WEC 254

UF UNIVERSITY of FLORIDA
IFAS Extension

Florida's Introduced Birds: Muscovy Duck *(Cairina moschata)*[1]

Steve A. Johnson and Michelle Hawk[2]

A wide variety of non-native birds have been introduced in Florida—perhaps as many as 200 species! Of these, at least 14 introduced species are considered established, according to various authorities, and some are now considered invasive and could have serious impacts in Florida. This fact sheet introduces the Muscovy Duck, and is one of a series of fact sheets about Florida's established non-native birds and their impacts on our native ecosystems, economy, and the quality of life of Floridians. For more information on Florida's introduced birds, how they got here, and the problems they cause, read "Florida's Introduced Birds: An Overview," http://edis.ifas.ufl.edu/UW297 and the other fact sheets in this series, http://edis.ifas.ufl.edu/topic_series_floridas_introduced_birds.

Species Description

The Muscovy (*Cairina moschata*) is a member of the duck family (Anatidae), which also includes geese and swans. Male Muscovies can be easily identified by the presence of fleshy red caruncles, or warty bumps, on the face over the eyes and at the base of the bill (Fig. 1). These caruncles are often reduced or absent in females. Muscovies are large ducks with long, flattened tails and large claws (in comparison to other ducks). Males weigh approximately 10–15 pounds (4–7 kg), and are somewhat larger than females. Muscovies may be solid white or black or may have a mottled pattern (Fig. 1). Males, or drakes, often appear brighter, their black feathers reflecting a purplish tint, whereas females are more drab in appearance. Muscovy ducklings (Fig. 2) are yellow with buff brown on the tail and wings. Muscovies are one of the few species of duck that do not "quack;" instead, the male's call is a loud, dry hiss, and the female's is a quiet coo.

Similar Species

Muscovies are similar in appearance to other ducks, but are easily recognized by their stocky bodies, black and white plumage, and red caruncles (facial bumps).

1. This document is WEC 254, of the Department of Wildlife Ecology and Conservation, University of Florida / IFAS. This document is one of several documents in the series entitled "Florida's Introduced Birds," published by Dr. Steve A. Johnson. Visit the University of Florida's EDIS Web site at http://edis.ifas.ufl.edu. First published March 2009.

2. Steve A. Johnson, assistant professor and Extension specialist, Department of Wildlife Ecology and Conservation and Gulf Coast Research and Education Center, University of Florida/ IFAS - Plant City Center, 1200 North Park Road, Plant City, FL 33563; Michelle Hawk, student, Gulf Coast Research and Education Center, University of Florida/ IFAS - Plant City Center, 1200 North Park Road, Plant City, FL 33563.

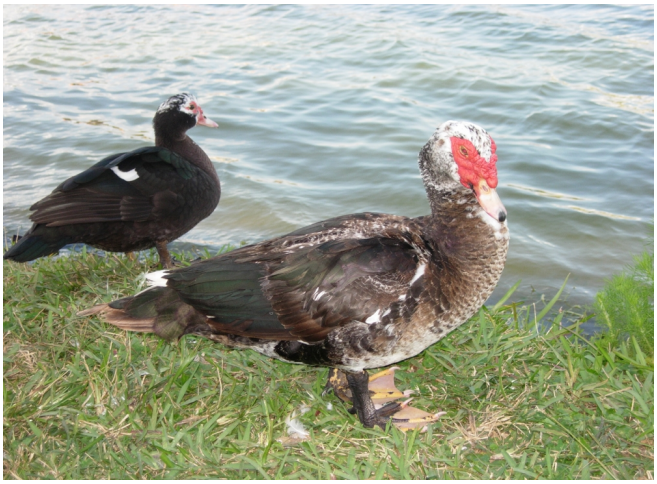

Figure 1. Male (right) and female (left) Muscovy ducks *(Cairina moschata)*. The prominent, warty *caruncles* on the face are a distinguishing characteristic of this species, but are often reduced or absent in females. Credits: Steve A. Johnson

Figure 2. Muscovy duckling *(Cairina moschata)*. Credits: Luis Miguel Bugallo Sanchez

Native Range and Habitats

Muscovies are native to the tropical climates of Central and South America, Mexico, and extreme southern Texas in the United States, but they can also tolerate colder temperatures. In their native range, Muscovies are found near forest streams, wetlands, swamps, mangroves, and freshwater ponds. In eastern Mexico, populations have declined as a result of excessive hunting and habitat loss. Nest box programs implemented by Ducks Unlimited de México, A.C. (DUMAC), have helped to augment native populations in some areas.

Mode of Introduction

Muscovies were intentionally released in the United States by private individuals, businesses, and governmental organizations as an ornamental species believed to enhance the aesthetic appeal of urban parks and lakes. As a result, introduced Muscovy populations are often referred to as *feral*. The first recorded accounts of Muscovy populations in Florida date to 1967.

Introduced Range and Habitats

Muscovies are found in and around urban centers from New York southwest to Texas, and in Washington and California (Fig. 3). In Florida, Muscovies have been reported in nearly all 67 counties. These large ducks are extremely common in urban parks and near lakes, ponds, and streams, because people often feed them at these sites. Muscovies can also be found around zoos, recreation areas, neighborhoods, and farms.

Figure 3. United States Range of the Muscovy duck *(Cairina moschata)* —native range shown in black, introduced range in dark gray. Note that the introduced range mainly consists of isolated populations in urban centers. Credits: Monica E. McGarrity

Ecology

In their native habitats, wild Muscovies nest in tree cavities; however, feral Muscovies dig out shallow nests on the ground. The female lays 8–16 cream-colored eggs and incubates them for about 5 weeks. Males often protect the ducklings and accompany them when foraging (searching for food). Wild Muscovies live alone or in groups of 4–12, but feral Muscovies are often found in large flocks around lakes and parks. The diet of feral Muscovies

includes food provided by humans, aquatic vegetation, seeds, acorns, and invertebrates.

Ecological impacts

Muscovies are often found in large numbers, particularly in Florida, and produce a large quantity of droppings, which can seriously degrade water quality. In addition, domestic ducks are often responsible for the spread of several serious diseases to native ducks, and may also interbreed with native ducks, "muddying" the gene pools of those species and potentially decreasing their capacity to adapt, resist disease, and persist.

Impacts to People and Pets

Muscovy populations expand rapidly in urban areas, often becoming a nuisance. These large ducks are often aggressive, especially when accustomed to being fed, and may chase or attempt to bite children. The excessive droppings not only decrease the aesthetic value of parks and lakes, but also contaminate water, presenting a significant hazard to the health of humans and their pets.

Solutions

Since many of the problems caused by Muscovies are the result of residents feeding these ducks, discouraging feeding in community parks and around lakes would help to alleviate some problems. In many areas, particularly in southern Florida, city ordinances ban residents from feeding ducks, although these rules are difficult to enforce. Efforts to decrease nesting success of Muscovies can also help to reduce populations. Eggs should not be removed, as the female will lay a replacement clutch. Instead, the eggs should be shaken vigorously (to render them unviable) and returned to the nest, or replaced with plastic eggs.

How You Can Help

You can help to alleviate the growing numbers of non-native bird species in Florida by being a responsible and educated pet owner. Never set any pet free outside! You can also help by learning more about invasive plants and animals and their impacts on Florida's natural environment, and by educating others. For more information on Florida's introduced birds and how you can help, read "Florida's Introduced Birds: An Overview" (http://edis.ifas.ufl.edu/uw297), and check out the Additional Resources listed below.

Additional Resources

We recommend several different online guides, books and other publications that provide additional information on Florida's native and non-native birds.

Books and Scientific Publications

Avery, M. L., and M. P. Moulton, "Florida's non-native avifauna," Managing Vertebrate Invasive Species: Proceedings of an International Symposium (G. W. Witmer, W. C. Pitt, K. A. Fagerstone, Eds.). (Fort Collins, CO:USDA/APHIS/WS, National Wildlife Research Center, 2007).

Alsop, Fred J., Smithsonian Handbooks: Birds of North America – Eastern Region. (New York: DK Publishing, Inc., 2001).

Bull, J., and J. Farrand, Jr., The Audubon Society Field Guide to North American Birds. (New York: Alfred A. Knopf, 1977).

Kale, H. W. II, and D. S. Maehr, Florida's Birds. (Sarasota: Pineapple Press, Inc.,1990).

Peterson, R. T., Peterson Field Guides, Eastern Birds. (Boston: Houghton Mifflin Co., 1980).

Pranty, B., A Birder's Guide to Florida. (Colorado Springs: American Birding Association, 1996).

Robbins, C. S., B. Bruun, H. S. Zim, and A. Singer, A Golden Guide to Field Identification: Birds of North America. (New York: Golden Press, 1983).

Sibley, D. A., The Sibley Field Guide to Birds of Eastern North America. (New York: Knopf, 2003).

Woolfenden, G. E., W. B. Robertson, Jr., and J. A. Cox, The Breeding Birds of Florida. (Florida Ornithological Society Special Publication 7, 2006)

Online

USDA National Invasive Species Information Center (NISIC)
http://www.invasivespeciesinfo.gov/index.shtml

Florida Fish and Wildlife Conservation Commission Non-Native Wildlife
http://myfwc.com/nonnatives/index.htm—click on "Birds"

Florida Fish and Wildlife Conservation Commission Breeding Bird Atlas
http://myfwc.com/bba/default.htm

World Conservation Union, Species Survival Group, Invasive Species Specialist Group
http://www.issg.org—click on "Global Invasive Species Database," search for species

Cornell Lab of Ornithology "All About Birds"
http://www.birds.cornell.edu/AllAboutBirds—click on "Bird Guide," search for species

United States Geological Survey, Patuxent Wildlife Research Center, Bird Identification
http://www.mbr-pwrc.usgs.gov—click on "Bird Identification InfoCenter"