

Anthropogenic impacts on the Desert Larks *Ammomanes deserti* of Jebel Hafit, Abu Dhabi Emirate

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Jebel Hafit lies partially in easternmost Abu Dhabi Emirate, straddling the border with Oman. It is an isolated desert mountain situated just to the south of Al Ain city, is aligned in a north/south direction, is c17 km long by 4 km wide, reaches almost 1300 m asl and rises very steeply on all sides, its summit consisting of a series of deeply-incised crags of similar height. That part of Jebel Hafit in Abu Dhabi is subject to considerable human impact. A modern highway was constructed to the summit, ensuring, with its breath-taking views and summit car park and café, that the mountain became a popular recreational and tourist attraction. A Mercure hotel and a palace are on the western flank of the summit ridge whilst the extensively lawned Mubazzarah hot springs resort, 'Green Mubazzarah', is but one of several developments at its foot (Drew 2003, Hornby 2004, Kirkham 2004).

Aspinall (2004) stated that the Desert Lark *Ammomanes deserti* is a characteristic bird of arid areas of the Middle East and North Africa though regarded its name as a misnomer "...since the species occurs exclusively in mountains and upland areas, on scarps, rocky coastal outcrops and similar settings." Robinson & Chapman (1992) raised a false dichotomy: "The Desert Lark is a bird of the mountains as opposed to the deserts..." Rather, the species is a true desert bird (Cowan 1997) with a predilection for rocky slopes. Jebel Hafit has a large population of Desert Larks, considered to exceed 1000 pairs, occurring abundantly from its base to the summit ridges and is the commonest bird species on the mountain (Aspinall 2004). Pedersen (www.tommypedersen.com, *in litt*) considers that the Desert Larks on Jebel Hafit are of the subspecies *A. d. taimuri*, based on Dickinson (2003). Aspinall (2004) noted that there are three populations in the UAE, the birds on Jebel Hafit being intermediate in plumage colouration "between the pale sandy 'morph' found in the small population of western Abu Dhabi [Emirate] and the greyest birds of the higher hills of Ra's al-Khaimah."

I stayed on Jebel Hafit 26 July to 3 August 2007 and was impressed with the ease of observation of this species in the summit car park during periods of low human disturbance. Richardson & Aspinall (1998) noted the sparrow-like behaviour of Desert Larks in the car parks of Jebel Hafit and I concur. These larks appear to be feeding on insects and edible picnic detritus (Plates 1–4), which it should be straightforward to confirm using video. In their book on the birds of southern Arabia, Robinson & Chapman (1992) stated that in mountainous areas Desert Larks "seem to fill the gap left by the absence of House Sparrows [*Passer domesticus*]", though the latter species can be seen foraging in Jebel Hafit's summit car park (Aspinall 2004, pers obs). Indeed, House Sparrows only moved up Jebel Hafit once the habitat (car parks with discarded chips and bread crumbs *etc*) was created and the Desert Larks presumably learnt quickly about the availability of scraps and are thus opportunistic (Simon Aspinall *in litt*). Cramp (1988) stated the diet of the Desert Lark to be seeds and insects, though noted picking bits of meat from gazelle (Gazellinae) bone, eating moths (Lepidoptera) discarded by H Geyr von Schweppenburg and taking grain dropped on roads.

The presence of discarded food might enhance the survival of apparently handicapped individuals. An albino/leucistic Desert Lark (white plumage, yellow bill, dark eye) was observed and photographed by Hanne & Jens Eriksen on 16 December 2006 at Green

Mubazzarah (*in litt*, www.birdsoman.com, www.tommypedersen.com). Most of the time it foraged around a shaded picnic table and then flew up the mountain, out of sight. Dave Clark (*in litt*) observed presumably the same bird in spring and again mid-September 2007, at this base of mountain site. Huw Roberts photographed a Desert Lark with a considerably overgrown upper mandible at Green Mubazzarah on 16 November 2006 (www.tommypedersen.com). However, feral domestic cats (*Felis catus*) do occur on the mountain, including the summit car park (Drew & Drew 2004, pers obs).

A feature of the road leading up Jebel Hafit and its car parks is their overnight illumination by street and car park lighting. I was interested in whether the Desert Larks would make use of this illumination to forage at night (thus avoiding some of the daytime summer heat and perhaps feeding on attracted insects). My observations at nightfall and later in the evening were thwarted by the many car occupants making use of the cooler temperatures. On 1 August I reached the summit car park at 03.00 h but was dismayed to discover it was still 'party-time'. By 04.15 h, however, it was much quieter, there being mine and one other vehicle. The natural lightening of the sky in the east was evident at 05.10 h though haze prevented determination of the time of sunrise (calculated time of sunrise, using the Astronomical Applications Department, US Naval Observatory <http://aa.usno.navy.mil> website for that date and the local latitude/longitude coordinates, was 05.46 h). The artificial car park illumination switched off in stages from 05.35–05.45 h. I saw two foraging Desert Larks at 05.50 h and by 06.30 h there were eight to ten Desert Larks foraging in the car park. Simon Aspinall (*in litt*) has not noticed activity by this species after it is properly dark.

Dave Clark (*in litt*) found a Desert Lark nest on 9 June 2006, only a few hundred metres from a developed area at Green Mubazzarah. The nest was in a shallow hole in a near-vertical rock face (photo with attendant adult on the Pedersen website) and included a wall of stones presumably supplied by the adults. An unpublished photograph by Dave Clark, taken on the same day, shows an adult in the hole with apparent nest building material in its beak. Cramp (1988), in contrast, described the nest of this species as being on the ground,



Plates 1&2. Foraging Desert Larks *Ammomanes deserti* in the summit car park, Jebel Hafit, July/August 2007. © Elaine Cowan



Plates 3&4. A foraging Desert Lark *Ammomanes deserti* in the summit car park, Jebel Hafit, March 2008. © Gary Brown

usually in shelter of tussock or stone, with a rim or ramp of stones around the nest or on the exposed side. Jennings (1995) added that the pebble pavement is sometimes built up to form a wall supporting the nest whilst Bundy *et al* (1989) stated that the nest is usually placed in a hollow below a projecting piece of stone and does not always have a pebble ramp.

The Desert Larks of Jebel Hafit do have the possibility of access to water for drinking. After rainfall, temporary pools sometimes form and several near-permanent small pools are located in the lower reaches of a shaded wadi on the western flank of the mountain (Brown & Sakkir 2004). Irrigation high up on Jebel Hafit in the grounds of the Mercure hotel and at the base of the mountain at Green Mubazzarah and elsewhere, provides the possibility of a year round supply of water (Hornby 2004). Aspinall (2004) noted that Jebel Hafit's Desert Larks will visit waterholes when available and Robinson & Chapman (1992) described this species being attracted by a small artificial pool near the top of the mountain where "Up to 10 birds [Desert Larks] at a time were alighting at the pond, taking a drink and flying off in search of food or shade." Shade is easily found on the mountain (eg Brown & Sakkir 2004). On a visit to Jebel Hafit in a previous year, I was surprised to see this species foraging on a lawn at the Mercure hotel. In fact, Hanne & Jens Eriksen (*in litt*) informed me that the Desert Lark is common on the hotel's lawns, presumably having got used to people and traffic, and have photographed the species on a lawn there (www.birdsoman.com, www.tommypedersen.com).

Clearly, Jebel Hafit provides an excellent opportunity for a prolonged study of the Desert Lark and its interaction with man, as well as allowing more opportunistic observations.

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