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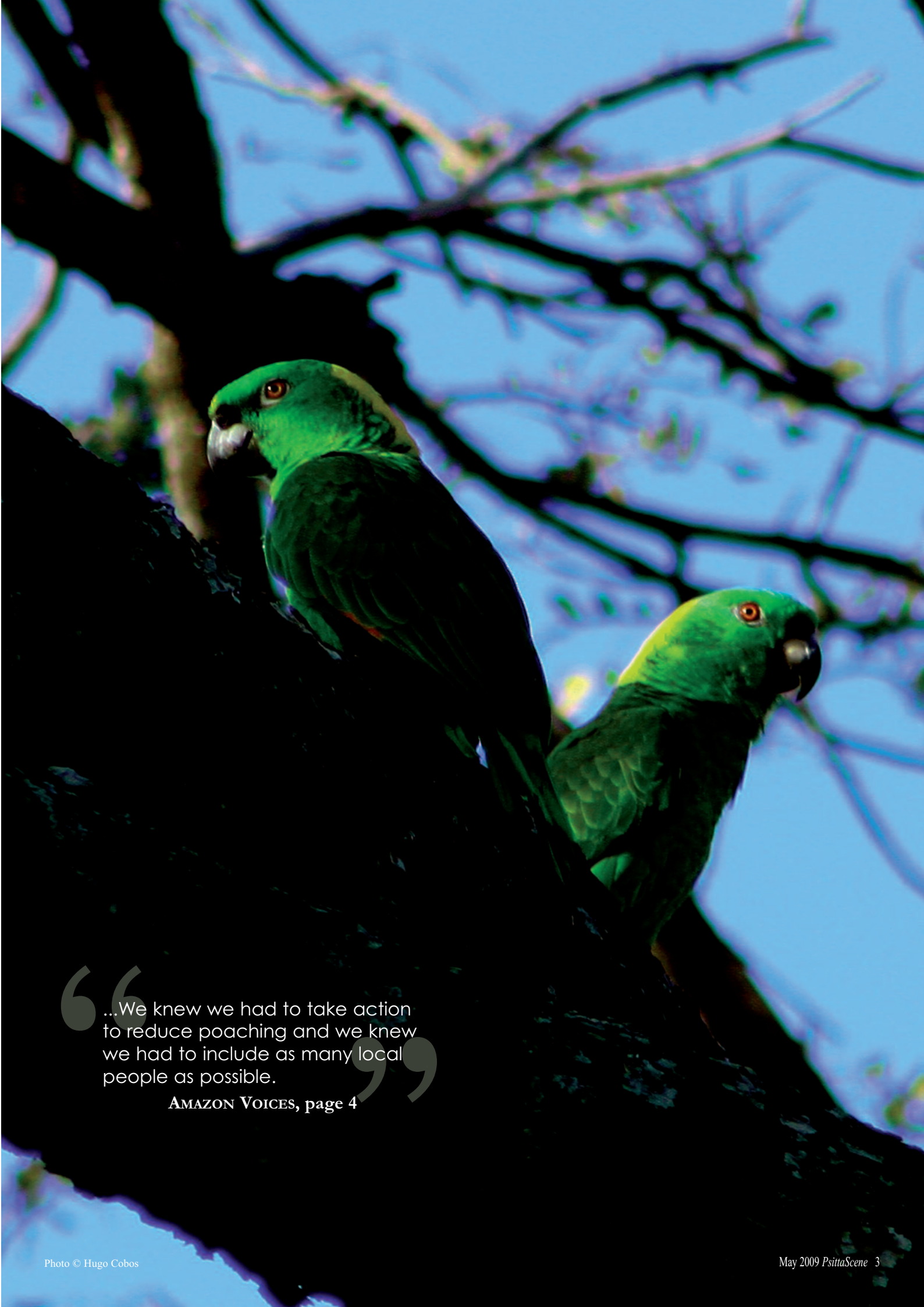


Twenty Years

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Saving Parrots

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“...We knew we had to take action to reduce poaching and we knew we had to include as many local people as possible.”

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Amazon Voices

Linking Science and Conservation in Northern Costa Rica

By Alejandro Salinas, New Mexico State University

I didn't know what to expect as I prepared to talk to the Costa Rican cowboys about Yellow-naped Amazon parrots (*Amazona auropalliata*). The Guanacaste people view themselves as tough people able to resist the heat, the drought, and the heavy rain of northern Costa Rica. Fortunately, everything went fantastically...

Not only were the workers very interested in my talk, they lingered with questions and stories of their own. As I talked to people, a familiar voice arose. It was Jose, one of the main workers in this finca, or ranch. He asked, "What happened to those Yellow-naped Amazons you translocated here?" Jose was very interested in the experiment I told him about on a previous visit.

Seeking allies. The area where Jose works, and where we had this conservation awareness talk, is a very important nesting area for yellow-napes. However, its importance is well known by poachers too. Virtually all the nests are poached every year in this place, and only those less accessible are left behind. We knew we had to take action to reduce poaching and we knew we had to include as many local people as possible.

The Programa de Investigacion Biologica (PEB) of the Area de Conservacion Guanacaste, the Santa Rosa Park, and the World Parrot Trust became our allies in developing an educational program in an effort to stop the poaching in the area. The PEB-ACG is an important link between the local society and the research we conduct, as they involve local schools in nature related topics. For example, some students participate in a complete parrot-related

day, visiting a nest in the field and receiving WPT wristbands (see *PS Vol 19, No. 3 May 2007*).

Despite the success raising awareness among children, one actor was missing in our efforts – those cowboys roaming the area moving cattle from one pasture plot to another, who see these beautiful birds every morning. We knew we needed to include the cowboys in our efforts to protect these parrots, locally known as "loras." Because of their continuous presence in the area, they could pinpoint where nests were, and let us know if strange people were in the area looking for nests.

We wanted those "sabaneros" (the local name for cowboys) to understand the lora's critical conservation status and need for protection and the importance of mutual cooperation for the good of these birds. During my speech, I could not help notice that one of the workers wore a WPT wristband we had given the students the previous year. It was a pleasant feeling to see how far our actions had gone, spreading the word from the children to their parents. Everything indicated one more ally had just joined our efforts, and one more set of eyes was going to be in the field to watch the nests.

Speaking in tongues. During my previous field season I had talked to Jose about the lora's vocal dialects here in Costa Rica, and that we were going to transfer individuals from one dialect to another to see if the translocated birds picked up the calls from the new dialect. Jose was fascinated with the dialects. This parrot species has a specific way of communicating in each region. Populations a few kilometers apart could have a completely different voice. People traveling from Nicaragua into the Costa Rican capital San Jose, have to go across 2 dialects. Jose was even more thrilled to learn there is another dialect in Nicaragua.

My advisor, Tim Wright, previously found out that the response of breeding pairs to duets (a kind of call performed by one male and one female) from the same dialect is much stronger than to those duets from a different dialect. These calls are so different that the untrained human ear can tell one dialect from the other. If call types are so different, dialects could work as barriers to the movement of individuals between dialects. However, genetic analysis suggests individuals actually cross boundaries in search of a place to settle. These parrots are good learners, and in captivity, they can learn to



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Educating the community about their local parrots has proven beneficial and rewarding. The Costa Rican cowboys not only keep a watchful eye against poaching, but find the research fascinating. Experiments showed for the first time that Yellow-naped Amazons can learn a new dialect when translocated. Neck-mounted radio collars allow individuals to be tracked but do not interfere with their typical behavior.

mimic. So, if dispersal is that likely, learning the new call type upon arrival seemed possible.

The idea behind this translocation experiment was to find evidence that a foreign parrot may “vocal match” local dialects. Regardless of the flux of individuals between dialects, it seems neither dialect boundaries nor the call types change over time. If I could find individuals vocally matching the local dialect after being transferred, I would have evidence of vocal matching as the mechanism Yellow-naped Amazons use in maintaining dialects.

And so it happened, we found evidence of vocal matching in one juvenile.

Kelly. We translocated several yellow-napes across dialects, including one juvenile my field assistants named “Kelly”. Several weeks post-translocation, Kelly had not shown much activity when Shannon and Holly (two of my field assistants) came to me very excited. They had seen what seemed to be two other birds vocally displaying to Kelly. This bird had become special for us because it had been very hard to track, and when spotted, it offered us interesting and sometimes entertaining observations.

The most rewarding day with Kelly was when we learned the bird had modified its call to the local call type in the north dialect. This bird was a juvenile translocated from the south dialect to the north, when, six weeks post-release, it was vocalizing “wawas” – the contact call made by parrots from the north dialect. Holly and I tracked Kelly to the edge of a creek where we found two birds playing with no other birds around. We could not see which bird was wearing the transmitter, but the signal was pointing to the pair. They were flying and doing some turns in the air before perching in a tree. Soon 3 other birds joined them. One pair flew, then the other, leaving our bird alone for a while. When it flew to the local roost it was vocalizing wawas while flying. We could see the transmitter clearly hanging from its neck.

This encounter with Kelly was something exciting and unexpected, and I almost missed recording those new calls. We were completely thrilled and the next day we went looking for Kelly again to corroborate the vocal matching. We found the bird alone on the edge of another creek in the same area. This time, our observations were even more rewarding. Kelly

was perched in a tall tree. After a while, one unmarked bird approached vocalizing, and Kelly replied and joined it in the air. Both of them flew some metres to the other side of the creek, and after several minutes they returned to the place where we first saw them. Kelly landed on a completely leafless, tall tree, vocalizing, and the other bird landed on a higher branch. The sunshine was striking directly on Kelly’s transmitter, so we could see the shining gold and the twisted antenna. Suddenly, we got another surprise as the unmarked bird began allofeeding Kelly. It seemed the new kid in town had found a partner, as this behavior generally indicates some bond has formed between two individuals.

I talked to Jose once more after that awareness talk, but before I had learned about the vocal matching with Kelly. Next time I talk to him he will be amazed by our findings. If we are lucky we will get more people as interested as Jose. We need more allies from all of Guanacaste who are interested in the conservation of these amazing birds, who gave us joy, fun, and at the same time made us sweat.

