



This pair is inspecting the lower of two proven Hyacinth Macaw nesting cavities in this tree. Of interest was a third nesting cavity even higher in this tree which was used by a pair of Yellow-collared Macaws.



This pair of adult Hyacinth Macaws, shown flying in unison, apparently did not produce offspring during the 1989-1990 breeding season when this study was undertaken.

Hyacinth Macaws: nesting habits in the wild

by William Donald Clark
Las Cruces, New Mexico



Hyacinth Macaws copulate side by side as can be seen by this pair in its natural habitat in Brazil.

Not much has been written about the nesting habits of wild populations of Hyacinth Macaws.

Much of what I have read about these magnificent creatures is contrary to my own observations. And, my observations of the 1988-89 breeding season are in conflict with those of the 1989-90 season. Nevertheless, I believe it useful to share a lot of questions and maybe even a few answers.

It is understandable that our knowledge of small, inconspicuous birds is limited. What is our excuse for near total ignorance of the natural history of one of the largest, loudest, and most valuable members of the parrot family?

As a parrot lover for over 40 years, two of Brazil's species have long piqued my interest — the Golden Conure and the Hyacinth Macaw. Having spent a lot of time and more money snooping around in Mexico, Central America and Venezuela in search of wild parrot adventure, I

couldn't resist the opportunity to visit Brazil with the promise of seeing wild Hyacinths. The general aspects of my first two trips to Brazil are being reported elsewhere. Here, I would like to concentrate on the specifics of nesting habits as observed in January, June and October of 1989 and April 1990. All observations were made on a 36,500 acre cattle ranch in the state of Mato Grosso do Sul, about 75 miles northwest of the town of Aquidauna. The ranch is located on the flood plain of the Paraguay River system — "The Pantanal." This basin is small by Amazon standards but large in ecological importance, being one of the world's largest wetlands. It has maintained much of its original wildlife because of its pattern of land use — low intensity grazing. According to the locals, and confirmed by our observations, the large macaws of this region of Brazil nest during the mid spring to early summer (October to February). This corresponds to the end of the dry season — beginning of

the rainy season. The area studied is a southwesternmost corner of the Hyacinth range. It has been reported elsewhere that the Hyacinths of the northern part of their range nest earlier, with August being mentioned by Roth.

In January 1989, Bob Martins of Houston, Texas took a group to the ranch, where they video-taped partially feathered Hyacinth chicks coming to the openings of their nests. These young were probably four to eight weeks old and were in the three nest sites regularly used by pairs of Hyacinths who frequent a grove of trees about 200 yards north of the main ranch house.

On my three trips, we covered wide areas of the ranch during the mid-morning to midday periods, but concentrated on the grove of trees nearest the ranch house during the early mornings and late afternoons. Here we were able to study the several pairs which seemed to center their lives near the ranch house.

In June 1989, pairs with one or two fledglings would start gathering into a group in several large trees, just north of the main ranch house before 5 a.m. After 12 to 18 had arrived, they would fly to palm trees inside the back yard of the ranch house. Usually, they gathered green palm nuts and ate them. Sometimes, they seemed to play games by swinging on the tips of palm fronds while hanging upside down by their feet and flapping their wings.

Fledglings often joined their parents in feeding and playing or sometimes played, rested or dozed off by themselves in one of the large, deciduous trees. More than half of the pairs we saw in June had offspring, about half of the pairs with offspring had two. This contradicts the reports of others who have said that two eggs are laid, but then only one chick is raised to fledge. It also contradicts reports that only a small percentage of mature Hyacinth pairs will breed in a given year.

In October, I was surprised to find most pairs still burdened with offspring that had to be nine to ten months old. I was also surprised to see little evidence of breeding activity by adult pairs. We saw pairs in trees with proven nest sites. We saw lots of mutual preening. We saw some pairs copulating. We saw no Hyacinths enter or leave a nest cavity.

In April 1990, there appeared to be about the same number of adult

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macaws but no yearlings as we had seen the previous June and October. One pair was spending time at a proven nest site.

Where had the '88-'89 young gone and where were the '89-'90 hatchlings? I could get no satisfactory explanation from the ranch owner, his wife or the ranch hands. Our conversations were held in crude combinations of Spanish and Portuguese, so subtleties were difficult. Could it be that the ranch had allowed the '89-'90 group to be harvested by smugglers? Did the birds somehow choose not to breed? Do most adult pairs breed every other year in the wild because their young remain dependent so long? Did predators get every egg, chick or fledgling?

And where were the offspring from '88-'89? All who write about wild parrots remark about their almost always being seen in pairs or family groups. Having studied more than 20 parrot species in the wild, I certainly concur with that generality.

I have often wondered what immature parrots do from the time they leave their parents until they take up with a mate. Do they go off as loners? Do siblings stay together? Do flocks of immatures form?

It is my theory that immatures form pair bonds soon after leaving their parents, that they live and work together as a team, leaving reproductive activities until sexual maturity. It would take a long term, on-site study to test this theory.

What about the particulars of Hyacinth nesting? The scientific literature suggests that Hyacinths nest mostly in palm trees and rocky cliffs. On the Pantanal, they definitely seem to prefer cavities in large, deciduous/semi-deciduous trees. We measured the known Hyacinth nest cavity entrances from 24 to 275 feet above ground. The three in the back yard all face west. Numerous other large nest sites were seen, but because they were not proven Hyacinth nests, they were not measured. All large nest cavities were in deciduous/semi-deciduous trees, none in palm trees. One tree in a densely forested area had seven medium to large nest cavities evenly spaced, beginning about 20 feet from ground level, all facing north.

What can we say with some degree of certainty from our observations of this wild population of Hyacinth macaws? The following generalizations are offered:

1. Diet — palm nuts, both green from trees and dried from the ground. Salt was taken from cattle salt licks. One pair was seen eating strips of palm fronds.
2. Nest sites — cavities in deciduous/semideciduous trees, 20 to 30 feet above ground.
3. Copulation/courtship/bonding activity — year round, always seen in pairs.
4. Fear of humans — minimal.
5. Nesting season — October to February.
6. Behavior of immatures — appear to stay with parents for almost a year.
7. Frequency of nesting by pairs — unknown. The '88-'89 breeding season appeared to produce a bumper crop; the '89-'90 season appeared to be a big zero. Could this be why other field studies have produced estimates of 10 to 20 percent of pairs breeding per season?
8. Future of this population — ?

It has been estimated that 2,000 to 5,000 Hyacinth Macaws survive in the wild. This relatively small population is subjected to constant pressure. The Indians shoot them for food and feathers, trappers catch them and their habitat is being destroyed at an alarming rate.

That such a conspicuous and valuable commodity can long endure such pressures seems unlikely. Let us learn what we can about these noble creatures, while we can, so that we can apply that knowledge to their captive propagation. And, let us forget the profits of the moment and hold back most, if not all, captive offspring for multiple generation breeding.

If you have known the Hyacinth Macaw in captivity, you have likewise known it in the wild, for even in its wild state, it is able to engage an admiring human in a way that few animals can.

I had posters made from several of my photographs and two are mounted by my desk. One shows a sunset with eight Hyacinths going to roost in a bare tree. The other is a close-up of a pair and their several-month-old chick. They fill the 20 x 30 inch dimension of the poster, being almost life-size. I look at that poster a hundred times a day and promise myself that some day, some way, I'll get back to that ranch and learn more about one of God's most endearing creations. ●