



# The Quinte Naturalist

The Quinte Field Naturalists Association is affiliated with Ontario Nature, a non-profit organization sponsoring nature education, conservation and research.



*Golden-crowned Kinglet*

*Photo by Gilles Bisson*

One of the subtler signs of winter's approach is the arrival of golden-crowned kinglets. With their preference for larger conifers and their thin high-pitched *tsee, tsee, tsee* calls they remain invisible to all but the most observant birders. When you do spot one the bold facial pattern makes it simple to distinguish this species from the more plainly

## October – Lanna Desantis – The Puzzling Biology of Flying Squirrels



Flying squirrels have higher levels of stress hormones than most any animal, so how do they survive? PhD candidate, Lanna Desantis, presents her research into this fascinating aspect of flying squirrel biology.

November's Speaker – Kurt Hennige - **Saving Grassland Birds**



***Probably not too surprisingly this male golden-crowned kinglet has indicated his displeasure at being held in the bander's hand by raising his crest.***

***Photo from the Powdermill Avian Research Centre***



***Photo by Gilles Bisson***

***Ruby-crowned kinglets are most easily recognized by their broken eye ring and prominent wing bar. Unlike golden-crowned kinglets they are very unlikely to spend the winter in our area.***

patterned ruby-crowned kinglet. The lack of any orange in the crown on the bird in Gilles' photograph indicates that it is a female.

Often you will see small mixed flocks of chickadees and golden-crowned kinglets in the winter woods, especially if there are large conifers. Compare the size of the two species. The kinglets are only a little over half the weight of chickadees and about three-quarters as long. No wonder they never stop looking for the insect eggs and delicious spiders and mites which sustain them through the short, cold winter days. Their bodies just don't have much capacity to store fat.

If these diminutive birds have to eat almost constantly during the day how do they survive the even longer and colder winter nights? The sad fact is that many do not. Unlike hummingbirds they cannot go into a state of torpor. During these states a hummingbird can reduce its metabolic rate by up to 95% and thus reduce its energy consumption by a similar amount. Small groups of kinglets may huddle together for warmth but this strategy is only minimally successful. One expert has calculated that up to 87% of golden-crowned kinglets die every year from various causes including freezing.

Despite this high rate of mortality the population of the species is relatively stable; the species is not endangered. The kinglets maintain their population by an unusual strategy for such a small bird. The average golden-crowned kinglet nest contains 9 eggs.

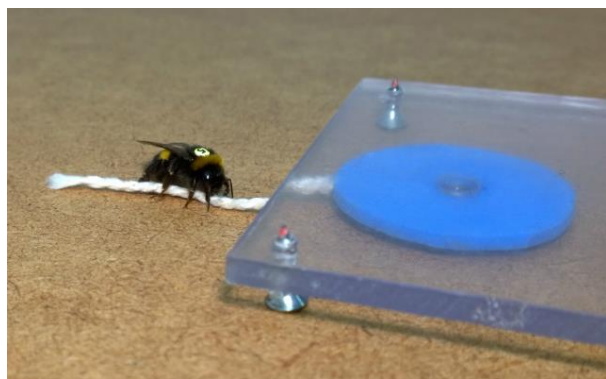
In some cases there are so many eggs in a nest that they are actually in two layers, one directly on top of the other. In addition they produce two broods during nesting season.

While the male feeds the young from the first nest the female is busy building the second nest before the first brood has even fledged.

In my experience golden-crowned kinglets don't respond particularly well to *pishing* however they do often accompany any chickadees which take offense at your efforts to attract their attention. Often the kinglets seem almost oblivious to the presence of humans. A fisherman wrote in 1884 of his experiences on a boat in Michigan. I suspect at least a little exaggeration in his story but it is interesting.

*One morning we found our boat invaded by eight or ten of these birds. It was not long before they found their way into the cabin, attracted there by the large number of flies, and at dinner time they caused no little amusement and some annoyance by perching on the heads of the passengers and on the various dishes which covered the table. I caught flies, which they would readily take from my hand with a quick flutter. I caught several, and even when in my hand, they manifested no fear, but lay quiet and passive.*

### BEE STUDENTS EARN AN "A"



*Photo by Olli Loukola*

*Queen Mary University of London*

Researchers at Queen Mary University of London have shown that bees can learn to solve a problem. Even more impressive other bees have learned the required technique by watching the trained bees.

Student bees were exposed to a blue disc which contained sugar water. The researchers then placed the disc further and further under a small plexiglass table. Finally the disc was placed so far under the table that the bee could get the sugar water only by pulling the disc out from under the table with a string. Of the 40 bees tested 23

learned to do the trick.

Scientists then put an untrained bee in a separate cage where it could watch the demonstrator bee. In this group 15 of 25 learned to pull on the string to get to the sugar water. When trained bees were placed in a colony a majority of the workers learned the technique.

The study concluded that cultural transmission does not require superior cognitive skills and is not a distinctive feature of humans. Another blow to human arrogance.

# SURVIVOR

**Photo and Story by Elizabeth Churcher and George Thomson  
First Published in the Tweed News, October 26<sup>th</sup>, 2016**

George took a deep breath, dropped his equipment and announced that he was going to take a break from window cleaning. A short walk in nature was just what he needed to relax his muscles and calm his spirit. While meandering through the gardens and around the lawn, a bright yellow flower caught his eye. It was a specimen of one of the plants known to just about everyone and a plant we've known all of our lives. Children love to blow the seeds off the globe-shaped, fuzzy seedhead. --- And just as our little great-nephew did this past summer, they delight in making bouquets of the flower and presenting them to adults. Some of these adults, seeking pristine lawns, have been known to curse this plant. Of course, long before now, you have come up with the name 'Dandelion'.

The Dandelion is a member of the huge Aster family, Asteraceae. Its scientific name is *Taraxacum officinale*. *Taraxacum* is thought to come from the Persian words *talkh* and *chakok*, meaning 'bitter herb'. The plant probably originated somewhere in Asia Minor. The species name *officinale* means 'medicinal'. Plants with this species name have a history of being used for medical purposes in many parts of the world and were 'officially' listed in herbals. These great books, written in Latin and containing descriptions of plants useful in treating diseases, date back hundreds of years.



The common name that we all know, 'Dandelion' or 'Dandy lion' has a story, too. The Normans called it 'dent de lion' because the serrations on the leaf margins somehow were thought to resemble lion's teeth. This name was corrupted into 'Dandelion' by the poor conquered Anglo-Saxon serfs.

As George paused near the herb garden to ponder the Dandelion, he began to rehearse all that he had learned over the years about this lowly plant. He did not rush into the house, as he often does, to tell Elizabeth about his exciting discovery. It was not exactly a unique find! --- But it got him thinking about the long blooming period of this tough little plant. After all, it's one of the first to bloom in spring, barely after the snow has melted and one of the last to bloom in autumn, even after the first light touches of frost.

Dandelions are one of Nature's creations that we just seem to take for granted. --- But when we examine the flower closely with unaided eye or a magnifying glass, we see deeper complexity and beauty. All Aster family members have 'flowers' that are really flower heads and each 'petal' in the flower head is actually a separate, complete flower, with stamens and pistil.

Among the Aster family plants, there are two types of flowers, termed 'florets', because of their small size. The structure of the Dandelion can, perhaps, best be understood by comparing and contrasting it with some of its relatives. When you are walking through a field enjoying a floral display of Brown-eyed Susans and Ox-eye Daisies, stop to examine them more closely. These members of the Aster family have two types of florets in each of their flower heads. The strap-shaped ones around the outside of the flower heads are called ray florets and the cup-shaped ones clustered in the centre are called disc florets. Other Aster family species such as Burdock and thistles have only disc florets while Chicory and Dandelion have only ray florets. Each ray or 'petal' is actually 5 petals fused together lengthwise. --- So, when you examine the tips of what appears to be a single Dandelion petal, you will see teeth: each tooth is the end of a single petal. Attached to each petal are stamens and a pistil and, at the base of the pistil is the ovary which develops into the fruit containing the seed. Yes, our 'Survivor Dandelion' is both complex and highly successful.

Dandelions, with their deep tap roots, survive dry weather very well. Their green leaves in our lawn during this summer's drought were testimony to their dry soil survival skills. Everyone, from Black Bears coming out of hibernation to Humans seeking that tantalizing addition to their salads, loves the taste of tender, green Dandelion leaves. --- And these leaves were the lure that persuaded pilgrims and pioneers to carry precious Dandelion seeds with them in their travels. The ancient Greeks tenderized aging leaves for their salads by blanching them. When the Romans started empire-building, their knowledge of the Dandelion's merits in salads and stews prompted them to carry this plant with them on their long journeys of conquest. Caesar found the plant already well established in Britain. When he finally arrived on British soil, the Celts were enjoying their salad greens and had discovered how to make a heady Dandelion wine.

As we come forward through the years, we find the little green 'traveller' in gardens of European monasteries and village herbalists, where its medicinal use was being promoted. It was used as a 'cleansing spring green' and as a blood purifier and spring tonic. Infusions of Dandelion roots & leaves were employed to treat stiff joints, indigestion, skin diseases and rheumatism as well as liver and kidney problems. Predictably, these folk also made wine from this helpful plant.

Known and used by so many, the Dandelion just kept travelling! The Puritans carried the Dandelion across the Atlantic with them. Settlers of all nationalities embraced the plant

for its culinary and medicinal uses: it was grown by them as a garden vegetable. After a long, cold New World winter, Dandelion spring tonic gave people the boost that they needed. The native peoples took it up as a popular addition to their diets and their pharmacopoeias. Susanna Moodie includes recipes for Dandelion in her 1852 journal. Even its dried, ground and roasted roots were appreciated as a coffee substitute. The uses of this plant seemed to be unending!

Besides hitch-hiking with Humans, the world-wide travels of the Dandelion are certainly aided by its reproductive capacity. Each flower head is made up of 100 – 300 yellow ray florets, many of which produce 3 to 4 mm long fruits called achenes: they are hard, dry structures, typically containing a single seed. When we see 'Dandelions' floating on the breeze, we are looking at achenes that are well equipped with a plume of feathery bristles which supports



their seed dispersal on wind. Each flowerhead may produce 50 or more seeds. So prolific is the Dandelion that it can create a 'sea of yellow' in a very short time. --- And all of the offspring can emerge without sex! That's right. The Dandelion is largely parthenogenic, creating seeds without pollination and the sexual process. --- So each seed grows into a little plant that is a clone of its mother.

As well as ensuring continuation of the species, Dandelion flower heads are an important source of food for a range of organisms. They supply abundant nectar and pollen to a number of species of insects including many of our native bees who are also vital in pollinating plants. Honey Bees, too, enjoy the Dandelion nectar which they convert to golden honey and the pollen that they use to make the bee bread which they feed to their larvae in hives. Some birds such as Goldfinches love the seeds.

--- So perhaps we should all start to look at Dandelions with a more understanding and broader perspective. Like many other plants which have colonized around the world, the Dandelion eventually becomes a functioning part of the plant communities that it joins. It's a vagabond which has adapted to a life in waste areas, roadsides and, yes, lawns and golf courses. Knowing what the Dandelion has contributed to our history and what it continues to give to the world around us, maybe we can look at this survivor in a more kindly light.

## CHRISTMAS AT PRESQU'ILE

Since its beginning 25 years ago as Christmas by the Bay, Christmas at Presqu'ile has delighted visitors with displays of the work of over 100 of the best eastern Ontario artists and artisans. This juried show presents the work of these talented people in Christmas House, overlooking Lake Ontario. Next door in Stonehedge you can have some desserts (mmm... rum cake) and warm drinks. Of course, at the former lighthouse keeper's cottage near the lighthouse you can view the works of local artists, possibly meet one or two of them and shop in the gift store.

Entry to the park and the show is free. All proceeds from the Show and Raffle are invested in The Friends of Presqu'ile's interpretive and educational programs in Presqu'ile Provincial Park.

Dates: Nov. 5,6,9,12 and 13 from 10 a.m. to 4 p.m.



***QFN executive member Karina Spence is displaying some of her cards and other items at this show. They feature views from the park and other locations such as this tranquil image of the lighthouse at sunrise. Be sure to watch for Karina's work in Christmas House or on her Facebook page. - <https://www.facebook.com/kspenceimages/>***

## QFN Outing – Saturday, November 19, 2016 – Migrating Waterfowl

Please “Like” QFN on  
Facebook

And visit Terry’s website for  
all the latest news on nature  
in the Quinte Area  
[naturestuff.net](http://naturestuff.net)

As waterfowl head south from their western and northern nesting waters many ducks and other waterfowl stop in the Quinte area. We’ll visit some of the most productive birding sites to see what’s around this year. There are often large groups of some of the more colourful species such as hooded mergansers. While we will concentrate on sites where the birds are fairly close telescopes are always helpful when viewing waterfowl.

**Meet by the Golden Jet in Zwicks Park at 8 a.m.**

**or in Bain Park, Trenton (Foot of RCAF Road) at about 8:30 a.m. if you prefer.**

**PROJECT FEEDERWATCH** begins on Saturday, November 12. It’s easy; if all you can identify is chickadees, blue jays and cardinals then that’s all you report. It’s a great way to introduce kids to the birds in your neighbourhood. Even if all you report are the common birds you are still contributing to research. In the United Kingdom researchers are lamenting the fact that no one kept information on a formerly common species so there is no way to measure the decline of the species. Go to the Bird Studies Canada web site and mouse over “Citizen Science” and follow the links. <http://bsc-eoc.org/>.

*The Quinte Field Naturalists Association, an affiliate of Ontario Nature, is a non-profit organization sponsoring nature education, conservation and research. It was founded in 1949 and incorporated in 1990, and encompasses the counties of Hastings and Prince Edward. The Quinte Field Naturalists Association is legally entitled to hold real estate and accept benefits.*

*Quinte Field Naturalists meet on the fourth Monday of every month from September to March (except December), 7:00, Sills Auditorium, Bridge Street United Church, 60 Bridge Street East, Belleville. In April we hold our annual dinner at an alternate time and location. New members and guests are always welcome. Bring a friend.*

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Next Newsletter Deadline – November 10, 2016

Please send submissions to [sharronjohnblaney@gmail.com](mailto:sharronjohnblaney@gmail.com)