

Unravelling the mystery of the Mt Mulligan ‘mystery call’: analysis of a reported record of a Buff-breasted Button-quail vocalisation suggests misidentification with Painted Button-quail

Patrick T.D. Webster, Nicholas P. Leseberg, Stephen A. Murphy and James E.M. Watson

Research and Recovery of Endangered Species Group, School of the Environment, University of Queensland,
St Lucia, Queensland 4072, Australia.
Email: p.webster@uq.edu.au

Received: 11 October 2022

Accepted: 30 January 2023

The Buff-breasted Button-quail *Turnix olivii* has not been definitively recorded since 1924. In 2017, Mathieson and Smith published details of a claimed sighting of the species near Mt Mulligan, north Queensland. These observers subsequently recorded and, in 2019, published details of a ‘mystery call’, a series of deep, booming vocalisations, which they suggested could be the first recordings of the vocalisations of a Buff-breasted Button-quail. In support of their claim, they presented three arguments: (1) the ‘mystery call’ is distinct from those of all other co-occurring species; (2) it fits the descriptions of the only known first-hand descriptions of the Buff-breasted Button-quail’s vocalisation, and (3) it was successfully used in call playback to attract a pair of Buff-breasted Button-quail. We examined the structure, frequency and temporally-based parameters of the ‘mystery call’ in comparison with descriptions of other button-quail vocalisations, namely those of Painted Button-quail *T. varius*, Red-backed button-quail *T. maculosus*, Little Button-quail *T. velox* and Chestnut-backed Button-quail *T. castanotus*. We found that the ‘mystery call’ falls within the variation documented for vocalisations of the Painted Button-quail. In addition, the ‘mystery call’ may be a poor match for the call of the Buff-breasted Button-quail based on interpretation of the only existing first-hand descriptions of that species’ vocalisation. Furthermore, we used the ‘mystery call’ extensively throughout north Queensland in call playback surveys and only the Painted Button-quail responded. Our evidence therefore suggests that the ‘mystery call’ is attributable to a Painted Button-quail and not a Buff-breasted Button-quail. Our findings raise doubts over the claimed sighting of a Buff-breasted Button-quail at Mt Mulligan.

Keywords: Buff-breasted Button-quail, Painted Button-quail, Turnix, threatened species, avian vocalisations