

# Green Scene: Tough times for Rocky Point's purple martins

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[photograph]

[caption: A pair of purple martins, the blue-black coloured male and the grey female, collect leaves for possible use as food.

Kiyoshi Takahashi photo]

[Title in Tri-City News: Tough times for Rocky Point's purple martins]

Now that the dog days of summer are upon us, it's easy to forget this season was preceded by an unusually cold and wet spring. In June, local bird watchers were concerned the unseasonal weather might cause food shortages for nesting birds. Now, thanks to the careful observations of volunteers who monitor local purple martin populations, there is mounting evidence the nesting season this year has been disastrous.

For many bird species, of course, we have no idea of what nesting success has been apart from a few anecdotal reports of unusually intense traffic at bird feeders during the cold and rainy spring followed by what appears to be reduced bird sightings later in the season. However, one bird species in the lower mainland, the purple martin, is closely monitored by volunteers. Purple martins, the largest member of the swallow family, migrate from South America north along the west coast to BC every spring. These birds nest in cavities and prefer sites located over salt water in rotting trees or decaying pilings.

When starlings, a non-native species, invaded the lower mainland several decades ago, they successfully out-competed the purple martins for most nest sites. As a consequence, BC's purple martin population plummeted. In many areas, martins disappeared entirely. For example, the last known pair of purple martins nested at Rocky Point in Port Moody in 1972. In the late 1980s, volunteers on Vancouver Island initiated a program in which nest boxes specifically designed for purple martins were installed at appropriate sites. When this program showed evidence of success, it was expanded to additional sites on Vancouver Island and the lower mainland including Maplewood Flats in North Vancouver and Rocky Point Park in Port Moody. Local naturalists were thrilled when purple martins returned to nest in Port Moody in 1996 after an absence of over 20 years.

The purple martin nest box program has been an outstanding success with the population increasing every year. By 2007, it was estimated that martin numbers in BC had grown to 650 breeding pairs. In Port Moody, the achievements of the purple martin program in recent years have been mostly due to the efforts of Coquitlam resident, Kiyoshi Takahashi, and his small team of naturalist volunteers who have kept an almost daily watch on the breeding population, installed nest boxes and banded juvenile birds in order to gain an understanding of how the martins spread from one location to another. This spring, Takahashi was distressed to observe much lower numbers of birds at Rocky Point. He also noticed very few flying insects and wondered if the reduced number of martins could be due to lack of food. Like many species of birds, martins rely on insects in the spring and summer as a nutritious source of food for themselves and their rapidly growing young. Takahashi also noticed some unusual behaviour – martins were pulling leaves from trees and taking them back to their nests. He speculated the cold spring had delayed the appearance of insects and, as a consequence, the starving birds were forced to turn to other food sources such as nutrient-poor leaves.

Over the past two weeks, Takahashi has been opening nest boxes to measure the size of the young birds in preparation for banding these juveniles. Now, his worst fears have been realized. For the first time ever, the nesting purple martins at Rocky Point have undergone a dramatic population decline from 32 active nests in 2007 to only 7

this year. In addition, Takahashi discovered some dead adults and counted only 26 chicks in comparison to 70 last year. The numbers seem similarly depressed at other locations such as Maplewood and Blackie Spit in White Rock where Takahashi also volunteers. The only site Takahashi knows of which produced more chicks this year than last is at Iona Regional Park in Richmond. There, where treated sewage is discharged, the nutrient-rich sewage ponds were apparently an important source of warm water that provided good breeding conditions for insects despite the cold spring. Since many species of birds also rely on insects for food during the spring and summer, it is quite possible other species have also had limited breeding success this year.

Over time, bird populations will likely rebound provided that we continue to experience normal spring weather. However, the martins' poor nesting success this year serves as a reminder of how important weather patterns can be. While the cold spring this year merely inconvenienced us by delaying the ripening of our fruit crops, for the birds and the insects on which they rely, a small change in the weather appears to have had a much more devastating impact.