

Diggin'the dancing king!

Take another good look at this beautiful king bird-of-paradise (*Cicinnurus regius*) specimen. Imagine him alive and in his prime; his fiery red feathers gleam in the sunlight, as he perches on a branch. You can find him in his tropical forest habitat in the lowlands of the island of New Guinea. He is small, measuring around 16cm without his tail wires. Now, imagine him ruffling his chest feathers and watch as he begins to dance. See how he throws his head back, perks up the tail wires and shakes his backside? Close your eyes and savor his performance for a moment longer.

However, exuberant you imagined his dance to be, I can assure you, the male king bird-of-paradise's dance is far more ostentatious and elaborate. He even has a breast shield formed of specialized feathers that he can fan out to the side. Such a colorful and showy display is a risk. The king bird-of-paradise trades his inconspicuousness for a chance at being the most attractive bird on the block. But why would he put himself in danger?



The evolutionary development of the "ornaments" of the king bird-of-paradise can be explained by the theory of sexual selection by Darwin (Wallace considered the theory unnecessary). This special mode of natural selection has two mechanisms:

- 1) Intersexual selection: individuals of one sex choose mates of the other sex.

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2) Intrasexual selection:

multiple individuals of the same sex compete with each other for access to mates of the other sex.

If the male king bird-of-paradise wants to pass his genes on to the next generation, he has to entice the picky ladies. His dance, however eccentric to us, is not just an antic: passing females check whether he is a male who can produce viable offspring; a dance can say a lot apparently... A female king, has no reason to gussy up. At 19 cm, she is larger; her olive-brown feathers and barred chest plumage give her a simple elegance. Only the red undertones on the wings hint at the fact that she and the male kings form a species. During a reproductive cycle, a male king bird-of-paradise will mate with multiple females, whereas females only mate with one male.

So, when mating season comes around, a male bird settles on a tree (maintaining a moderate distance from other males) and employs all the gifts given to him by his genetics. Female birds assess their prospective mates, choose the best candidate and the rest is history. Surviving offspring carry in them not only the genes that encode the characteristics of their extravagant father, but also those genes that inform which adornments a female prefers. If a male trait is preferred and male survivability remains high with it, these looks may also be favorable in future generations. Female preference drives changes in the ornaments and behaviors of the males.

Furthermore, from time to time, natural random mutations and gene recombinations can disturb how a species is changing over time. Unlike her contemporaries, one female may find attractiveness in shorter tail wires or uniquely dark feathers. If these traits are passed on, they too may shape the behaviors and physical attributes of the next generations.

By observing the king-of-bird of paradise through history, we can see evolution happening in front of our eyes! And however kookie the mating rituals of these birds are, who are we to judge them? They are the kings after all.

