

#### MT. AUBURN CEMETERY

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For almost its entire existence, Mount Auburn Cemetery in Cambridge has been a highly favored haunt of birders. Of the more than seven hundred avian species known to appear on our continent north of Mexico, at least two hundred and thirteen have been seen in the Cemetery's 164 acres, or in the air above them. Mt. Auburn lies within the Atlantic Flyway, one of the great migration routes that cross North America between the tropics and the Arctic. It is not surprising, therefore, that many species native to eastern North America pause to rest there during their semiannual passage through the sprawling metropolitan area of Boston.

The Cemetery's total list contains many birds not normally found in this region at any time of the year --- "accidentals." The Hermit Warbler discovered May 16, 1973, was a first record east of the Rockies. A Goldencrowned Sparrow, another Western straggler, was found in late April of 1966; it remained into the first week of May. Other casual visitors include Chuck-will's-widow, Acadian Flycatcher, Boreal Chickadee, Prothonotary, Cerulean, Yellow-throated and Kentucky Warbers, Yellow-breasted Chat, Summer Tanager, and Blue Grosbeak. Often the appearance of these birds can be traced to storms that have blown them off course. Occasionally non-passerine species can be seen flying over the Cemetery (cormorants, loons, herons and hawks); these very rarely land. Sightings include the now famous Least Bittern of the spring of 1976 that sat for five hours in a dogwood tree and was photographed. American Bitterns have been seen on two occasions. Golden Plover, Greater Yellowlegs, Least Sandpiper, Water Pipit, Long-billed Marsh Wren, Sharp-tailed Sparrow, Lapland Longspur, and Snow Bunting round out the list of "freaks." In the spring of 1974, a Mockingbird resident in the Dry Dell suddenly began imitating a Virginia Rail, suggesting that that species had also visited the Cemetery, but to our knowledge no rails have ever been sighted here.

Mount Auburn Cemetery was created in 1831 when Dr. Jacob Bigelow of the Massachusetts Horticultural Society convinced George W. Brimmer, owner of the land, to sell his property to the Society to be converted into a beautifully planted cemetery. The planting of rare trees and shrubs has long been a policy at Mount Auburn. Preeminent among the trees are the massive European Beeches. A Copper Beech that was planted by Edward VII during his visit in 1860 still flourishes at the main gate. The oaks are equal in size to the beeches, but they are much older. All of the trees throughout the cemetery have been labelled by Cemetery authorities, with the assistance of specialists from the Arnold Arboretum.

# Timetable of migration

In the paragraphs below are listed, by week, various migratory species that may be reasonably expected in Mt. Auburn. No attempt has been made to catalog the dates of first arrival for these species. Rather, the chronology is meant to suggest the period that represents the optimal time for sighting each species. Peak abundance for many of these birds occurs in the third week of May, and dwindling numbers may often be found

right up until the end of that month. In spite of this, we have preferred to list a species earlier in the chronology, if this is feasible. Remember that as May progresses, the foliage likewise advances. The earlier in the season that a species can be found, the more comfortable and relaxed the viewing is likely to be.

# Third week of April:

Green Heron, Yellow-bellied Sapsucker, Winter Wren, Hermit Thrush, Bluegray Gnatcatcher, Ruby-crowned Kinglet, Golden-crowned Kinglet (rare after this date), Solitary Vireo, Yellow-rumped Warbler, Pine Warbler, Palm Warbler, Louisiana Waterthrush, Purple Finch, Rufous-sided Towhee, Savannah Sparrow, Chipping Sparrow, Field Sparrow, Fox Sparrow, Swamp Sparrow.

# Fourth week of April:

Black-crowned Night Heron, Sharp-shinned Hawk, Broad-winged Hawk, Spotted Sandpiper, Whip-poor-will, House Wren, Brown Thrasher, Black-and-white Warbler.

# First week of May:

Solitary Sandpiper, Chimney Swift, Eastern Kingbird, Great Crested Flycatcher, Least Flycatcher, swallows, Gray Catbird, Wood Thrush, Veery, Warbling Vireo, Northern Parula, Nashville Warbler, Yellow Warbler, Black-throated Green Warbler, Northern Waterthrush, Common Yellowthroat, Orchard Oriole, Northern Oriole, White-crowned Sparrow.

### Second week of May:

Ruby-throated Hummingbird, White-eyed Vireo, Yellow-throated Vireo, Wormeating Warbler, Golden-winged Warbler (rare), Blue-winged Warbler, Orange-crowned Warbler, Magnolia Warbler, Cape May Warbler, Black-throated Blue Warbler, Blackburnian Warbler, Chestnut-sided Warbler, Ovenbird, Hooded Warbler (rare), Wilson's Warbler, American Redstart, Summer Tanager (rare), Rose-breasted Grosbeak, Blue Grosbeak (rare), Indigo Bunting.

#### Third week of May:

Yellow-billed Cuckoo (rare), Black-billed Cuckoo, Common Nighthawk, Swainson's Thrush, Gray-cheeked Thrush (rare), Cedar Waxwing, Red-eyed Vireo, Philadelphia Vireo, Tennessee Warbler, Cerulean Warbler (rare), Yellow-breasted Chat (rare), Canada Warbler, Bobolink.

#### Fourth week of May:

Yellow-bellied Flycatcher, Eastern Wood Pewee, Olive-sided Flycatcher, Bay-breasted Warbler, Blackpoll Warbler, Mourning Warbler.

#### First week of June:

Acadian Flycatcher (rare).

### Effects of the weather

The Cemetery is densest with birds on the morning after a night in which the winds have shifted into the southwest. Southerly winds during the night can also produce excellent birds; westerly winds less often do so. If a cold front passes through this area in the early morning hours, truly spectacular concentrations often appear. The principle is valid even if the morning after the passage of the front is a very rainy one. Stormy days, on the other hand, with both wind and rain are almost always poor for birding.

Watch the weather maps in the daily paper or on television. Even when the weather conditions in New England seem to be optimal, there may be no migrants. Such is often the case when there is a stationary or slowly-moving cold front in the mid-Atlantic states. Migrants will back up behind this front as if it were a dam. If you suspect this to be the case, watch that front very carefully. As it recedes northward through New England, there should be a pronounced wave of migrants passing with it. Unfortunately, when this particular weather pattern occurs, the birds seem loathe to linger in our vicinity. They are truly here today and gone tomorrow.

# Time of day

The ornithological character of Mt. Auburn Cemetery changes dramatically from hour to hour. To appreciate the full diversity of its migratory offerings, one must arrive very early. In the hour between 5 and 6 a.m., Common Nighthawks may be seen flying low over the ponds. The thrushes that are present will be singing. For example, one morning last May, over 40 Swainson's Thrushes were heard before 6 o'clock, but only 3 of these birds could be located after 6:30 a.m. (Veerys and Wood Thrushes also sing at this early hour, but they continue in song later into the day. Hermit Thrushes, even when present in numbers, rarely sing here in the morning. Gray-cheeked Thrushes will sing, but they are very rare in the Cemetery.) Other species to be heard at dawn that may be missed later in the day include Brown Creeper, Winter Wren, Evening Grosbeak and Lincoln's Sparrow. This last case is quite interesting, for Lincoln's Sparrow is supposed to migrate silently. On heavy migration days in mid-May, however, one or more individuals sometimes sing for about 15 minutes beginning about 5:15 a.m.

Indian Ridge and Halcyon Lake (Eddy Pond, to birders) are among the earliest spots to attract numbers of migrants. These spots should be active beginning about 6:15 a.m. Spectacle Pond, the Dry Dell, and the ridge between them are next to come alive. By 6:45 a.m. most of the warblers and vireos that are present should be singing. Remember that these birds are insectivores. They will go where the insects are most active, and in the chill of our early May mornings, active insects will be in sunny places. This principle should help you plan your route through the Cemetery: sunny spots like Willow Pond and the east side of the tower are best early in the morning; shadier spots like the wet Dell generally are not very productive before 8 o'clock.

After 9:30 a.m., activity tapers off, and it is principally the permanent residents on territory that continue to sing. The early morning birds (basically, the nocturnal migrants) are still there, all day long, but

residents on territory that continue to sing. The early morning birds (basically, the nocturnal migrants) are still there, all day long, but they spend most of the midday sleeping, preparing for the next night's journey.

From noon until dusk, the Dell is an excellent spot to visit, for birds come there to feed and bathe. So also are the evergreens along Coolidge Hill Road, where many migrants sleep the day away. Spishing will often bring them out into the open.

Activity increases again from 4 to 6:30 p.m. as the migrants feed once more before resuming their nightly journey. Around the tower and to the west down Central Avenue seem to be especially favored spots at this time of day.

Remember also the following points:

- 1. Certain species (flycatchers, Chimney Swift, Ruby-throated Hummingbird and swallows) migrate by day. If southwest winds continue through the day, they may arrive in mid-morning or even during the afternoon. Conversely, if these species are present in the early morning and the wind is from the southwest, they will often disappear before evening.
- 2. Certain rarities in the Cemetery seem disposed to "make a show" of themselves, remaining active and vocal all day long. This has been particularly true of Hooded, Kentucky, Mourning and Worm-eating Warblers. Should one of these species be mentioned on a current Voice of Audubon recording, by all means go to Mt. Auburn. Your chances of seeing the bird on the day it is found are excellent; your chances of seeing it the next morning are poor.
- 3. The two ridges named "Warbler Ridge" on our accompanying map are good in some years, very poor in other. Be sure to check both ridges at an appropriate time of day several times per season. In poor years, they do not require a daily check.

# Birding by Sound

In eastern Massachusetts, Mt. Auburn Cemetery is surely one of the finest locales in which to learn to bird by sound. Several factors contribute to its pre-eminence. First of all, the Cemetery boasts a nearly complete sample each year of migratory passerines. You will have to go elsewhere for certain flycatchers and sparrows, but most of the other families are very well represented in Mt. Auburn. The Cemetery is, of course, a very split-level place, replete with eskers (ridges) and hills. If one stands on these elevations, one will often be at eye level with various tree-top species. Clearly, it is highly desirable to be able to see a bird singing at the same time that you are learning his song. Best of all, Mt. Auburn is a very well-birded spot with a high density of knowledgeable birders. If you have a question about a bird song while you are there, your chances are excellent that a fellow birder prepared to answer your question will be nearby.

The following ideas are offered in the hopes that they will help the reader

to begin to bird by song.

- 1. Take stock of what you already know. Few of us would fail to recognize the songs of the American Robin and the Song Sparrow, or the calls of the Blue Jay and the American Crow. Make a list of those species with vocalizations that are already familiar to you. Then try to describe each of these songs and calls in words, to yourself or to a friend. All languages are notoriously weak in their vocabulary for describing sounds. You will thus find it necessary to develop your own capacity for characterizing bird songs. You may even find it necessary to invent your own words. But start trying to improve your verbal characterizations immediately. A song that you can describe in words is much easier to remember.
- 2. Learn to tune out the familiar. In the beginning your will find that you are using bird song primarily in a negative fashion, to decide which singing birds are NOT worthy of further attention. Don't be discouraged if this is your approach. The true experts of auditory recognition rely heavily on this same principle: that bird is most worthy of investigation whose song is unfamiliar.

In your first few weeks of birding by sound, the familiar songs will dominate your hearing. This you should try to change. The more capable birders gradually acquire the ability to block out familiar songs and to "hear" only the unusual, a sort of subjective selective deafness. Although one acquires this skill very slowly, it is a skill that one can practice. On a lazy afternoon, go to the Dell, look the birds over, and identify as many as possible. Then sit quietly and try to absorb the total sound picture. As you rest there, begin to tune out certain of the better-known songs from your hearing. (It may help to try to empty your mind of conventional thought.) Remember that the ideal is to avoid "hearing" a certain song. If you find yourself hearing the song, identifying the singer, and then dismissing the bird from your thoughts, you are indeed birding by song, but you are not practicing selective deafness. Try again.

3. Limit each year's learning task. Obviously, one hopes that over the years, one's repertoire of identifiable songs will increase. However, in the beginning, be very careful not to let yourself be overwhelmed. The project of learning to bird by song will take several years of effort. Limit your learning task. Each year select a certain number of species whose songs you intend to learn that year. Choose the more abundant species before you work on the rarer ones. You may find it useful to own the two-disc set of records that parallels the Peterson field guide, A Field Guide to the Bird Songs of Eastern and Central North America, published by Houghton Mifflin. Play the songs of those species that you wish to learn, and try to learn to recognize the songs before these species arrive on migration. If you can learn the basic patterns ahead of time, you will experience less difficulty when called upon to identify variations of the basic patterns as sung by the real-life birds.

In the field, resist the temptation to identify every species by sound. Instead, concentrate on recognizing every individual bird of those species whose songs you have decided to learn this year.

4. Listen to all aspects of a bird's song. Far too many beginners concen-

trate on the melody alone, as if it were the tune of a popular ballad. This is too limited an approach. Here are some of the characteristics that you should listen to:

- (1) General melodic line. Does the song end with a rising pitch, or with a falling intonation? Chestnut-sided and Yellow Warblers have songs that many find quite similar. However, the melodic line ends with a rise in pitch in the Yellow Warbler and (usually) with a drop in pitch for the other species. Is the melody clear and made up of separate notes, or does the bird slide from one pitch to another (slur)? How quickly do the changes in pitch occur? Too fast to be recognized accurately (a sparrow's trill)? Recognizable but too fast to count (a warble)?
- (2) Melodic pattern. For birdsongs that are basically tuneful, concentrate on the structure and pattern of the individual phrases. Two species, for example, sing songs consisting of short phrases that are doubled (sung twice in succession). These are the Brown Thrasher (with quite an extensive repertoire of phrases) and the Indigo Bunting (with a rigidly repeated canary-like pattern). The characteristics just given are in fact diagnostic for these two species.

All thrushes have songs that have a rich sound somewhat flute-like in quality. Only the Wood Thrush sings with short phrases, typically reversing the direction of the phrase each time---note-down-up, note-up-down, note-down-up, etc. The song of Swainson's Thrush rises up the scale, that of the Gray-cheeked Thrush tumbles down it. This is more a question of general melodic line. To recognize the Veery, however, look to the structural pattern. The Veery's song consists of 3-5 runs down the scale, each run almost identical to the preceding run except for starting on a lower pitch.

It is even helpful to think about the fixity of the melodic pattern. Both the Indigo Bunting and the Purple Finch sing the same song over and over again with practically no variation. Northern Orioles, American Robins and (especially) Mockingbirds tend to introduce some variation in the melodic pattern with each reutterance.

- (3) Subjective effect. Some species (for example, the Purple Finch) have a truly melodious song. Others (Chipping Sparrow) sing songs that are true monotones, a mere repetition of identical sounds. In between are the many other songs that you may find monotonous without their being true monotones. Obviously this is a very private matter, and each individual birder's reactions will be different. It is helpful, however, to think through your own reaction to each bird's song. Do you find the song boring? glorious? grating? or even more basically, do you find it hard-to-hear?
- (4) Timbre, or quality of the sound. A Scarlet Tanager has a robinlike song with a decidedly burry sound ("hoarseness"). Certain warblers (Golden-winged, Blue-winged, Northern Parula, Cerulean, Black-throated Green, Black-throated Blue) have a very buzzy song. Certain thrushes (Veery, Hermit Thrush, Swainson's, Gray-cheeked) have an eerie rich sound that results from quite audible overtones that we hear as separate notes. In the case of the Veery, if you will listen quite closely, it should be

possible to hear three separate notes being sung simultaneously, a whole chord at once. Certain songs have a sort of "breathless" quality, as if the bird were whistling without properly pursing his lips. This is true of the Rose-breasted Grosbeak and the Warbling Vireo. Other songs are quite the opposite, so reminiscent of human whistling that we say that the bird himself is whistling his song (Northern Oriole, Cardinal).

- (5) Timing and rests. Be sure to listen for the silences between the phrases as well as the song itself. These pauses are highly characteristic of the species, as is the frequency of repetition of the sung phrases. How long must one wait for the bird to continue to the next phrase? How many songs are produced per minute? The Robbins field guide, <u>Birds of North America</u> includes data on this topic and can be used as a reference.
- (6) Dynamics. Is the song loud and clear (Brown Thrasher, Song Sparrow, Northern Oriole), soft and tentative (Blue-gray Gnatcatcher, Solitary Vireo, and even more so, Warbling Vireo), or markedly variable in volume. The song of the Ruby-crowned Kinglet is frightening loud for so small a bird, at least when he is near. Yet at a distance only the loud triplets from near the end of the song carry well.
- (7) Instability. Loud songs are almost always well-enunciated, but some of the softer songs have in addition a certain tentativeness that almost seems to suggest that the bird is only a beginning amateur, who has yet to learn his tune properly. An Orange-crowned Warbler has a monotonous trill somewhat like that of the Chipping Sparrow, but when this bird sings, he seems unable to hold the pitch securely. Pitch instability is, of course, one of the prime characteristics of that abundant early migrant, the Yellow-rumped Warbler.

The above list of song qualities is neither standard nor complete. In learning to bird by sight, one relies on a field guide that gives for each species a composite of visual clues that together serve to clinch an identification. So likewise, in learning to bird by song, it is important to amass for each species a list of several characteristics (melody, phrasing, pattern, timbre, timing, dynamics, etc.) which together will serve to identify the singer.

- 5. Save the hardest problems for later. Just as there are difficult problems of sight identification for the visual birder, so also there are certain groups of bird songs that will almost certainly cause difficulties for the beginner in auditory identification. We would list the following as definite problem areas. (In each group, those species that are underlined are relatively easy to distinguish.)
- a. Purple Finch, House Finch, Orchard Oriole.
- b. Chipping Sparrow, Worm-eating Warbler, Orange-crowned Warbler, Pine Warbler, Dark-eyed Junco.
- c. Black-and-white Warbler, Bay-breasted Warbler, Cape May Warbler, Blackpoll Warbler.
- d. American Robin, Scarlet Tanager, Rose-breasted Grosbeak, and Solitary, Red-eyed, Philadelphia and Yellow-throated Vireos.