No teams of rivals or coalitions in territorial sparrows

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The claims made by Goodwin and Podos [1] are substantial, and novel.

From the title:

> Team of rivals: alliance formation in territorial songbirds is predicted by vocal signal structure

From the abstract:

> Our results provide the first evidence that animals like chipping sparrows rely on precise assessments of mating signal features, as well as relative comparisons of signal properties among multiple animals in communication networks, when deciding when and with whom to form temporary alliances against a backdrop of competition and rivalry.

According to Goodwin and Podos, a chipping sparrow male precisely assesses the relative prowess of another male based on the trill rate of his song, the faster the trill the higher quality the male. Based on trill rate, a male then decides with whom to form an alliance when defending a territory.

These claims are vigorously defended in Goodwin and Podos [2], but those claims are not true, for several reasons. I offer one reason here (Figure 1).

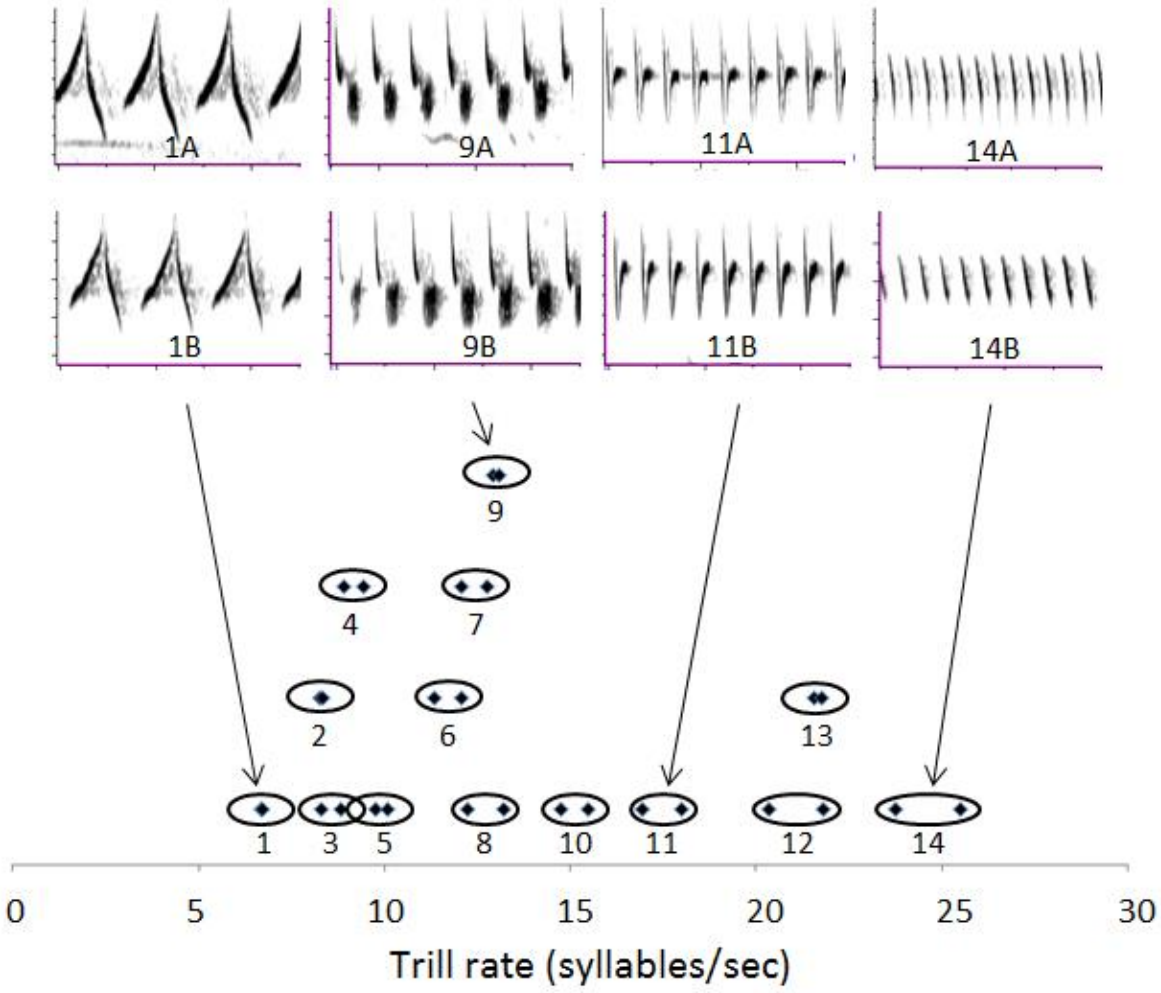

Figure 1. A few dozen different songs occur within a chipping sparrow population (four illustrated here: 1, 9, 11, 14), but neighboring males (A and B) often have nearly identical songs, the result of a young male on his first territory copying the song of a nearby adult singer [3,5]. All features of a male's song, including his trill rate as illustrated here (14 examples), are determined by that adult tutor, i.e., trill rate does not reflect a male's performance ability as required by Goodwin and Podos [1,2]. In the lower graph, each oval encircles the two data points (pairs 1 and 2 are identical) for trill rates from two neighboring males with the same song (data are distributed vertically for easier visibility; each data point is the median of three measurements for a given male).

Summary points

1) The trill rate of a male is determined by the song of his adult tutor [3,5], not by his relative prowess or performance ability [1,2,4].

2) There is no evidence for song learning in any songbird species or especially in chipping sparrows [3,5] that a male is limited in what naturally occurring trill rate he can learn.

3) The trill rates of ~7 syllables/second for birds 1A and 1B (Figure 1) and trill rates of ~25 for birds 14A and 14B were determined by where the males settled on their first territory and do not reflect a measure of male quality.

4) Goodwin and Podos [1,2] omit reference to how chipping sparrows actually acquire their songs [3,5] and instead falsely assume that a chipping sparrow acquires a song with a trill rate that honestly conveys his performance ability and his overall quality.

5) Goodwin and Podos [1,2] also omit reference to how male chipping sparrows routinely display competitively in lek-like arenas well off their own territories [6,7], and instead assume any such gathering is a cooperative alliance or coalition.

Conclusion: There are no precise assessments of mating signal features, no teams of rivals, no alliance formations, and no coalitions as reported in Goodwin and Podos [1,2].

REFERENCES

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