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## Bowerbirds



### Build It {and they will come}

To win choosy females, male bowerbirds swagger, croon, and... decorate.

By Virginia Morell

Photograph by Tim Laman

Donald has the tallest tower in the forest. It isn't as grand as the other Donald's Trump Tower, but it is impressive nevertheless, built with the one tool at his disposal: his beak. Donald, a Macgregor's bowerbird, lives in the dark woods of the Adelbert Range of Papua New Guinea. Here, atop a mossy platform and around a young sapling, he has woven his spire of sticks and twigs. At its base he has stacked piles of nuts, beetles, and cream-colored fungi; from its lower branches he has strung garlands of caterpillar feces glistening with dew. Thus ornamented, his tower soars more than three feet above the forest floor, pointing skyward like a beacon. Donald perches on a nearby tree and aims his beak in the same direction. *Rat-a-tat-tat*, he calls into the air. *Rat-a-tat-tat*.

All of this—the elaborate tower, pretty offerings, and strident calls—have one purpose: to convince female Macgregor's bowerbirds that he, Donald, and not the guy down the way, is the best male in the neighborhood, the one the gals should choose as a mate. Is Donald's fancy tower up to the task?

"That's the ultimate test," says Brett Benz, the University of Kansas ornithologist who named Donald after the real estate magnate. "OK, so he has the tallest tower around. Let's see if he can pull down a Mary." In the local pidgin, "Mary" is a term for the fairer sex.

To woo females, the males of 17 of the 20 known species of bowerbirds build structures—often resembling an arbor, or bower, with an artfully decorated platform. Benz has measured all the Macgregor's males' bowers he's found in this forest, so he can speak with authority about Donald's achievement. Benz also knows a great deal about what Donald and other males do at their bowers, since he has video cameras set up in blinds recording the birds' every move, including their matings.

Scientists are drawn to bowerbirds because they clearly show the power of sexual selection, the evolutionary force that Charles Darwin defined to explain conspicuous male traits such as song, bright colors, and horns. In most animal species, Darwin noted, females do the choosing—basing their decision on the ornamentation and ostentation males use to attract them. Because most bowerbirds are polygynous, meaning one male is the mate of more than one female, and these males build decorative bowers, they make excellent species for testing this idea. Males don't help the female build a nest, incubate the eggs, or raise the chicks—all they give her are their genes. The females are thus very choosy about which male they pick.

People also study bowerbirds because, well, because they're surprisingly similar to people. Indeed, evolutionary biologist Jared Diamond has called them "the most intriguingly human of birds." These are birds that can build a hut that looks like a doll's house; they can arrange flowers, leaves, and mushrooms in such an artistic manner you'd be forgiven for thinking that Matisse was about to set up his easel; some can sing simultaneously both the male and female parts of another species' duet, and others easily imitate the raucous laugh of a kookaburra or the roar of a chain saw. Plus, they all dance. And about Donald's pile of beetles: He killed them solely for the purpose of decorating. Humans are the only other species known to use animals in this way.

Given all these talents, some researchers have attributed an aesthetic sense and the glimmerings of culture to bowerbirds, traits rarely suggested as found in any species aside from our own. (Some primates, such as chimpanzees and orangutans, are now regarded as having cultural traditions but not aesthetics.)

"The females are the judges," Benz reminds me as he opens the blind. I cross my fingers for Donald and slip inside. It is just after dawn and raining lightly, the kind of weather Macgregor's bowerbirds prefer in the mating season. From the blind, I see Donald on his singing perch. He isn't much to look at: a blue jay-size fellow with plain, olive-drab feathers and a single streak of orange on his head. For a while, he makes his machine-gun-like call. Then a tatty yellow leaf falls onto his tower's mossy lawn. Donald flies down at once to remove it. The Marys would like that, I think.

All the bower builders are avid maintenance men, picky about what they collect and fussy about their arrangements. In Australia, in front of his stick-and-grass avenue, a male satin bowerbird, whose eyes are a striking blue, displays blue parrot feathers, white snail shells, and yellow and purple blossoms. For sheer obsessive collecting, few bowerbirds match the great bowerbird of the open woodlands of northern Australia. These males amass thousands of white and gray pebbles, snail shells and sheep vertebrae, piles of green and purple glass, rifle shell casings, colorful plastic strips, wire, bottle caps, tinfoil, mirrors—in short, almost anything bright and shiny, even CDs. These things please the females, of course, but the birds also use them in competing with one another. "They fight, steal each other's ornaments, and shred each other's bowers," says Natalie Doerr, a researcher from the University of California, Santa Barbara, who is documenting the items males most covet and steal from each other's bowers. "They don't have antlers to fight with, so they fight over their stuff."

Macgregor's males stage similar turf wars, but no challengers appear at Donald's tower. Back on his perch, he speeds up his song—a signal that he's spotted a female. But so have other nearby males, which also begin singing lovelorn tunes—all of them vying for this one lady in the treetops. The rain pours down harder, Donald's call intensifies, and like any chick-lit fan, I just want to know: Whom will this Mary choose? I keep my fingers crossed for Donald.