



Western Tanager duets are something of a mystery, but reports suggest that the birds use them early in the breeding season. With more study we might clarify why and how members of this species duet. *Morgan County, Utah; Aug. 24, 2018. Photo by © Mia McPherson.*

duet codes. When I made an artificial song by combining two different male song types, the female still answered as if it were one of the original songs. In fact, she based her response on which whole song was most similar to the artificial song! That shows that females can generalize their duet codes to new song types. Males answer according to codes, too, but in Black-bellied Wrens, they adhere to codes much more loosely than females.

• **Lauryn:** But we still don't know why they do that!

• **David:** No, we don't, so here are three guesses. First, coded answering could help neighboring birds identify pairs by making duet structures more consistent. It is beneficial for pairs to be recognized because neighbors show less territorial aggression to known pairs. Second, duet codes could act as a password system that birds use to identify themselves to their partners. When the female sings, the male needs to know whether that song is coming from his mate or a female intruder. By answering according to a unique code, she lets him know that she's his mate, even if she's out of sight in dense vegetation. Finally, coded answering may help birds coordinate the timing of their duet contributions.

Tightly coordinated duets are more threatening territorial signals. It may be useful to know how long your partner's duet contribution is going to be, so that you can get ready to answer right away.

• **Lauryn:** I feel like I learned a lot from California Towhees. And my lessons weren't all the same as David's—not surprising since we studied different species. One of my biggest takeaways is this: Duets don't do just one thing. The California Towhee squeal sound can be used by pairs in different ways: to defend territories, to locate an individual, to help new pairs organize territorial behavior, and to help older pairs be good parents. Much like an English word with multiple meanings, duets can serve a range of functions in a range of contexts.