

Evidence of brood amalgamation in Sand Partridges *Ammoperdix heyi* in southern Israel

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On 31 May 2013, while we were hiking north of Eilat, near the city of Be'er Ora (29° 42' 35" N, 34° 58' 52" E), Israel, we observed a pair of adult Sand Partridges *Ammoperdix heyi* foraging in the bare soil of the slope of a small hill. First, we saw the adults followed by five chicks moving cautiously up the hill behind some short bushes. Both adults reached the crest of the hill and stood there for c10 s before the female went down the hill and out of sight, leaving the male behind on the crest of the hill. We observed similar-sized chicks to the first five commence crossing over the crest of the hill, following the direction where the female had gone. We counted a total of 53 chicks before the male followed the last chick. We waited for ten mins after the male had left and we did not see any other adult Sand Partridges crossing the hill or near the area.

Sand Partridges can be found at high densities in southern Israel, and in some areas, such as the Arabian peninsula, they can represent c10% of the bird biomass (Shirihai 1996, Wronski 2012). Most of the year Sand Partridges live in pairs or small groups (10–13 adults); however, after hatching families can gather in groups of a few tens strong (Madge & McGowan 2002). Post-hatching brood amalgamation in birds occurs when a female hatches her own young and in addition raises other females' chicks after hatching (Eadie *et al* 2011). This behaviour has been observed in some families of birds with precocial chicks *eg* Anatidae (ducks and allies), Odonthophoridae (New World quails) and Phasianidae (partridges, Old World quails, pheasants and allies), with the Sand Partridge being a phasianid (Madge & McGowan 2002, Faircloth *et al* 2005, Eadie *et al* 2011). To the best of our knowledge, this is the first reported evidence of brood amalgamation for this species. High population density and the gregarious behaviour of the Sand Partridge can partially explain our observation. These may also explain why post-hatching brood amalgamation could easily be overlooked in this species.

LITERATURE CITED

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