Flashy exotic birds can actually glow in the dark



Found in the forests of Papua New Guinea, Indonesia, and Eastern Australia, birds of paradise are famous for flashy feathers and unusually shaped ornaments, which set the standard for haute couture among birds. Many use these feathers for flamboyant mating displays in which they shape-shift into otherworldly forms.

As if this didn’t attract enough attention, we’ve now learned that they also glow in the dark.

Biofluorescent organisms are everywhere, from mushrooms to fish to reptiles and amphibians, but few birds have been identified as having glowing feathers. This is why biologist Rene Martin of the University of Nebraska-Lincoln wanted to investigate. She and her team studied a treasure trove of specimens at the American Museum of Natural History, which have been collected since the 1800s, and found that 37 of the 45 known species of birds of paradise have feathers that fluoresce.

The glow factor of birds of paradise is apparently important for mating displays. Despite biofluorescence being especially prominent in males, attracting a mate might not be all it is useful for, as these birds might also use it to signal to each other in other ways and sometimes even for camouflage among the light and shadows.

“The current very limited number of studies reporting fluorescence in birds suggests this phenomenon has not been thoroughly investigated,” the researchers said in a study that was recently published in Royal Society Open Science.

Glow-up

How do they get that glow? Biofluorescence is a phenomenon that happens when shorter, high-energy wavelengths of light, meaning UV, violet, and blue, are absorbed by an organism. The energy then gets re-emitted at longer, lower-energy wavelengths—greens, yellows, oranges, and reds. The feathers of birds of paradise contain fluorophores, molecules that undergo biofluorescence. Specialized filters in the light-sensitive cells of their eyes make their visual system more sensitive to biofluorescence.

https://arstechnica.com/science/2025/02/flashy-exotic-birds-can-actually-glow-in-the-dark/