



Julia Rossi

"He has made everything beautiful in its time. Also, he has put eternity into man's heart, yet so that he cannot find out what God has done from the beginning to the end" (Ecclesiastes 3:11).

ONE OF Australia's most intriguing native birds, the satin bowerbird, is a balance of brains and beauty. This clever bird is renowned for its kleptomaniac tendencies coupled with an overt obsession with the colour blue. It speaks to the creativity—perhaps also the sense of humour—of our Creator God. Beautiful to observe, its ability to engineer structures used to attract a mate reflects both its own intelligence and that of its Designer.

Characteristics of bowerbirds

Bowerbirds are unique to Australia and New Guinea and encompass a group of twenty species. Eight of these occur only in Australia, ten are confined to the island of New Guinea, and two species occur in both places.¹ Bowerbirds belong to the family Ptilonorhynchidae within the order Passeriformes (perching birds). They favour

rainforest and wetter eucalypt forest margins in northern and eastern Australia. All bowerbirds are predominantly frugivorous (fruit-eating), although this is supplemented by a variety of insects and even leaves in the winter months.²

Bowerbirds are categorized as songbirds—birds of the suborder Passeri. Songbirds represent the largest and most widespread avian group, comprising nearly 60% of all bird species.³ Songbirds are noted for their musical vocalizations used for communication and territorial defence. Like all in their order, they have a characteristic arrangement of their toes called *anisodactyly*. That is, three pointing forward and one back (*hallux*), which facilitates perching.

Bowerbirds received their name from the distinctive bower or small hut that is built by



A close-up photograph of a satin bowerbird's head and neck. The bird has iridescent blue feathers and a large, prominent blue eye. It is holding a bright blue plastic ring in its beak. The background is a soft, out-of-focus brown.

THE SATIN BOWERBIRD

BEAUTY AND BRAINS

the male in the hope of wooing a mate. These bowers, which are located on the ground, are classified as either *avenues*, in which mating takes place, or *maypoles*, where a series of sticks are woven around a central pole.⁴ Not all bowerbirds build a bower; catbirds (*Ailuroedus* spp.) build no bower while the tooth-billed bowerbird (*Scenopoeetes dentiostriis*) clears a simple display court on the ground and decorates it with leaves.⁵

Constructing the bower

The satin bowerbird (*Ptilonorhynchus violaceus*) is an avenue builder. The male meticulously constructs a ground-level bower, oriented in a north-south direction. To accomplish this, he builds two parallel walls of interlacing sticks which open into a display court at one end. He paints the avenue's interior walls with a combination of saliva and vegetable matter.¹ He then spends significant time collecting and arraying his bower with blue items—the shinier the better. These can

include anything from flowers and parrot feathers to clothes pegs and bottle caps.

This display of wealth attracts the female, initiating the elaborate courtship dance and song of the male. The female observes the male from inside the avenue as he performs a show of exaggerated strutting and bowing, with wings outstretched. While carrying one of the bower decorations in his beak, he accompanies his dance with mechanical creaking and buzzing calls.

The female will lay her eggs in a simple nest some distance away while the male plays no role in rearing the young once hatched. He instead waits for more females to show interest in his unique architecture.

Power of the bower

Despite the time and effort injected into bower construction and maintenance, success in that enterprise is not guaranteed. Male bowerbirds have been observed stealing decorations from a rival's bower or destroying its structure completely.⁶

It is clear that the bower plays an essential role in a male's successful courtship. Researchers found that

the quality of the male's bower along with his dancing and vocal prowess determine his success in securing a mate.⁷ In satin bowerbirds, they found that the number of decorations, particularly snail shells and blue feathers, were excellent predictors of the male's mating success.⁸ Other good predictors were the degree of bower symmetry and the density of sticks used to build it.

The bowerbird's colourful and ordered decorative arrangements are attractive not only to other bowerbirds, but to humans as well. Our Creator made and appreciates beauty, so it is hardly surprising that we share a common sense of beauty with various other creatures.



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How did bower-building come about?

Evolutionists have proposed many theories for how this behaviour may have developed. However, these frequently contradict each other. The predominant thinking is the *runaway sexual selection hypothesis*, which proposes the rapid and unexpected evolution of specific physical traits in males particularly chosen by the female.⁹ Sexual selection is a special form of natural selection whereby preference is shown by one sex (often the females) for individuals of the other sex that exhibit certain traits.

Creationists have no objection to sexual selection in principle, any more than they object to natural selection (NS) in general—NS was discovered by creationists before Darwin. Accordingly, if bower-building behaviour developed in this way, the changes were rapid and based on traits already latent in the population. These are not the sorts of changes that could transform one kind of organism into something fundamentally different. But, in this case, the question remains whether this elaborate behaviour is a built-in design feature present from the beginning of the created kind (subsequently lost in certain lineages) or arose over time in one or more bowerbird lineages.

As an alternative to the runaway hypothesis, some researchers believe that the bower developed as a replacement for the male bowerbird's plumage ornamentation. This view supposes that an ostentatious bower removes the focus from the male, making him less obvious to predators than if the courtship decoration was displayed on his own feathers.¹⁰

Another hypothesis for the emergence of bower-building is that the bower itself provides protection for the females against unwanted mating.⁵ As mating

occurs in the bower, when a male tries to approach a female and she does not want to mate, she can easily escape before the male comes close.

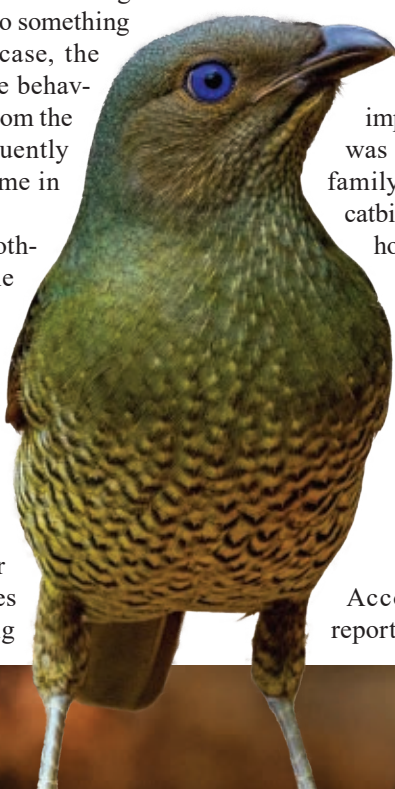
At most, however, these evolutionary proposals only show how bower-building is useful. They do not explain *how* it is supposed to have evolved by the neo-Darwinian mechanism—selection acting on random changes. Providing an advantage to the species does not mean that something arose by evolution, since a designed (created) feature would also be useful/advantageous, by definition.¹¹ Therefore, one would expect selection to be operating *at present* on a trait, regardless of whether it was designed or evolved. Its usefulness would work to maintain it in the population.

Bower-building is accepted as a heritable trait, but there are no known studies of the particular genes involved. What seems clear, though, is that the female's mate preferences drive the continued genetic expression of this unique characteristic.

Some researchers claim that bower-building behaviour evolved in parallel in the maypole- and avenue-building groups, which is highly improbable. Others say that bower-building behaviour was an ancestral trait of the entire Ptilonorhynchidae family but was then lost in the lineage leading to the catbird genus.^{8,10} If so, it still supplies no explanation for how the behaviour arose in the first place. It would be consistent with the idea that bower-building was a created feature, programmed into the first ptilonorhynchid population. As environmental selection over time led to adaptation and even new species forming, sexual selection would have been able to help fine-tune the expression of bower-building.

Fossil findings

According to evolutionary dating, the 'earliest' reported bowerbird fossils date from the late Oligocene,





populations to become isolated from each other, which means the varieties don't blend back with each other. Even flying birds don't usually like to fly over mountains. Genetic diversity plus geographic isolation is ideal for rapid variation and even speciation (called *allopatric*, from Greek for 'different fatherland'). Potential future genetic variations were largely, though not entirely, contained within this original created kind.¹⁴

The created kind

"[L]et birds fly above the earth across the expanse of the heavens" (Genesis 1:20). God created perhaps about 200 bird kinds on Day 5 of Creation Week.¹⁵

c. 23–26 million years (Ma) ago.³ These fossils, found in northwestern Queensland, were assigned to the family Ptilonorhynchidae because they exhibit the full combination of osteological (bone) features recognized in modern-day bowerbirds. The finds are said to suggest that the ecological requirements of the fossil bowerbirds were consistent with those of their present-day relatives.^{3,12} These requirements include the presence of moist forests, plentiful food supply and building materials, as well as low predator pressure. The fossils supply no evidence that bowerbirds gradually developed their distinctive habits. Nothing in their anatomy or in the environments they occupied suggests they were any less suited to building bowers than their kind today.³ Nor are they in any way substantially different from today's bowerbirds. In short, there is no scientific evidence to show that bowerbirds arose from non-bowerbirds.

Since the Flood, adaptive radiation of the original bird kinds has resulted in the wonderful array of birds we have today, including the brainy and beautiful satin bowerbird. ■

References and notes

1. Anon., Bowerbirds, Bush Heritage Australia, bushheritage.org.au, acc. 16 Jun 2025.
2. Anon., Satin bowerbird, BirdLife Australia, birdlife.org.au, 1 Nov 2017.
3. Ehrlich, P.R. *et al.*, Passerines and songbirds, stanford.edu, 1988.
4. Anon., Bowerbirds, encyclopedia.com, 8 Jun 2018.
5. Nguyen, J.M.T., The earliest record of bowerbirds (Passeriformes, Ptilonorhynchidae) from the Oligo-Miocene of northern Australia, *Alcheringa: An Australasian J. Palaeontology* **47**:475–483, 2023.
6. Wojcieszek, J.M. *et al.*, Theft of bower decorations among male Satin Bowerbirds (*Ptilonorhynchus violaceus*): Why are some decorations more popular than others? *Emu* **106**:175–180, 2006.
7. Borgia Lab, University of Maryland, Sexual selection in bowerbirds, science.umd.edu/biology/borgialab, acc. 16 Jun 2025.
8. Borgia, G., Sexual selection in bowerbirds. *Scientific American* **254**:92–101, 1986.
9. Kusmierski, R. *et al.*, Molecular information on bowerbird phylogeny and the evolution of exaggerated male characteristics, *J. Evol. Biol.* **6**(5):737–752, 1993.
10. Ericson, P.G.P. *et al.*, Parallel evolution of bower-building behavior in two groups of bowerbirds suggested by phylogenomics, *Systematic Biology* **69**(5):820–829, 2020.
11. Doyle, S., Does biological advantage imply biological origin? *J. Creation* **26**(1):10–12, 2012; creation.com/biological-advantage.
12. Moyle, R.G. *et al.*, Tectonic collision and uplift of Wallacea triggered the global songbird radiation, *Nature Communications* **7**:12709, 2016.
13. Lightner, J.K., Towards a creationary view of why speciation occurs, *J. Creation* **30**(1):70–75, 2016; creation.com/why-speciation-occurs.
14. Consider, e.g., loss of information by mutation, such as likely happened in the flightless cormorant species.
15. Lightner, J.K., An initial estimate of avian Ark kinds, *Answers Research J.* **6**:409–466, 2013.

Adaptive radiation

The arid region of Australia in which these fossils were found was a lush, forested environment during the post-Flood Ice Age. Rather than being millions of years old, these fossils are from the post-Flood period. Avians did not originate in Australia but instead underwent *adaptive radiation* from the Ark's location following the Flood.¹³ Adaptive radiation means that a population of creatures from one location splits through migration and rapidly diversifies to fill a variety of ecological niches.

An enormous amount of initial genetic potential to vary is needed to allow rapid diversification and even speciation. This original genetic information acts like a reservoir where future generations can access variable genetic options—some more suited to their environmental needs. This creates a type of genetic flexibility, allowing divergence and continued vigour as a group divides into multiple varieties which rapidly adapt to new conditions. Also, the Ararat mountains caused the small

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