THE WPT 12

More Echo chicks fledge from released females

By LANCE WOOLAVER

The wild season (2000-2001) is winding down here very quickly but we're starting up the releases for the year. We've had a very different season from last year. We were able to solve all of the problems we encountered last season but were faced with new challenges as well. None of the chicks this year were lost to nestfly or tropicbirds as we were able to treat all the nests with insecticide and to make tropicbird proof doors for the Echo cavities. These were simple plywood doors on hinges which we could lift up to access the chicks with small holes which Echoes could use but tropicbirds could not.

There was a very pronounced shortage of food in the wild this year. Most of the pairs either did not attempt to breed or were unable to care for even one chick. As a result, only seven chicks will fledge from wild nests this season. Wild pairs which easily produced two fat, healthy chicks in 1999–2000 were unable to keep even a single chick going this year. It was a bit frustrating to see and made for some tough decisions when we had to pull the last chick from a nest to take down to the aviaries. The food shortage also had an effect on the overall health of chicks even as they came out of the eggs. Many chicks were weak on the first day of hatch and lay in the palm of one's hand without begging or even moving much. We ended up taking 12 chicks down to the aviaries. Because of the weakened state coming from the eggs, most of these were rescues rather than the 'downsizing' of chicks from the wild to the aviaries before they show any signs of ill health. At present though there is not much we can do with wild nests when there is a food shortage and this is the major limiting factor on Echoes. Although it may seem a big problem in individual years I think we will still be able to keep our yearly production at 20 birds by accepting that in poor years we will be releasing rescued chicks while in good food years (like last year) we can put most of them out in wild nests.

If we get one good food year in every 3 or 4 we will still be moving ahead. We need to also be planting fast growing native species which we know Echoes love such as 'bois de lait' and palm trees, all of which will provide fruit in large quantities within 15 to 20 years. It is quite realistic to plan to have small one hectare plots scattered throughout the gorges which are cleared of guava and full of Echo-preferred fruiting trees. Brise Fer itself is a good example of this but there is no reason why we could not have a number of other smaller areas throughout the Echo breeding areas. What a season like this does remind us of is that Echoes are not out of the woods yet but still have a couple of large obstacles left to get past, lack of good quality food during some years being by far and away the most important.

We also lost two nests to rats this season. Rat populations cycle as well with every 4 years or so being ridiculously high. Rat indices collected on the Macchabe ridge are the second highest recorded in the world (next to the Seychelles I think). We protect our nest sites using a ring of smooth PVC plastic which is stapled tightly around the trunks of the nest tree. We also place a bucket of Brodificoum rat poison near each site 100 metres or so away but are not sure how effective this is. It definitely kills rats so helps somewhat but is not 100% effective. A more intensive poison grid is suggested but would be logistically impossible for us to maintain at more than one or two nest sites. We feel that the plastic rings are close to 100% effective if the tree is smooth-trunked and isolated from the surrounding canopy. We were not able to protect either of the nest sites lost to rats this season, due to the surrounding trees being too numerous and the interlocking canopy. We also lost a single nest site to a monkey. The cavity was shallow and a monkey reached in, grabbed a one day old chick and two eggs, and injured the female. We have seen her since the incident but she was badly injured. What we would like to do for next season, and this is perfectly realistic, is have all of our nest sites permanently proofed against monkeys, rats (as much as possible) and tropicbirds.

Pete Haverson has been fantastic at solving these logistical problems and has been a great team leader this season. Pete leads by example and is one of the most conscientious people I have met so it has been an absolute pleasure to work with him again. These are our challenges but we have already come a long way this season toward solving them and have had some pretty exciting advancements in the process.

The great success story of this season is that 4 of our release females were seen prospecting our new artificial nest boxes. Two of these decided not to breed,

Txiki in her artificial nest box.

Lance at an artificial nest site.

Pablo.

Gabriella at a feeding station.

probably due to a combination of their young age and lack of food in the wild. Two females did breed, Txiki and Gabriella. Txiki did a great job of feeding her chick but began plucking the chick when it was 22 days old. The chick was taken down to the aviaries in Black River and is now back up at Plaine Lievre as part of the first release group. It looks great. We think Txiki did this because of her background as a captive raised bird coupled with her individual reaction to the stress of our visiting to check the chick.

Of the four release females which have now raised fledglings, Gabriella, Danni, Coral and Txiki, Txiki is the only one to have reacted in this way. The other three females were exemplary parents. We have now had four chicks fledge successfully to the wild from our release birds which is a great success at this early stage of our release programme. A fifth chick is due to fledge from the pair of Coral and Sanchez (both release birds) in two weeks.

Although our wild birds have found it very difficult to raise chicks this season due to lack of wild food, Gabriella and Zip (a wild male) have been able to fledge two beautiful healthy chicks. This is because both Gabriella and her mate are using a supplementary feeding hopper placed next to their nest tree. Gabriella has been the real star of the release programme. Zip was the first wild bird to learn from the release birds to use a feeding hopper. He learned from Gabriella when they were both juvenile birds. Gabriella is the first of the release birds to fledge a chick (Pippin in 1997), and is now the first Echo to use and fledge chicks from an artificial nest box. She is pointing the way to the future for us as we attempt to have more and more birds using nest boxes and supplementary feeding hoppers. If birds use food hoppers they will be able to fledge healthy chicks in years when the wild birds cannot. So although the wild birds have not done as well as in the last two seasons, the release birds are doing well and everything is moving according to Carl Jones' vision. Which is how I've always viewed things. Carl provides the vision and guidance and we make it happen.

We are trying to improve our release techniques this season, by releasing the birds at a younger age. Eventually we would like to release them at the age when they would naturally fledge, around 60 days, as they can then spend the important learning period in the wild rather than in the aviary in Black River. We are still a long way from this goal but have started this season by bringing birds up to the release site before they have finished weaning.

Contact during feeding minimised

David Rodda (New Zealand DOC) and Anne Morris (Chester Zoo) have done a great job of raising the 12 chicks down at the aviaries, especially as many of them were already in poor condition when removed from wild nests. They have tried to make them less tame but this has proven very difficult. Until new facilities are built which will allow for chicks to be raised in more natural cavity-like surroundings where contact during feeding is minimised, it is unlikely that we will be able to change this. The chicks are being taken out of the handraising room at a much younger age and placed in an enclosure which adjoins the large flight where they are then able to socialise with the adult birds. We hope this has gone a long way towards producing more independent, mentally healthy birds. They have been brought up to 'camp' (our base up in the forest) much younger as well. The current group of 5 birds ranged from 56 days to 93 days when brought up to the forest. We are planning to release the older birds as soon as they have weaned, keeping the younger birds inside so the group will be staggered in the release. The birds are ready to go out once they are trained to use feeding hoppers and to respond to a whistle for food.

Trapping

The releases are being done by myself, Anne Morris and Diane Casimir (the Canadian New Noah who has experience with the Calgary Zoo in captive breeding and reintroductions of Vancouver island marmot and Whooping Crane). We continue to trap for cats, rats and mongoose around the release site. We even had a monkey raiding fruit from underneath the release aviary yesterday, a serious threat to the release birds but we caught him within an hour of baiting one of the cat traps with apple and banana.

A basic summary of this season's numbers are as follows:

Six of the 13 young females (one and two year olds) prospected but did not nest.

Three of the release females prospected but did not lay. Two of the release females have died, one went missing and the other died from being eggbound. Three of the release females nested, two in artificial nest boxes.

Twelve chicks from six nests were taken down to the aviaries. Eleven were showing signs of malnutrition while one was being plucked by the female Txiki, a captive raised release female. All the chicks had to be taken from two nests. Last season one nest easily produced two fat, healthy fledglings but this year could not care for even one. No chicks were transferred between wild nests.

Hatchability was high with 22 of 26 eggs (85%) hatching. Only four of the 22 chicks died, two from rats and two from starvation. Two eggs and one chick were taken from a nest by a monkey.

Twelve nest sites were managed, three of these were release females. Six of these failed. Two nests failed to rat predation, one to monkey predation. Two other nest sites failed as all the chicks had to be removed due to malnutrition. The final nest failed when the chick was removed to the aviaries after the female started to pluck her chick.

Seven chicks are due to fledge in the wild from six nests. Three of these are from release females. Four have already fledged.

The only pair which was able to fledge two chicks was a release female, Gabriella, and her wild male, both of which used a supplementary food hopper next to their artificial nest site.

Twelve birds are scheduled for release, ten of these are from wild stock, two were captive bred in the aviaries.

Lack of food in the wild was by far and away the biggest problem this season with most pairs failing to breed and those that did attempt to nest found it very difficult or impossible to raise healthy chicks. The success of Gabriella and her male in raising two chicks is therefore significant as they relied heavily on supplementary food.