

Male Java sparrows may 'drum' to their songs

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A male and female Java sparrow performing a mutual courtship display. Credit: Soma et al. (from embargoed video)

Male Java sparrows may coordinate their bill-clicking sounds with the notes of their song, according to a study published May 20, 2015 in the open-access journal *PLOS ONE* by Masayo Soma and Chihiro Mori from Hokkaido University, Japan.

Birds may communicate using both vocalizations and movement, as for

instance occurs during courtship displays, but scientists' understanding of how they coordinate their movements with the sounds they produce is limited. To further investigate birds' communicative and musical abilities, the authors of this study looked into the vocalizations and bill sounds associated with singing in the Java sparrow, a [song](#) bird. Specifically, they investigated differences in bill-click frequency, coordination between song notes and bill clicks, and learnability of bill-click by analyzing archived recordings of undirected songs made by 30 domesticated male Java sparrows, some of who were related, and some who had never been exposed to clicking sounds.

The scientists observed the male Java sparrows coordinated their bill-click sounds with the notes of the song, similar to human percussionists. They also observed birds producing clicks frequently toward the beginning of songs and around specific song notes. Related birds showed similar bill-clicking patterns, but they also observed that [birds](#) never exposed to clicking sounds also clicked their bills. The authors suggest that there may be some learnability in the bill clicking that is learned, but that it may be an intrinsic behavior. The authors also posit that bill-clicking sounds may be integrated with vocal courtship signals in a songbird, but further research is needed to understand the role bird vocal and movement communication plays.

More information: Soma M, Mori C (2015) The Songbird as a Percussionist: Syntactic Rules for Non-Vocal Sound and Song Production in Java Sparrows. *PLoS ONE* 10(5): e0124876. [DOI: 10.1371/journal.pone.0124876](https://doi.org/10.1371/journal.pone.0124876)

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