

BREEDING THE BLACK-FACED GRASSQUIT

Tiaris bicolor omissa, WITH SOME NOTES ON BEHAVIOUR

by Robin Restall

The genus *Tiaris* consists of five species of small tanager-finches known as grassquits. They range from northern South America up through Central America and across the Caribbean islands. The Cuban Finch *T. canora* from Cuba is the only one that is well-known. The Black-faced Grassquit *T. bicolor* has reached vagrant status in Florida and the Yellow-faced Grassquit *T. olivacea* (which in the early birdkeeping books used to be called the Olive Finch) has attempted to breed just north of the Mexican border in Texas. These three are well-known in their native habitats, being so accepting of humans that in some areas they will enter open kitchen doors to look for crumbs on the floors. Despite this they are all poorly known in aviculture; the possible exception being the Cuban Finch. There are such conflicting reports in the literature about this bird's behaviour that one may be forgiven if it seems there are different species involved and it warrants an empirical study.

The Cuban Finch is well established and effectively domesticated in Australia and Europe. It also occurs in aviculture in the USA, but appears to be dependent on imported birds for survival there. As well as occurring naturally on Cuba, it is a well established feral species on New Providence in the Bahamas. The Yellow-faced Grassquit, a mainly Central American species that also occurs on a few Caribbean islands, appears to be a bird of the past as far as aviculture is concerned, with the few references being half a century or more ago (e.g. Boosey, 1959; Goodwin, 1959). The Black-faced Grassquit from northern Colombia and Venezuela and ranging right through the West Indies - being absent only from the island of Cuba - is also known in aviculture (Goodwin loc. cit.; Restall, 1976, 1984, 1987) but that too seems to be a bird of the past. The other two species, the Sooty Grassquit *T. fuliginosa* and the Dull-coloured Grassquit *T. obscura* are mystery birds, even to ornithologists. Both are associated with bamboo and probably, like the Magpie Mannikin *Lonchura fringilloides* in Africa (Restall, 1996), have bursts of highly productive breeding when bamboo is in seed. I have both species of grassquit in the laboratory at the time of writing (November 2003), and hope eventually to be able to prepare some notes on their behaviour.

I came to know the Black-faced Grassquit when I first lived in Venezuela in the early 1970s. It was a very common garden bird then, and I grasped the opportunity to conduct a one-year survey of it in my garden, trapping and banding (ringing) as many individuals as I could, and subsequently

observed their behaviour. Little did I know that 10 years later I would be living in London again when I would keep the birds and be able to study their behaviour in an aviary (Restall, 1984). The male of the pair I kept in London attempted to breed, but whilst he obligingly built the basis of a nest for the female, I can see now that both the site and the aviary were too exposed for her liking, and she failed to finish the nest. In 1995 I retired, and moved from Hong Kong to settle in Venezuela. Here I am now working on a series of ornithological projects, most involving Neotropical seedeaters and one project in particular is a comparative study of the northern South American grassquits. It is thanks to this that I have finally bred the Black-faced Grassquit.

Black-faced Grassquit

It is a small, fairly rounded and sturdy-looking little finch, not well illustrated in the field guides as the illustrations are based on museum specimens and the olive-green of the upper plumage fades over the years in museum cabinets. This incidentally is true also of the other two northern South American grassquits, the Dull-coloured and Sooty, both of which are a rich olive-green above, very similar to that of the Black-faced. Perfect photographs of the Bahama race of the Black-faced Grassquit *T. b. bicolor* can be seen in the excellent photographic guide by Beadle and Rising (2002) and also in *Birding* (Restall and White, 2003). This northern subspecies is not as olive-green above and the adult male has less black than the mainland bird, *T. b. omissa*, of Venezuela.

In Venezuela, the Black-faced Grassquit is a bird of the northern lowlands, up to 950m (approx 3,000ft) in the Caracas Valley, but generally lower. Away from habitation, it usually occurs in xerophytic country, dry open scrubland with trees and thorns and cactus. Yet it is commonest in the rough, grassy areas in and around Caracas, gardens, overgrown plots, parks and golf courses. It is perhaps the commonest species at garden bird feeders.

It may be encountered at all levels, from tree-tops, where it can be seen nipping off buds and flowers which it eats avidly; the odd little nodules on *Cecropia* trees are a particular favourite. It will take almost any kind of food at bird feeders, but noticeably prefers seed. I can leave my feeder unattended for weeks, as I do in the rainy season, but as soon as I pour some seed into it, I can be sure the grassquits will be there within an hour or two, and then almost continually until the food is all gone.

A male will chase another male away from the table, but usually females and juveniles - both of which lack any black on the face and are a little duller, less greenish, and more drab - are tolerated.

Breeding

Like so many Neotropical finches, it breeds in the rainy season. Courtship begins in earnest and territories are defended once the rain comes with any frequency. Nest building begins a few weeks after the rains are well established and the grasses that produce masses of soft, green, protein-rich seeds are everywhere. The courtship display of the Black-faced Grassquit appears to be similar to that of the other grassquits. The male faces the female, droops his wings a little and with his bill open wide he lets out an explosive "tzit-tzweeee"! This may be accompanied by a short display flight and, if the male is perched higher than the female, possibly 1m (approx. 3ft) away, he will 'parachute' towards her with his wings quivering, and uttering a short series of the song.

In the case of the three northern South American species, the gape of the male is pink, becoming brighter, reddish, when he is in breeding condition. This may be quite noticeable by a pink flange at the sides of the gape. The male has a black bill and the plumage of the face and breast is black, so the red-pink shows up particularly well. I do not know if the Cuban and Yellow-faced Grassquits have pink gapes (can anyone help me with this, please?) but I suspect not, and in their cases the contrasting colour combination of pink and black is replaced by contrasting yellow and black facial patterns.

The male Black-faced Grassquit selects a nest site and builds a basic shallow saucer that leaves the whole thing looking like a gardener's basket. If the female accepts the site, she will assist in completing the nest, probably finishing the interior by herself. The nest is usually placed in a shrub or among the spiny leaves of a Yucca (a favourite garden plant here in Caracas), 1m (approx. 3ft) or so above the ground, and invariably within reach. I use the word "placed" deliberately, for the nest can be picked up and removed whole and complete, without damaging it. The close proximity of humans seems to be irrelevant. It occurred to me that this may even be an adaptation for protection, for where there are humans there are fewer natural predators - which are many, including the Great Kiskadee *Pitangus sulphuratus* and many other birds, lizards, large ants, snakes, monkeys, and so on, all of which are far more likely to steal the contents of a nest than the average human.

There is an interesting nest phenomena that I have observed several times with this species. I have found nests that were virtually overrun with small ants, yet the nestlings were apparently untouched and were being fed quite normally by their parents. My hypothesis is that the ants were collecting and taking back to their nests the droppings of the nestlings and using the material for the fertilization of a fungus the ants cultivate as food for their queens and babies.

The nest of the Black-faced Grassquit is built of grasses and straws, is

completely domed and has the entrance at the front, that is to say, looking forward out of the shrub or Yucca. Two to five eggs are laid, though in my experience two or three is the usual number. They are white with brownish speckles and blotches. When begging to be fed, the nestlings stretch up and out towards the entrance. They do not twist their necks like estrildid finch nestlings. When researching whether the Pin-tailed Whydah *Vidua macroura* has adapted to brood-parasitize the Black-faced Grassquit on Puerto Rico (on which the former is well established and the latter is common) I took a clutch of three eggs and on another occasion a pair of newly-hatched nestlings from Black-faced Grassquit nests and placed them with Bengalese. In both cases the young grassquits died within a day or two as the Bengalese were flummoxed by their begging behaviour and ceased to feed them. I believe that a neck-twisting nestling whydah would be ignored among a brood of normal straight-stretching grassquits.

Neotropical finches are adapted to producing small clutches the young from which fledge very quickly as a strategy against heavy nest predation. The eggs are incubated from the laying of the second egg and hatch in 12 days. The young fledge between nine and 12 days later. Undoubtedly the earlier fledging is caused by nest disturbance. The birds will go to nest again almost immediately if the first brood is lost. If the brood is successful, I believe they will go to nest a second time a little later, possibly after the mid-rains lull.

In an aviary

Goodwin (1959) kept Cuban, Yellow-faced and Black-faced Grassquits in a large planted aviary at Cornell University. He remarked on how the Black-faced, but not the others, spent a lot of time clinging to the aviary wire. He concluded this was not an attempt to escape, as the birds dived into cover when a human entered the aviary and would run on the ground into cover. In contrast, the Cuban species flew about the upper part of the aviary, while the Yellow-faced hid in the bushes. I have noticed my birds spending a lot of time at the wire, and the wild birds in the garden spend a lot of time on the wire. The birds outside are definitely trying to get in, and I suspect the birds inside are looking for a way round the wire, not so much to escape, but simply because these birds are continually moving, exploring and travelling around their territories. If the birds in the aviary are given a choice - such as when I have them loose in the birdroom, and the outside door is left open so that they can fly away, they will spend much more time inside than out, and having left, will return at regular intervals during the day. Birds of the year and unpaired birds are continually moving and travel over much wider areas than the resident pairs. Once banded (ringed) in the garden it can be months before I trap such birds again, whereas local residents

will usually enter the trap several times a day, sometimes within five minutes of being released. I have over the last few years caught many specimens, banded them and after taking measurements and notes, released them. Occasionally I will retain a bird, or a pair of birds, for one particular reason or another.

In cages and aviaries they are quite harmless with other birds, I have never seen any bickering or any sign of any kind of aggression to another species. They are also very easy to feed and maintain in good condition. Many years ago I discovered that they did very well on two pots of seed, one containing a standard canary mixture and the other mixed millets (brown *Panicum* and Japanese millets are favoured, and these mix nicely with regular white millet). These two seed mixtures are provided in hoppers in my aviary, and feed all the birds. The grassquits will take a little lettuce and a few mealworms. All the other birds will take a little soft mix and are keen to very keen on defrosted peas, but the grassquits have never been seen to take either.

In the aviary they may be seen searching diligently through the tree and other plants, presumably looking for insects. I have observed this behaviour with all the seedeaters. The first attempt at breeding was in a wicker basket of the kind commonly used for estrildid finches, that was fixed to the side of a hanging plant basket and almost obscured by overhanging leaves. Two eggs were laid, and subsequently deserted. This might have been due to my inspection of all the nests I could find. Neotropical finches seem to be particularly sensitive in this respect. The following season I made no inspections. Several times the female was seen entering a half-open box under the eaves of the house (The aviary is built against the side of the house, up to the roof, and my studio on the first floor looks directly into it). I did not know if the grassquits were breeding or not. At the end of the season I had a major clean up in the aviary, during which I removed all the bamboos in their pots (the plants have to be rotated regularly - they are always badly damaged as the birds eat all the tender shoots) and several potted trees. I caught up more Black-faced Grassquits than I remembered releasing into the aviary, and thought it rather odd and wondered if perhaps there had been more unplanned entries into the aviary than I realised! It was not until after I had released them that it occurred to me that the original pair must have produced two or three young.

At the start of 2003, the aviary planting was totally rejuvenated, with fresh clumps of *Cyperus alternifolius* and water hyacinth in the fish pond, fresh pots of bamboo, plus a great *Ficus benjaminus* about 5m (approx. 17ft) tall, that reached the roof of the aviary and bent over. A female Black-faced Grassquit from the previous year was released into the aviary, together with a freshly-caught very well coloured male from the garden. The aviary

included a small collection of *Sporophila* seedeaters, a pair of Blue-black Grassquits *Volatinia jacarina* a Blue Grosbeak *Passerina caerulea* and a pair of Pileated Finches *Coryphospingus pileatus*.

Two months after the rain started I saw the first fledgling grassquit in the aviary. It was slightly smaller than the adults, like the female in colouring, and with a very short tail. I saw both parents feeding it. It sat in a clump of Papyrus *Cyperus alternifolius*, overhanging the pond. It occasionally moved to another perch, but never strayed from the Papyrus. Two nights later we had one of the most awful rainfalls imaginable, it resulted in several dozen houses sliding down hillsides in poor parts of the edge of the city where buildings are pretty shoddily - and illegally built. The morning after the rain I found the fledgling floating in the pond. A couple of days later I was amazed to see an identical bird in the bamboo, although it might have been slightly larger. I also saw a fledgling Blue-black Grassquit being fed by its mother. Subsequently we had more of these appalling rain storms but only one more loss, this time the adult male Blue-black Grassquit, which was found dead on the ground.

The first time the Black-faced Grassquit was bred in captivity appears to have been in England in 1910 (Hopkinson, 1938) and the second time at Cornell in the USA (Goodwin, 1959). My own record is far from distinguished and owes little if anything to my ability as an aviculturist. Next year I am hoping to breed the Sooty and Dull-coloured Grassquits in the aviary, as well as repeat my success with the Black-faced species. I will also see whether the Black-faced Grassquit will go to nest in a breeding cage.

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