

This talk will be based mainly on a paper presented by Christianne Bohm at 2ICEE and a workshop run by Trena Carney in Alice Springs in 1999 (Bohm 1995; Carney 1999). Birds have been kept in captivity for thousands of years and are often the most numerous, both in species and number of individuals displayed in zoos. However some captive aviaries continue to be small and impoverished and environmental enrichment initiatives and programs continue to be concentrated on mammal species. Birds have been shown to have sensory abilities far beyond human experience, especially in their range of colour vision and auditory reception, and their cognitive abilities in problem solving and tool use are still being elucidated (Cole 2005).

Aim: The aim of bird enrichment program is to provide a stimulating and complex environment that will produce breeding groups of birds that demonstrate natural and socially desirable behaviours (Mason 1995).

Knowledge of wild behaviour is the basis of all successful environmental enrichment programs. It is important to know the ecological and behavioural details of each species held. Birds live in all climatic zones and this has resulted in a wide variety of behavioural expression and adaptation so the stimulation of species typical behaviour must also be varied (Bohm 1995).

Enrichment for birds can be summarised it under these headings:

Locomotory behaviour and habitat choices. Many aviaries limit the display of the full diversity of bird locomotion – as well as flying, birds may hover, climb, balance, swim, dive, hop, walk, hang, dig etc. These can be accommodated by the spacing of vegetation, replacement of rigid perching with flexible branches, small trees and ropes, the provision of vertical logs for climbing birds, the size and depth of pools, the provision of different substrates – soil, rock, wood chip, pebbles, suitable vegetation such as reeds, creepers and thickets (Mason 1995; Morris 1999).

Comfort behaviour – preening, bathing in water, sun or sand, anting. Thermoregulation in birds depends on an intact plumage so preening behaviour is innate and often very distinctive. Access to sun, water and an open area of a suitable friable soil will encourage preening.

Foraging behaviour. The psychological aspects of feeding are important in birds and contra-free loading has been demonstrated in some bird species (Gilbert-Norton and Gee 2005). The provision of leaf litter, seaweed or earth piles for foraging, supplying live food to search for or catch on the wing, whole fruits can be effective stimuli for foraging. Size of the food item may be important and also natural foods such as wild grown seed and nectar rich native flowers presented in a natural way. The timing of feeding may also be important and the provision of multiple feeding stations to minimise competition over food.

Social behaviour. Requirements vary widely between species and also seasonally. The benefits and disadvantages of single species or mixed species groups, separate or group housing, visual or auditory contact with conspecifics need to be considered when setting up aviaries and aviaries observed regularly to pick up any competition problems.

Breeding and Parental behaviour: Bird social behaviour reaches a peak during the breeding season. Competition for mates and territorial behaviour are often limited in captivity as we choose pairings

and separate competing birds but by doing this we often lower breeding success and some pairs are not compatible. In many species the onset of breeding is triggered by an increase in day length and a concurrent increase in the quantity and quality of food. A choice of nest sites, abundant fresh nesting material in the right order and allowing the birds freedom to proceed without interference may all be important to breeding success.

Sensory stimulation: there is little information in the literature about the use of sound, colour and other senses in birds. The playback of song could be used as enrichment, in conditioning and in stimulating breeding and territorial calls (Bird and Johnson, 2001). Using colour as an enrichment stimuli has all sorts of possibilities.

Cognition: research into the cognitive abilities of birds is providing lots of surprises. Research is being done on parrots, magpies and corvids (Cole 2005) and their abilities in learning and problem solving are further area of enrichment.

Conclusion. Simple solutions are often the best behavioural stimulation for birds.

- Essential structures are just as important as space.
- Natural and quality food and foraging
- Correct intra- and inter-species combinations
- Careful observation of enclosure use and reactions to innovations.

References

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