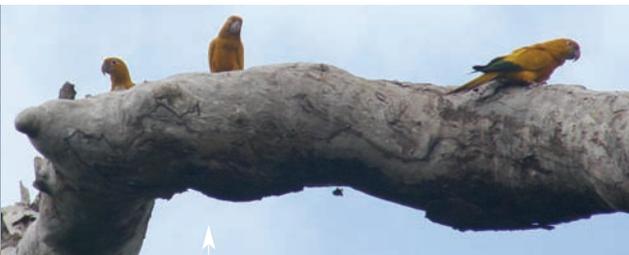


A Golden Gathering

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Translated by Toa Kyle



It was the end of a hot morning in Amazonia National Park, western Pará, Brazil. Along a winding, muddied trail WPT biologist Toa Kyle and I arrived at our destination to find something missing from the landscape. I couldn't believe it...

Six weeks earlier I had walked this very same trail to find a hub of Golden Conure activity including an active nest. Unfortunately on the morning of March 8th 2007, what was missing was the tree. In its place we found the chain-sawed stump and fallen trunk. Someone had obviously cut down the tree to rob the chicks from the nest. Our first feeling was shock, then we were angry, then just sad. But this is why we need to be out here. Personally, my role in the Golden Conure story began much earlier and wouldn't soon be over.

My work with the Golden Conure, the subject of my Masters thesis, began in July 2006 when Toa and I found ourselves searching for them in the south-east of Amazonas state of Brazil. In more than a week of searching and interviewing locals we could not confirm the presence of the species in the area. In the end we had to travel to the west side of the Tapajós River, in neighboring Pará, to find flocks of these stunning birds. The first time I observed a Golden Conure in the wild was a bonanza of 22 birds foraging in tall trees along the Trans Amazon highway. In the following days we observed other flocks in the area and I realized that I would have to change my research location from southeastern Amazonas to western Pará.

I began my thesis work in earnest in January 2007, concentrating my field efforts in and around Amazonia National Park (ANP). I finished in December of the same year, after spending over 160 days in the field and traversing more than 3000 km (1865 miles) by car, motorcycle, bicycle and on foot. In the end I spent over 900 hours searching for and studying this emblematic, yet enigmatic species.

◀ A series of photos taken at a nest tree in Amazonia National Park. The original flock of six birds can be seen in the middle right photo. After the tree was cut down by poachers (above), only four birds could be seen in the area. The nest cavity itself was likely located in one of the branches.



(*Ara macao*), Green-winged Macaw (*Ara chloroptera*) and White-eyed Parakeet (*Aratinga leucophthalmus*).

Over the course of the year I observed specific flocks of Golden Conure feeding in the same general areas. Although they seemed to disappear for days on end, I don't believe they are a species which migrates seasonally or searches nomadically for fruiting trees across large distances. On the contrary, it appears that with certain flocks at least, they occupy a specific territory year-round.

As noted by Toa Kyle (*PsittaScene* Vol. 17:2), muruci trees (*Byrsonima* spp) are an important food resource for Golden Conure, especially during the post-fledging period. I witnessed the largest gatherings, sometimes up to 50 birds, in areas rich in muruci trees. It was also in a muruci grove that I observed a chick as it learned how to feed by itself. The chick's flock had left it alone as they searched for other fruiting trees. To my amusement the chick chewed on flowers, holding each one in its beak for several seconds at a time. Once I watched a flock of 19 birds feed in a muruci grove for more than four hours.

New food types

I observed Golden Conures feeding in 11 different types of trees, 10 of which had never been noted for the species. Birds concentrated on one type of fruit tree for a given period then moved to another species as the fruit supply from the former diminished and the latter increased. With some trees they fed on the fruit pulp or skin while with others they predated seeds. The majority of feeding trees were found in secondary growth (i.e. regenerating forest) which leaves the question of what trees they utilize in virgin forest still unanswered. During the course of my research there were numerous other trees in fruit that were ignored by Golden Conure but visited by other parrot species such as Scarlet Macaw

Flock dynamics

I observed varying flock sizes throughout the study period, from single birds, to pairs and even groupings of 50 individuals, but flocks of 5-7 birds were the most common. At tree roosts I noted that up to 20 birds could sleep inside the same tree cavity. Because the same number of individuals was observed sleeping in the same roost tree over the course of the year, I referred to the flock as a clan, adopting the term first employed by Glenn Reynolds (*PsittaScene* Vol.15:2). Individuals of these clans remained loosely together the entire day, separating to forage, mate or allo-preen in pairs or for nest vigilance and defence. In the heat of the afternoon sun, clans rest in the shade of trees near their roost site. Some clans were hostile to



the presence of other Golden Conures in nesting and feeding sites while in other areas, clans would peacefully intermingle.

By tracking the locations of specific clans and locating roost trees, I estimate the population of Golden Conure in my study area (around 4000km² or 1500mi²) to be several hundred individuals. However, only a small proportion of these birds appear to be actively reproducing. On average only two to three chicks were seen per flock. The maximum of four chicks was observed in bands of more than 20 birds. This low number of chicks per flock suggests a low reproductive output due possibly to a disproportionate number of non-reproducing individuals relative to breeding birds.

Social interactions amongst clan members can be spectacular to observe. During the early morning hours at nest sites, the clan dedicates themselves to preening and socializing. Birds group in pairs or threes on dead branches where they allo-preen. Play is a notable behavior at this time as well. Some individuals peck at one another in jest, at times hanging upside down until letting go of the branch, briefly falling before flying to the same perch. On one occasion I observed individuals form a line along a hanging vine where birds hung upside down and playfully bit at one another. During these moments, I also noted that other birds remained perched alone on higher branches. Perhaps these are the oldest flock members that dedicate themselves to the vigilance and security of the clan.

Nesting and Roost Trees

During my time in the field I was able to locate around 14 roost trees, of which eight were active nests during the reproductive period. All of the trees were found in open areas bordering the Trans Amazon highway or in small agriculture plots subject to high impact by humans. I didn't find any preferences for specific tree type or structure for nesting purposes. Golden Conure clans continued using a given nest tree for a dormitory in the non-breeding season. Only one roost tree was abandoned during the course of my research though this occurred after the area surrounding the tree was burned to encourage pasture growth. In this case, the band remained in the same area utilizing another tree cavity for their dormitory. On numerous occasions I observed aggressive behavior by nesting birds towards other flocks of Golden Conure or other parrot species. Golden Conures were efficient in driving away other birds from the area of their nests without ever coming into direct contact with these "trespassers". However, the tables were turned for one unlucky Golden Conure I was observing, when it flew too close to a Bat Falcon (*Falco rufifigularis*) nest cavity, the bird being quickly scared off by these diminutive, but extremely skilled fliers.



A Golden Conure feeds on a fruit known locally as Tapiriri (above). When a group assaults a murucí grove full of immature fruits (right) it is possible to observe individuals at close range.

Trapping and Deforestation

The trapping of parrots for the illegal wildlife trade continues in Amazonia National Park. The nest tree we intended on climbing in March 2007 was obviously cut down in February to remove the nestlings. In this case, the clan of six individuals was reduced to four birds who continued to roost in the area in another tree. Numerous locals I spoke to admitted to having captive Golden Conure in their homes and also revealed they had received offers from others to buy them. I also encountered nest trees south of ANP that had slabs of wood nailed into them, to act as a ladder to the nest cavity. Although nest robbing in this region doesn't appear to be on an organized scale like it is in eastern Pará, each day brings more signs of active trapping.

The actions of wildlife traffickers and continued habitat loss are the principle extinction risks for Golden Conures. Recent studies have modelled the advance of deforestation in the Amazon and the predictions are pessimistic. In this rather bleak scenario the central portion of the range of Golden Conure, where ANP is found, will become the centre of hope for the survival of the species. New conservation units have been created in this area which should guarantee the perpetuation of these special birds in the long term. Admittedly, controlling the action of wildlife traffickers will be a challenge.

On a positive note, the Friends of the Amazonia National Park was recently created. This NGO has given educational talks to communities bordering ANP and is a welcome ally in raising awareness to the importance of guaranteeing the future survival of Golden Conure in the region. Environmental education is without a doubt the principal measure that can be implemented in order to diminish the number of birds being captured for the wildlife trade.





Birds explore cavities, chase and peck at one another and allo-preen mainly in the first hour after dawn and the last hours of the day, usually in the vicinity of their nest or roost tree. In the heat of the day (below) they find shade and rest or socialize.

Areas for future investigation

Nest work with Golden Conures is still sorely lacking. Obviously it is important to any endangered species recovery program to know how well (or poorly) an animal is reproducing in the wild. In the case of the Golden Conure it is extremely interesting to determine if a given clan is composed of numerous nesting pairs or a single reproductive pair aided by their chicks from successive breeding seasons - a theory that was suggested by Glenn Reynolds in *PsittaScene* Vol.15:2. Knowledge of how many birds constitute the reproductive population will help us better understand the vulnerability they face towards extinction and in turn the direction future conservation efforts should take.



My study was biased in that almost all of my observations were made in the vicinity of the Trans Amazon highway. This is partly due to the preference Golden Conure exhibit for nest and roost trees in open, degraded areas but also due to a lack of sufficient trail network within the park to permit adequate searches in pristine forest. It is hoped that future research can strike an adequate balance between time spent in human altered and natural landscapes to better determine the habitat requirements for these enchanting birds. A better understanding of the biology of Golden Conure, coupled with educational outreach programs for the people and communities that inhabit areas where birds are found, is essential to preserving this strikingly unique species.



This particular nest tree is situated in a lagoon that is full of caiman.

Needless to say we were apprehensive about swimming out to the tree to climb it. We've purchased an inflatable kayak that will aid in accessing nest trees such as this and also conducting searches for other nests surrounded by water.

