



The Chimney Swift

The regions of Estrie and Montérégie both host a rich wildlife diversity. Many species at risk live in this part of the province of Quebec, including the Chimney Swift (*Chaetura pelagica*) which, since 2007, has been designated as Threatened by the COSEWIC (Committee on the Status of Endangered Wildlife in Canada). The Chimney Swift is the only species of swift to live in North America.

The Chimney Swift's area of occurrence is confined to Eastern North America. In Canada, this species can be observed in the south of Saskatchewan, Manitoba, Ontario and Québec and is present in Nova-Scotia, New-Brunswick and Newfoundland. Only a quarter of Chimney Swifts' populations nest in Canada; the species' distribution extends mainly south, from Montana to New-England and down to Texas and Florida. Winter sees them leaving for South America; they will fly all the way to Peru, Brazil, Ecuador or the Amazon's watershed.

Chimney Swift or Swallow?



Have you ever observed birds entering a chimney at an impressive speed, giving the impression of free falling? Don't be alarmed: it is the Chimney Swift's method of access to its nesting place or dormitory. The quantity of individuals using the chimney determines whether they use it for nesting or sleeping purposes: only one couple nests in a chimney whereas many hundreds of swifts may visit a chimney when used as a dormitory.

First of all, the Chimney Swift is relatively easy to identify, thanks to the particular shape of its wings: pointy, narrow and seemingly too large for its body. When spread, they resemble a "boomerang". In contrast with its wings, the tail is very small. In the case of the Chimney Swift, it is harder to differentiate female from male since they display the same color. Generally, female lay three to

five eggs and, about 30 days after hatching, the young birds leave the nest to take their first flight.

Curiously, the Chimney Swift is often mistaken for the swallow, owing to their similar profile. However, contrary to the swift, the swallow's tail is forked and a lot longer. Moreover, when swallows spread their wings, their shape does not come close to a that of a boomerang.



Swallow, photography : www.cowb.be/calendrier-centre.htm

A Threatened Species



In Canada, the number of adult nesting Chimney Swifts is estimated to be between 8 000 and 17 250, against 2 500 in Québec. Between 1968 and 2004, the number of individuals underwent an important decline of 95%. Chimney Swifts are threatened for two main reasons. Firstly, the use of pesticides caused a decrease in insect populations, thus directly affecting the swift's main source of food. Secondly comes the loss of habitat. Chimney Swifts live in two types of habitats : large tree stumps and brick chimneys, which are both disturbed by human activities. Tree stumps are often felled during logging because they are considered dangerous, while brick chimneys are often blocked or abandoned for the benefit of new heating technologies (electricity or radiant floors).

Is the European Starling Guilty?

Owners are sometimes concerned about the presence of birds nesting in the chimney of their house and other buildings. It can also happen that people confuse Chimney Swifts' nests with those of European Starlings. Starlings cause a lot of damage when they settle in a new home, whereas Chimney Swifts cause no trouble.

Why should you allow Chimney Swifts to use your chimney?



These birds are often observed in the vicinity of different water bodies, which provide a great quantity of flying insects - the Chimney Swift's main source of food. This species spends its whole days flying, in order to feed. They eat mosquitoes, midges, termites and biting flies, for a total of 12 000 insects per day for only one individual. This is how the presence of Chimney Swifts can help to reduce the quantity of insects in the surroundings. Interesting fact: the flight and particular call of these birds give the impression that they are playing together.

Chimney Swifts rely on chimneys to perch since the morphology of their short legs prevents them from landing on branches. However, they can perch on walls made of stones or bricks, or on masonry shafts with mortar joints, thanks to their claws and

the tip of their tail. Chimneys therefore provide them with an ideal habitat. These structures being more numerous than stumps, and thus used to a greater extent by Chimney Swifts, contribute to increase this species' area of distribution.

Within the province of Quebec, the *Regroupement QuébecOiseaux* only listed 450 chimneys or other structures used by the Chimney Swift (*QuébecOiseaux*, 2010). It is therefore important to protect each site to ensure the populations' viability. Numerous people buy bird feeders in order to attract and observe bird life. Allowing Chimney Swifts to use your chimney can also represent an ideal opportunity to be in close contact with a threatened species, and to contribute to its protection in a simple and efficient way.

How can you protect the Chimney Swift ?

You can help the Chimney Swift in a variety of ways. First of all, by avoiding to install objects or wiring which could block the access to your chimney. Insurance companies often require a chimney crown; you have to make sure to take it off between May and September. You can also choose a chimney crown with a 30cm high opening, thus still allowing the birds to access the inside. If you install a metal sheath in the chimney, you will have to cover the opening with wire mesh in order to prevent the swifts from getting trapped inside. Chimney swifts cannot cling to this type of material.

Some people think that the presence of swifts in their chimney makes winter heating impossible. It is the opposite! This species nests in Québec only during the summer season, between mid-May and mid-September. Moreover, only one nest is built within each chimney, on its inside walls. The two adults stick small twigs together using their saliva. The size of the nest does not exceed 4 inches in height and 3 inches in length. It is much too small to block a chimney and to increase the risk of fire; indeed, the probability of a fire appearing is only increased if the chimney is not swept every year, but is unrelated to the presence of Chimney Swifts. Wood fires produce flammable creosote residues which cover the inside of shafts; if these structures are left without maintenance for more than a year, the residues pile up and create a layer that could potentially catch fire and become dangerous. This would result in a chimney fire accompanied by burning ashes that could fall on the roof and surrounding structures. It is then important to clean your chimney each year, ideally before the swift's nesting season (mid-March), thus allowing a better fixing of the nest on the inside walls and preventing it from falling off, which could harm the youngsters. Before considering the demolition of masonry chimneys, look at the possibility of repairing them, it's worth it!

In addition, if you are of those who think that large dead trees (snags with a diameter over 50cm) are useless, think again; they provide excellent shelter for the Chimney Swift. Avoid insecticides completely, since these chemicals reduce considerably the quantity and quality of insects eaten by the swift. Finally, if you adapt or maintain suitable chimneys, you would promote the reproduction and gatherings of Chimney Swifts in your region.

A question of noise?

Some people may lead you to believe that Chimney Swifts are rather noisy birds. The loudest cries are produced by the young when they are waiting for food or when they are fed by the parents. Here are some tips:

- Chimney chokers (key) should stay closed for the nesting period.
- A big piece of foam or rubber can be used to wedge the chimney shut if it lacks a choker.

In summary

During spring time:

- A few weeks before the Chimney Swifts' arrival, the lid must be removed and the chimney cleaned. Always keep in mind that, when you hire a company for the cleaning, the "Bird Removal" option is a flagrant violation of federal and provincial laws which protect Chimney Swifts and other migratory birds.
- Old nests should be taken off (if they have not already disintegrated by themselves) since they are too weak to support a second brood. Be comforted, the building of the nest is an important aspect of mating.

In the fall:

- In order to protect the inside of your chimney and to banish unwanted visitors, a lid can be replaced on the opening once the swifts have flown south for winter.

Actions of the Regroupement QuébecOiseaux

In 2008, to help Chimney Swifts, the *Regroupement QuébecOiseaux* worked in collaboration with the Canadian Wildlife Service, Junco Technologies, the School of Architecture at Université Laval, the *Société de biologie de Montréal* and the Species at Risk Stewardship Fund. The project consisted in building and installing artificial chimneys to help increase the number of nesting sites as well as dormitories. A first, one such structure was installed on the roof of Sherbrooke's Nature and Science Museum, and a second one on a building at Montreal's Botanical Garden. These chimneys are inspired by the ones built in the Southern United-States. The structure standing on the Nature and Science Museum's roof is made out of wood and covered with an elastomeric material which retains heat. The temperature is regulated thanks to a heating system and a temperature sensor, thus allowing the bird to "adopt" the chimney. (On the right: chimney on the roof of the Nature and Science Museum of Sherbrooke).



In Texas, a chimney was set up and fitted with an interpretation sign; this design protects the chimney against excessive heat and raises awareness about Chimney Swifts and their habitat. This "Kiosk" design works well in parks and public spaces.

For more information on how to protect Chimney Swift habitat or to inquire about the different tools available to land owners for the perpetual protection of natural environments, contact your local conservation organisation or Appalachian Corridor at info@corridorappalachien.ca or (450) 297-1145.

Sources

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Appalachian Corridor is a conservation organisation with a mission to implement, in collaboration with Nature Conservancy Quebec and local conservation organisations, a transborder conservation strategy for the protection of a natural corridor extending from the Green Mountains of Vermont to Mount Orford, passing through the Sutton Mountains in the Eastern Townships. The following partners support Appalachian Corridor's global vision: Mount Echo Conservation Association, Association pour la conservation de la nature de Stukely-Sud, Ruiter Valley Land Trust, Parc d'environnement naturel de Sutton, Mount Pinnacle Land Trust, Alderbrooke Marsh Land Trust, Memphremagog Wetlands Foundation, Brome Lake Land Foundation, Société de conservation du corridor naturel de la rivière au Saumon, Conservation des vallons de la Serpentine, Société de protection foncière du lac Montjoie, Les Sentiers de l'Estrie, Conservation Espace Nature Shefford and Massawippi Conservation Trust.
