Stokes, D.W. 1979. A Guide to Bird Behavior. Volume 1.	Little, Brown and Company, Boston.

William J. Crins, Department of Biology, Erindale Campus, University of Toronto, Mississauga, Ontario L5L 1C6.
Alan Wormington, R.R. #1, Leamington, Ontario N8H 3V4.

Topic of Note

Eds. Comment: As announced in the October issue, the Topic of Note for the next issue of Ontario Birds (April) is natural foods of passerines in winter. Observe passerines feeding (not at feeders) in winter, 1 December–28 February or while the ground is snow covered, identify exactly what they are feeding on and send us a short note on it. The more individual observations you can make, on the same or different bird species, the better. Notes will be due the end of February 1986. Botanically-oriented ornithologists (or vice versa) who have volunteered to assist with the identification of winter plants are: Dan Brunton, 2704 Marie St., Ottawa, Ontario K2B 7E4 (613-829-7307); Dale Hoy, 726 Pickering Beach Road, Ajax, Ontario L1S 3K8 (416-683-5791); Donald Sutherland, 325 St. Clair Ave. E., Toronto, Ontario M4T 1P3 (416-488-7492) and Mike Oldham, R.R. #2, Ruthven, Ontario N0P 2G0 (519-733-5982). Send them as much of the food plant as possible, carefully wrapped, and they will try to identify it.

We will take a temporary reprieve from naming a specific subject for the September/October 1986 Topic of Note. Instead we would like to encourage OFO members (and others) who have submitted records of rare birds to the Ontario Bird Records Committee and had them accepted, to write up their record. This applies not only to new (first) records for the province, e.g. Swainson's Warbler, but also to species which have been reported a "few" times, e.g. Tricolored Heron, Little Blue Heron, Yellow-crowned Night-Heron, Swainson's Hawk, Laughing Gull, Scissor-tailed Flycatcher, Mountain Bluebird, Blue Grosbeak, Lark Bunting, etc. There's almost always a bit of a story that goes with finding any one of these birds; our readers would like to hear yours!

A Roost of Chimney Swifts in Guelph

On 6 September 1985 I noticed a cloud of Chimney Swifts *(Chaetura pelagica)* swirling above the library at the Ontario Veterinary College in Guelph, Wellington Co. Their exotic behaviour, set against the glowing evening sky, summoned me for a closer look.

The next evening I counted 550 birds dropping into the four storey chimney. A day later, 740 were tallied. By 20 September, only 360 remained, indicating a gradual decline which ended on 1 October. Light frost, our earliest, melted from the rooftops on September 13.

Regardless of weather, the first swift was observed to enter the chimney 2-5 minutes before sunset and the last bird was in an average of 21 (range 17-26) minutes after sundown, based on eight counts. The first bird observed to depart over four mornings did so 7-20 minutes before sunrise.

Evening entry and morning exiting are not mirror images. Up to an hour before sundown, swifts gradually begin to assemble over the roost. Their quickness and small size did not allow me to define any flyways. Individual family groups of 2-5 birds most likely arrive on their own. It may be that the body of 700, which slept in this one chimney at the south end of Guelph, represents the total nesting population in this city of 73,000 people.

Most often the swifts circle the roost in a counterclockwise direction, 50-100 m in diameter. As they pass over the chimney, some birds break from the flock and dive near its top. Finally, a few minutes before sunset, one drops in an awkward style, straight down into the chimney. In one instance, during the last 4 or 5 minutes of flying, 500 (85%) of the birds entered the roost. At their fastest rate about 10 swifts per second tumbled into the chimney. The flock becomes silent during the last few aerial minutes and no sound is emitted from the roost.

The morning departure is no less intense, but not as continuous. Without warning, the swifts begin to pour from the chimney, lightly calling as they drop over the sides. Moving out in all directions, they quickly rise and disperse. The departure of the first wave of 170 swifts lasted approximately one minute. Then, mysteriously, they stopped. Some reentered the roost. One morning I remained for 100 minutes after the initial outburst, but only observed a few dozen reentries.

The roosting behaviour of the Chimney Swift has intrigued ornithologists for more than 70 years. Pearson (1911) noted that a flock of more than 1000 swifts descended into a chimney in North Carolina in less than 20 minutes. Fischer (1958), in his monograph on the species, reported that the same roosts are often used for several successive seasons and that the intense amount of calling by swifts while circling above the chimney, prior to their actual descent, probably serves to attract

latecomers and to identify the location of the roost site. Linton (1924), Musselman (1926), Pickens (1935), Groskin (1945) and James (1950) have all noted other aspects of roosting by swifts.

Acknowledgements
I wish to thank Don Fraser for furnishing many of the references and for commenting on an earlier version of the manuscript.

Literature Cited

Fischer, R.B. 1958. The breeding biology of the Chimney Swift, *Chaetura pelagica* (Linnaeus). New York State Museum Bulletin 368. 141 pp.

Groskin, H. 1945. Chimney Swifts roosting at Ardmore, Pennsylvania. Auk 62:361-370.

James, P. 1950. Spring flocking of Chimney Swifts (*Chaetura pelagica* Linnaeus) at Cornell University. Bird-Banding 21:9-11.

Musselman, T.E. 1926. Chimney Swift banding. Wilson Bull. 38:120-121.

Linton, E. 1924. Chimney Swifts at bedtime. Bird-Lore 26:252-253.

Pearson, T.G. 1911. The Chimney Swift. Bird-Lore 13:115-118.

Pickens, A.L. 1935. Evening drill of Chimney Swifts during the late summer. Auk 52:149-153.

Tom Reaume, 72 Waterloo Ave., Guelph, Ontario N1H 3H5.

Locating a Crow Roost in Thunder Bay, Ontario

There has been a growing interest in winter roosts of the American Crow (*Corvus brachyrhynchos*) in southern Ontario (Weseloh 1983; Knapton and Maturi 1984). Many of these roosts correspond with areas that have recorded high numbers of crows on Christmas Bird Counts (CBCs) (Weseloh 1985). CBCs in Thunder Bay, Ontario, have reported large numbers of crows, among the highest in the province, which is an anomaly for northern Ontario (Weseloh 1985). This has prompted interest in locating a crow roost in Thunder Bay, where they have not previously been reported.

On 18 October 1985, crows were observed leaving the Thunder Bay Municipal Dump, located on John Street Road, 9 km west of Highway 17, and were seen headed in a southerly direction (Figure 1). They were followed to a site 3 km away, near the southwest corner of the

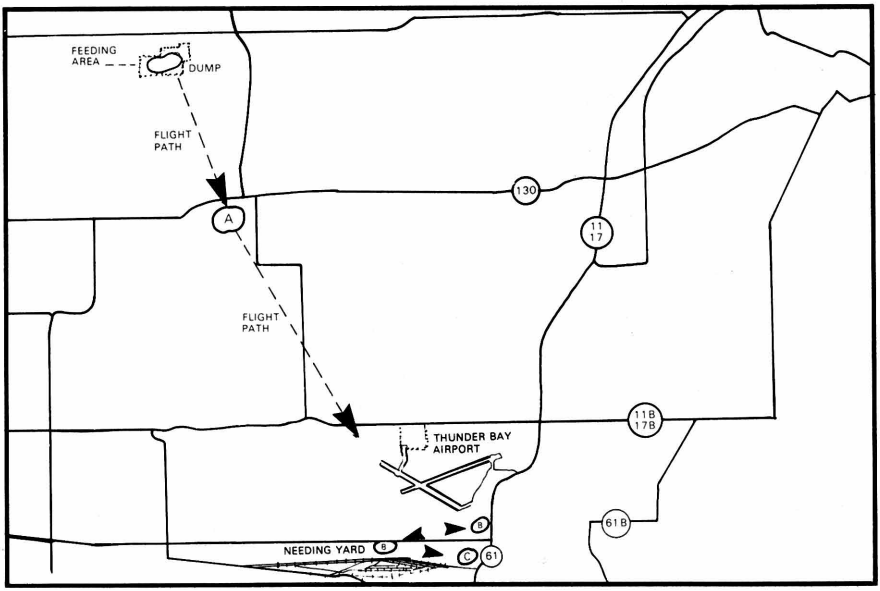


Figure 1. Map showing the locations of the pre-roost of 18 October (A), pre- and final roosts of 8 November (B and C, respectively) and various flightlines (arrows).

intersection of Oliver Road and Mapleward Road. Here, a large number of crows were observed feeding in a grass field and sitting in the trees of an aspen woodlot on the west border of the field. Crows continued to arrive from the direction of the dump in small, loose flocks until about 1840 h, 20 minutes before sunset. It was estimated that about 500 crows were present at the site.

At 1850 h, small flocks of crows began leaving this site, once again heading south. The entire flock had vacated this pre-roost site by 1915 h, 15 minutes after sunset. The location of the final roosting site was not determined at that time.

On 8 November, crows were again seen leaving the dump and flying south, at about 1615 h. These crows did not stop at the previous pre-roost site, but continued on to a site 10 km southeast of the dump (Figure 1). This site was at the extreme southeast corner of the Thunder Bay Airport, near the Highway 61 overpass at Rosslyn Road. The crows were gathering on a patch of bare ground, arriving from a pre-roost area in a woodlot along Rosslyn Road, 1.5 km west of the site. Crows stopped arriving by 1650 h, 40 minutes before sunset. Again, approximately 500 crows were present.

At 1700 h, crows started to move to the Canadian Pacific Railway line which borders the south side of the Airport. Within a few minutes, all of the crows were sitting on or beside the railway tracks, in a dense group. An

interesting situation arose when, at 1710 h, a westbound train approached the group of crows sitting in its path. The crows remained on the tracks until the train was within 10 m of the closest individuals. Finally, the flock took flight, with some crows landing in trees on the south side of the railway line and others flying to a woodlot 0.5 km to the south across Rosslyn Road. After the train passed, the remaining crows flew to the woodlot south of Rosslyn Road, this being their final roost site.

The location of this crow roost is interesting because of its close proximity to areas of high human activity, such as a major highway, an airport, a railway line, several industries and a residential area. Because of this high disturbance, the crows may use several sites within the area to roost. If anyone has further information regarding crow roosts in Thunder Bay, please contact the author.

Literature Cited

Knapton, R.W. and S. Maturi. 1984. Observations at a major crow roost in St. Catharines, Ontario. Ontario Birds 2:46-48.

Weseloh, D.V. 1983. A large crow roost in Essex County. Ontario Birds 1:61-63.

Weseloh, D.V. 1985. The distribution of the American Crow in Ontario in early winter. Ontario Birds 3:53-61.

Rob Dobos, 3-170 College Street, Thunder Bay, Ontario P7A 5J7.

The Chatham Crow Roost

On the weekend of 9-10 November 1985, OFO held a field/study trip to the crow roost at Essex, Essex Co. (results to appear in the next issue of *Ontario Birds*) in extreme southwestern Ontario. After two observational sessions on Saturday morning and evening, the latter under miserably rainy conditions, several observers opted to search for the roost of the American Crow *(Corvus brachyrhynchos)* at Chatham, Kent Co. rather than continue at Essex. The purpose of this short note is to document the size, location and some of the flight paths of this heretofore undescribed crow roost. We were interested also in discovering the flight paths associated with this roost because of its close proximity (60 km) to the roost at Essex. We could not help but wonder if there was interchange of crows between roosts.

Observations were made by Bill Wilson, Stan Teeple, Chip Weseloh and the author on Sunday morning (10 November) and by the author only on Sunday evening and Monday morning.

By driving along the Thames River on the west side of Chatham before sunrise on Sunday morning, we were able to audibly detect the

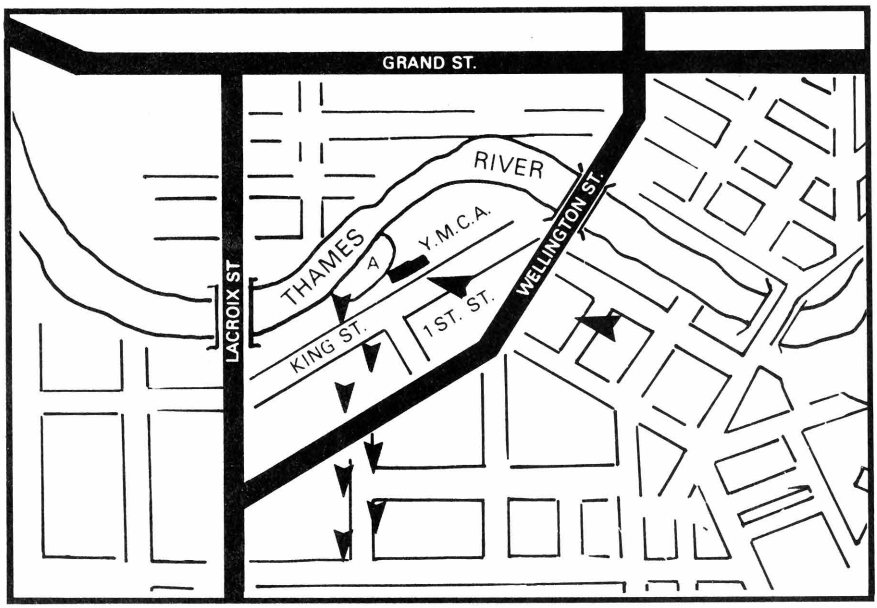
roosting crows and eventually drive to the site. Situated along the south shore of the river between Lacroix St. and Wellington St. bridges, the roost was pinpointed at the base of First St., just west of the YMCA building (Figure 1). The crows occupied about a dozen deciduous trees, a few shrub size and a few large poplars (*Populus* sp.), a metre or more in diameter.

Dispersal from the roost

On Sunday morning the four observers, in two vehicles, left the roost with the crows to determine their routes of dispersal and destinations. One party followed the main flock of crows, regardless of their direction. The second party, suspecting that the crows might be headed for the Blenheim dump (approximately 20 km to the SE) drove in that direction, searching for flocks of crows en route. The first party followed several hundred crows flying to the south where they eventually ended up at the Indian Creek Golf and Country Club and agricultural fields to the east. From there a small group of crows (5-10 individuals) was followed to the east. The observers discontinued the chase when the crows were approximately 34 km east of Chatham, past the community of Ridgetown and still headed in an easterly direction!

The second group of observers noted small flocks of crows (1-8 individuals) between Chatham and the Blenheim dump and, during the 40 minute period 0915 to 0955 h, a maximum of 10 crows at the dump. Birds arrived only from the direction of Chatham.

Figure 1. Map of the City of Chatham showing: the roosting site (A), and flightlines (arrows).



On Monday morning I stayed at the roost to observe the entire dispersal process. Under cloudy but rainless skies I arrived at the YMCA parking lot at 0555 h (sunrise was at 0712 h); the crows were already calling. At 0635 h the crows were shifting upwards in the trees; their calling was intense and continuous. Then approximately 1000 took to the air—their day had begun—40 minutes before sunrise. The flock flew south and southeast over the city and many returned to the roost amid the clamour of their perched brethren. For several minutes the crows called but none left the roost. At 0645 h, a group of 40 returned to the roost from the east. With their arrival, the intensity of the cawing by the perched flock increased. No sooner had the 40 landed when a group of more than 1000 took to the air. Five minutes later a second, similarly sized group, departed. By 0700 h about 500 birds remained in the roost; at 0725 h, 13 minutes after sunrise, this number had diminished to 25. During the entire dispersal process only about a dozen crows flew northwest across the river.

Arrival at the roost

Sunday afternoon was rainy and cloudy. When I arrived at the YMCA parking lot at 1445 h (sunset was 1717 h), six crows were perched at the roost. An hour later 30 crows were similarly engaged. I drove around the southern outskirts of the city for 30 minutes but saw no flyways or pre-roost assemblies. I returned to the parking lot in time to watch the first flock arrive, from the east, at 1547 h. From the height of the arriving birds (up to 250 m) I concluded they had flown some distance from their pre-roost assembly (site unknown). This easterly flyway, the largest into the roost, was active from 1547–1645 h. During this time the crows arrived in segments. I counted them singly and in groups of fives and tens. The total count for the evening was 3300; the largest single group arriving was 300 crows.

From a height of 200 m it was not unusual to have six pairs of crows performing their "straight down adventure" twisting dives, finishing at treetop level. One pair took eight seconds to carry out this feat, another 15 seconds, beginning about 100 m above the roost's location. When I left the roost at 1910 h, two hours after sunset, most crows were facing into the 20 kph east wind, with their bills tucked. I heard few calls. Three to five birds were usually changing positions on three limbs, flying to another tree. The rest were perched low on branches, covering their feet. Some were preening wing and body feathers.

Based on my evening and morning experience at the Chatham roost, I would estimate the number of crows, at this time of the year, at between 3500 and 4000 individuals. No dead or injured birds were found in a morning walk beneath their trees, which is what I have come to expect from a flock of this size. This may be the fourth largest late autumn/winter crow roost in Ontario, ranking behind those at Essex, Hamilton (Hamilton-

Wentworth R.M.) and St. Catharines (Niagara R.M.). Based on observations from this weekend, the birds at the Chatham roost do not appear to associate with the larger Essex roost. Why they do not is a matter cognizant only to Chatham crows. The centre of town belongs to them.

If anyone in the Chatham area is able to observe, census or follow these crows to and from their roost on a regular basis, please contact me at the address given below.

Tom Reaume, 72 Waterloo Ave., Guelph, Ontario N1H 3H5