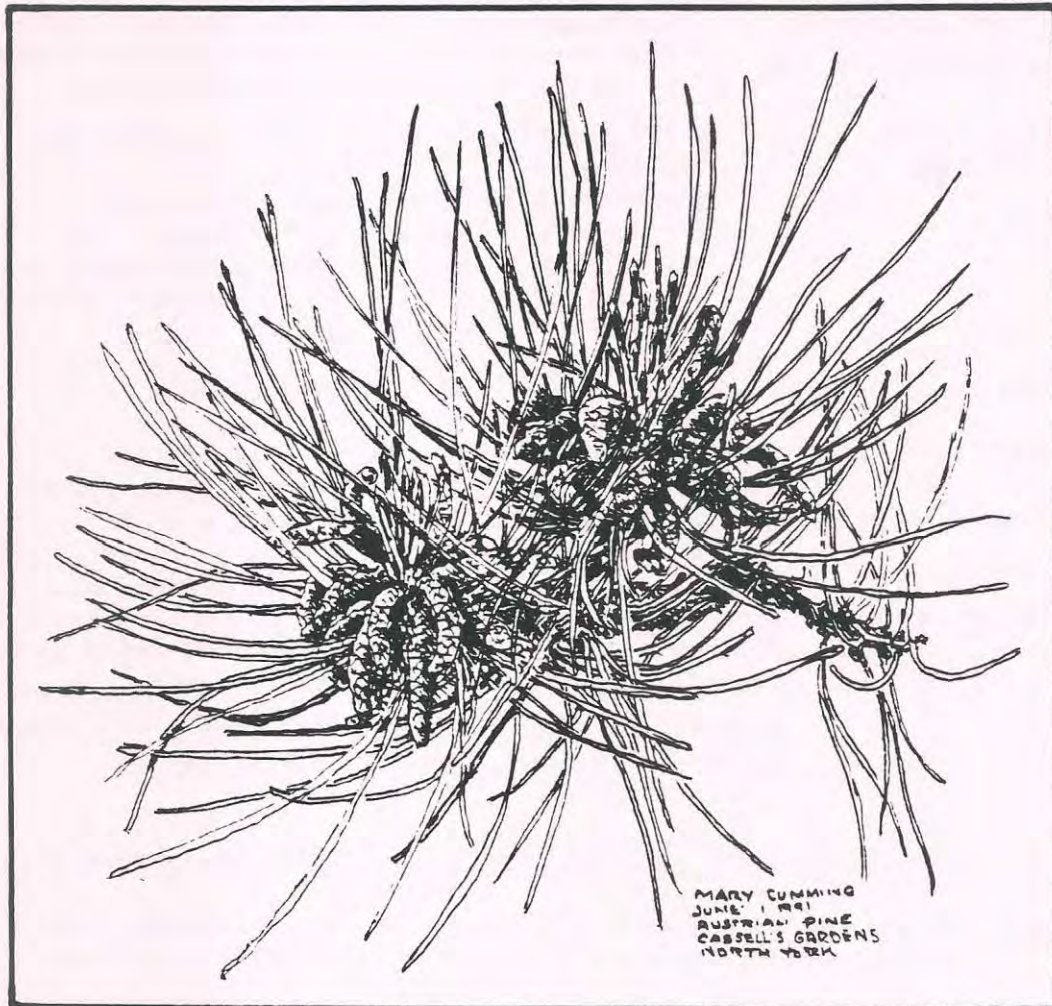


TORONTO FIELD NATURALIST

Number 424

December 1991



Austrian pine with male flowers - field drawing by Mary Cumming

Inside

Amphibians & reptiles 20
Birds 7,9,10,12-13,20,26
Coming events 29
Fishes 20
Invertebrates 9,10,15
Issues 11,16-18
Mammals 9,14,20

Plants 1,4,8,11,19,16-18,20,21-26,
27,29
Skies 15,27
TFN meetings 2
newsletter submissions 2
outings 3-7,11
President's report 8
Weather 28

TFN MEETINGS

- Monday, December 2, 1991 - BUTTERFLY CONSERVATION
at 8 pm
155 College St.
6th floor auditorium
from 7 pm*
to 8 pm
- an illustrated lecture by Dr. David Gaskin from the University of Guelph
 - The speaker will talk about the hard lessons learned from both European and North American experience in trying to conserve butterfly species.
 - TFN social hour in the foyer outside the auditorium
 - memberships and publications for sale
 - a display of the art of Tim Hough
 - a sale of field guides, rare bird books and coffee table nature books (a project of Ron Scovell and Joan O'Donnell)

NEXT MEETING: Monday, February 3, 1992 (NO JANUARY MEETING)



* SPECIAL EVENT: Gail Johnson of the Thunder Bay Naturalists is undertaking a scientific research project towards the long-term management of Ontario's forest resources. At 7 pm she will be showing slides of forest stands which she wants members to rate as to their beauty and then complete a questionnaire. TFN will receive \$5.00 for each completed questionnaire which it can use to purchase more nature reserve land.

7 pm to 7:30 pm
155 College St.
6th floor auditorium

Members are urged to attend this event, thus helping toward the future of Ontario's forests.

NEWSLETTER SUBMISSIONS

Needed: essays (no longer than 500 words), reviews (no longer than 300 words), poems, cartoons, sketches and newspaper clippings

Subjects: plants, animals and natural areas in the Toronto region, especially reports of personal experiences with wildlife

Please include your name, address and telephone number so submissions can be acknowledged. With newspaper clippings include source and date of each clipping.

Time dated material such as notices of meetings should be submitted at least six weeks before the month in which the event is to take place.

Send material to: Toronto Field Naturalists
20 College St., Unit 4
Toronto, Ont. M5G 1K2

NEXT NEWSLETTER: The February newsletter will be mailed to you in early January. You should receive it about mid-January.

TFN OUTINGS

December

Wednesday ALLAN GARDENS - exotic flowers Toronto
 Dec. 4 Leader: Dr. Nick Badenhuisen
 11 am Meet at the entrance to the greenhouses on the south side of
 Carlton Street between Jarvis Street and Sherbourne St. Morning
 only. Exotic plants including Christmas flowers on display.

BRING A NOTEBOOK AND PENCIL SO YOU CAN LOOK UP WHAT
 YOU HAVE LEARNED WHEN YOU GET HOME.

Saturday ALLAN GARDENS- nature arts Toronto
 Dec. 7 Leader: Margaret Emminghaus
 10 am See above.

Bring cameras, sketching materials and stool or just come and enjoy the
 display of plants from all parts of the world. Lunch optional.

CHILDREN ARE WELCOME ON ALL OUTINGS.

Sunday DON VALLEY - nature walk Don, East York
 Dec. 8 Leader: Morris Sorensen
 1:30 pm Meet at the corner of Broadview Avenue and O'Connor Drive.

Walk will end at a different public transit stop.
 After a walk in the Don Valley, members may visit Todmorden Mills and enjoy
 "A Victorian Christmas celebration".

PLEASE LEAVE PETS AT HOME.

Wednesday ROWNTREE MILLS PARK - nature walk Humber, North York
 Dec. 11 Leader: Billie Bridgman
 10:30 am Meet at the northwest corner of Finch Avenue West and Islington
 Avenue. Morning only.
 Visit this large Metro Park with its many natural areas and learn about its
 past use by humans as well as its present use as a wildlife reservoir.

TFN OUTINGS TAKE PLACE WHATEVER THE WEATHER.

Saturday LAMBTON PARK - winter landscapes Humber, York
 Dec. 14 Leader: David Orsini
 12 noon Meet at the park entrance on the north side of Dundas Street
 West at Howland Street. Bring thermos and snack.
 Learn to identify plants in the winter and enjoy the winter landscape.

OUTINGS START AT THE TIME LISTED. DON'T BE LATE.

Sunday ROUGE VALLEY - nature walk Rouge, Scarborough
 Dec. 15 Leader: Stephen Marshall
 1:30 pm Meet at the corner of Sheppard Avenue East and Twyn Rivers Dr.
 just east of Meadowvale Rd.

A chance to visit the proposed Rouge Valley Park in winter and learn about
 some of the ideas for the province's first urban valley park.



DECEMBER OUTINGS (cont'd)

Tuesday ROYAL ONTARIO MUSEUM - nature arts Toronto
Dec. 17 Leader: Betty Paul
10:30 am Meet at the museum entrance on the west side of Queen's Park
just south of Bloor Street West.
Bring sketching materials or just come and enjoy the various displays at
the museum.

FOR TTC INFORMATION, CALL 393-INFO.

Wednesday CEDARVALE RAVINE - nature walk Don, Toronto
Dec. 18 Leader: Ruth Munson
10:30 am Meet at the Heath Street exit of the St. Clair West subway
station (north of St. Clair West, east of Bathurst Street).
Since installation of the subway under this ravine a restoration program and
nature have done much to heal construction scars. Much vegetation and
running water provide ideal habitat for wintering wildlife.

FOR UP-TO-DATE WEATHER INFORMATION, CALL 676-3066.

Saturday CEDARVALE RAVINE - beginning birding Don, Toronto
Dec. 28 Leader: Helen Smith
1:30 pm See above.
For beginning birdwatchers, this is a chance to meet some of our regular
winter birds.

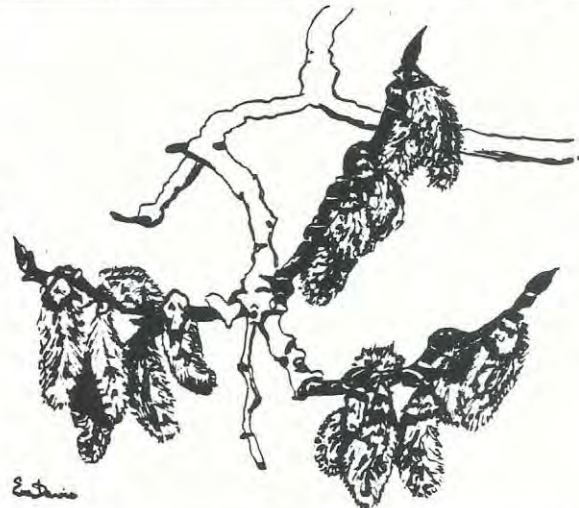
TO REPORT AIR OR WATER POLLUTION, CALL 424-3000.

Sunday LESLIE STREET SPIT - waterfront heritage waterfront, Toronto
Dec. 29 Leader: Boris Mather
1:30 pm Meet at the foot of Leslie Street. Dress warmly.
This is a joint outing with the WATERFRONT GREENWAY group. Come and learn
about the nature of this unnatural area. As well as great views of Toronto,
many ducks, owls and gulls can be seen from this large man-made feature.

THE PUSSY WILLOW'S CATKINS appear before the leaves in early spring. At least three species bear this name. One of them, from the Old World, is often planted here. Its female form is known as "goat willow". Besides our native pussy willow common along our watercourses, a dwarf species grows in High Park.

Ref.: THE COMPLETE HANDBOOK OF GARDEN PLANTS by Michael Wright & VASCULAR PLANTS OF METROPOLITAN TORONTO, TFN 1990.

Drawing by Eva Davis



TFN OUTINGS (cont'd)

January

- Wednesday WILKET CREEK - nature walk West Don, North York
 Jan. 1 Leader: Eileen Mayo
 1:30 pm Meet by the barn on the south side of Lawrence Avenue East
 just west of Leslie Street. Walk may end at a different
 public transit stop.
 Start the year with a leisurely nature walk through the beautiful grounds
 of Edwards Gardens and the valley of Wilket Creek. A chance to look and
 listen for winter birds and enjoy the scenery.
- Saturday EAST POINT PARK - birds Lakeshore, Scarborough
 Jan. 4 Leader: Walter Frey
 9 am Meet at the foot of Manse Rd. (at Copperfield Rd.) Morning only.
 Many kinds of birds find food and shelter in the tangle of vegetation in this
 large wild area. Views of the lake could include gulls, ducks and geese.
 +
- Saturday YORK CEMETERY GREENHOUSE - nature arts North York
 Jan. 4 Leader: Alice Mandryk
 10:30 am Meet at the turnstiles in the North York Centre subway station.
 Bring camera, sketching materials, or just come and enjoy this lovely
 greenhouse and its collection of exotic flora. Lunch optional.
- Sunday HUMBER BAY PARK - birds Lakeshore, Etobicoke
 Jan. 5 Leader: Ross Harris
 10:30 am Meet at the park entrance on the south side of Lake Shore Blvd.
 West opposite Park Lawn Rd. Morning only. Dress warmly.
 A great place to look for wintering waterfowl and maybe even a snowy owl.
- Wednesday HUMBER VALLEY - nature walk Humber, Etobicoke/York/Toronto
 Jan. 8 Leader: Ann Millett
 11 am Meet at the Old Mill subway station. Bring lunch and dress
 warmly.
 If the river isn't frozen over there may be ducks and gulls to see. Other
 birds may be seen among the shrubs along the river or on the wooded slopes.
- Saturday WEST HUMBER - birds Humber, Etobicoke
 Jan. 11 Leader: Joan O'Donnell
 10 am Meet on the southwest corner of Albion Road and Barker Ave.
 Morning only. Dress warmly.
 Our visit to the West Humber Valley may include Joan's backyard feeder which
 over the year's has attracted many rare birds.
 +
- Saturday TAYLOR CREEK - nature walk Taylor Creek, East York
 Jan. 11 Leader: Morris Sorensen
 10 am Meet at the Victoria Park subway station on Victoria Park Ave.
 north of Danforth Ave. Morning only. Dress warmly.
 Come and learn some of the history of this lovely valley and meet some of
 the winter inhabitants -- birds and mammals as well as winter weeds and trees.

WALKS BEGIN AND END AT THE SAME LOCATION
 UNLESS INDICATED OTHERWISE.

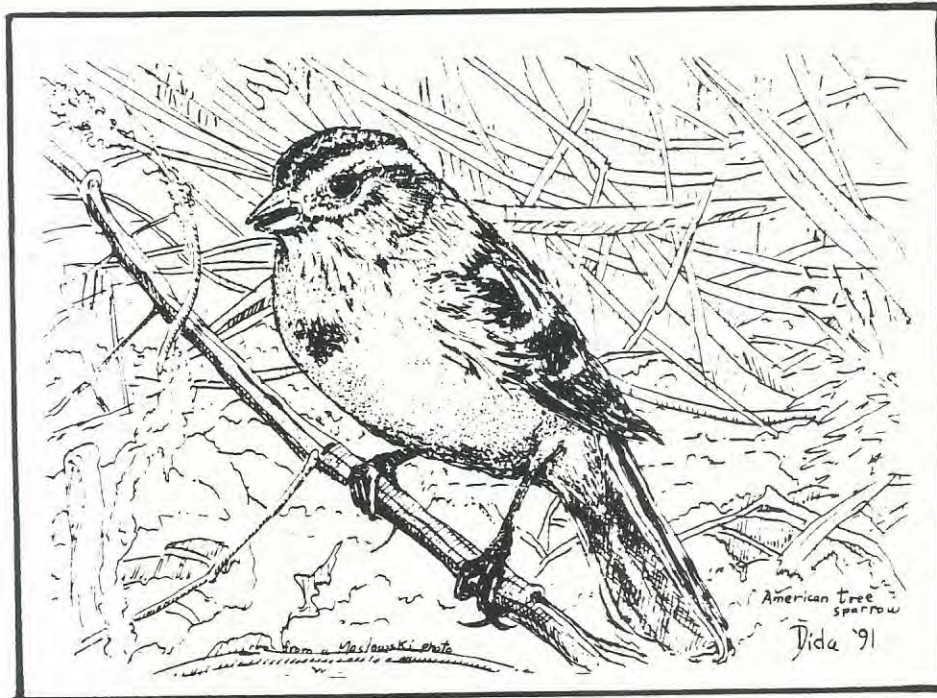
JANUARY OUTINGS (cont'd)

- Sunday
Jan. 12
1:30 pm
- MOUNT PLEASANT CEMETERY - beginning birds Toronto
Leader: Helen Smith
Meet on the east side of Mt. Pleasant Road at the cemetery entrance (to the eastern section).
This is another outing for beginning bird watchers. The many fruiting trees and shrubs as well as the cemeteries proximity to the Moore Park Ravine often make it a good place to study birds that winter in our area.
- Wednesday
Jan. 15
10:30 am
- BELT LINE - nature walk Toronto
Leader: Nancy Fredenburg
Meet at the Eglinton West subway station. Walk will end at a different public transit stop. Morning only.
This walking trail which was formerly a railroad cuts between the back yards of many homes with bird feeders. Also, interesting species of trees and shrubs line the walkway.
- Saturday
Jan. 18
10 am
- WILKET CREEK - nature walk West Don, North York
Leader: Tom Atkinson
Meet at the barn on the south side of Lawrence Avenue East just west of Leslie Street. Walk may end at a different public transit stop. Morning only.
This is one in a series of seasonal walks to be led by Tom through the same area so members can learn some of our native trees and shrubs through the seasons. Learn to appreciate the shape of trees, their leaves, the bark, the buds, the seeds.
- Sunday
Jan. 19
10:30 am
- DON VALLEY - restoration plans Don, East York/Toronto
Leader: Mark Wilson
Meet at the corner of Pottery Road and Broadview Avenue.
Walk will end at a different public transit stop. Morning only.
Mark is the Chairman of the Don Valley Task Force and will show us the Don Valley trail between Pottery Road and Riverdale Farm and discuss plans for the area.
- Wednesday
Jan. 22
10:30 am
- GLEN STEWART RAVINE - nature walk Toronto
Leader: volunteer required
Meet on the south side on Kingston Road at Beech Ave. Walk may end at a different public transit stop. Morning only.
Because this ravine is deep, close to Lake Ontario, and contains a great variety of vegetation, it is an ideal location for birds that winter in our area, even some rarities.
- Thursday
Jan. 23
11 am
- GALLERY HOPPING - nature arts Toronto
Leader: Diana Banville
Meet at 80 Spadina Ave. which is south of Queen Street West.
Lunch is optional.
Several galleries will be toured -- most of them in the same building.
If weather permits, other galleries in the area may be visited.

DRESS WARMLY FOR OUTINGS AT THIS TIME OF YEAR.
LAYERS OF CLOTHING ARE RECOMMENDED.

JANUARY OUTINGS (cont'd)

- Saturday TORONTO ISLANDS - mammals Lakeshore, Toronto
 Jan. 25 Leader: Dan Bone
 9 am Meet at the ferry docks at the foot of Bay Street in time to take the 9 am ferry (or the first one available).
 Dan is the coordinator of the Mammal Atlas for the Toronto region and will show us how to look for mammals in winter.
- Sunday CHERRY BEACH... - nature walk Lakeshore, Toronto
 Jan. 26 Leader: Ken Cook
 1:30 pm Meet on the south side of King Street East at Sumach Street. Walk will end at Ashbridges Bay.
 This is another joint outing with the WATERFRONT GREENWAY group. Our waterfront heritage includes many features of historic interest as well as natural features -- from "moth-balled" hydro station to wintering waterfowl.
- Wednesday SHERWOOD PARK - nature walk Burke Brook, North York
 Jan. 29 Leader: Volunteer required east of Mt. Pleasant Rd.
 10:30 am Meet at the park entrance at the east end of Sherwood Ave. Walk may end at a different public transit stop. Morning only.
 This is one of the best forests remaining in Toronto. It contains some of the largest beeches in the province as well as many very large oak trees.



THE AMERICAN TREE SPARROW, in Toronto Region, is most likely to be encountered in late fall and throughout the winter, though a few have been reported as late as April 27. Considerable numbers visit feeders. This species breeds in the tundra, unlike its close relatives, the chipping and field sparrows which breed in southern Ontario, including Toronto Region. Ref.: BREEDING BIRDS OF ONTARIO by Peck & James

PRESIDENT'S REPORT

The possibility of changing the day of our regular monthly meetings from Monday evening to Sunday afternoons has been brought to your attention in the November newsletter. Several positive replies have been received and we look forward to further comments and suggestions.

Meetings of the Bird, Botany and Environment Groups which were held in the evenings each month in the winter have been discontinued because of low attendance. Inviting guest speakers to address such small audiences could not be justified. Instead a program of more specialized outings has been planned. This winter Helen Smith has been leading outings for beginning bird watchers, Tom Atkinson is leading a series of outings to introduce members to the trees and shrubs of Wilket Creek through the seasons, and we are having several outings with the Waterfront Greenway group and one with the Don Valley Task Force.

A report of each outing is submitted by the leader. On these are noted the number of persons in attendance, weather conditions, numbers and species of plants and animals observed and recommendations for future outings. These are examined by those organizing outings; and in preparing reports on changes to the flora and fauna of our region these are absolutely essential. The reports are filed in the TFN office and are available for anyone to examine who is doing research on Toronto's natural history. Recently an official from the Ontario Ministry of Natural Resources went through all the reports for the Rouge Valley outings. The information is to be used in planning for the Rouge Valley Park. The reports are also valuable evidence of use of natural areas when dealing with government officials concerned about development proposals.

Outings are held in all parts of Metro and are all accessible by public transit with meeting places at public corners. During the past year we managed to explore the Lake Iroquois shoreline from east to west across Metro and we explored the Don watershed within Metro Toronto from the lake to Steeles.

During 1990, 170 outings were held and more than 2,500 members and friends attended. So come and join us. Dress appropriately -- layered clothing for warmth at this time of the year. Enjoy the outdoors and learn about nature and the environment.

Holiday Greetings and best wishes for the coming year.

Eileen Mayo

□



THE BEDSTRAW BELLFLOWER or MARSH BELLFLOWER grows on Toronto Island. Appearing white, on close examination it is pale violet. A larger, bluer, more northern form is sometimes considered a separate species.

Ref.: Gleason & Cronquist, MANUAL OF VASCULAR PLANTS

KEEPING IN TOUCH

April 2, 1991

I would like to add a few comments for your April Bird Report[TFN 419:8] which I read today on the subway returning home. I was a little surprised to find the blue bird only just now making the breeding bird list for Metro. When I started birding (in 1950) it was breeding sporadically in High Park. We could nearly always find it along Spring Road...[The upland sandpiper] is regular at Malton Airport. I look for them when we are taxiing and often see them from the plane. (I fly a lot and always have my binoculars with me on every business trip I make). Last year I saw them twice at Malton Airport, August 3 and August 10 - three birds both times...The loggerhead shrike used to be common everywhere in the 50's but now I haven't seen it for at least 15 years.

Ilmar Talvila

Oct. 22, 1991

I read the article "Butterflies and Berries" by Eva Davis in your newsletter (TFN 422, 25, Oct) with considerable interest in that I have been alar-tagging monarch butterflies under the direction of Dr. Fred Urquhart since 1967. This has indeed been an excellent year for the monarch butterfly. I have received reports of monarch butterflies roosting in large numbers at many locations along the shores of Lake Ontario and Erie, including Prince Edward Point, Wards Island, Long Point and Point Pelee.

The situation was similar at Presqu'ile Provincial Park, where I do most of my tagging. This year's total number tagged exceeded 7,000! Early reports of these alar-tagged butterflies being recaptured this year include one found on a truck hood near Columbus, Ohio, and another found by a seven-year old boy near the well-known birdwatching spot of Presque Isle, near Erie, Pennsylvania. This young lad had watched the episode of "Reading Rainbow" on PBS that told the story of how monarch butterflies are tagged, and hence he knew to tell his parents to record the number, and re-release the butterfly!

Dr. Urquhart, and his wife, Norah are exceptionally busy as the 300+ other Research Associates are also tagging great numbers of monarch butterflies. I also understand that Dr. Urquhart will be revising his book, "The Monarch Butterfly -- International Traveller". As he approaches his 80th birthday, Dr. Urquhart will have been studying the monarch butterfly for over 55 years!

At present, a Joint Resolution is being debated in the U.S. House of Representatives, designating the monarch butterfly as their national insect.

Three of my alar-tagged monarch butterflies of past years have made it all the way to the overwintering sites in the Neo Volcanic Plateau, near Anganguero, Michocan, Mexico. I hope that some of this year's butterflies also make it that far!

Donald A. Davis

If you find injured wildlife, call WILDCARE WILDLIFE REHABILITATION CENTRE (832-6957) Box 364, King City, Ontario LOG 1K0.

KEEPING IN TOUCH (cont'd)

Oct. 25, 1991

This past summer I noticed a larger number of monarch butterflies than usual in my garden (near Dufferin and St. Clair Avenue West) and they were from about mid-June -- when other years they would not show up on my property until sometime in August. Perhaps they have discovered that Impatiens are flowering continuously from planting in late May until frost time and I grew over a hundred of these this year -- nothing else of significant numbers was in bloom here before late July.

Members of one bee family were here too in much larger numbers than I've ever known before from late June onwards and they were much more aggressive than in other years. Although I have never been stung in my own garden. I felt threatened every time I ventured out, which I had to do numerous times every day. Even waiting until after sunset was no guarantee that I would not be attacked, so my work was made hazardous from mid-summer until October. These were mostly honey bees and bumble bees, regulars in my garden every year, but until this past summer they would simply make casual approaches to suggest that they were annoyed when I worked near them but usually let me work fairly freely among them. What could have changed their attitude, the higher temperatures and drier weather? I had a great many more blooms on my annuals this year than in most because of the high temperatures, which attracted an increased number of hummingbirds from mid-summer or early August onwards whereas in years past I would not see them here until late August.

Perhaps someone can offer explanations or expert opinions on these observations.

Al Shaw

□



White-breasted Nuthatch

THE WHITE-BREASTED NUTHATCH
draws attention to itself in winter
with its "yank-yank" call,
louder than the "tin-horn"
of the red-breasted nuthatch -

IN BOTH CASES A CHEERY GREETING!

(Illustration is from an
etching by Owen Fisher.)

ref.: A FIELD GUIDE TO THE BIRDS
EAST OF THE ROCKIES
by Roger Tory Peterson, 1980

OUTINGS REPORT

On November 2, 1991, there was a clean-up of the Nesbitt Dr. Ravine coordinated by East York resident Suzanne Elder and her husband. Among those attending were Commissioner of Parks and Recreation Bonnie Lindsay and Mayor David Johnson who brought tremendous energy to the workparty. Recreation Coordinator Mary-Lou Murray came with Glad bags, rakes, the removal truck, and a lot of effort, along with Councillors Lorna Krawchuk and Jenner Jean-Marie. "Plain folks" were represented by the usual handful of neighbourhood people, the basic movers and doers in all such local environmental enterprise. Mr. Jean-Marie stayed to the bitter end, burrowing away at the yard-deep removal of rotting junk discarded during a four-month stay by a homeless individual. The hillsides, of course, also bore copious evidence of the over-the-fence mentality of so many homeowners, as well as the possibility of individual ravine encroachments which it is apparently beyond the power of Parks to curtail once it is a fait accompli.

We had advertised this in the Newsletter as an opportunity for members to help in cleaning up the small tributary running through the ravine straight into the Don. My thanks, therefore, to Molly Campbell, Frances Hay, and a new member who slid past before I could get her name. They performed yeoman service, as did everybody. We collected two truck loads, with another load to be picked up the following week. And yes, this "scavenger hunt" yielded something we have never yet boasted on any of our own: a TV aerial!

It is the old story. All the vociferous "environmental" organizations which have burgeoned over the past couple of years to Save This, That and The Other become in a short while conspicuous by their absence. The ones who will save the earth -- in Toronto at least -- remain individual, the citizens who refuse to leave it up to someone else and who bend concerned political ears and their own backs, when necessary, to achieve what they believe has to be done.

Eva Davis

□



Canada Moonseed, Metro Zoo Core Woods, July 25, 1986, a field-sketch by Diana Barville

Lake Ontario Mid-Winter Waterfowl Inventory

January 6, 1991

Compiled by: Bill Edmunds

TENN 424 - 12

Species	T O R O N T O												Hamilton	Niagara	TOTAL	
	Kingston	Presqu'ile	Port Hope	Durham	Route1	Route2	Route3	Route4	Route5	Route6	Route7	Subtotal				
Red-throated Loon	2			1												3
Common Loon	1				2	1						2	5	2		8
Horned Grebe	5													7	9	21
Red-necked Grebe												2	2			2
Double-crested Cormorant							1					1		3	2	6
Tundra Swan	8															8
Trumpeter Swan				1	4	2				1		7				8
Mute Swan		4		14	2		2	14	6	30	9	63	14		1	96
Snow Goose					3					2		5		1		6
Canada Goose	5017		46	2428	9655	523	153	159	1700	1268	1334	14792	2544	729		25556
Wood Duck									2			2		3		5
Green-winged Teal				4	3		5		2			10		1		15
American Black Duck	169		65	1046	192	117	12	9	47	44	176	597	414		12	2303
Mallard	417		760	5136	2037	776	160	368	1866	1019	519	6745	1302		1879	16239
Northern Pintail	1			10	1							1		32		44
Blue-winged Teal																
Northern Shoveler									9			9				9
Gadwall					43	11	102	22	39	157	12	386	25		2	413
American Wigeon					2					27		29				29
Canvasback	1													1	11	13
Redhead	5	18			3			31	37	25		96	1		6	126
Ring-necked Duck	14								1			1	2			17
Greater Scaup	541	25	10	257	40	5		36	205	352		638	771			2242
Lesser Scaup	12									2		2		259		273
Scaup sp.															1764	1764
Common Eider	1															1
King Eider														1		1
Harlequin Duck								1				1				1
Oldsquaw	10277	2144	188	42		2327	3082	206	133	204	18	5970	912		1933	21466
Black Scoter																
Surf Scoter							5					5				5
White-winged Scoter	1045						157					157	26		216	1444
Common Goldeneye	3055	366	829	487	272	127	10	58	32	118	173	790	594	3931		10052
Bufflehead	28	103	29	138	139	39	38	112	22	48	76	474	293	197		1262
Hooded Merganser					1							1	8		2	11
Common Merganser	2376	45	324	122	92	34	2	48	86	42	10	314	598	293		4072
Red-breasted Merganser	24		1	655	266	104	33	68	20	1	26	518	52	147		1397
Ruddy Duck														1		1
American Coot	1															1
Ducks sp.		1500	50	90	301	2000	3	200	135		1	2640		500		4780
Total Birds	23000	4205	2302	10431	13058	6066	3602	1495	4342	3340	2358	34261	7867	11634		93700
Total Species	21	7	9	14	18	12	11	16	16	16	12	28	26	17		37
Bald Eagle	5	1										0				6

LAKE ONTARIO MID-WINTER WATERFOWL INVENTORY

On January 6, 1991, birdwatchers from Kingston to Niagara Falls counted the waterfowl to be seen from the Lake Ontario shoreline from 8 am to 4 pm. The lake was generally open but some channels and bays were icebound; there was little wind and the lake was "smooth as glass". The day was cloudy, with occasional light flurries; however, visibility was excellent. Temperatures were from -5°C to 0°C. In short, perfect conditions for waterfowl viewing!

This was the 45th year for the Toronto count, the fifth year that the lakeshore from Presqu'ile to Niagara-on-the-Lake has been covered, and the first time that the Kingston area was also included in the report.

In the Toronto area, a record 34,261 individuals were seen; the previous high was 29,600 in 1980. As well, a record 28 species were seen. Record high numbers were seen for common loons (5), trumpeter swans (7), Canada goose (14,792), green-winged teal (10), surf scoter (5), and red-breasted merganser (518).

High numbers were reported for oldsquaw, and most groups reported large flocks of unidentifiable ducks far out on the lake, which were likely more oldsquaws.

Low numbers were noted for greater scaup (638) and canvasback (0), which seem to be the trend for the past decade.

There were two "first timers" for the count: a double-crested cormorant at Toronto Islands and two red-necked grebes at Oakville.

Other "good" birds included a ring-necked duck at Ontario Place, a harlequin duck at Toronto Islands, and a large flock (157) of white-winged scoters off Toronto Islands.

Outside the Toronto area, Kingston had large numbers of oldsquaw (10,277), white-winged scoter (1,045), common goldeneye (3,055), and common mergansers (2,376). They also had two red-throated loons, 8 tundra swans, a common eider, and five (!) bald eagles.

Durham had large flocks of American black ducks (1,046), red-breasted mergansers (655) and mallard (5,136); they also had a red-throated loon and ten northern pintails.

Hamilton had 7 horned grebes, 3 double-crested cormorants, 2 ring-necked ducks, 8 hooded mergansers, a ruddy duck, and a king eider.

Niagara-on-the-Lake had 9 horned grebes, 2 double-crested cormorants, 11 canvasbacks, and a huge flock of common goldeneyes (3,931).

For the entire area (Kingston to Niagara-on-the-Lake), 93,700 waterfowl were found from 37 species.

Thanks to all the clubs and individuals who participated.

W.J. Edmunds (731-7551)

Toronto Routes: 1 (Whitby to Rouge River); 2 (Rouge River to Coatsworth Cut); 3 (Eastern Headland to Cherry Street); 4 (Toronto Islands); 5 (Parliament Street to Humber River); 6 (Humber River to Watersedge Park); 7 (Watersedge Park to Bronte).

FOR READING

A FIELD GUIDE TO THE NATURE RESERVES OF THE FEDERATION OF ONTARIO
NATURALISTS by Paul G.R. Smith, Donald Kirk and Brad Cundiff, F.O.N.
1991, free

In celebration of its 60th anniversary, the Federation of Ontario Naturalists (FON), published this 32-page, two-colour booklet. To obtain a free copy, send a self-addressed stamped envelope (80 cents postage on an envelope 6" X 9" or larger) to: Field Guide, FON, 355 Lesmill Rd., Don Mills, Ont. M3B 2W8. Generous support for this project came from Bell Canada and the Ontario Heritage Foundation, an agency of the Ministry of Culture and Communications.

BRINGING BACK THE DON, The Task Force to Bring Back the Don, Aug. 1991,
\$7.00 (Call 392-1255 or write to The Task Force, 20th floor, East
Tower, City Tall, Toronto M5H 2N2).

□

THE NORWAY RAT was sketched by Mary Cumming from live specimens in the display, "Creepy Critters" at the Canadian Museum of Nature in Ottawa. Subsequently, this sketch, among several other of Mary's drawings and paintings, was selected to be shown in that museum's "Discovery Den".

An indication of Toronto's population of Norway rats has come through reports from the Keele Valley Landfill site, where they've been seen tumbling - sometimes alive - from garbage dumped there.



IN THE NEWS

BEE DECLINE STINGING CANADA'S FOOD INDUSTRY

The billion-dollar contribution of bees to Canada's food industry is in jeopardy, researchers at the University of Guelph say. Insecticides, parasitic mites and the loss of nesting areas are threatening both wild and domestic bees. Crop loss has already been recorded because of a lack of bees according to an article in the AMERICAN JOURNAL OF ALTERNATIVE AGRICULTURE. Farmers whose alfalfa fields expanded and drove out bees have suffered heavily, with yields dropping from 1,000 kilograms per hectare to just 150 kg. Alfalfa and a number of fruits depend heavily on bees to pollinate them, allowing seed and fruit to form. In New Brunswick the researchers say insecticides used to kill spruce budworms also wiped out huge numbers of bees leading to a loss of 665 tonnes a year in the province's blueberry crop. Researchers suggest that farmers and other rural people plant more shrubs and trees, and stop killing plants like milkweed, chicory and thistles, which provide pollen and nectar to bees.

adapted from "Frontiers" in the OTTAWA CITIZEN, Oct. 6, 1991

PESKY MUSSELS WON'T DO WELL IN MUSKOKA

The Environment Ministry has bad and good news about zebra mussels for Southern Ontario cottagers. Because of favourable water conditions, the mussels should thrive along the Trent-Severn and Rideau waterways, but they aren't expected to do well in most lakes in the Muskoka, Haliburton and Parry Sound regions where the water doesn't contain enough calcium for them to develop. The forecast is based on information obtained by the ministry for studies on the effects of acid rain on Ontario waterways. Earlier this year zebra mussels were found near the entrances to the Trent-Severn and Rideau systems. These waterways are easily accessible to the lower Great Lakes where the mussels are concentrated so far. As well their water conditions are ideal for zebra mussels, with high calcium levels, low acidity and plenty of algae and microscopic animals the invaders feed on.

adapted from an article by Peter Gorrie in the TORONTO STAR, Oct. 17, 1991

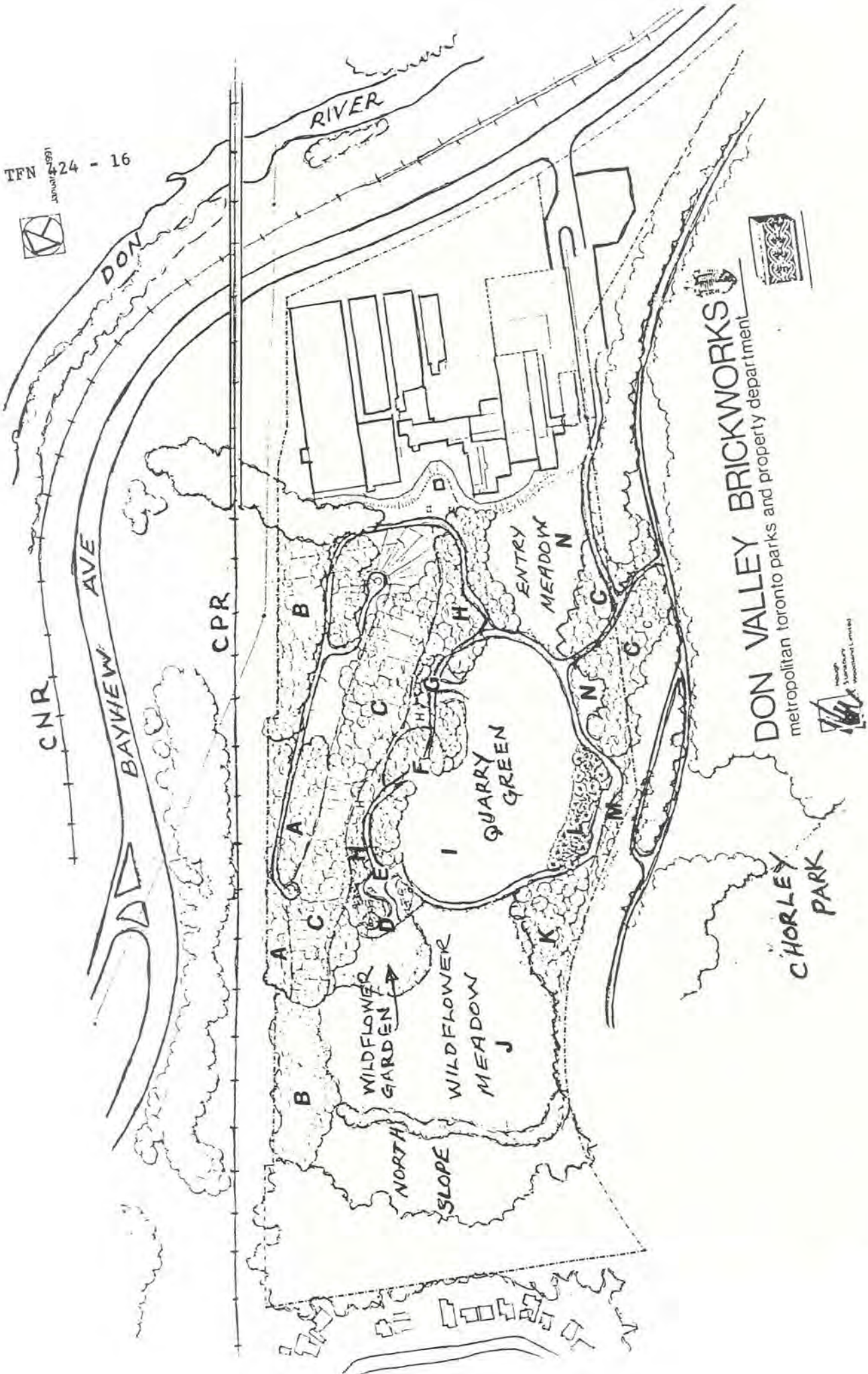
MILKY WAY STILL VISIBLE FROM CORNER OF METRO

It is still possible to see the Milky Way from a spot in the extreme north east corner of Metro (north of the Beare Road landfill) in a site where the lights of the city have yet to invade fully. Steve Spinney, president of the Toronto branch of the Royal Astronomical Society of Canada, thought he saw it in April 1990 while looking for a comet. On a beautiful cool, clear evening this past summer the sighting was confirmed. After five minutes of darkness, time for eyes to adapt to the dark, part of the Milky Way in the constellation Cygnus was definitely seen, though faint. Sections of Aquila, Cassiopeia and Sagittarius were very dim. This erosion of nature's stellar splendor is part of the package of positives and negatives in a big city. Most of the damage has been done in the past 25 years as the city grew and further installations of outdoor lighting has turned the night sky into the permanent twilight we have today.

adapted from an article by Terence Dickinson in the TORONTO STAR, Sept. 9, 1991

□

TFN 24 - 16



DON VALLEY BRICKWORKS
 metropolitan toronto parks and property department



CHORLEY PARK

A PLAN FOR THE DON VALLEY BRICKWORKS

Now that the Don Valley Brick Works property is owned by the Metropolitan Toronto and Region Conservation Authority (MTRCA), the site must be prepared for use by the public. The following plan was prepared by the landscape consultants Hough Stansbury Woodland Limited and approved by the Metropolitan Toronto Parks and Property Department as well as MTRCA. The historic buildings are out-of-bounds to the public until more money is found for further development of the site.

H.J.

A Managed Regeneration - top of east ridge

Small pockets of pioneer species in existing meadow (aspen, poplars, sumac, dogwood augmented with hackberry, hoptree, black to scarlet oak, red cedar) to assist natural regeneration.

B Natural Succession

These areas will be allowed to continue regenerating naturally. Maintenance is not necessary or desirable.

C Managed Regeneration - lower slopes of east ridge and quarry bottom
Managed succession by planting small seedlings of pioneer species (on slopes where erosion occurs bio-engineering planting techniques will be used).

D Butterfly Garden

Focus on the interpretation of the life cycle of various butterflies and moths, and in particular the monarch butterfly, with its strong valley association. Surrounding woodland and meadow includes species for larvae habitat and food. Native and non-native species with nectar producing flowers are used to attract butterflies for observation. Butterflies prefer yellow and mauve, often scented flowers including brambles, mock orange, lilac, butterfly bush, honeysuckle, asters, and daylilies.

E Hummingbird Garden

The garden, blended with the butterfly garden, includes both native and non-native species with nectar producing flowers. Hummingbirds prefer red, orange and yellow flowers such as honeysuckle, beauty bush, Siberian pea shrub, rose of Sharon, cardinal flowers, bergamot and daylilies.

F Wildlife Habitat Garden

A variety of plants will support reptiles, amphibians and mammals: squirrels, raccoons, as well as toads and salamanders. Food plants include oaks, hickory, walnut (seednut producing), wild apple, viburnums, dogwoods, elderberry (fruit producing), and herbaceous groundcover plants.

G Bird Habitat Demonstration Garden

The garden will include nesting sites for birds and food plants. Nesting sites will be enhanced through the selection of suitable tree and shrub species in addition to bird houses. Food plants will focus on fruit and seed producing plants (through four seasons), including serviceberry, elderberry, dogwood, viburnum, honeysuckle and thistles.

DON VALLEY BRICKWORKS (cont'd)

H Lowland Carolinian

This Carolinian succession utilizing managed succession (i.e., initially poplar, black locust, aspen, silver maple, alder, etc. for canopy closure) include historic species of the Brickworks. In addition to the southern hardwood species, sugar maple, beech, red and white oak, white pine and hemlock, the following Carolinian species are included: tulip tree, black tupelo, cucumber tree, black walnut, blue ash, hickory, Kentucky coffee tree, honey locust, and sycamore. Depending upon budget, Carolinian species may be introduced either as small pockets or as larger masses.

I Quarry Green

Low growing grasses and white clover for nitrogen and variety, mown several times per year.

J Wildflower Meadow

Old field association with native and naturalized wildflowers and grasses. Wildflowers will focus on species for butterflies, including black eyed Susan, goldenrod, milkweed types, Queen Anne's lace and thistles. Existing woody plant material (e.g. poplar) should be relocated to other side gardens to maintain the view to the North Slope.

K Lowland Southern Hardwood

Red maple/silver maple association with yellow birch, paper birch, sycamore, black walnut and white pine, appropriate to this somewhat low area of the site. Understorey plants will include alternate leaved dogwood, serviceberry, dogwoods and viburnums.

A rich ground layer of herbaceous plant material will include a variety of shade tolerant wildflowers such as yellow fawn lily, spring beauty, marsh marigold, Jack-in-the-pulpit, Dutchman's-breeches, and ferns.

L Fossil Garden

A primarily evergreen forest along the West Ridge (larch, red pine, red and white spruce) reminiscent of colder interglacial periods described by the North Slope. Northern herbaceous groundcover plants consist of ferns and shade tolerant wildflowers.

M Wet Scree Garden

Ferns, mosses, lichens and the like growing in between the damp shaded stone debris at the base of the West Ridge. Occasional clumps of Solomon's seal, Jack-in-the-pulpit, and other herbaceous plants.

N Entry Meadow

A more colourful mixture of grasses, clover, bird's foot trefoil, and wildflowers, mown once or twice per year. Optional horticultural elements could include ornamental grasses and sprays of spring flowering bulbs.

□

Westerners think that they can achieve mastery over Nature through the use of machinery and technology when all they will do ultimately is destroy it, and themselves in the process.

from FOOTLOOSE IN THE HIMALAYA by Mike Harding; Michael Joseph, London, 1989

Too much attention, and too much money, goes into the automatic and unintelligent planting of trees. Tree-planting is not synonymous with conservation; it is an admission that conservation has failed.

extracted from "The History of the Countryside" by Oliver Rackham, J.M. Dent & Sons Ltd., London, 1986

HAS TREE PLANTING BECOME A HOLY ACT?

How many trees planted, for example, by boy scouts live for even a year after they are planted? How many boys (now old men) can visit a tree they planted as a child and look upon it with pride? On a recent trip to France, Ken Cook saw a tree that had been planted in the 1780s. Have we anything like this in Canada? Of course not, we only cut trees in Canada. On TFN outings along the Lake Ontario shoreline I have seen no really old trees, and many miles have a landscape with NO trees at all.

In Metro many trees are planted every year, on streets and in valleys. Most of the trees planted are not native to this country or are from another region; for example, the white spruce and jack pine planted in the valleys are readily available from the Ministry of Natural Resources and are not expensive, but they are inappropriate, really thriving north of Toronto where the winters are longer and the air less polluted.

Though lots of people plant trees, how many ever go back to see how the trees are faring? Trees need help when first planted. Grass encircling a young tree competes for water and food. Mulching is needed to help control grass and other plants under young trees; also extra water should be provided to help the young plants get established.

Next time someone asks you to plant a tree, ask what kind of tree and what kind of care it will be getting after your day's work is done. Be ready to go back and look at the tree and help it grow old. That could be the best memorial anyone could ask for -- a tree thriving long after you are gone!

Helen Juhola

Further reading:

Baines, Chris. "Forests for folks" in BBC WILDLIFE, Vol. 9, No. 2, Feb. 91

Williams, Ted. "Don't worry, plant a tree" in AUDUBON, May 1991

□

There must be every encouragement for woodlands to emerge naturally. Benign neglect has already given us vast areas of seedling woodlands, on abandoned railway sidings, worked-out quarries and elsewhere. The network of relic copses, surviving hedgerow trees, parkland specimens and garden trees that crisscross the landscape offer a marvellous seed source of woodland trees and shrubs local to the area. If land is set aside they will colonize, and with encouragement, they will develop into natural woodland. How refreshing it would be to find that tree-planting was adopted as a last resort, instead of a first priority.

extracted from "Forests for folks" by Chris Baines in BBC WILDLIFE, Vol. 9, No. 2, Feb. 1991

TORONTO WILDLIFE LIST

This year, the number of animal-life reporters for the Toronto Region (within a radius of 48 km of the Royal Ontario Museum) has risen to 65. There are still gaps in the picture so, if possible, please send in the balance of your reports for the calendar year 1991 some time in January, 1992, to enable us to assess the status of each of our species.

As usual, send reports on AMPHIBIANS AND REPTILES to: Bob Johnson, Metro Zoo, P.O. Box 280, West Hill, Ontario M1E 4R5 or phone 392-5900.

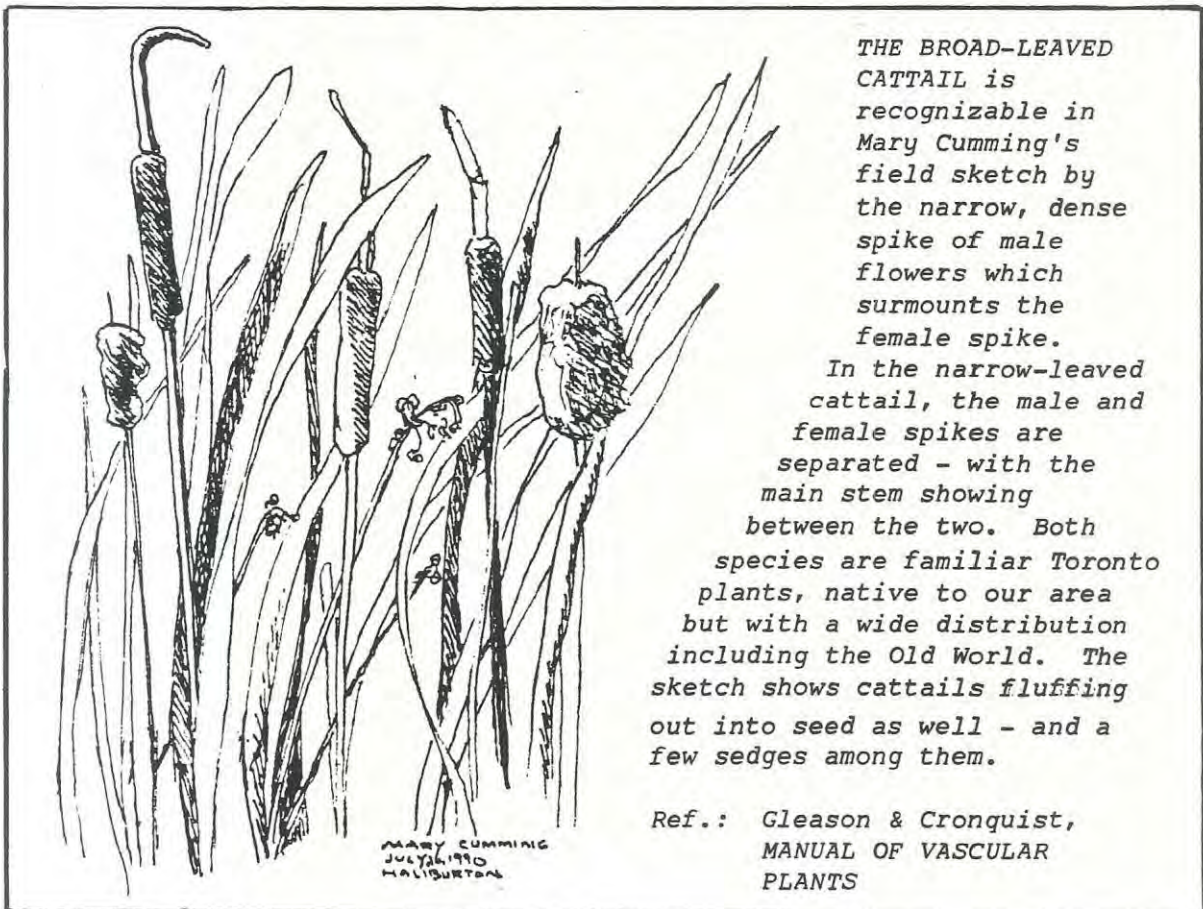
Reports on INVERTEBRATES, FISHES, BIRDS and MAMMALS should be sent to Diana Banville (710 - 7 Crescent Place, Toronto, Ontario M4C 5L7) who would also appreciate reports on any additions to the current TFN checklist VASCULAR PLANTS OF METROPOLITAN TORONTO, or any checklists of specific natural areas within the Toronto Region of plants and/or mushrooms.

Our thanks to all reporters. Keep looking, write it down, and send it in.

Diana Banville



Drawing by
Mary Cumming,
red fox,
Museum of Nature,
Ottawa



THE BROAD-LEAVED CATTAIL is recognizable in Mary Cumming's field sketch by the narrow, dense spike of male flowers which surmounts the female spike.

In the narrow-leaved cattail, the male and female spikes are separated - with the main stem showing between the two. Both species are familiar Toronto plants, native to our area but with a wide distribution including the Old World. The sketch shows cattails fluffing out into seed as well - and a few sedges among them.

Ref.: Gleason & Cronquist,
MANUAL OF VASCULAR
PLANTS

WILD PLANTS IN AND AROUND TORONTO

In 1976 a small book appeared in the Dutch language under the title "Wild Plants in and around Amsterdam". The author, J. Bolman, wrote about the Amsterdam vegetation in a popular, but scientifically correct way, and it made delightful and interesting reading.

If one were to do a similar survey for Toronto, which has three times as many plant species as Amsterdam has, it is clear that a selection would have to be made of the most common plants.

It is necessary to know species names, for the sake of identification. Both the common and the scientific names must be given, as well as the family to which the plant belongs. Often the scientific name makes more sense and, curiously enough, is therefore easier to remember, but the common name may be meaningful too. In both cases there may be misnomers, as in *Impatiens capensis* (jewelweed) which has never seen the Cape of Good Hope; or the white cedar which is not white nor is it a cedar.

But names are only the beginning. It is also necessary to know how plants live and multiply and how they affect our lives. The plants selected can be based on the environment in which they are found rather than on morphological characters. What plants grow in our streets and how do they survive being trampled on by us? What plants can we see on waste ground on the outskirts of Toronto? And what type of plant lives on the lakeshore and on grounds where the city dumps its salty snow? Are they Canadian or did some arrive from foreign countries? What is meant by Carolinian vegetation? What about our spring flora? And then there is the rich flora in Toronto's ravines, along waterways and in wet meadows.

Most plants have a story to tell and that makes them all the more interesting. To know some of these stories may be useful to those participating in Toronto Field Naturalists' outings. To discover new ones could be great fun.

Invaders into our streets

It is truly astonishing to see how many wild plant species grow in the streets of Toronto. They have found a place in the little gardens in front of the houses where they may mingle with the cultivated plants, but only if no attempt has been made to remove them. In those plots and on grassy banks at the sides of streets where wild plants may be subjected to mowing, weeding or spraying with herbicides all in the name of "neatness", wild plant communities come and go as conditions dictate.

There are plants that grow in cracks in the pavement. They have their own adaptations for survival. The most serious drawback to their survival is that they are walked upon. They must be able to live in soil that has become compacted as a result of that walking.

To survive along streets, plants must be very tough and develop characteristics that help them overcome the adverse conditions. Nevertheless, many species are extremely successful; however, few of these are part of the original North American flora. The successful plants are mainly "neophytes", strangers from other countries, brought into Canada as a result of the increasing traffic from Europe and Asia.

WILD PLANTS (cont'd)

Among the intruders into our streets, there is even an orchid, the helleborine (*Epipactis helleborine*). Every year about 20 specimens grow on a bank on Russell Hill Road in an area that has not as yet been mown. In addition a few also try to survive at street level, against a wall; however, these are, as a rule, poor specimens because they root in very poor soil. Tall specimens have been seen growing along a path leading from Avoca Avenue to David Balfour Park.

When people hear about orchids they imagine large flowers like those of *Cattleya*, those often worn as corsages. Our helleborine is then likely to be met with disappointment, especially in the period before flowering when the raceme is bent. As soon as the flowers open on the now straightened-out inflorescence, we can see how pretty they are, even if they are small.

The helleborine has a very wide distribution, throughout Europe and in Asia and North Africa. It was first sighted near Toronto in 1890 and is now widely spread throughout North America. It is the only orchid which has come to us from Europe. Some people call it a weed, but somehow the word "weed" does not fit a "noble" orchid.

This may be a good moment to ponder the definition of a "weed". To some it is a plant that grows in a place where it should not be, such as a neighbour's cabbage amongst your roses. Clearly, this does not apply to our plant.

A better definition of a weed is the following: a weed is a wild plant, not cultivated, that has become adapted to agricultural conditions such as frequently disturbed soil. It succeeds because it can grow rapidly and because it produces a large number of long-living seeds.

Again, the previous definition does not apply at all to the helleborine which likes shaded areas. We cannot say that the helleborine is a weed, but it is certainly a very successful plant which is able to adapt to a number of growing conditions.

In Europe, the helleborine is known to be pollinated by wasps which find nectar in a little pouch at the end of the labium (lip) of the flower which they descend. In reaching for the nectar the insect disturbs two pollinia, which are clumps of pollen grains held together by a sticky substance called viscine. The pollinia settle upon the wasp's head, in an erect position, each with a little stem on an adhesive disc which quickly hardens. After a few seconds, the time required to visit the next flower, the pollinia bend down and are then in the right position to touch the sensitive parts of the stigma of another flower. In this manner only cross-pollination can succeed.

Plants requiring more space than the street can provide for growing and somewhat better soil are self-heal, creeping bellflower, marsh blue violet, nipplewort, toadflax and many others. We find them on slopes.

Self-heal (*Prunella vulgaris*) belongs to the family Lamiaceae (formerly called Labiatae). Originally the scientific name was *Brunella*, but Linnaeus changed it to *Prunella* without giving a reason for the change. *Brunella* was more appropriate because the calyx of self-heal is brown. During the Middle Ages this feature made people use the plant as medicine

WILD PLANTS (cont'd)

for a throat disease called "Braun" in German. When plants possessed characteristics that reminded people of a human organ or the symptom of a disease, they believed that such plants could provide the medicine for those diseased organs.

The brown calyces enclosing the fruits after the flower has gone make movements in humid weather which disperse the fruit. The seeds can then germinate under optimal conditions.

Nipplewort (*Lapsana communis*) can be occasionally found in shaded areas. As a species of the Compositae (Asteraceae) family it has an inflorescence that looks like a flower, but is really a group of flowers, called a capitulum (small head). Each little flower produces a small, one-seeded fruit without, in this case, the fluff that would make wind dispersal possible. The little fruits must be shaken out by the wind and because there are only a few in each capitulum the plant is at a great disadvantage.

The flowers of the marsh blue violet (*Viola cucullata*) are pollinated by insects, but it also has flowers that never open and have a simpler structure. These cleistogamic flowers (in Greek kleistos = shut) although they never open are always fertile so that self pollination is assured. Bees find nectar in the spur of the open flowers. As the fruit, a capsule with three cavities or locules ripens, tensions develop that will cause the fruit to gradually burst open, catapulting the seeds out and so dispersing them.

The creeping bellflower (*Campanula rapunculoides*) can grow almost anywhere and may become a troublesome weed in the garden, be it a pretty one, because it can multiply fast by means of stolons, creeping branches which root easily. The flowers hang down and are thus protected from the rain. Small insects may spend the night in the flowers where it is somewhat warmer than outside, but only bees know how to climb up to get at the nectar. As in the Compositae family the five anthers form a tube through which the style grows, but they are more loosely connected in Campanulas (*Campanula* = little bell) and soon fall apart.

On sandy patches and along railway lines, we find toadflax. Both the common name and the scientific one, *Linaria vulgaris*, point to the similarity of the leaves with those of flax (*Linum*). The plant is very common (hence: *vulgaris*) but the yellow, orange-tipped flowers are pretty. As a rule they have a bilateral, symmetrical structure, but sometimes a mutated form is found with radial flowers, so-called pelories. These were discovered by Linnaeus in 1742. He coined the name "pelory" from the Greek "palor" which means "monster".

Only bees with long tongues can reach the nectar which accumulates in the spur. They are guided by an orange spot, called a "honey guide". When that spot is not present, as in some abnormal flowers, the bees have trouble, especially because the entrance is closed (masked) by a fold in the lower lip. To open this the insect has to be heavy; therefore, bumble bees are the most successful ones.

As a rule buds develop in the axils of the leaves, but toadflax has the additional advantage of producing buds on its roots. This, of course, promotes vegetative propagation.

WILD PLANTS (cont'd)

By the end of April, the beginning of May, we get the first crop of dandelions (*Taraxacum officinale*). "Officinale" refers to healing properties, while "Taraxacum" indicates that the milky juice was used against snails. An extract of the root has a diuretic action; the flowers can be used to make a good wine and the young leaves are often used in salads. On sunny days the flowers open for several hours; when it rains they remain closed, their movements controlled by the light intensity.

As the species belongs to the Compositae family, the flower is really a spurious one, the capitulum in this case being composed of only small ligulate flowers which produce nectar and pollen for the bees. The stamens form a small tube and dispose of their pollen on top of the stigma, which then grows through the tube. Thus all the requirements to assure cross pollination are present. It is interesting that in most cases fertilization does not take place so that the whole mechanism just described is useless. The reason is that the egg cell of the dandelion already has the double number of chromosomes. This phenomenon is called apomixis (apo is a negation). One can therefore remove all the stamens and the styles and fruits will still be formed. Each fruit contains one seed and carries a parachute.

When the enclosing bracts open on a sunny day they disclose the fluffy structures in a globular arrangement. The wind may carry them far away, but eventually they land with the fruit down. On the fruits are little hooks that will fasten them into the soil and even draw them farther into it.

Dandelions are found all over the world, but the genus *Taraxacum* contains a great number of species, all of which have been described by Professor J.L. van Soest. He was actually a professor of Physics, but needed little sleep and therefore had time to be an outstanding botanist as well.

The dandelion is one of those plants that can survive being trampled on. Of course, grasses are the best-known representatives of this category. They have a special mechanism that will allow the plant to straighten out after it has been flattened. The stem of a grass consists of nodes and internodes. Grasses become erect after trampling because the underside of a node grows faster than the upperside. One of the most common grasses to be found in the streets is crabgrass which often grows in cracks in the pavement where it spreads horizontally. Its panicles produce thousands of seeds. In addition, new roots can start growing from its stems. In this way it can multiply very rapidly which, though bad in lawns, can protect soils against erosion.

Among other grasses we step on are those belonging to the genus *Poa*. Annual blue grass (*Poa annua*) is ubiquitous and grows in every possible spot: meadows, cultivated fields, waste ground, slopes by the roadside, garden paths, and even on the beach. It can flower throughout the year, except in very severe winters. Kentucky blue grass (*Poa pratensis*) is a perennial and a valuable pasture plant. It is called a "sweet grass" because of its high nutritive qualities. It flowers during June and July, ahead of the summer grasses.

Then there is green foxtail (*Setaria viridis*; seta = bristle, viridis = green). The spike is green, compact and cylindrical and is covered with

WILD PLANTS (cont'd)

numerous, rough bristles with very small teeth that point upwards. This grass has no agricultural value, but just looks pretty.

All grasses belong to the Monocotyledons and are pollinated by wind. To examine this take a grass home and put it in water or soil. Gradually each flower will show two feathery stigmata and three mobile stamens which hang down and produce smooth pollen grains that are easily shaken out by the wind. Some of them will be caught by the sticky stigmata and then grow out to long tubes. When these reach the ovary, fertilization will occur by the fusion of male and female nuclei.

Amongst other common plants, we see the prostrate specimens of knotweed (*Polygonum aviculare*), although this species occasionally shows erect individuals. It thrives in pavement cracks and in the very dry compact soil along roadsides. It follows man wherever he goes and is, therefore, called anthropophilic (man-loving). *Polygonum* means "many nodes" and "aviculare" refers to the fact that birds like the seeds very much. The stem has a tough structure and the plant can stand exposure to sunlight. When cows eat too much of it, their milk turns blue.

Another very common "walk-over" species is the common plantain (*Plantago major*) with its flat leaves which look like soles (*planta*) and its long, greenish spikes exposing wind-pollinated flowers. First the styles protrude from the unopened flowers, then when the flowers open, the stamens come out. By then the style has withered so that self-pollination is excluded. As a rule cross-fertilization gives a better and stronger progeny. Wind pollination is rare amongst the Dicotyledons.

Much that has been said about the life conditions of knotweed applies equally to plantain. The species occurs all over the world and is, therefore, ubiquitous. It has some medical value because the leaves contain an antibiotic which counteracts wound infection and promotes healing.

Another example of wind pollination in a "Dicot" is provided by pigweed (*Amaranthus retroflexus*), a plant we are likely to encounter in waste ground. It has masses of small green flowers arranged in dense panicles, with separate male and female flowers on one plant. The male flowers are positioned below the much more numerous female flowers, the latter with large papillae on the stigmata which catch the pollen from the floppy stamens.

Pineapple weed (*Matricaria matricarioides*) belongs to the Daisy Family and, as the name indicates, smells of pineapple when the leaves are rubbed. Its capitula have only tubular flowers.

Many walk-over plants have seeds with a coat that becomes slimy when moist. Such sticky seeds will easily become attached to animals or to the clothes of pedestrians, an excellent way to be distributed. No wonder these plants are anthropophilic!

Sometimes we may come upon a large patch of small prostrate plants on a kerb which belong to the genus *Euphorbia* (spurge). This is an enormous genus with plants ranging from the small, flat *Euphorbia serpyllifolia* on our kerbs to large trees such as *Euphorbia ingens* in South Africa.

WILD PLANTS (cont'd)

Serpyllifolia means "thyme-leaved". If you want to see the tiny flowers of our "walk-on" Euphorbia, you will need a magnifying glass. It is easier to study them on the so-called "Christmas rose" or Poinsettia which is also a Euphorbia. The flowers are very simple: what looks like a bisexual flower is in reality a group of male flowers each consisting of one stamen only around one female flower. The surrounding leaflets (bracts) simulate a calyx, completing the image of the false or pseudo-flower. It is surrounded by half-moon-shaped nectar glands.

All members of the Compositae (daisy) family also have pseudo-flowers -- an arrangement of tiny flowers which by their multiplicity become conspicuous and so may attract insects.

All Euphorbias possess a poisonous milky juice which may cause a rash. Under the microscope Euphorbias are found to contain starch granules in the shape of a humerus. No mysterious connection, of course.

As we continue our walk along the streets we pass many small gardens in front of houses. Even in the well-kept gardens some wild plants can be found, one of the most common being lamb's quarters (*Chenopodium album*). It is very difficult to keep this plant out and, in fact, wherever there is a lot of rubble on construction sites, this plant will flourish. It bears its small greenish flowers in clusters and has leaves with a white powder on the surface. The tender young parts can be used to make a nice spinach or salad rich in vitamins (A, C, B1), protein and iron. The seeds are edible and can be used as a cereal, or ground into flour as the Indians have done for a long time. So, maybe we should not "weed out" this *Chenopodium* (goosefoot) from our gardens!

Dr. Nick Badenhuizen

□

BAILLIE FUND GRANTS

Two types of grants are available for bird projects in 1992:

1. project grants for support of research, conservation or educational projects on Canadian birds, and
2. travel grants for participants in high priority fieldwork for breeding bird atlas projects. Travel grants are open to both residents and non-residents.

All projects must be conducted in Canada or on the wintering grounds or migration routes of Canadian birds. Applications may be submitted by individuals or organizations. The Fund aims to support projects conducted by amateurs, projects using data collected by volunteers, and projects generally not eligible for other funding. As a result, graduate research is not the priority of the Baillie Fund. Grants are usually in the range of \$200.00 to \$2,000.00 and average about \$1,000.00. Grants are made annually, but multi-year support will be considered.

Applications must be submitted on forms available from the Secretary of the Fund and should be received by January 31, 1992. Application forms and instructions may be obtained from Mark Stabb, Secretary, James L. Baillie Memorial Fund, Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ontario N0E 1M0 (telephone (519) 586-3531).

SKY NOTES

Our ancestors -- the common folk --, that is, knew when the seasons began and ended by a long and consistent history of observing the sun along the horizon. On the equinoxes (spring and fall), the sun rose and set precisely in the east and west. On the date of the summer solstice, it rose at its most northeastern point along the horizon. On the date of the winter solstice, it rose at its most southeastern point. Each date was a cause of great celebration. Of course, most of us today rarely celebrate any of these or bother to note the place where the sun rises and sets from year to year, month to month, or day to day. We move too frequently for such a set of fixed points to mean anything to us, or we don't get up early enough to notice, or our neighbour's town house mars the view, or we just don't care.

adapted from "Eleven lost days" by Gail S. Cleere in NATURAL HISTORY, Sept. 1991

□



THE TULIP-TREE, in the Magnolia family, is often planted in Toronto and is native to regions of "Carolinian Canada" just southwest of here. Mary Cumming's drawing was made at Cassels Gardens.

THE WEATHER (THIS TIME LAST YEAR)

December 1990, Toronto

This December Toronto was mild and wet. While temperatures in the West plunged to -30°C to -40°C , a ridge over the east coast of North America pumped tropical moisture over the East. As a result, we had one of the wettest Decembers ever. The 112.7 mm of precipitation at L.B. Pearson Airport was the most ever recorded there. Downtown had 131.9 mm of precipitation, which may be the most since 1852. Most of this was rain. Snowfall totals were just marginally below normal.

A severe winter storm hit on the morning of Dec. 3rd, with snow and blowing snow turning to rain in the early afternoon. Combined precipitation totals were as high as 50.5 mm at Arlington Avenue (in mid-town Toronto just above the glacial Lake Iroquois shoreline) that day. It was more or less mild and tranquil up to Dec. 21st, when an influx of wet tropical air brought temperatures as high as 13.5°C on Dec. 22nd and 30+ mm of rain. The second significant snowfall of the month was on Dec. 23rd, in time to deliver a white Christmas. It was this period which also brought our only cold weather of note. Another influx of tropical air on Dec. 28-29 brought more rain in the 20-30 mm range.

*Ski trail - two shiny ribbons.
Beside its snow shoes make their own tracks -
giant scalloped lace.*

*Diana Banville
Taylor Creek Park, Dec. 17/89*

January 1990, Toronto

Although this was the coldest January since 1985, average temperatures were still about half a degree to a degree above normal. Snowfall and rainfall were moderately light, although downtown reported the most snow since 1987. There were no extremes all month.

General winter weather with occasional light snow and seasonable temperatures prevailed up to Jan. 10th. On Jan. 12-13th there was a snowstorm which walloped the Toronto area. It was not an unusual system; we just happened to be right in its path. Snow and blowing snow gave way to freezing rain overnight before turning back to light snow the next day. Mild drizzly weather followed the next week but did not melt all of the snow. On Jan. 21st, we had our first serious arctic outbreak of the winter complete with fierce windchill and sundogs. But it was very brief, and it didn't drop to -20°C even in the suburbs. The rest of the month was seasonable and tranquil.

Gavin Miller

□

*From a winter branch
the young falcon is glaring.
His quarry has fled.*

haiku by Jane Donnelly

COMING EVENTS

TORONTO CHRISTMAS BIRD COUNT - Sunday, Dec. 22 - Call Beth Jefferson at 251-2998 if you want to participate. A fee of \$5.00 is collected to help defray the costs of the compilation of the results across North America by AMERICAN BIRDS. An "After Count Party" will be held this year.

ACTION TO RESTORE A CLEAN HUMBER (ARCH) - public informaton meeting on Monday, Dec. 9 at 7 pm at the Black Creek Pioneer Village. A computer driven slide and demo show illustrating HUMBERBASE (a database/management tool comprising the essential information and planning methods to be used by ARCH). Everyone welcome. Call Joan O'Donnell at 744-3888 for further information.

NATURE TRAVEL SERVICE - For a catalogue of tours, both local and throughout the world, contact Gus Yaki at 217A Princess St., Kingston, Ont. K7L 1A8 or by calling (613) 546-3065.

THE WALKER MINERALOGICAL CLUB - regular monthly meetings are held at 100 Queen's Park (Royal Ontario Museum) at 8 pm. Next Meeting: Jan. 14, 1992. Everyone welcome.

TORONTO ENTOMOLGICAL ASSOCIATION (insects) - regular monthly meeting will be Saturday, January 25 at 1 pm in the lecture room at the McLaughlin Planetarium. Everyone welcome.

CATCH THE GARDENING SPIRIT - City Gardening, Country Style - Sunday Feb. 16 at the Civic Garden Centre, 777 Lawrence Ave. East - a one-day event for anyone who needs to know how to build a better garden. To register, call 445-1552. Fee is \$59. □



BONESET is one of the four native "thoroughworts" of Metro, at its peak of bloom in our watersheds in late summer in moist or wet areas. The field drawing was made August 5, 1989, at Thompson Park on a TFN Nature Arts Outing. Each pair of leaves usually join together at their bases - hence its name. Usually white, there is a purple form (Gleason & Cronquist, *MANUAL OF VASCULAR PLANTS*) to be looked for.

DB

TFN 424 - 30

TORONTO FIELD NATURALISTS

20 College St., Suite 4
Toronto, Ontario M5G 1K2

(416) 968-6255

Publications Mail
Registration No.
6669



TORONTO FIELD NATURALIST

Published eight times a year by the Toronto Field Naturalists, a charitable, non-profit organization, the aims of which are to stimulate public interest in natural history and to encourage the preservation of our natural heritage.

OTHER PUBLICATIONS

TORONTO FIELD NATURALISTS CLUB: ITS HISTORY AND CONSTITUTION, 1965	\$ 2.00	INDEX OF TFN NEWSLETTERS (1938 to present)	\$ 10.00
CHECKLIST OF PLANTS IN FOUR TORONTO PARKS: WILKET CREEK, HIGH PARK, HUMBER VALLEY, LAMBTON WOODS, 1972	\$ 2.00	TORONTO REGION BIRD CHART, 1983	\$ 4.00
TORONTO THE GREEN, 1976 Metropolitan Toronto's important natural areas are described and recommendations given for their conservation and management; includes maps, bibliography and index	\$ 5.00	A GRAPHIC GUIDE TO ONTARIO MOSSES, 1985	\$ 4.00
TORONTO FIELD NATURALISTS' RAVINE SURVEYS	ea \$ 4.00	GUIDE TO THE TORONTO FIELD NATURALISTS' NATURE RESERVE, LEASKDALE, ONT., 1986	\$ 4.00
Survey #1 - Chatsworth Ravine, 1973		TORONTO ISLANDS: PLANT COMMUNITIES AND NOTEWORTHY SPECIES, 1987	\$ 4.00
Survey #2 - Brookbanks Ravine, 1974		TODMORDEN MILLS, 1987	\$ 4.00
Survey #3 - Chapman Valley Ravine, 1975		VASCULAR PLANTS OF METROPOLITAN TORONTO, 1990	\$ 8.00
Survey #4 - Wigmore Ravine, 1975			
Survey #5 - Park Drive Ravine, 1976			
Survey #6 - Burke Ravine, 1976			
Survey #7 - Taylor Creek-Woodbine Bridge Ravines, 1977			
Survey #8 - West Don Valley, 1978			

NO G.S.T.

All publications are available at the monthly general meetings or may be ordered from Toronto Field Naturalists, 20 College St., Suite 4, Toronto, Ontario, M5G 1K2. (Add \$2.00 per item for postage and handling).

MEMBERSHIP FEES (No G.S.T.)

\$30 FAMILY (2 adults - same address, children included)

\$25 SINGLE, SENIOR FAMILY

\$20 STUDENT, SENIOR SINGLE

Tax receipts issued for donations

Membership fees and address changes should be sent to:
20 College St., Suite 4, Toronto, Ontario M5G 1K2

ISSN 0820-636X

