

SHORT NOTE

Observation of a male tui (*Prosthemadera novaeseelandiae*) attacking a neighbouring male blackbird (*Turdus merula*) following playback of tui song

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Songbirds sometimes respond to songs of heterospecifics (e.g., black wheatears, *Oenanthe leucura*; Møller 2010). It has also been observed that meadow pipits (*Anthus pratensis*) can discriminate between conspecifics and heterospecifics, such as tree pipits (*A. trivialis*), following both aural playback and visual stimuli (i.e., with the use of dummy models; Petrusková *et al.* 2008). However, when heterospecific playback immediately followed conspecific playback, response to heterospecific stimuli did not significantly differ from conspecific stimuli (Petrusková *et al.* 2008), suggesting limitations in experimental design that influenced the strength of behavioural response to heterospecifics.

Here we describe a territorial adult male tui (*Prosthemadera novaeseelandiae*) attacking, aggressively approaching, and chasing a neighbouring male blackbird (*Turdus merula*) following a brief playback of tui song. The interaction was observed at 1030 h, 26 Sept 2012, in a patch of native forest at Long Bay Regional Park, Auckland, New Zealand.

The male tui was observed and its song was recorded for ~20 minutes prior to the attack. During this period, the blackbird had been in clear sight of the tui, attending and guarding its nest ~5 m from the tui. No interaction or aggression directed towards the blackbird by the tui was observed during this time. The playback of the tui's own song was conducted for 5 seconds from the speakers of an eMachines E443 laptop computer. The attack of the blackbird commenced ~2 seconds after the initiation of playback and the blackbird was chased out of the area before the tui returned to its original perch in a puriri tree (*Vitex lucens*), 30 seconds later. The speaker was situated ~2 m from the blackbird and was played at a volume similar to a naturally-produced level. The sound was directed towards the tui from the general direction of the blackbird, making it likely that the tui perceived the sound as being produced by the blackbird. The male blackbird later returned to its nest and the tui was thereafter unresponsive to its presence. The reaction of the tui appeared similar to territorial behaviour observed in previous intraspecific confrontations in this species (*pers. obs.*).

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An attack on a bird of a different species by a tui that had been unresponsive towards it until the playback of tui song is notable because it highlights the importance of song in species recognition. During the previous 20 minutes without playback, the blackbird made intermittent and conspicuous visits to and from its nest area several times as well as perching near its nest in full view of the male tui. The blackbird's presence did not elicit any behavioural response from the tui during this period. However, when song was played, the tui immediately left its perch and attacked the blackbird, suggesting acoustic cues may override visual cues in species recognition. The song seemingly provided the tui with a signal that had greater territorial significance than visual cues alone. The blackbird *without* the song was not seen as a threat, presumably because the tui was able to distinguish this individual as not its own species, yet the blackbird, in combination with the tui song, was treated as a threat. The role of song in species recognition in birds was documented in the brown-headed cowbird (*Molothrus ater*), where it was proposed that male song conveyed not just information on the species, sex and breeding condition of the singer but also territorial and agonistic information (King & West 1977).

This observation may lead to more detailed experiments on the importance of audio and visual cues in species recognition, through testing the response of tui to tui song playback in conjunction with the presence of mounted specimens of different species of differing sizes.

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