Avian 'Axe effect' attracts attention of females and males

July 19 2011

In a case of life imitating art, avian scents given off by male songbirds have the females (and males) flocking in.

A Michigan State University researcher revealed the process of how males draw attention to themselves through chemical communication in the current issue of *Behavioral Ecology*. Scents are used in all organisms for many purposes, such as finding, attracting and evaluating mates. But this is the first study of its kind that demonstrates that it is happening among songbirds, said Danielle Whittaker, managing director of MSU's BEACON Center for the Study of Evolution in Action.

Body-spray commercials feature young men dousing themselves with fragrance and – voila – hordes of beautiful women or even bands of angels descend upon them. Male birds deploy a similar tactic when they release their cologne – or preen oil – secreted from a gland at the base of their tail. It not only works to attract the attention of female birds, but it also has the unintended effect of attracting males as well.

"It's kind of like the 'Axe effect,' in that females were attracted to the scent and didn't seem to care where it came from, meaning their own population or a different one – even though birds in these populations look and behave differently," Whittaker said. "And I think the males were drawn in as an aggressive response to the scent of another male."

Traditionally, songbirds have been written off in terms of using their sense of smell because they have the smallest olfactory bulbs relative to

brain size among all birds. Recently, however, researchers have discovered that songbirds harbor a high number of olfactory receptors, and they've been able to prove that the birds are capable of using odors to help find their way.

So, Whittaker and her collaborators in Ellen Ketterson's lab at Indiana University weren't surprised to discover that the birds used scent in attracting mates. Some eyebrows were raised, though, when they learned how attractive the scent was across populations and sexes. Another interesting find was that when given a choice, the female birds preferred the odor of the smaller males, Whittaker said.

"However, in a previous study, when they got to see the actual birds, they tended to prefer larger males with larger plumage ornaments," she said. "Based on these results, I'm hoping to find out how and why small, unattractive males overcompensate by producing greater amounts of an attractive scent."

Provided by Michigan State University

Citation: Avian 'Axe effect' attracts attention of females and males (2011, July 19) retrieved 25 April 2024 from https://phys.org/news/2011-07-avian-axe-effect-attention-females.html