

## **Zebra finch**

The beautiful plumage, quirky song and antics of the zebra finch have earned these delightful birds the status of being among the world's most popular pet birds. Zebra finches are admired and kept throughout the world. They are easy to keep, hardy and well suited to any home environment. They require little space, however as with any bird they enjoy having space to fly.

Zebra finches are good pet birds for all ages but are especially appealing to older people as they provide lively color and song to the home. They are an excellent starter bird for children and especially young aviculturists who want to learn first hand about breeding birds. They are constantly active hopping and flitting around the cage making a very pleasant squeaking call sounding much like a toy trumpet.

They can be kept in groups in aviaries and even get along well with other species of similar sized birds. They are especially attractive when housed in planted aviaries. When nesting however they may become aggressive to other weaker finch species. Zebra finches are pets for people who will admire them in their cage. Although they are highly domesticated they are not typically hand tamed and do not like handling.

The wild type zebra finch is a beautiful little bird and clearly dimorphic so sexing is not a problem. Both sexes have slate gray upper parts with a white belly. A black stripe extends down the cheek from the eye with a white bar between the stripe and the beak. The beak and feet are red. The tail is black with white bars. The male is distinguished by several other distinctive markings that are absent in the female. From the throat to the upper chest he is gray with distinct black bars ending with a strong black band across the upper chest. He also has large round chestnut ear patches and chestnut patches on the flanks with white spots.

Numerous color mutations have been developed over the years. Most of these mutations are dilution of the wild type coloration. They include silver, fawn, white, chestnut flanked white, cream, penguin and pied. Birds showing multiple mutations are also available. Crested birds are available in several colors. Pure white zebra finches can still be sexed by the intensity of beak color. The beak of the male is a deeper red than the female. They can also be sexed by behavior, as the male is most likely to sing. Young birds resemble females until they undergo their first molt at about 3 months of age.

*Poephila guttata* is the zebra finch's more modern scientific name updated from *Taeniopygia guttata castanotis*. Two subspecies of Zebra finches have been described. The very common subspecies (*T.g. castanotis*) is found throughout most of Australia especially the interior. The less common subspecies (*T.g. guttata*) is found on some Indonesian Islands including Sumba, Flores and Timor. This male of this subspecies differs from *castanotis* in being more silver gray and having less distinct throat and chest barring.

Wild zebra finches inhabit open grassland with trees and low bushes, or near human settlements. They need to be close to water so they are usually found near small rivers, ponds and streams as well as sheep and cattle water troughs. They are highly social and stay in flocks, even when breeding. They prefer dense thorn bushes for nesting; often building several nests close together or adjacent to each other. They build a rather untidy nest of dry grasses. If climatic conditions are favorable they will nest almost year round but do not breed in a drought.

Earliest records of Zebra finches in captivity date to a German scientist who studied them in the wild in Australia for a year then brought them home to Germany in 1805. By 1872 they were bred routinely in Europe. The earliest documented color mutation is the white zebra finch bred in Australia in the early 1920's.

When buying a zebra finch look for a bird which is active and lively. Zebra finches are usually sold in pairs and should be kept as pairs for their social well-being. Catch the zebra finch and cup it in your hand to feel its chest. If the keel bone is prominent it may be too thin. Hold the bird to your ear and listen for clicking respiratory sounds that may indicate respiratory disease.

Weighing in at only 10-16 gm the 4 inches (10 cm) long zebra finch is the smallest of the highly domesticated pet bird species.

### Diet and Feeding

Zebra finches are granivorous by nature feeding primarily on grass seeds. Classical zebra finch diets have been seed diets consisting of a mixture of mixed millet seeds, and canary seed but they can also be offered rapeseed, dehusked oats, niger, linseed, hemp, lettuce and other small seeds. Rape is high in protein and beneficial oils. Canary seed and millets are high in carbohydrates.

Kaytee manufactures small pelleted (extruded) diets for canaries and finches which provide balanced nutrition in every bite. These can be substituted for seeds and seeds can be given as treats.

Zebra finches should also be offered small amounts of fresh dark green leafy vegetables such as romaine, endive, spinach, watercress and dandelion greens. They also enjoy tiny slices of apple, grapes, melons, or sprouts. These fresh foods are relished by zebra finches, which have been introduced to them especially at a young age. Boiled eggs or commercial egg food are excellent for young and breeding zebra finches but care must be taken in avoiding contamination, leaving moist foods in the cage too long.

If your zebra finch is fed a seed diet vitamin supplementation is needed. Ideally vitamins should be added to soft foods such as egg food and a soft bread mix. Vitamins can be provided in the water but the bowl or water bottle must be washed daily to prevent

bacterial over-growth. Vitamin supplementation is not necessary if the bird eats a pelleted diet.

Zebra finches have historically been given grit however contrary to popular belief zebra finches do not require grit. They will consume it and if they are in good health it will not harm them but if they don't feel well they may eat too much resulting in an impaction. A recent scientific study demonstrated that grit consumption in canaries is not essential or even clearly beneficial. Mineral grit which contains digestible minerals may however be an important source of minerals if the birds otherwise do not receive adequate minerals in the diet.

Zebra finches must have fresh water daily and can die if water is withheld for 24 hours.

### Housing

Zebra finches are small but they are very active and should be given plenty of room to move around their cage. They should have at least 2 perches far enough apart to jump or fly between. Cage size for a pair should be at least 14 inches square. Bars are often vertical for zebra finch cages.

The floor of the cage should ideally be lined with paper, newspaper or craft paper. Sheets of paper cut to the size of the cage floor make daily paper changing easy. Make it a habit to look at the stools of your bird every day when changing the paper. This is an excellent way to monitor its health. If your zebra finch is eating seeds the feces should look like a small dark round dot or string (the feces) with a smaller white spot (the urates or solid urine) on top. If he is eating pellets the feces will be slightly more bulky and may contain colors from the pellets, which pass harmlessly through the digestive tract. Some colors may also show up in the urates. If you feed fruits, greens or vegetables they can also make the stools more bulky and liquid. Stop feeding these food and the feces should return to the more typical appearance.

The cage should be placed so it is not directly below an air conditioning vent, or in a direct sunlight from a window, but should be in an area of the home where there is much activity. Zebra finches are very susceptible to air-borne toxins. If you keep your zebra finch in the kitchen, always be aware of the dangers of Teflon poisoning, cleaning chemicals, oven cleaners. (Teflon poisoning occurs when a Teflon pot or pan is overheated, not during normal cooking temperatures).

Grooming - Zebra finches love baths and small bird baths can be purchased that will fit into the door of a standard zebra finch cage. This can be filled with luke warm water. Allow the bird to enter as he chooses. Zebra finches can also be offered a shallow bowl of water in the floor of the cage. They should be allowed to bathe twice weekly to maintain excellent plumage.

Wing clipping is uncommon for zebra finches as they are not usually handled. If you do choose to let your bird fly in the house however there are safety concerns. Accidents are

often associated with ceiling fans, birds falling into open toilets, swimming pools, pots on the stove, etc. Escapes can also happen very quickly when a door is suddenly opened and the bird becomes startled and flies out.

Nails should be kept an appropriate length, as overgrown nails can be a hazard as well. They can be clipped with fingernail clippers watching for the quick (vein) inside the nail. Since a zebra finch's nails are white the vein can be seen easily and the nail should be clipped a little bit past the vein. In case a nail bleeds after it is cut, you can stop the bleeding by application of quick stop. If no such product is available you can stick the nail into a bar of soap, apply flour or cornstarch or you can light a match, blow it out and cauterize the nail on the hot head of the match. Because of their small size control of bleeding is important.

Zebra finches are often identified by a leg band by the breeder. These bands often show the hatch year and code of the breeder. They may also indicate the family of the zebra finch. If well fitted they represent negligible risk but may help you to retrieve your bird if it is lost.

## Breeding

Zebra finches are typically easy to bred and a pair will breed and raise their babies in the home. Breeding season is usually in the spring (March to July) in North America. They are usually reliable breeders, however some individual pairs will not be and may burry eggs, throw eggs from the nest or not care for chicks properly.

Breeding zebra finches in pair cages is ideal however they can be bred in aviaries. Breeding in cages gives better production and control of pairings. If you are breeding for specific colors pair breeding is required. Breeding in a large aviary housing several pairs requires less work, however the results are usually not as good.

The breeding cage should be larger than a single pet cage. The classic breeding cage size is approximately 24 inches long, 14 inches tall and 10 inches wide. The standard canary breeding cage is a good choice. They are usually constructed so a partition can be slid into the cage to separate the male from the female. Zebra finch pairs are not usually separated as the male helps the female raise the chicks. Zebra finches build a nest in a half-open basket hung on the side of the breeding cage. Baskets can be purchased in pet shops and are usually about 4 ½ - 6 inches long. Small wooden finch boxes could also be used. If breeding in an aviary scatter the boxes or baskets and provide approx 2 boxes per pair to prevent quarreling over nest sites. Nests should be placed so they can be inspected without too much disturbance. Provide building materials such as dry grasses, moss, cow hair, or unraveled cut hemp rope, which should be placed on the floor of the cage or aviary. Pet shops often sell boxes of short strings, which can be given to zebra finches for nest building. Make sure strings are short so the birds and chicks won't become entangled in the string.

A few days after mating the hen begins to lay and will lay 4-6 eggs. Most eggs are 1 day apart usually laid in the morning. She usually starts to incubate with the first or second eggs. There can be quite a size difference between the oldest and youngest chicks in the clutch. For that reason some chicks may be lost if they are too small to compete with their siblings. For this reason some breeders foster or move eggs or chicks among pairs to give each hen a reasonable number of chicks or roughly the same age. The incubation period is 12-13 days.

Provide plenty of food for the pair to feed their young, especially egg foods and some fresh greens. Sprouted or germinated seeds are also relished. Both parents share in caring for the young. The chicks can be banded at 8-10 days of age. Serious breeders use these leg bands to maintain genealogical records to assist in breeding for desired traits. The chicks usually leave the nest when about 3 weeks old but are still fed by their parents for a few more weeks. During this time the hen may start preparing for the next brood. It is generally recommended that the pair be limited to 2-3 broods in a season to prevent exhaustion. The adults can then be placed in large flock flights, separated by sex, to regain condition for the next season. Reducing the photoperiod (reduce to around 10 hours of light daily) will also help to shut them down.

When the young birds are independent they should be removed to a large flight cage with other young birds until they undergo their first molt at about 6 months of age. The molt lasts about 6 weeks and during this time the birds will be less active and usually won't sing. They require excellent nutrition and extra vitamins to enhance feather regeneration. After molting the young birds should be sexed and separated into aviaries by sex.

## Diseases

Bacterial infections, especially *Campylobacter*- can cause intestinal disease.

Yeast infection in the intestines can cause weight loss and poor digestion.

*Cochlosoma* is a flagellated protozoon, which is often carried by society finches. If zebra finch chicks are raised by or with Society finches they may become infected.

*Atoxoplasmosis* – A common disease of canaries, this disease is occasionally found in zebra finches. Caused by a coccidian (protozoa) called *Isospora serini*, this parasitic disease of young birds (2-9 months) affects the intestines and liver and can result in high mortality. It is diagnosed by fecal examination.

*Coccidiosis* – A similar organism (*Isospora canaria*), which also produces intestinal disease and diarrhea.

*Trichomonas* – flagellated protozoa that infests the crop causing regurgitation, respiratory symptoms and emaciation.

Liver disease – Probably associated most often with poor nutrition or bacterial infections, however can also be associated with many other disease processes.

Lice and mites – Uncommon on pet zebra finches but may be a problem in breeding aviaries.

Don't allow your zebra finch to have un-supervised freedom in the home. Other family pets such as cats & dogs often kill pet zebra finches. They also often succumb to household hazards and toxins and are particularly sensitive to air-borne toxins. Beware of carpet cleaners, scented candles and Teflon poisoning.

Ideally your pet zebra finch should have a yearly examination by a veterinarian to help it live to it's potential. Zebra finches can live up to 8-10 years with good nutrition and care.