## **Bower Birds Build Optical Illusions**

Written by Administrator Friday, 16 November 2012 09:01 -

Bower birds build optical illusions, according to articles in Nature News 9 Sep 2010 and *New Scientist* 

15 Sep 2010, p16. Male Great Bowerbirds (

Chlamydera nuchalis

) build bowers consisting of a tunnel-like structure made of interlaced twigs called an avenue that leads into a court, or area where the male displays while females observe from the avenue. The male birds lay objects such as stones and shells on the floor of the court.

A group of biologists led by John Endler of Deakin University, Australia, noticed that the objects in the court were arranged according to size, smallest at the front, largest at the back, creating a visual effect called 'forced perspective' from the point of view of the females in the avenue. This could have the effect of making the court appear smaller and therefore the male in the court appear larger. The researchers observed the arrangement of objects in the bowers of 33 birds, and found in every case the objects had been laid in size order. To see if this was deliberate, the researchers rearranged the objects in 15 of the bowers. After three days 14 of the birds had restored the original size order and by two weeks all the bowers were back to the way the birds had originally arranged them.

The researchers admit they have no way of knowing whether the male birds are deliberately making themselves look larger. It may be that the females just prefer the pattern created by the arrangement. The team is following up their findings by taking videos of the birds to see if the birds that create the best visual illusion are most successful at winning mates.

**Editorial Comment**: The use of arches and placement of different sized objects is often used by garden designers to create visual effects. We may never know if the birds are deliberately creating an optical illusion, however, we do know now they certainly use plan and purpose and creative design in making their bowers, not only in the arrangement of court objects, but also in the design and building of the avenues. Who taught such garden architecture to the birds? (Ref. ornithology, Australia, vision)

Evidence News 15 Dec 2010