

Buzzed birds slur their songs, researchers find

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A pair of Zebra finches at Bird Kingdom, Niagara Falls, Ontario, Canada. Credit: Wikipedia

You know how that guy at the karaoke bar singing Journey's "Don't Stop Believin' " sounds a little off after he's had a few drinks? The same goes for buzzed birds, according to a team led by researchers from Oregon Health & Science University.



For a study published in *PLoS ONE*, scientists found that when they got some unsuspecting zebra finches drunk, the <u>birds</u> slurred their songs. The findings could help scientists study the neural processes underlying birdsong - and shed light on human speech.

While many scientists want to understand alcohol's effects on such a complex system as speech, it's difficult to perform the necessary studies on humans, which is why many researchers turn to birds.

Scientists who want to study the origins of human language often study zebra finches, in part because the two species seem to share a number of similarities. For example, they both have to learn how to make complex sequences of sound by learning from those around them. In the case of humans, that's usually a child's parents. In the case of <u>zebra finches</u>, it's usually the birds' fathers (only the males actually sing).

"There are remarkable analogies in how zebra finch song and human speech are learned and produced," the study authors pointed out.

For this paper, researchers gave white grape juice to one group of birds, and gave a mixture of the juice and ethanol to another group. They found a number of effects on different aspects of birdsong - particularly on amplitude and entropy. The birds weren't able to sing as loudly, and they couldn't keep their song's normal structure stable.

It did not affect all aspects of the finches' birdsong equally, however. The scientists think their research offers clues about which parts of the brain the alcohol is disrupting.

Oddly enough, the birds with the spiked drinks didn't seem to suffer the sorts of issues drunken humans face, such as being unable to walk in a straight line. The birds seemed to suffer no drooped wings, no closed eyes, no sudden sluggishness.



"We did not detect visible effects on the birds' general behaviors or health, as indicated by the normal appearance of feathers and the ability to perch, feed, maintain normal posture and fly inside the cage," the study authors wrote.

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