

## Pigeons – Smarter Than You Think by Jackie Kuroda

Many people consider pigeons “rats with wings” or see them as urban pests, but pigeons are among the most intelligent bird species. Most people are familiar with seeing pigeons in the park or surrounding notable landmarks in major cities, such as Notre Dame in Paris, France. However, pigeons have been used by the Coast Guard, Project Sea Hunt, to locate bodies in the water and as research subjects in psychology labs. Some surprising facts about pigeons include the ability to recognize all 26 letters of the English language and the difference between a Van Gogh and a Chagall painting. They can also be taught complex actions and response sequences. And almost everyone is familiar with their unique ability to find their way back home.

Pigeons may be one of the oldest domesticated birds. The urban pigeons seen today were first brought to the United States from Europe in the 1600’s for food, but most people no longer eat them. There are many kinds of pigeons with more than 300 species in the bird family Columbidae. The most common is the feral Rock Pigeon. Despite the perception that they are “dirty” birds, they really are not and there is little evidence to prove that they have a significant role in spreading disease. There is no good reason to call them “rats with wings” and it is a public perception that should be changed.



Pigeons were chosen for Project Sea Hunt during the 1977 research by the Coast Guard because of their ability to adapt and ease to train. Besides those things, pigeons also have excellent vision, which is needed when trying to locate bodies adrift at sea. In the trials conducted, pigeons spotted the orange floats used 90% of the time. People saw the same target only 38% of the time. Not only did the pigeons have a higher rate of finding the float, they also found it earlier than the people. Unfortunately, Project Sea Hunt was not continued and ended in 1983.

A New York Times article, *How Smart is This Bird? Let it Count the Ways*, describes how pigeons are able to learn abstract math skills, which is an ability that had only been associated with primates. How did researchers test their intelligence? The pigeons were presented with three images containing one, two, or three objects. All three images appeared on a touch screen and the pigeons pecked the screen to make a response. If they correctly completed the task, they received a snack. The pigeons performed the tasks as well as the rhesus monkeys that were tested in previous experiments, which surprised researchers.



In the most recent research released, pigeons were trained to detect cancer on radiographs. The writers of a new study in the journal PLOS ONE think the birds are great at testing cancer detection technology. The pigeons showed “remarkable” success identifying differences in images and were able to get the answer right 85% of the time. Pigeons are not expected to replace doctors any time soon, but this does show just how smart they are at learning tasks.

So, the next time you pass a pigeon in the park, remember that pigeons are a lot smarter than you think! They are abstract thinkers that can probably count how many bread crumbs you have thrown to them or that they could probably find you quicker adrift at sea than most people. In the future, we may even see pigeons used more to test detection technology in medicine or other sciences. Everyone should appreciate these birds more and not consider them an urban pest.