

My Interest in Birds

In 1962, while I was a student at Purdue University, I went with my friend Malcolm Jenkins to Shades State Park in Indiana. It was springtime and birds were everywhere. Malcolm had a pair of binoculars and showed me a Yellow Warbler. I was amazed to see this colorful bird singing from the branch of a tree nearby. I learned that each species of bird had a characteristic song and that an expert could identify that species just by the song without seeing the bird. Later in the day, I observed a Barred Owl flying up Sugar Creek with a fish in its talons. From that point on, I was really hooked on finding, identifying and watching birds. I was fascinated by their song, color and movement. I soon purchased a Peterson Field Guide and binoculars. I then began to identify birds on my own. My wife Joanne was interested as well, and we began to keep a "life list" in which we recorded the first sighting of each species with details such as date and location.

From that point on, we began to look for bird species that we knew were present in our area. One day, while we were out birding, we encountered another birder. He seemed to know a lot about bird watching and introduced himself as Irving Burr, a professor in the Purdue Statistics Department. We told him we were looking for resident species of birds, and he asked us what species we would really like to see. I said without thinking, "Prothonotary Warbler." He replied, "I think I can help you with that." He then took us to an area along the Wabash River and made an audible "hissing sound," something we were not familiar with at that time. Incredibly, a small yellow bird flew right over from an island in the river to a tree near where we were standing, began singing and looked down at us. We put our binoculars on the bird and, sure enough, it was a Prothonotary Warbler. I was amazed! From that time, he became a good friend, and we frequently went out with him to look for interesting bird species. He showed us all the best birding spots in the area and which species could be found at various times of year. He also mentioned that from time to time a bird species will occur outside its normal range. Such an event is of interest and is published appropriately. I remember the record of a Northern Lapwing which I photographed at Montauk, Long Island in the 1960s. Since its normal range is Europe/Asia, this bird had flown several thousand miles across the Atlantic Ocean.

The next spring, Irving Burr invited us to go on what is called a "Big Day"! The idea is to take a 24 hour time span during spring migration and record all species you can find by moving from area to area locally. A record is then kept, and one compares the results from year to year. I remember counting well over 150 species in Indiana the first time we did a Big Day.

After we left Purdue and moved to New York City, a whole new opportunity for finding birds presented itself. We joined the Linnaean Society, which met every two weeks in the American Museum of Natural History. Here we met many interesting people, many of whom were well known. A few names that come to mind are John Bull, Eugene Eisenmann, Guy Tudor, Stuart Keith, Paul and Fran Buckley, Tom Davis, Helen Hayes and Ned Boyajian. It was during this time that we became participants in several Christmas Bird Counts, which were sponsored by the Audubon Society. Each count takes a fixed circular area of diameter 14 miles and, during the Christmas season, record bird numbers by species. One of these, the Montauk Christmas Count, was of particular interest because it had a history going back over 50 years. Eventually, I succeeded Paul Buckley and became a co-compiler of this count. Subsequently, I was one of the first to computerize Christmas Count results.

The Society opened new possibilities for me – trips to see pelagic birds off Long Island, a Caribbean journey to Jamaica, Haiti and The Virgin Islands, as well as a trip to Newfoundland.

Inevitably, I became interested in several areas of ornithology. Unlike humans, birds live in a three dimensional world, flying at altitudes as high as 15000 feet. Some questions that interest ornithologists are:

1. How do birds navigate, especially at night and in adverse weather conditions?
2. Endurance: how can some species fly so far without resting?
3. Soaring: how can a bird like the albatross fly for days over the ocean while using very little energy?
4. Speed: how is it that the Peregrine Falcon can fly at over 250 mph when it stoops (dives) to intercept a target in flight?

Let's look at these questions.

1. Navigation and endurance. An example is the extraordinary migration flight of the Bar-tailed Godwit, a medium-sized shorebird that feeds on shellfish found in coastal mud flats. It breeds in Alaska, migrates south non-stop over the Pacific Ocean to New Zealand and Australia where it winters. Quoting from an article "The Godwit's Long, Long Nonstop Journey" by Jim Robbins: "These birds are making their journey of more than 7,000 miles by flapping night

and day, without stopping to eat, drink or rest. The Godwit's epic flight — the longest nonstop migration of a land bird — lasts from eight to 10 days and nights through pounding rain, high winds and other perils. It is so extreme, and so far beyond what researchers knew about long-distance bird migration, that it has required new investigations.” The known distance record for a Godwit migration is 13,000 kilometers, or nearly 8,080 miles. It was set by an adult male Bar-tailed Godwit with a tag code of 4BBRW that encountered inclement weather on his way to New Zealand and veered off course to a more distant landing in Australia. He had flapped his wings for 237 hours without stopping when he touched down.

The question of navigation is also of great interest. How does the Bar-tailed Godwit travel over such great distances without guidance? At night, the sun is not visible and in bad weather, neither are the stars. Is the Godwit able to detect the Earth's magnetic field? This would be similar to having an internal magnetic compass aligning with the magnetic field of the earth.

2. Dynamic Soaring of the Albatross: Dynamic soaring is a flying technique used to gain energy by repeatedly crossing the boundary between air masses of different **velocity**. Such zones of wind gradient are generally found close to obstacles or close to a surface. The technique is of use to **birds** and glider pilots are sometimes able to soar dynamically in meteorological wind shears at higher altitudes. Albatrosses are particularly adept at exploiting these techniques and can travel thousands of miles using very little energy. Gulls and terns also exhibit this behavior in flight.

3. The tremendous speed of the Peregrine Falcon: This Falcon hunts from high in the air above land or water. Their hunting technique involves the "stoop," a steep dive from as high as 1,000 feet during which a Peregrine Falcon can reach a speed of over 200 miles per hour, faster than any other animal. The Peregrine is beautifully adapted for high-speed flight, with long, tapered wings for maneuvering at high speeds and strong feet and talons used to initially strike, then grasp its prey. The nostrils above a falcon's beak contain small, bony tubercles that break up air flow during high-speed dives, allowing the bird to easily continue breathing.

There are many other interesting areas of study. For example: Bird song and calls and the role they play in avian life as well as population dynamics (the increase and decrease of the population of a species over time). I will add more to this memoir in the future.