Migratory Bird Day 2020
The Purple Martin

About the purple martin

The purple martin (Progne subis) is an aerial insectivore, meaning it feeds on flying insects while in flight. Older males are iridescent blue-black, while juveniles and second-year males resemble females. Females have iridescent back, wing, and tail feathers, but have pale undersides. This large swallow is a neotropical migrant, breeding in North America and overwintering in South America. Purple martins have a unique relationship with people; they rely almost exclusively on artificial nest boxes to breed.

Purple martins in Quebec

Purple martins breed in artificial nest boxes. They are colonial breeders; pairs will nest close together. In Quebec, their breeding range is restricted to water bodies in southern parts of the province. Typically, purple martins produce a clutch of 3-6 eggs. Eggs are incubated for 15-16 days and chicks fledge around 28 days old. In 2019, martins in Quebec laid 4.7 eggs per nest, with 4.4 eggs hatched (N=26 nests).

Non-breeding behaviour

Outside of the breeding period, purple martins form colonial roosts. A colonial roost is a place where animals congregate to spend the night. Social roosting can be advantageous; for example, they provide group protection and act as information centres. Purple martins can roost in mix-species flocks, typically with other swallows. Martin form large migratory roosts in North America and over-wintering roosts in South America. Swallow roosts can be observed at Long Point in Ontario.

Threats

Purple martins have declined by 30% in North America and 94% in Quebec since 1970. They compete with European starlings (Sturnus vulgaris) and house sparrows (Passer domesticus) for nesting compartments in their breeding grounds. Since purple martins are migratory, there are a variety of threats that may affect them in different parts of their range, such as the increased pesticide use associated with agricultural intensification, habitat loss, and increased weather variability associated with climate change.

What can you do to help purple martins?

If you own a purple martin house, you can clean it out after martins finish breeding to reduce parasites, or consider installing starling-excluder entrances or anti-predator guards. Consider signing up for Project NestWatch or the Purple Martin Conservation Association’s Project MartinWatch. If you live next to a large body of water and have an open landscape, consider installing a purple martin nest box. Even if you can’t own a purple martin nest box, you can still help purple martins. If you live in a city that has parks next to water, contact your city to ask them to consider installing a purple martin nest box. Citizen science is essential; contributing observations to citizen science programs like eBird and the Breeding Bird Atlas help establish long-term population trends.

What can biologging tell us?

Biologging, the study of wildlife using technology, allows researchers to study wildlife in unique ways. In recent years, biologgers such as geolocators (light sensors), GPS units, and radio tags have become small enough to study songbirds such as the purple martin. Miniaturized technologies allow for new research questions to be answered in detail that were nearly impossible to study a few years ago, like purple martin stopover site use during migration. Gaining more information about purple martins using biologging will ultimately aid in their conservation.

Select references