

: Bird Brief :

Purple Martin (*Progne subis*)

ORDER: Passeriformes (141 Families)

FAMILY: Hirundinidae (86 Species)

The scouts are coming, the *scouts* are coming! Around mid-April, be on the look out for Purple Martin (*Progne subis*) scouts, which are the first mature martins to arrive looking for breeding locations. Man-made martin houses and gourds are readily inhabited by colony nesting birds like Purple Martins. So, it is very important that these homes are raised over 12', placed in an open region near water, have more than four openings, and are free of infectious organisms and parasites before the scouts arrive. Many people delay opening the entry holes and raising the nesting houses until the the scouts are first seen in order to discourage local inhabitants like House Sparrows (*Passer domestics*) and European Starlings (*Sturnus vulgaris*) from nesting before the Purple Martins arrive. Research has shown that Purple Martins have more fledglings in gourd nests because of the larger space to raise the clutch compared to houses and natural tree cavities. Many man-made nesting boxes and gourds are painted white and have thicker walls. This helps to reflect heat during hot summer days and provide adequate insulation for the clutch. Providing a good breeding habitat will help survivability of this species since they loyally return to the same site they fledged from, also called **natal philopatry**, which is common among colony nesting birds. A terrific resource for migration maps, nesting boxes, and published literature on this swallow can be found at the Purple Martin Conservation Association website, www.purplemartin.org.

Purple Martins are the largest swallow, have pointed wings, and a forked tail. Males are a glistening, deep blue color and females are colored a dark brown with a light belly. They sing a warbling gurgling series with intermittent clicking trills. They are aerial insectivores and can forage at higher altitudes than other swallows. Additionally, they will drink water and bathe on the wing like other swallows, swifts, and flycatchers. As a side note, one day I was observing Barn Swallows (*Hirundo rustica*) and Chimney Swifts (*Chaetura pelagica*) flying over the pond at Humboldt Park to feed and drink. I noticed something unique in the difference between how these two birds drank water. The Chimney Swifts were more graceful and hardly made a ripple on the water surface. However, the Barn Swallows were more sloppy, causing water splashing. At any rate, I am always amazed at how some species of birds can eat, drink, and bathe on the wing!

Established pairs of Purple Martins are typically bonded prior to arriving at the breeding habitat while young martins will often pair bond when they arrive. Pair bonding can take a few hours or a few days. The female chooses a male that occupies a nesting site. He will allow females to enter and leave the nest. The female will become aggressive toward other interested females. Ultimately, the nesting space with the accompanying male is the determining factor in choosing a mate and not the male only



or the nest only. Once bonded, they will vocalize elaborately at greetings and when they see each other at a distance. They will fly together with their group and they will forage together, preen together, and perch together.

Nesting begins about one month from egg laying. The pair will initially form the nest with sticks and dried leaves. Then in 2-3 weeks, mud and more sticks will be added. Finally, fresh leaves will be placed around the rim of the nest near the time of laying eggs. Typically 4-7 eggs will be laid either annually or twice a year. Incubation is up to three weeks and all eggs will hatch within a day, also known as **synchronous** hatching. Fledglings are raised by both parents and leave the nest within one month.

If there is a bird for you to anticipate seeing this spring, as well as to provide a breeding site for, it would be the Purple Martin. Get involved with a citizen scientist conservation project and/or become a Purple Martin landlord. The experience will be life changing!



References:

1. Brown, C.R., Airola, D.A., and Tarof, S. 2021. Purple Martin (*Progne subis*), version 2.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.purmar.02>
2. Raleigh, D., Jay, J.D., Grisham, B.A., Siegrist, J., Greene, D.U. Nest survival data confirm managed housing is an important component to the conservation of the eastern purple martin. *Wildlife Society Bulletin*. 2019 Mar;43(1):93-101.
3. The Birder's Handbook. A Field Guide to the Natural History of North American Birds. Paul R. Ehrlich, D. S. Dobkin, D. Wheye. 1988. Simon and Schuster Inc., New York, NY.
4. The Cornell Lab of Ornithology Handbook of Bird Biology, 3rd Ed. Irby J. Lovette and J. W. Fitzpatrick. 2016. John Wiley and Sons, Ltd., Chichester, West Sussex.
5. Peterson Reference Guide to Bird Behavior. John Kricher. 2020. Houghton Mifflin Harcourt Publishing Company, New York, NY.
6. Peterson Field Guide to Bird Sounds of Eastern North America. 2017. Houghton Mifflin Harcourt Publishing Company, New York, NY.
7. The Sibley Guide to Bird Life and Behavior. David Allen Sibley. 2001. Andrew Stewart Publishing, Inc., NY and Toronto.
8. Johnston, R.F. and Hardy, J.W. Behavior of the purple martin. *The Wilson Bulletin*. 1962 Sept;74(3):243-262.