## Meet the flockers

Nature plays a cruel joke on us at this time of year. Just as summer gets nicely started, intimations of autumn already begin to make themselves known. One such indication is that several species of birds are already beginning to assemble in flocks. In the city, large congregations of European starlings are roosting in shade trees and making their presence known by their clamourous calls and frequent flights from one tree to the next. In local wetlands, flocks of red-winged blackbirds are starting to form. And, with mid-July already upon us, swallows have already begun to congregate on wires, especially around farms.

There are a number of advantages for birds in forming flocks. First of all, there is safety in numbers. By flocking together, the chance of any one individual being killed by a predator is lower than if the bird was by itself. With so many eyes watching, it is almost certain that at least some of the birds will spot an approaching predator such as a hawk while other members of the flock are busy feeding, sleeping or simply looking in the wrong direction. When predators attack a flock, they try to single out a bird on the edge of the group and pursue that one individual. However, most flocks constantly change shape, expand and contract in size and generally make it very difficult for the predator to remained focused on one bird. There is also evidence that it may be physically dangerous for a predator - which may not be that much larger than the prey species it's pursuing - to dive into the middle of a fast flying mass of birds.

Another advantage to flocking has to do with food. After spending the night together in a communal roost, it is thought that birds gain information about good feeding resources by following older, more experienced individuals in the morning when they fly off to feed. This becomes especially important in the fall when food is patchily distributed and cooler weather, along with the demands of the approaching southward migration, mean energy requirements are higher.

This begs the question as to why older birds would want to share this information and have to compete with others for food resources? In several species, it has been shown that older birds, being more dominant, actually appropriate the safest, most central locations in the roost while the younger, weaker birds are relegated to the edges. This exposes the less dominant birds to a greater danger of predation. The trade-off is worth it for both groups - older and stronger birds allow their weaker brethren to bear the brunt of predation while younger and weaker birds get to follow the others to good foraging sites. Communal roosting thereby offers advantages to both groups.

With mid-July upon us and breeding activity drawing to a close, flocking in red-winged blackbirds becomes quite noticeable. Males are losing their intolerance of one another and are forming feeding flocks which roost together at night. Right now, these flocks are fairly small and include only the adults and young of local breeding populations. However, as fall approaches, these smaller roosts will begin to break up and much larger flocks will form. A mixing of different species occurs, too, with grackles and starlings often joining in with the red-wings. The roosts are often cattail marshes, thick stands of alders or even upland woodlots. Flocks of red-wings are a common sight until late October when the birds head south.

For city dwellers, starlings are usually the most noticeable roosting species during the summer months. Deciduous shade trees, which are prevalent in urban and suburban areas, are the preferred roosting sites. Thousands of starlings may occupy a given stand of trees and, unfortunately, sometimes continue to return each night until the leaves drop. As sunset approaches,

the birds start arriving in the vicinity of the roost and perch in nearby trees, often making frequent, noisy flights from one tree to another. This activity, known as staging, goes on for about half an hour before they actually settle into the roost trees. For nearby residents, the noise and commotion can be irritating to say the least. Convincing the birds to roost elsewhere is not a simple undertaking, however!

Watching a flock of starlings take flight and then change directions simultaneously is fascinating. How does the group manage to turn and maneuver, almost as a single unit? As it turns out, the behaviour does not depend on the actions of any one "leader" but is rather a property of the group itself. The flock's maneuvers are determined by the second-by-second decisions of individual birds as they respond to what their neighbours in the flock are doing. Any individual bird in the flock can initiate a change in direction which then spreads through the flock like an ultra rapid human wave at a hockey game. Even when flocks are not under attack, they'll often appear to swerve back and forth rather aimlessly. This is because random movements of individual birds will easily initiate a change in direction of the entire flock. Eventually, however, a sort of consensus is achieved among the members of the flock as to which direction to head in.

Swallows, too, become increasingly noticeable this month as post-breeding birds begin to flock up in long rows on wires. The size of these flocks grows over the course of the summer as swallows from neighbouring areas join the ranks. There is almost always a mix of different species including barn, tree, northern rough-winged, bank and cliff swallows. By the first week of September, most will have departed.

Like starlings, swallows will also form large communal roosts at night. These are sometimes located in large marshes such as at Miller Creek and Buckley Lake. For many years, there was a very large roost in Pembroke, Ontario, which became a major tourist attraction. The numbers used to peak at about 150,000 birds of all 6 species by about the second week of August. An added attraction was watching a merlin, a small falcon, catching a swallow most evenings.

## What to watch for this week

The Summer Triangle, made up of Vega (in the constellation Lyra), Deneb (in the constellation Cygnus) and Altair (in the constellation Aquila) now dominates the northeastern sky. Also, on July 21st, the full moon will appear unusually large. This is mostly because the summer moon rides closer to the horizon than in other seasons creating an illusion of greater size. In addition, this month's moon approaches closer to Earth than any other full moon this year.

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