

How the *Florida Scrub-Jay* Can Save Florida

Florida scrub-jay *Aphelocoma coerulescens* Bosc (*Corvidae*)

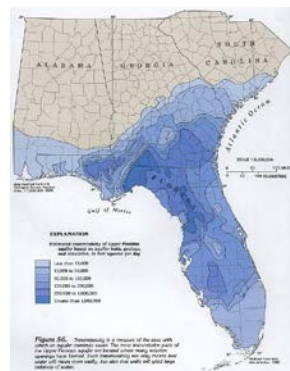
My objective in this article is to draw attention to an appreciation and a connection between the Florida Scrub-Jay (a beautiful and friendly species of bird, but endangered through loss of habitat)—and Florida's major source of drinking water—the aquifer.



The Water

Do you like to drink water? Me too! As a Floridian you probably know where your drinking water comes from. Right—the aquifer! That vast area several hundred feet below the earth's surface that is filled with water, just waiting to be pumped into our kitchen sink. How did the water get down there you ask? I'm glad you asked. Rain water falls on the soft sandy areas of the many square miles of Central and South Florida. The water soaks into the earth like a giant sponge, and recharges the aquifer with an endless supply of drinking water—IN THEORY!

According to the [Natural Resources Defense Council's](#) recent study, [Florida](#) is one of 14 states predicted to face "high risk" water shortages by the year 2050.^[1] The state's water is primarily drawn from the [Floridian Aquifer](#) as well as from the [St. Johns River](#), the [Suwannee River](#), and the [Ocklawaha River](#). Florida's regional water conflicts stem primarily from the fact that the majority of the fresh water supply is found in the rural north, while the bulk of the population, and therefore water consumption, resides in the south. Metropolitan municipalities in central and south Florida have neared their aquifer extraction limit of 650 million US gallons (2,500,000 m³) per day, leading to the search for new, extra-regional sources.^[2] (Wikipedia)



The Floridian aquifer system is one of the most productive aquifers in the world. This aquifer system underlies an area of about 100,000 square miles, and it provides water for several large cities, including Savannah and Brunswick in Georgia and Jacksonville, Tallahassee, Orlando, and St. Petersburg in Florida.

The statewide concerns over water has lead to the so called "Water Wars" within the several regions of the state. It has been a contest between industry and the environment, and win or lose, the environment has taken a beating. In every area of Florida, ordinances protect the recharge (also called

"scrub") areas from development. However local authorities were, and still are, able to get variances to build on these areas if they can show a good enough benefit—economic or otherwise. Over the last several decades these recharge areas have diminished by 80%, and have been replaced by rooftops, road surfaces, and lawns. In all building sites anywhere in Florida, builders must install mandatory retention ponds that collect the overflow water. But in time the bottoms of these ponds become sealed off with sediment, and hold back absorption so that most of the water just evaporates. These areas are then losing rain water through surface evaporation, lawn sprinklers and runoff to rivers leading to lakes and ocean. Needless to say, the people of Florida need the surviving undeveloped recharge areas more than ever before.

The vast majority of the people of Florida are not aware or not greatly concerned of the significance of these recharge areas, so that when a petition for a variance to build is submitted, it passes with little notice or opposition from an unconcerned public. The increasing loss of the aquifer's product will hurt the present and future population of Florida.

The Bird

There is another population of Florida that will also be hurt—the Florida Scrub-Jays. These birds live only within these sandy recharge areas, also known as "scrub areas." Scrub-jays are endemic to Florida, and do not migrate. So as a full time resident of the scrub areas of Florida, they are entirely dependent on the scrub habitat for their existence.

Scrub-jays are members of the Corvidae family of birds—which includes crows, ravens, magpies, and jays in North America. Some corvids have been seen to be able to count up to five, whereas most birds cannot tell the difference between two and three. So they are much smarter than most other birds. Some individuals will fly in close to you and size you up. And if they detect that you have the right attitude and personality, they may come land on your head or shoulder—looking for food, of course. Nobody works for nothing!

They love peanuts, and that's what people have been feeding them for generations. As a photographer, I would prefer to feed them their natural diet—acorns. A photo of a peanut in a scrub-jay's beak does not look very natural. But whether it's a peanut or acorn, this bird's great sense of economy and planning will probably prompt him to bury it in the sand—and unlike squirrels, he will remember exactly when and where he put it. Scrub-jays are very aware of thieves within their own species watching them bury their food, and will return later and rebury it in a new place.

Scrub-jays are very much a family oriented species. The young members of the family may stay with the parents through adulthood, and help feed their new siblings as they hatch. They are also well organized as a family team. One member of the family will play sentinel, and perch on the top of a tree. When a predator comes into the neighborhood, it sounds the alarm, and the whole family takes cover. Each family has their territory. When rowdy teenagers from another scrub-jay family enter the territory, they are mobbed, and roused out.

The Land

The Florida scrub recharge areas are protected forever by law. And we elect honest politicians who would never think of taking bribes, or even campaign money from commercial industry or home builders. But building homes and supporting industry increases the tax rolls, and brings in much needed revenue for public projects. So that giving out variances to build on recharge areas can be justifiable in the eyes of politicians and the unaware public.

According to Wikipedia:

Florida scrub is an endangered temperate coniferous forest ecoregion of the state of Florida in the United States. It is found on coastal and inland sand ridges and is characterized by a xeromorphic plant community dominated by shrubs and dwarf oaks. Scrub soils, a type of entisol, are derived from quartz and are low in organic matter, silt, and clay. Because the low-nutrient sandy soils do not retain moisture, the ecosystem is effectively an arid one. . . **It is endangered by residential, commercial and agricultural development, . . .**

Right there is a reason to establish the Florida Scrub-Jay as the poster-child for our water supply. Its habitat is the sandy soil that feeds aquifer—our primary source of drinking water. The general public will pay little attention to a building variance request; and while concerned about water, they may tend to go along with the mitigations offered not fully realizing that the land is gone forever. Whereas, that concern put together with destroying the home of this wonderful bird that they have grown to love—state wide, would produce a much stronger voice of the people. There is not much incentive among politicians to establish the Florida Scrub-Jay as our state bird. It has been tried and failed. But I think we can make this bird the poster-child for our water supply.

The Dilemma

Feeding scrub jays has a detrimental effect during the breeding season (February through June) when the nestlings must have soft caterpillars and insects. They cannot digest the hard acorns at their early age. As bad as this may sound, it has little effect on the scrub-jay's population when compared with the loss of habitat. At present there is a \$200–\$500 fine for feeding them. This fine is not altogether a bad thing—but it is short sighted. The less people are allowed to associate with these birds, the fewer who will care about them—or their habitat.

The loss of their habitat, when replaced by rooftops, roads, and retention ponds, is the biggest threat to our drinking water. And those retention ponds evaporate more water than they recharge into the aquifer. In this respect, the scrub-jay is similar to the canary in the coal mine. If the Florida Scrub-Jay becomes extinct, it will be our signal that our water supply is in deep trouble.

The Solution

You may recall decades ago that if we prevented forest fires we would save the forests. Now we perform prescribed burns to save the forests. I suggest we allow prescribed feedings of scrub-jays by licensed nature tour leaders who will both educate and photograph people with these birds. A framed 8x10 in your home of a scrub-jay perched on your head is a great conversation piece. Photography and word of mouth is a great medium for the purpose of public awareness and education. I'd like to see the Florida Scrub-Jay as the poster child for our water supply, and possibly another (and more successful) attempt at becoming the state bird.

If you think this plan has any merit, please let me know. Your emails will be appreciated toward the issuing of special—limited—seasonal feeding permits/licenses to knowledgeable and responsible tour leading photographers and birding instructors with a camera who will send people home with a story and pictures.

Milton Heiberg
photonat@cfl.rr.com

