

BY ALLAN TAYLOR

"That's a Mountain Almond tree and that's a Mountain Almond and

The local landowner pointed out the trees as we stood on a ridgeline in the lush forests on the south Caribbean coast of Costa Rica. The jungle spread inland and the ocean stretched away behind us and the almost constant chatter of parrots came out of what seemed like every tree. We craned our necks to look at these incredible trees towering over the canopy and a surge of excitement came over us – it was December 2009 - we might just have found the site for the first ever Great Green Macaw release. Further investigation and lengthy discussions confirmed our instincts – it was perfect!

The Ara Project is a Costa Rican nonprofit organisation that breeds Scarlet (Ara macao) and Great Green Macaws (A. ambiguus) in captivity for the sole purpose of release into the wild. The project has released around 100 Scarlet Macaws in 3 locations over the past 15 years, including our 8th release of 10 Scarlet Macaws at Tiskita completed in May this year (See *PsittaScene 23.2, May 2011*). This year sees not only a brand new Scarlet Macaw release site but also our first ever Great Green Macaw release.



The protected Mountain Almond tree (*Dipteryx panamensis*) is the Great Green Macaw's preferred food source and nesting tree. Fortunately, logging of the "Almendro montana" has been banned because of its critical importance to the macaws.



that's another ... "

PREPARATION AND MOVING

A year of fundraising and we were finally ready to go. Sufficient funding from The World Parrot Trust and two Costa Rican sponsors have allowed for construction, which began in January 2011, of the new aviary and a house for the on-site biologist. Immediately we started the process of selecting the chosen 10 for the first release. A large group of suitable birds was whittled down to 10 spanning ages 3 to 7 including 5 males and 5 females; 5 hand-reared and 5 parent reared birds. The 10 were immediately separated from the larger flock into a quarantine aviary, causing a degree of consternation within the flock. Blood samples were taken from each bird and sent to Avian Biotech in the US for disease testing. The results came back clear of all diseases and parasites. A minimum of 28 days isolation and they would be ready to go.

March 27 was the date chosen to transport the macaws to their new home. Moving 10 macaws 200 miles may sound straightforward but it required a huge team effort. The day began early. At 3:30 am the birds were caught up and put into their travel cases for the trip. These birds are amazing – they barely even complained despite the rude start to the day. A small convoy left the breeding centre in Alajuela, near the capital San Jose, and headed up over the volcanoes that divide Costa Rica before dropping down onto the plains that characterise the Caribbean side of the country. Before 10 am the trip was complete and the carry cases were placed into the new aviary.

Calmly, the birds started edging out of their boxes and flew onto the perches in their new home. A few wobbly landings apart, all 10 birds were fine. Once all 10 were settled on the perches, a good feed was put out and all their worries were forgotten. The greens were on the first step to freedom.

ADAPTING

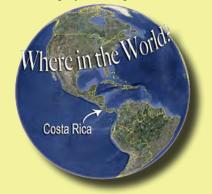
Prior to release, several key challenges awaited the 10 macaws. Firstly – the surroundings. Trade the cars, aeroplanes, dogs, people and karaoke bars of Alajuela, for monkeys, hawks, vultures, ocean, forest, free flying parrots and the warm and sultry climate of the Caribbean! Secondly – the food. The macaws at the breeding centre have their food prepared for them, with as much grown on the site as possible. It is topped up with a mix of rice and beans and fruit purchased at the local market. Little or none of this food will

GREAT GREEN MACAW (Ara ambiguus)

Great Green Macaws have declined alarmingly in recent years due to poaching and deforestation, in particular the cutting of Mountain Almond trees.

Once prevalent throughout the entire Caribbean half of Costa Rica their range has declined by as much as 90%. Recent conservation efforts have stabilised numbers with less than 300 birds and an estimated 25-35 breeding pairs remaining in Costa Rica.

The Ara Project is charting new and exciting territory with the first release of Great Green Macaws in the world. These 10 birds are the first of their kind to be bred and raised specifically for release. Years of conservation efforts to preserve habitat and nest trees and reduce poaching have paid off to allow for an exciting new chapter for this highly endangered macaw.





'Little or none of this food will be available to them in the forest..."

be available to them in the forest, so one of the challenges for the on-site biologist is to teach the macaws the nuts and fruits available locally.

The first few weeks in the release aviary were a period of settling in for the macaws whilst they got used to their new surroundings. Inquisitive as ever, the macaws watched everything but soon discovered that, as the new kids on the block, they were being watched too. A troop of howler monkeys were equally amazed by their new neighbours and stayed in trees watching the birds for three days – their harrowing call was the first of many new and unfamiliar sounds.

Familiar with the odd vulture or kite in Alajuela (which still caused a considerable uproar) we hadn't considered the incredible hawk migration



that would be underway at this time of year in this part of Costa Rica. Literally millions of migrating hawks and vultures funnel through the Caribbean coast twice annually. The sight of not just an occasional vulture or hawk but waves and waves of thousands flying overhead was all too much for the birds at first. They would need to get used to this spectacle as it is going to be a twice yearly part of their lives. On one hand, the migrants are not looking for food and on the other, the macaws, once free, will soon learn who's boss. Their huge bill and overall bulk combined with acrobatic ability means the hawks are more wary of the macaws than the other way round!

A whole array of new stimuli awaited the birds upon transfer to the prerelease aviary. Millions of migrating raptors as well as the locals – monkeys and vultures to name a few – are all part of the macaw's new world. Essential new skills include: opening the incredibly hard Mountain Almond nuts (left) and learning the other seeds, nuts and fruits (and their associated trees) that will mean survival to the released macaws.





FORAGING

The macaws were held in the release aviary for over 4 months. One of the key processes during this period is to teach the birds all the food they need to eat to survive unaided in the wild. The key food source for a wild Great Green Macaw is the nut from the Mountain Almond tree. Plentiful for 6 months of the year, the problem is not finding plenty to eat, but in opening these incredibly hard nuts, with shells as hard as rock. Used to softer fruits at the breeding centre, the jaw muscles of the birds were barely strong enough to open the nuts. Only one or two of the birds were proficient at this daunting task. Initially we aided them by crushing the nuts with a hammer to give the birds a taste for the delicious seed within. They loved it! Two months into the adaption period all 10 birds were happily opening the nuts that only a few creatures on earth are adapted to eat. They were not so happy when the source of these nuts dried up by the end of May. This period however was the ideal opportunity to teach the macaws all the other seeds and nuts which will help them thrive in the area year round. The number of trees containing fruit in this area is incredible and it is interesting not only to collect the foods we know the macaw eat in

other parts of their range but to watch the local parrots and see what their favourite foods are. We introduced these new foods whenever possible by putting in branches with the fruits still attached thus giving the birds the opportunity to associate the food source with the type of leaves on the tree. With some of the canopy trees this is all but impossible as the nearest braches can be 20 or 30 metres (65-100 ft.) up!

FINAL PREPARATION

After almost four months in the cage a discernible change came over the macaws. They started to show signs of frustration at being stuck in the aviary - they wanted out. Large groups of parrots such as Mealy and Red-lored Amazons (Amazona farinosa and A. autumnalis) regularly stopped by to eat in the trees and chatter loudly. When they flew past the cage the macaws called with frustration. It was time to teach the macaws their final lessons by showing them the small release box in the aviary and the feeders that would serve them outside the aviary. The feeders would initially be used to supplement their diet post release. At each feeding the release box was opened from inside the aviary and filled with food. At the same time, the feeders outside were lowered and

small amounts of food put on them. The macaws watched everything and seized the chance to explore a new part of the cage. One of the external type feeders was erected inside the aviary since it would become part of their daily lives once free.

The first 10 Great Green Macaws we have ever released and that have ever been officially released anywhere in the world were ready to go.

RELEASE

The morning of Monday 8th August was sunny and warm. Around the release site there was a sense of excitement for all and nervous tension for some. This was the day. The first two Great Green Macaws were going to be released, not only by The Ara Project, but anywhere in the world. The chosen birds were RM363 and 64. They were chosen carefully, being in good condition, bold and hopefully intelligent!

The first step in the release was to get the correct birds into the release box at the same time. However, after patiently trying for an hour with no luck, we decided to release the birds individually one immediately following the other. Now things moved quickly as RM363



"Around the release site there was a sense of excitement for all..."

got in the box. He was left to settle and munch a few more almonds before we opened the release box door. We also made a show of putting more food up on the feeders surrounding the aviary. Around 10:15 am we opened the door and he was straight out. He hopped onto the feeder and started silently munching almonds as if he did this every day. Only 5 minutes later RM364 was in the release box calmly munching almonds. Ten minutes later we opened the door. Ever so slightly more hesitant she sat on the flap, had a scratch and a nervous wipe of the bill before hopping onto the feeder herself. It was a truly amazing start.



The birds ate and preened for an hour before scampering around on the roof of the cage - much to the bemusement of the remaining 8. Chris Castles, one of our Co-Directors, turned around smiling and said "that's what we like - no drama, all quiet." Incredibly, 10 seconds later RM364 flew off away from the aviary. It was beautiful to see the colours of this bird as she circled round in the back valley before disappearing out of sight around the corner. Apart from a small squawk from RM363 everything went quiet. Whilst it is great to see the birds fly free, this is the real danger period for them. They can go into shock and if they fly well out of range of the aviary they can even get lost and die.

Raised from the start with one purpose – release – these macaws learned skills and developed bonds that helped them stick together and adjust to freedom when their lucky day arrived.



The first Great Green Macaws ever released into the wild, RM363 and 364, seem strong, smart and certainly relaxed. They spent their first week of freedom exploring the release site area and returning to feed, preen and roost.

A search of the immediate area revealed nothing and without her calling it is very difficult to find even these most brilliantly coloured birds. We followed the line of her flight but had no luck. She was gone. Or so we thought. Around 3:30 pm we heard the smallest squawk some 100 m (330 ft) along the ridge. We froze and listened intently. Then we heard it again and we were certain it must be her. We hustled towards the noise and saw her! I am not sure who was most pleased - us or the wayward macaw! She was perched low down in the undergrowth and when she saw us she started calling loudly. This alerted the birds in the aviary and RM363 and everyone was happy. Following some tentative but high level flying both birds manoeuvred their way back to the trees above the aviary for a welcome nights rest, if probably a slightly restless one.

The next 3 days passed in much the same vain with RM364 exploring more and more around the site. It was hard to tell whether the forays were by choice or not but every day new skills were learnt. All 4 feeders needed to be negotiated and one of the most difficult skills to learn was the stop. For one thing, the trees around the release cage are huge. Dropping down to the feeders is a completely new skill. Stopping from such speeds

was also something totally new and a few practice runs were needed. To see RM363 drop vertically 20 m (65 ft) onto the cage without flapping his wings - just gliding using his tail as a brake - is something that will live long in the memory.

Photos © Chris Castles

The birds also needed to learn about the local wildlife up close and without the release cage as a barrier. One night poor RM364 thought she had an ideal spot to settle but that was before she caught the eye of a couple of passing juvenile howler monkeys. They thought it would be amusing to grab her tail! Another lesson learnt as she bolted out of the trees and decided on a new roosting site!

As week one draws to a close it is "so far so good" for these 2 magnificent birds. Now we are all ready to start releasing the next 8 and look forward to all 10 gracing the lush forests where they belong.



Allan Taylor is from the UK and joined The Ara Project as field biologist in 2008. Having completed the 7th Scarlet Macaw release at Tiskita in 2009 he is now overseeing the Great Green Macaw release site in Manzanillo.





