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Corky Pugh, Director of the Alabama Wildlife and Freshwater Fisheries Division

Conservation's

EYE *IN THE*

By Gaylon Gwin, Staff Writer

SKY



*Department of Conservation
Pilot Ray Stroud*

BILLY POPE

Sometimes a bird's-eye view of nature is necessary for Wildlife and Freshwater Fisheries biologists and enforcement personnel. That's when they call on Ray Stroud and the Division's Cessna 182 to take them up for an aerial look.

"With responsibility for managing and protecting fish and wildlife resources throughout the state, the Wildlife and Freshwater Fisheries Division has made good use of a small single-engine aircraft for decades," explains Corky Pugh, Director of the Wildlife and Freshwater Fisheries Division. "Such an airplane allows travel across over 52,423 square miles of Alabama's widely-varied terrain from a bird's eye view. Aerial observation is the primary use of the airplane, whether for counting eagle nests, waterfowl survey work, tracking radio tagged fish, or enforcement surveillance. All sections of the Wildlife and Freshwater Fisheries Division utilize this versatile aircraft."

Stroud's schedule may call for flying over eagle nesting territory in north Alabama one day and looking for illegal hunting activity in another part of the state the next. Only the weather conditions keep him from

flying most fall and winter days. From September through February, he's in the air most of the time assisting conservation law enforcement officers with surveillance operations and biologists with wildlife surveys. Stroud logs more than 400 hours in the air during this busy season.

The Cessna is equipped with a multi-function display that works with Global Positioning System (GPS) to show exactly where the plane is in the air in relationship to what it's flying over. This feature helps to pinpoint locations of problems and aids in going to a particular location quickly.

Use of an aircraft in conservation work provides a time-effective way to survey conditions in widespread areas. Studies that might take a day or longer for biologists on the ground can be accomplished from the air in a just few hours.

Monitoring Bald Eagles

Even before bald eagles begin nesting in January, wildlife biologist Keith Hudson scopes the sky for eagles. Migrant birds from northern parts of the hemisphere over-winter in Alabama. The airplane

provides a wonderful view as Hudson conducts a survey count of the wintering eagles. The large birds are easily seen as they perch in the treetops.

When nesting activity begins, Hudson and Stroud begin watching previous nest sites for signs of activity. They also are on the lookout for new nests. Each nest is pinpointed with GPS coordinates. The GPS information allows the nest locations to be more easily monitored.

"With GPS readings on each nest, we can check one nest, set the GPS locator for the next one and fly right to it," said Hudson. "We're monitoring 53 active nests this year. Using the airplane, we can check on all of them in two long days in the air. We couldn't do that on the ground without expending a terrific amount of time and travel."

Numbers of eagles and nests are determined by visual spotting. From the air, observers can see into the nests to count the eggs. Further checks reveal when the chicks are hatched, and the progress of the young eaglets until they fledge, usually in April. Stroud sometimes monitors the nests alone to make these reports.



By early March, the eagle nests are in all stages of nesting. Some have adults brooding the eggs, some have newly hatched young, and others may have eaglets moving around the sides of the nests. "If we find a nest with broken eggshells, we can note that predation may have caused a loss," Hudson says. "We regularly check for productivity and survivorship, and keep track of the number of fledglings per nest."

Hudson cited other times he's been able to utilize the advantages of flying over the landscape. He assisted in locating heron rookeries (nesting sites) for the Alabama Breeding Bird Atlas Survey. These observations help in determining numbers of herons considered native to the state, and the status of the varied species that may share a rookery. The purpose of the Breeding Bird Atlas Survey, conducted by the



DENNIS HOLT

Each eagle nest found in Alabama is pinpointed with GPS coordinates. The nests are annually monitored for brooding, hatching and fledging.

Alabama Ornithological Society, is to compile a reliable picture of breeding bird distribution in Alabama.

Some years ago Hudson was manager of the Seven-Mile Island Wildlife Management Area. "It was a distinct advantage for me to have a chance to fly over the WMA. From the air, I could tie all the parts into the whole and get a better feeling for the layout of the WMA."

There are many other ways that the airplane is invaluable to the Wildlife and Freshwater Fisheries Division. "For eagle counts and waterfowl surveys, the flight capabilities enable our biologists to perform critical work that would otherwise be largely impossible. In this instance, GPS has proven indispensable," adds Pugh.

Waterfowl Census

Twice annually, wildlife biologists conduct counts of migratory waterfowl in two major concentration areas: the Tennessee River Valley and the Mobile Delta. Before waterfowl hunting season opens, usually in November, biologists fly over these areas to determine the concentration of ducks. Identifying the individual species from the air requires flying at low altitudes. Keith McCutcheon, Supervising Wildlife Biologist for that area, has been a frequent flier on census flights. "I don't even think about it," McCutcheon says, when people ask if it's scary to fly so low. "We have a great pilot who takes care of the flying while we take care of the counting."

Besides ducks, populations of other species like double-crested cormorants or herons are noted if they seem to be in abnormal numbers. Through year-by-year comparisons, the biologists can then determine long-term trends of waterfowl movement.

Every January, a Mid-Winter Survey is conducted in coordination with other southeastern states and the U.S. Fish & Wildlife Service. During the same five-day period, ducks are counted in all states along the flyway for a total census of the migratory birds. "We fly a route that covers the same area each year to get a more accurate comparison from year to year," McCutcheon explains. "This has been going on for a number of years. Some states have tried to use helicopters, but we rely on fixed wing aircraft as the best way to conduct these counts."

In north Alabama along the Tennessee River, they work the major embayments west from Decatur to the Mississippi line and then east from Scottsboro to the Geor-



BILLY POPE

gia line, covering from west of Pickwick Lake to east of Lake Guntersville, working back and forth in grid areas. The flight usually takes about five hours and is scheduled around weather conditions during the five-day window. In the Delta area, they begin at Mobile Bay and fly back and forth in grid areas, using the causeway as a division point. This southern survey route takes approximately two and a half hours.

Law Enforcement

Conservation Enforcement Officers know the advantages of aerial observation. During dove season, they can see where numbers of hunters and vehicles have gathered for group hunts. Then they can notify the ground officers of the organized hunts so officers can check for licenses and baiting.

The view from above can reveal illegal activities that might go unnoticed from ground level. Baited fields for dove or deer are more easily detected, as are active feeders or piles of corn near a shooting house.

"Grains of corn scattered on a green field really show up," said District VI Enforcement Officer Mike Cox, who works in the southeastern part of the state. "We make a lot of baiting cases because of that."

Near duck blinds, muddy patches in the water indicate the presence of bait. "The ducks stir up the water as they dip down to pick up the grain from the bottom of the pond," Cox said.

When a suspicious area is spotted from the air, Cox says he contacts officers on the ground by radio and reports the activity and location. Those officers can then go



onto a property knowing what they will find. “We don’t want to walk in on a hunter and ruin his day if our suspicions are wrong. It’s a lot better when we have a good idea of what we’ll find.”

During the 2002-03 season, one district in southeast Alabama detected 49 illegally baited plots from the air. Cox was a frequent flier with Stroud that season and realized from experience how much could be done from above. Officers in other districts increased their use of the airplane in the 2003-04 season, after hearing of District VI’s success. The bait cases statewide increased 65 percent over the 2002-03 season, an increase directly attributable to aerial observation.

“The increased observational capability of flight allows our enforcement officers to check whole counties for illegal bait in a much more efficient way than checking areas on foot,” comments Pugh. “In working night hunting activities, the plane has also proven to be a tremendous asset. GPS capabilities allow for precision in establishing locations. With our current manpower shortages in enforcement, use of the airplane has helped to fill the gap.”

A persistent illegal activity is night hunting. Thanks to night surveillance from above, more violators are detected. “We can look down at the roads and see a slow-moving vehicle. We can see brake lights going on and spotlights shining out into the woods. Sometimes they turn sideways on the road to shine their lights at game along the road,” Cox explains. “And a gun flash looks like fireworks – there’s no doubt

Aerial observation aids conservation enforcement officers as illegal activities such as baiting and night hunting are more noticeable from above.

about that.” The officers on the ground can move in to investigate and possibly make an arrest based on the information radioed from above.

“Aircraft like the Cessna 182 are usually limited by the Federal Aviation Administration to fly no lower than 500 feet above where people are,” said Stroud. “We have a waiver that allows the DCNR plane to fly as low as 200 feet above when it is being used for enforcement purposes.”

The plane that Conservation previously owned was not cleared for night flight. With the present plane, there is an increasing demand for Stroud and the plane for enforcement use, especially for baiting and night hunting. “We logged 500 hours in this plane’s first year of service,” said Stroud. “That’s a lot of time in the air!”

Biological surveys

Joe Jernigan, Supervisor of Aquatic Plant Management for the Fisheries Section, finds that having the airplane available saves considerable man-hours and equipment usage. He monitors Coffeerville and Demopolis reservoirs on the Tombigbee River and Claiborne, Miller’s Ferry, and Jones Bluff on the Alabama River. Jernigan flies over these large reservoirs and public waters to make visual estimates of aquatic plant coverage. “I can go up for one day and cover all the water bodies,” Jernigan says. “It would take at least three weeks to cover that area by boat. And even then, there are areas that we can fly over that are not normally accessible by boat except during high water times.”

The aerial observations of giant salvinia can alert Jernigan to potential invasion of the exotic aquatic fern. “The sooner we detect the aggressive plant, the sooner we can take measures to control its growth or eradicate it.”

Photographs taken from the air allow Jernigan to monitor research project plots on the waters of the Mobile Delta. Areas that were sprayed with herbicides are checked periodically to evaluate the effectiveness of the treatments. By comparing aerial photographs taken at different time intervals of the same plot, biologists can determine the best way to combat the rapid reproduction and growth of noxious exotic aquatic plants.



BILLY POPE

The Pilot And Plane

Stroud is certified to fly all the planes in state service, from Conservation’s Cessna 182 to the Department of Transportation’s Cessna Citation, a small jet. Through an agreement with the Department of Transportation, the DCNR plane is kept at DOT’s hangar facilities in Montgomery. DOT provides hangar space and airplane maintenance for DCNR’s plane in exchange for the availability of Stroud as a back-up pilot for DOT. This arrangement keeps DOT from having to hire a third pilot.

While in the U.S. Air Force, Stroud worked in aircraft maintenance, including time stationed in Thailand working on F-105s during the Vietnam conflict. Ironically, he learned to fly in 1972 while in the service, but never flew for the Air Force. To help him build up hours of flying experience, he certified as a flight instructor and taught for over six years. “I’m still certified to teach, but don’t have time,” Stroud said. “I am currently certified by the FAA as an airline transport pilot – the highest level of certification.”

Most of Stroud’s experience before coming to DCNR was for private corporations. He has logged over 14,000 hours of flight time, with more than 17,000 landings.

When asked what he likes to do away from work, Stroud laughs and quietly says, “Fly.” Flying isn’t just his job – it’s a major and enjoyable part of his life.

Summing up the importance of the aircraft for Conservation’s needs, Pugh states, “Having a specialized aircraft for slow, observational flight, and a pilot who specializes in natural resources work enables our division to better accomplish its mission of managing and protecting Alabama’s wildlife and aquatic resources.” **OA**