



Supplementary resources for members of local ethical review processes

Zebra finches: Good practice for housing and care





**Before using these guidance notes, please read the introductory sheet that
accompanies this series:
*Supplementary resources for lay members: an introduction***

Zebra finches belong to the bird subfamily Estrildidae (weaver finches). This subfamily includes many of the most popular small aviary songbirds, which originate from tropical and subtropical Australasia, south east Asia, India and Africa. These guidelines relate mainly to zebra finches, but a large number of the other species within the subfamily have similar requirements. However, note that many of the other estrildid finches are more delicate and require special care in captivity.

Natural history

Zebra finches are found across most of Australia. They are highly sociable and usually live in flocks numbering from a few dozen to many hundreds, often mixed with other species of small birds. Flocks are highly mobile and range over wide areas in search of food, quickly deserting areas if conditions become unfavourable. The birds will use nests as roost sites outside the breeding season, which enables birds to survive in areas where the temperature is low at night. These may be old breeding nests or purpose-built roosting nests.

Zebra finches are monogamous and form long-term pair bonds, maintained by bonding behaviours such as mutual preening. The breeding season is triggered by the arrival of rains, so that hatching coincides with the first ripened grass seeds. In captivity, breeding birds should be group housed at an equal sex ratio and with an excess of nest sites (note that they are prolific breeders and it may be necessary to rehome unwanted birds).

What zebra finches need

The following list of requirements is based on the ecology and behaviour of wild birds, and on animal welfare science that has evaluated birds' preferences and motivation for resources. More information on finch welfare, housing and care can be found in the references listed at the end of this document.

- Social housing**

The zebra finch is extremely social and gregarious, and should never be housed singly without compelling scientific or veterinary justification. Breeding can be suppressed in mixed groups by feeding dried foods and some greens only (see below).

- Aviary housing with plenty of space**

Communal aviary housing is the ideal way to house finches, ensuring that plenty of perching space is always available. If space is limited, it is usually best to compromise width but maintain vertical height and length, to allow free flight. Outdoor access is also beneficial wherever possible, but birds housed in entirely outdoor aviaries will need shelter and supplementary heating in the winter.

- Solid floor with litter material**

Zebra finches feed regularly on the ground, which therefore requires solid flooring. Suitable litter materials include bark chips, wood shavings or sand.



- **Plenty of perches at a range of different heights**

Perches are very likely to make zebra finches feel secure and will also provide exercise, especially if some are attached at one end only so that they are slightly springy. They should be placed at different heights because the birds prefer to approach feeders, or the ground, by moving to progressively closer perches. Some should be high up, around 15 cm from the roof, for roosting. Too many perches will inhibit free flight and make it difficult to catch the birds, and care should also be taken not to site them over food or water containers. Suitable materials are 0.5 cm dowelling rods or natural branches where possible.

- **A varied diet and the opportunity to forage**

The diet of wild zebra finches is almost exclusively dried grass seeds, but captive birds do best with a mixed diet. This should include foreign finch seed mix, a few live insects, mealworms and *Panicum* millet sprays, provided both in feeders and on the enclosure floor. Note that fresh greens and soaked or sprouted seeds will encourage birds to breed, so do not supply these unless breeding is required.

- **Plenty of nest boxes and an appropriate amount of nesting material (for breeding birds)**

Zebra finches will actively and aggressively defend nest boxes if these are provided, so it is good practice to allow an excess of nest sites such as wicker or plastic hanging baskets. If aggression persists it may be necessary to divide birds into several smaller aviaries. Suitable nesting materials are dried grass and/or coconut fibre. A good way to supply nesting material is by hanging it in a basket of wide-mesh chicken wire, taking care not to supply too much, as birds can over-fill their nests or even build another layer of the nest on top of their eggs or chicks (known as “sandwich nesting”).

- **Water for bathing**

Zebra finches will make good use of water baths and these should be provided at least once a week.

- **Environmental enrichment**

There is a wide range of commercially available toys, swings and so on designed to provide stimulation for companion birds, and finches in the laboratory will benefit from these too.

Potential husbandry related welfare problems and how to resolve them

Feather pecking may be caused by a lack of nesting material for breeding birds or by overcrowding. The risk can be reduced by supplying sufficient nesting material, or overcrowding can easily be prevented. However, it may be necessary to remove a persistent feather-pecker from the group if all other measures have failed.

Hypothermia is a concern because finches are sensitive to low temperatures, so make sure that indoor temperatures are maintained between 20 and 15°C and that birds housed outdoors have adequate shelter and heating. There is no need for outdoor birds to suffer from hypothermia if they are properly housed and the risk should not be used to justify denying birds outdoor access if they could otherwise have it.

Stress caused by disturbances such as husbandry, veterinary or scientific procedures can be reduced by rewarding the birds with treats, such as lettuce, immediately afterwards. If birds need to be caught regularly, reducing the amount of cover in the cage may help to minimise stress.



Zebra finch housing and care: ERP aide-memoire

- ❖ Social housing
- ❖ Aviary housing which allows free flight
- ❖ Outdoor access where possible, with protection from the weather
- ❖ Solid floor with suitable litter material
- ❖ Plenty of perches at different heights (and not sited over food or water containers)
- ❖ A varied diet with sufficient roughage and the opportunity to forage
- ❖ Sufficient nest boxes and nesting material for all breeding birds
- ❖ Water for bathing at least once a week
- ❖ Additional environmental enrichment

Notes



Recommended references

1. Hawkins P, Morton DB, Cameron D, Cuthill I, Francis R, Freir R, Gosler A, Healy S, Hudson A, Inglis I, Jones A, Kirkwood J, Lawton M, Monaghan P, Sherwin C and Townsend P (2001) Laboratory birds: Refinements in husbandry and procedures. *Laboratory Animals* 35 (Suppl. 1) Download at <http://tinyurl.com/3aljtm>
2. Nager RG & Law G (2011) The zebra finch. Chapter 43 in: *The UFAW Handbook on the Care and Management of Laboratory Animals*, 8th edn (ed by R Hubrecht and J Kirkwood), pp 674-685. Oxford: Wiley-Blackwell.
3. Zann R & Bamford M (1996) *The Zebra Finch: A Synthesis of Field and Laboratory Studies*. Oxford: Oxford University Press.
4. FELASA (2007) *Euroguide on the Accommodation and Care of Animals Used for Experimental and Other Scientific Purposes*: Based on the Revised Appendix A of the European Convention ETS123. London: FELASA. Available for purchase at www.rsmpress.co.uk/bkfelasa.htm



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