

# **The African Fire Finch**

## **by Jim Pearson**

The African Fire Finch (*Lagonosticta senegala*) is one of the smaller finches, being about 10cm in length and weighing approximately 8.5 grams. It is quite widespread on the African continent south of the Sahara Desert, living in a natural habitat of bushy savannah or Acacia scrub. It does not inhabit the wetter or more densely vegetated areas, but is apparently never far from surface water.

There are nine sub-species of Fire Finch (*Lagonosticta*), although only one (*L. senegala*) is available in Australian aviculture. This is possibly a sub-species that, as the name suggests, originates from West Africa, in or around the country of Senegal. The birds that we in South Australia call the African Fire Finch or just plain Fire Finch, are known in some parts of Australia as Ruddy, Little Ruddy Waxbill, Red-billed Fire Finch, Common Fire Finch or Senegal Fire Finch.

### **Description**

Fire Finches are sexually dimorphic. That is the male and female are differently coloured, thus making them very easy to sex. As can be seen in the colour plate, the male is a very handsome little bird. His head, breast and upper belly are red, with small white spots on each side of the body. The under belly is a light brown colour. The back and wings are brown, with darker shades extending into the flight feathers. The tail is dark brown to black with tinges of red on the outer feathers. The rump and upper tail coverts are also red. Legs and beak are light coloured with the fore part of the beak and feet showing red. A very definite yellow eye ring surrounds a dark brown eye.

The female is an attractive light brown colour with darker brown in the flight feathers and brown to black in the tail. She has a lighter coloured under belly with a few tinges of red around the head (mainly above the eyes) and on the rump and tail. More obvious white spots than on the male decorate both sides of her body. Legs and beak are a light colour, with red on the fore part of the beak. The female also has a yellow eye ring, but this is not as obvious against her light brown head as the male's eye ring.

Newly fledged juveniles are very small with a stumpy tail and often with down feathers protruding from the head and back. In colour they are similar to the adult female without the red colours or white side spots. Young grow quickly and colour up at an early age. Both sexes, but possibly more so the females, begin to show white side spots within six to eight weeks of fledging. At about this age young males begin to show patches of red around the head and breast. Full adult colours are attained by the female at about three to four months of age. At this age the male is almost fully coloured, but the red on his head and breast usually has small patches of brown that persist for another couple of months.

### **Housing and Compatibility**

Fires can be housed in just about any size cage or aviary. However, I feel they are best housed in a reasonable sized aviary with some cover in the form of shrubs, grasses and dry brush. A couple of cleared floor areas (preferably earth) are also beneficial,

especially if one or more of these receives sunshine during winter. Fires spend quite a bit of time on the ground. They seem to enjoy picking over freshly turned earth or eating dry seeds or green seed heads scattered on the aviary floor. They also seem to enjoy congregating in a sunny, sheltered spot on the ground, particularly during cooler weather.

I have had good success with Fires in planted aviaries, with earth floors, measuring 5.4 x 3 metres of which 1.8 metres is covered (insulated) shelter, the remainder being open flight. I have also had success in an aviary with a sand covered cement floor measuring 3.6 x 2.1 metres. This aviary has shrubs and grasses planted in tubs and dry brush in the shelter area.

Fires are very docile birds. They can be housed as pairs or colonies with almost any other finches in a mixed aviary. I once tried them briefly with Crimson Finches (*Neochmia phaeton*), but the Crimson Finches began to show aggression toward the Fires so I separated them. Although a single pair of Fires in a mixed aviary will breed, small colonies of three to five pairs seem to enjoy each others presence, have the opportunity to choose their own mates and stimulate each other to breed. An unrelated male and female, preferably about the same age, put together as a pair will generally be compatible and breed if conditions are suitable. Single birds are probably best removed from mixed breeding aviaries, because Fires have been known to hybridise with other species of finch if a mate of their own kind was not present.

Although they are docile, Fires will chase other birds away from their nest, especially after young have hatched.

### **Breeding**

Unfortunately Fire Finches are not long lived. Their life expectancy in captivity is generally about four years, although some survive longer. They will breed from six months of age up to about four years of age. However, their most productive breeding is from about 12 months up to three years old. They breed at any time during the year when conditions are suitable i.e. if nesting facilities and materials are available and a nutritious diet is provided.

The male's courtship display usually involves the carrying of a white feather whilst he approaches his mate with a few bobs and bows. It is not an elaborate courtship display, nor does it include a courtship song like some other finches.

Fires build nests in dry brush, shrubs or grasses from close to ground level (e.g. 20cm from the ground in Johnson grass or low dense bushes) up to about 1.5 metres from the ground. They will also build in small receptacles such as wicker baskets, cardboard roll nests (from carpet rolls), wire mesh cylinders or wooden nest boxes. They often choose a secluded site for their nest and will re-use nests for a subsequent brood. This should be discouraged by removing used nests because these may harbour mites or other little beasties that may be detrimental to a subsequent clutch. Young Fires do not return to their nest after fledging, so used nests can be removed immediately after fledging.

Their preferred nest construction material is fine grass (e.g. swamp grass or fine couch), but they will also use coconut fibre and shredded hessian. They line their small dome shaped nest with white feathers and usually have a feather across the entrance which prevents viewing into the nest. This means the only way to know what is going on is to poke a finger into the nest, but this is not advised. Fires do not construct a roosting nest, so nest building is a sign that breeding is about to commence.

Three or four small, white, oval shaped eggs are normally laid. These are incubated by both parents for about 12-13 days. Both parents feed the young who fledge at around 18 days of age. As previously stated, young develop quickly and become independent of their parents at about 10-12 days out of the nest. The young do not interfere with subsequent breeding by their parents, so it is not necessary to remove them from the breeding aviary for this reason. In fact, leaving young birds in the aviary to observe their parents raise a subsequent clutch may even form part of a young bird's education and contribute to it being a better breeder as an adult.

There is often an imbalance in the ratio of male/female Fire Finches bred. In some years there are considerably more males than females bred, whilst in other years the ratio is reversed and in some years, the ratio is more balanced. I have no explanation for this, but have certainly experienced it. During 1994, from three pairs of Fires in colony, I bred about 10 pairs of young (20 birds) and a further 20 or so males! When this imbalance became obvious I put the three breeding pairs into a holding aviary to stop them from producing any more sons. Apparently some breeders had a surplus of females from their 1994 breeding, because I was able to dispose of several of my surplus males to a dealer who had purchased a surplus of females from one of his customers. For some unknown reason my Gouldians also produced a surplus of young males during the 1994 season.

## **Feeding**

I feel that feeding is probably the single most important aspect of breeding birds, even more so than providing suitable accommodation and nesting facilities.

I feed the birds in my mixed finch aviaries a basic diet of dry seeds. This consists of a good quality commercial finch mix with extra red panicum and extra plain canary seed. Over the past several months, perhaps due to the drought, the commercial finch mix I use has had very little canary seed in it, so the amount of extra canary seed I use has increased. Until quite recently I used to mix the finch mix, red panicum and canary seed together, but now feed them separately in divided dishes. I use four 2 litre plastic milk bottles with a thin rope loosely looped through the handles to carry the different seeds into each aviary. During the winter months a little rape, maw, niger and hulled oats are also supplied. The Fires (and other small finches such as Jacarinis and Orange Breasts) tend to favour the smaller seeds, in particular red panicum.

In addition to dry seed, I feed a small amount of soaked seed in each aviary every day (this includes holding aviaries where young birds are maturing - these birds need good nutrition too!). I soak about half a cup of seed for 24 hours in just enough water to almost cover the seed. Most of this water is absorbed by the seed. This seed is then

suspended in a kitchen strainer for a further 24 hours (over the next lot that is in the water, in a 2 litre ice-cream container). It is rinsed under running tap water two or three times during this period, then soaked for 30 minutes in a 1% bleach solution (10ml bleach per litre of water). This is rinsed off under running water before feeding the well drained seed to the birds.

Another item on the daily menu for all of my birds is seeding plants (not just grasses) and other greens. I grow silverbeet, lucerne (alfalfa), panicum, white millet, canary seed and palm grass for this purpose, as well as collecting a wide variety of seeding grasses and other plants from my local area (or anywhere else I happen to be). A small scythe and bag are always carried in the car boot, for collecting both seeding plants (mostly grasses) and nesting materials whenever the opportunity arises.

Fires do not appear to eat a lot of leafy greens or fruit (I provide slices of apple for the parrot finches). However, they do like the smaller seeds in green seed heads such as panicum and palm grass, especially when they have young in the nest. These they will take from the aviary floor. However, being docile birds they usually do not go down to the seed heads until these have been well picked over by other birds such as parrot finches, Gouldians, Cubans and the like. It is therefore necessary to supply green seed heads in sufficient quantity that there will still be some left by the time the Fires get to them.

Fire Finches like live foods, especially when rearing young - and live food is important for good breeding success of these birds (they provide high quality protein with plenty of moisture). Without live food, some breeding success may be achieved if a protein supplement in the form of cake or egg and biscuit is used, but they definitely breed better with a daily supply of live food. According to QFS Finch Breeders Handbook (Vol 2) and Russell Kingston's (A complete manual for the keeping and breeding of Finches) Fires eagerly take termites when breeding and do very well on them. I have never fed termites, but have achieved good breeding success with meal worms and vinegar fly cultures.

I breed most of the meal worms used (but occasionally still have to buy some). Obviously, small meal worms are more easily handled by small birds than big ones. Over the years I have tried various containers for breeding vinegar flies in aviaries. Some of these resulted in the birds eating most of the flies before they had a chance to reproduce in sufficient numbers to be of any benefit, or the culture was invaded and decimated by black ants.

My present (quite successful) vinegar fly cultures are in 46 litre plastic rubbish bins (available from supermarkets for about \$7.00 each). These have about 30 one centimetre holes drilled around the top 10-15cm of the bin. Inside the bin is a cheap plastic bucket with about 5cm of bran in the bottom. This sits on a brick which adds a bit of weight to the whole thing (stops it from blowing over) and lifts the bucket so that a little water can be put into the bottom of the bin to prevent ants from getting at the bucket. Nice ripe (or even rotten) fruit is regularly added to the bucket. Peaches, plums, oranges, tomatoes, grapes, apples, water melon or any other fruit is suitable. Vegetable peelings can also be added occasionally. To start a vinegar fly culture, set up the bin/bucket/fruit and don't worry about the flies. They will soon find your

offerings and take up residence. Vinegar flies are more numerous and breed more in warm weather than during the colder months.

The bins are kept in the aviaries (in a shaded area) with the lid on. Vinegar flies (species *Drosophila* - some people call them fruit flies) breed quite well in this set-up, and the birds can very often be seen picking off the flies that stray out through the holes in the bin. Because birds cannot get inside the bin, quite a few of the flies are always present inside the bin to reproduce and keep the culture going. Every couple of months, the fruit bucket needs cleaning out. Fires do not seem to hawk for flying insects, but forage for them on the ground or in the foliage of shrubs and grasses. A planted aviary therefore attracts other insects and provides landing places for vinegar flies.

Also supplied daily to my birds is a protein and vitamin rich 'bird cake'. Among others, the Fire Finches eat some of this cake, especially when they are feeding young. For several years now I have been making a cake for my birds to supplement their protein and vitamin needs and breeding results do seem to justify the effort. However, I will not go into recipes or the reasoning behind them now. I will make 'bird cake' the subject of a future article.

Birds need calcium in their diet and seeds, greens, live food etc do not have enough calcium in them to satisfy the requirements of aviary birds, especially breeding birds. See last month's issue of Bird Keeping in Australia for a detailed discussion on this topic.

A good quality calcium food (I consider it to be part of their diet, not a supplement!) should be available to all birds, including Fires, at all times. By far the best calcium food for finches is ***CALCIUM GRIT MIX*** (fine). Needless to say, this is constantly available in my aviaries.

The most important points about feeding Fires are good quality protein (particularly live food, but also bird cake) and adequate calcium. Without enough of either of these two dietary components, a couple of nests per year of two or three eggs/young per nest can be expected. However, the survival rate of young on an inadequate diet may not be good. With adequate protein and calcium, four or five nests per year can be expected, often with four (sometimes more) young per nest and the survival rate increases dramatically.

Finally, on the subject of feeding, please re-read 'Drink it! Lick it! Taste it! Clean it!' by the Clean Water Freaks in BKIA May 1994, page 75. To quote their final words ... 'the only water they get is what you supply and if you will not drink it the birds should not have to'. My sentiments exactly! Fires drink and bathe regularly. Their clean water (in a shallow bowl) should be covered - i.e. kept out of the sun and away from overhead perches.

### **Health Problems**

I have never experienced any health problems with Fire Finches. All of the Fires that have died in my aviaries over the years either suffered accidents or were old enough that they probably died of old age. As a preventative measure, I do worm my birds

once or twice a year with Synanthic (available from Service Items Officer). I have never had an obvious worm problem in my aviaries, but with birds that spend a lot of time on the ground like Fires, it is perhaps better to be safe than sorry.

Birds kept in good conditions and on a nutritious diet very rarely suffer health problems. Some avian veterinarians attribute 90% of bird health problems to inadequate diet. In my opinion, dirty water and/or dirty water containers (especially if exposed to sun or overhead perches) probably account for about half of this 90%!

### **Conclusion**

If you have never kept Fire Finches, I would certainly recommend them. They are an interesting little bird, suited to our climate, easy to cater for, reasonably priced, readily available and they add colour to a mixed aviary. As a breeder, they give moderate results with a moderate amount of attention, but very good results with a bit of effort on their owner's part.

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