick, white, smooth, overlapping and new when I drew them. As I sketched, a winter wren hopped across working their crevices for bugs. It jumped to ground but then returned, to land on a small mushroom of equal size which bounced slightly under the weight. The wren hopped from boulder to boulder, rummaging in the shadows of lower mushrooms. I took a specimen home to draw. The underside looks fan-shaped with beautiful gills and a short, off-center stalk.



Each time I returned the group looked darker and more bitten. It may have been the work of rodents, but oyster mushrooms are not only edible, they're considered "choice" to brave humans.

Correction: I wish to apologize to the goldfish of Central Park. In the last newsletter I said you mate with catfish, which is incorrect. Such a misalliance is quite impossible. You are carp, specially bred for your lovely color. You may turn to other, less well-bred members of the carp family, in the wild. Your offspring will be dull and spotty, but less noticeable to hungry predators.

Subscriptions for 1996: I'm told the time to remind you of next year's newsletter is now, before Thanksgiving. To subscribe, send me a check for \$15 this month or next. My thanks to people who have already resubscribed, and to those who have given it as a gift. If you have a park lover on your holiday list or a homesick friend living elsewhere in the U.S., they might like some nature news.

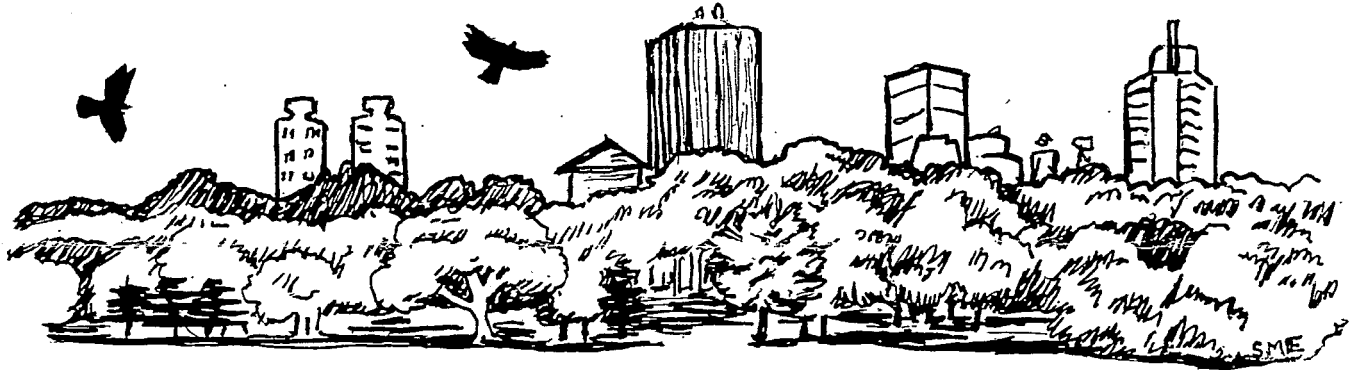
THE ELLIOTT NEWSLETTER

Nature Notes from Central Park

Vol.1 No. 10

November-December 1995

View from the Castle



When Sharon Freedman gets up to do the hawk watch these cold mornings, she puts on sock liners, wool socks, thermal tops and bottoms, leggings, wind pants, a turtle neck, a windblock jacket made of polartec, and over it, a gortex thinsulate jacket. She takes along a face mask, 2 pairs of gloves, and 2 hats for cold and colder developments.

This year Sharon has been keeping watch at the castle since early fall in weather that is hot-dry, warm-wet, cold-wet and downright raw. She began her hawk watch in 1993, starting Sept. 5 and ending Dec. 15. Last year and this she began Aug. 15 and will stop Dec. 15. That's four long months of watching raptors and tabulating their numbers.

When asked if the drought caused any change in the migration schedule, Sharon said no, they were right on cue. What about population shifts? She said there were more ospreys this year. An osprey with dark back, white belly, and crimped gull-like wings flew south one day, clutching a fish in its feet. Presently it returned, still gripping the same fish! According to the Oxford English Dictionary, the name of this fish hawk is pronounced ah-spray, the prey it eats.

Thinking of other hawk populations, Sharon said the number^s of sharp-shinned hawks were about the same as last year and there are slightly fewer kestrels. But the number of broad-winged hawks had really dropped. Last year there were 9 thousand and this year only 7 hundred. Maybe, she suggested, high winds left over from the hurricanes, pushed the raptors inland. A youngish man overheard her theory and joined us to tell of the large flocks seen over Staten Island this fall. A Ranger reported huge numbers over coastal CT and northern NJ. So the broad-winged population is up, but most of them flew east or west of Manhattan.

Aside from sunburn and chills, how have three years of hawk watching changed Sharon's life? She says her "giz." skills are infinitely better. She can quickly identify a hawk by its general look, shape and behavior. Hours and hours of watching have built up her self-confidence and the willingness to trust her eyes and her perception. Now that more and more birders are watching hawks with her, they spend less time debunking her calls. In the beginning few birders believed that bald eagles flew over the park. Now many people have seen them, sometimes flying in groups. Golden eagles caused

even more of an uproar. Now many birders rush to tell you about seeing them. Sharon has logged 31 bald eagles this year and 9 goldens. Vindication is sweet, and so is the population increase.

For Sharon, the location of the hawk count is a pleasure. There's the joy of seeing big wild birds in the center of Manhattan and the center of a park surrounded by buildings. Here are all these hawks, she says, and the castle is a phenomenal place to watch them. It is the highest point in the park and is surrounded by space. You have an almost 360 degree view. Another good thing is that Belvedere Castle is accessible to the public and the public arrive all the time. In the beginning visitors don't realize there's a hawk watch going on. When they do, they observe the hawk count in progress, become intrigued, and some of them return.

Connecting the Dots

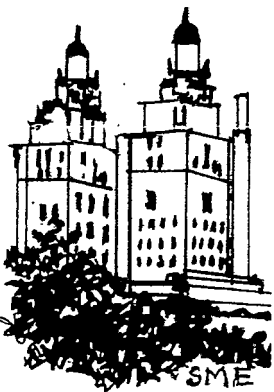
I have enough trouble identifying hawks at what Roger Pasquier calls "an esthetic distance" to avoid trying to name specks from afar. So I quizzed Sharon and some other birders at the castle to see what they would describe. I hope some of this will be of use to you.

If the dot flies with a **V** in the wings it could be a northern harrier, a red-tailed hawk or a turkey vulture. The harrier will glide and circle and you should look for white on the rump. The red-tailed hawk will flap a few times and glide. The turkey vulture rocks from side to side.

Harold Perloff discussed the buteos that come over. He pronounced that **U** as in **few**. You should do the same. **Boo-tee-oh** may be O.K. for Halloween, but it's not in the dictionary. Buteos have broad wings, wide tails, and we see 4 varieties here. In September hundreds or thousands of broad-wings come through, traveling and circling in kettles of at least 50 birds. In November, says Sharon, we can see 4 to 5 hundred red-tailed and 3 hundred red-shouldered hawks, their numbers peaking now. Rough-legged hawks are rare, only 2 so far this year but seeable into February.

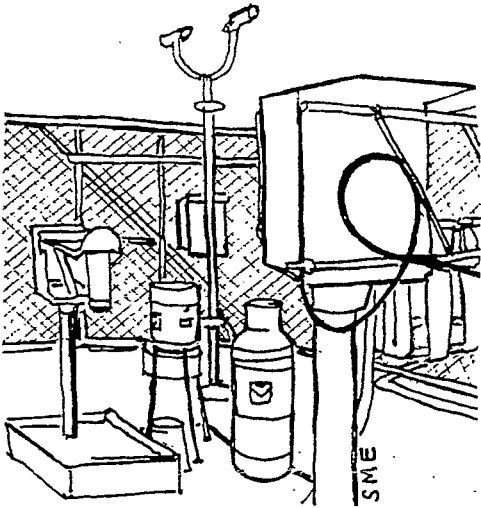
Accipiters flap and glide. They have short, round wings and long tails. If it is a sharp-tailed hawk, the wings have a "flickity" look, says Harold. Sharon adds, they seem to flap from the wrist. Coopers are more solid, the wingbeat heavier, say both. We watched one flare both wings and tail. If the tail is round, it's a Cooper's. Sharpies have a square, flat-edged tail. This bird had a very round tail.

Tom Fiore invited me to look through a telescope at the San Remo, south and west of the castle. I looked at the twin towers and then at the base of the north tower. Sure enough, I saw two dark birds, one noticeably larger than the other. These birds are peregrine falcons and the pair have been hanging around the San Remo at Central Park West between 74 th and 75th St. The birders tell me they fight off any red-tailed hawks that get too near, and now, at Thanksgiving, court one another by passing food. Thanks to Merrill Higgins who photographed the skyline, I sketched the San Remo through the leaves of a wine-red tree. If you are in the area, keep looking up. You may see peregrines on the parapet. They have long tails, narrow pointed wings and she, say birders, is almost double his size. We watched another peregrine flying near Shakespeare Theatre. Sharon drew my attention to the slight arching between the wing tips, seeable at a distance.



We were continually entertained by a kestrel, our smallest falcon. This male was flying from tree to tree near us, showing his rust, white and blue colors in the afternoon sun. Sharon says kestrels hold their wings straighter than do peregrines. If you need help with hawk identification, she will teach you how to look. The castle is open Wednesdays through Sundays, 11 AM to 4 PM.

The Weather Station



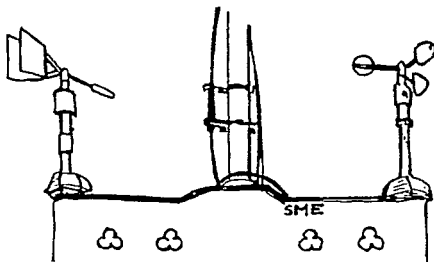
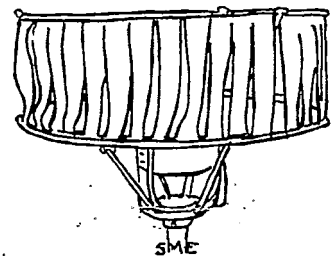
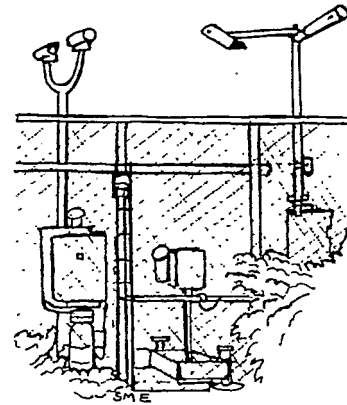
Ignatius Camporeal is a meteorologist who works out of the weather office at Rockefeller Center. He spends a lot of time in the field and the day I came upon him, he was marking his clipboard inside the fenced rectangle just south of the Castle. Ignatius tells me this site in Central Park has been used as a weather station since 1869, recording temperature, humidity and wind.

Earlier this spring, as house wrens were nesting nearby, workmen with heavy machines ripped up the old grassy verge and installed weird and wonderful new equipment that sits on gravel. It is part of the Automatic Surface Observation System or ASOS. Instruments take in information every minute which is relayed to the Brookhaven Office in Eastern Long Island.

Ignatius pointed out two white, branching poles that look like strange lampposts, each with double light fixtures. The "lights" that face north and south are really visibility sensors. Each sensor emits a cone-shaped beam which spreads as it rises to measure the clouds. The sensors record the amount of cover, kind of clouds, and their height up to 12 thousand feet. Visibility sensors can track low to mid-level clouds but nothing as high as a jet stream.

In the southwest corner of the weather compound there is a device that measures temperature and humidity. Nearby, is a strange large wheel with turquoise strips. It looks like a bass drum on its side, wrapped with Venetian blinds. This is a tipping-bucket rain gauge. It contains little cups, each of which can hold only a hundredth of an inch of water. When it rains, each of the cups fills and tips over in sequence. The water is weighed and the result is sent by telephone wire to a monitor in Upton, Long Island, some 60 miles away.

Should anything happen to the phone, ASOS has as back-up an old faithful called a weight gauge. It looks like a large milk can and stands on a wooden platform in the center of the compound. Inside the can, precipitation collects in a bucket which rests on a pedestal. The water is weighed and an ink marker records the amount in a long line on a cylinder graph. Ignatius showed me a marked cylinder about the size of a coffee can. He pointed to an inked line snaking along the base of the graph at $\frac{1}{2}$ inch rainfall. Used cylinders are collected and replaced with new ones every week.

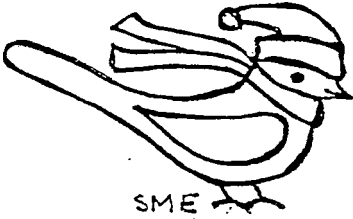


Other old equipment adorns the roof of the castle on either side of the flag pole. A mounted arrow or weather vane points out the wind direction. A three-cup whirligig called an anemometer spins to show the force and speed of the wind. My thanks to Merrill Higgins for the photos which made these sketches possible.

These days, only snow is still a people-measurement, not an automatic one. When snow blankets the weather station, meteorologists appear with measuring rods. They poke the ground to measure snow depth at 10 different locations and average the total. This method avoids the problem of drifting snow and uneven terrain.

Ignatius Camporeale and co-meteorologist Elaine Lewis work out of their National Weather Service Office at 30 Rockefeller Plaza on the Mezzanine Level. If you are a weather buff, go visit it now. On January 1 the lease expires and the office will close. After that they don't know where they will be or whether there will be Federal funds to pay them. There were plans to put a weather office in Belvedere Castle but that seems less certain now that the new Luce Learning Center will be there.

The Christmas Count



As you read in the January newsletter, the first people to count birds for Christmas came to Central Park in 1899. Now, almost a century later, we are still doing it, but there are more counters and we cover the entire park. Also, we are part of a huge network of birders who spread out over the continent to census birds. The results are sent to National Audubon and put through computers. Eventually we learn what bird species are here, the rise and fall of their numbers, and their December locations.

One year, the total number of North American birds was so low, bird experts thought doomsday had come. Then it was discovered that the records for starlings and cowbirds had been omitted. When these plentiful but unpopular birds were added, the grand total of American birds looked as healthy as ever.

Usually, the number of cowbirds seen in Central Park is low. And we don't count starlings at all. That's because they are counted at a roost north of the city. Even without these birds, I think we will have a record high this year, both for the number of bird species and for the number of individual birds. There should be plenty of big birds: swans, hawks and ducks. As for the little birds, the numbers of sparrows, titmice, nuthatches, chickadees and creepers should be larger than they have been in years.

This year's count takes place December 17, a Sunday. We meet as usual at the Southeast corner of the Reservoir at 8 AM. Westsiders can enter the park at 86 St., aim for the Reservoir, and walk east along the jogging path. Eastsiders will meet at 7:50 AM on Fifth Ave. and 85 St., which is north of the Metropolitan Museum and the transverse. We'll walk to the East Drive and the Pumping Station just beyond. Bring \$5 exact for National Audubon. We will divide into teams and, armed with instructions and count sheets, spread out over the park. We meet at the Loeb Boathouse around 12:30 PM for a total count of the park.

New counters, think of Sharon Freedman and wear several layers of warm clothes. You will also need 2 pairs of socks, 2 pairs of gloves or mittens and a warm hat. It's easier to peel off extra clothes than pretend you're warm enough. Bring your binoculars, a bird guide and a pencil. If you want to join but feel nervous about your birding skills, look over last year's list in the January newsletter and consult your bird guide. You probably know most of the birds you will see. If you spot something rare in the field, you can get an expert to look at it with you.

This will be my 10th year as tabulator for the count in Central Park. By way of celebration I will ask the birders to count some of our park mammals--raccoons, squirrels, and rabbits. I pray the day of the count will be fairly warm and sunny, not cold with rain or sleet. Those of you who are fearless in foul weather, be sure to wear plastic. An umbrella may not look rugged but it's practical.