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Cover: The critically endangered *Lilium polyphyllum* in watercolour and acrylics. © Aishwarya S Kumar.



Sanctuary in Al Wusta governorate previously held the largest population of Arabian Gazelles in Arabia with an estimate of 10,000 gazelles, but currently holds a small population (Mallon & Kingswood 2001; Al Hikmani et al. 2015; Al Jahdhami et al. 2017; Alsaïd et al. 2019). In the south of Oman in Dhofar governorate, the Arabian Gazelle once occurred all over the arid areas such as the northern foothills known as (the 'Nejd'), the gravel plains south of the Empty Quarter, and the southern coastal plain and plateau of the arid Jabal Samhan massif. It has never been reported in the monsoon habitats on Jabal Al Qamar and Jabal Al Qara. Today, only a small population exists in the Nejd and the southern coastal plains between Mirbat and Sadah (Al Hikmani et al. 2015). A more recent joint survey was conducted by the Office for Conservation of the Environment and the Ministry of Environment in 2019 on the gazelle population in Dhofar in the area running from Thumrait to Demeet. The survey area was approximately 1,547 km² and consisted of flat rolling plains, and wadis. Distance sampling and analyses were used to collect and process line transect data.

The population estimate for the area was calculated as 127 gazelles (). Ras As Shajar Nature Reserve and As Saleel Natural Park have the healthiest and largest wild populations of Arabian gazelle (Al Hikmani et al. 2015; Al Jahdhami et al. 2017; Ross et al. 2019). Threats such as habitat loss, habitat fragmentation, road kills and mainly poaching have caused population declines over the past few years. However, Oman remains the stronghold for Arabian Gazelle since the highest wild population resides in the country, due to conservation efforts (Mallon & Kingswood 2001; Strauss et al. 2009; Al Hikmani et al. 2015; Al Jahdhami et al. 2017).

Interestingly, reviews of the status and distribution of mammals in the Arabian Peninsula do not mention the presence of Arabian Gazelles on Masirah Island (Harrison & Bates 1964; Harrison 1968). Furthermore, the International Union for Conservation of Nature (IUCN) Red List also does not include Masirah island within the Arabian Gazelle distribution range. However, the BirdLife International Data Zone contains information on a bird survey conducted on Masirah Island in 1980

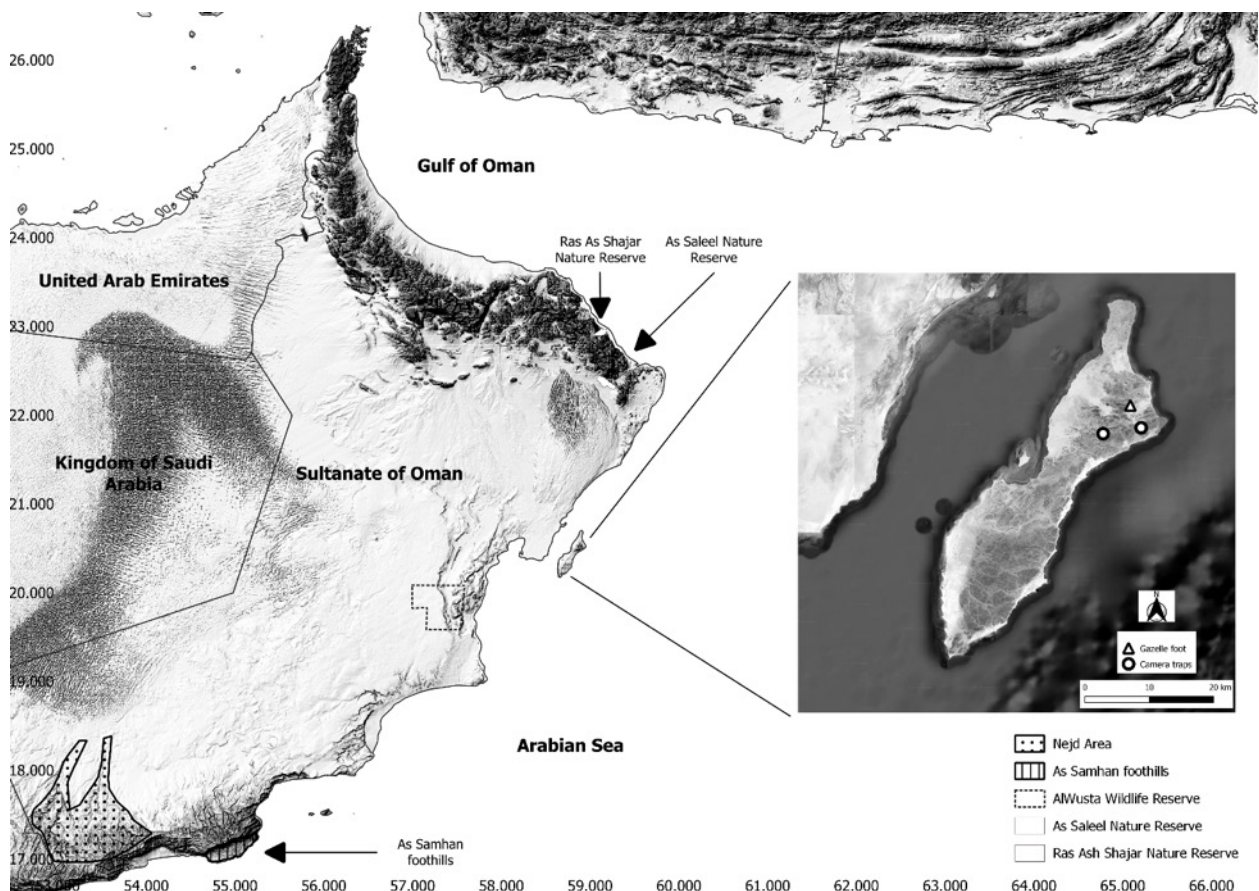


Image 1. The study area, Masirah Island, Oman, and the locations of the cameras that captured the Arabian Gazelle and location of the gazelle foot (right). Confirmed Arabian Gazelle distribution in Oman (left).



Image 2. Camera trap photographs of male Arabian Gazelle in Masirah Island, Oman: a— camera NM24 | b—camera NM25.

which reported a list of key bird species and non-bird species on the Island. They listed Cape Hare *Lepus capensis jefferyi* as being endemic to Masirah island and Mountain Gazelle *Gazella gazella* as present (BirdLife International 2023), although to date there has been no confirmed evidence (e.g., specimen, photograph).

The study area is Masirah Island (Figure 1) which lies in Ash Sharquiyah governorate and is Oman's largest island. It lies 15 km off the mainland in the Arabian Sea. The total area of the island is 649 km² and has a human population of 12,000 who are mostly concentrated in the north of the island where the Royal Air Force of Oman has a base (Abdul-Wahab et al. 2020). The island consists of a combination of mountains, cliffs and plains where the highest peak—Jabal Ash Shabbah lies north-east of the island at an altitude of ~210 m (Jansen 2023). The average annual rainfall is approximately 70 mm (Kwarteng et al. 2009).

A total of 29 camera traps (Spypoint & Bushnell) were placed by wildlife biologists and rangers of the Environment Authority on 4–18 December 2022. They were installed on rocks or boulders facing animal pathways and resting areas at a height of 0.25–0.75 m above the ground to survey large and medium mammals. The cameras used normal infrared sensors to trigger a three-photograph burst with a 5 s delay between captures. The camera trap sampling area was approximately 400 km² (Figure 1).

Here we describe the first confirmed photographic sighting of Arabian Gazelle on Masirah using camera traps. The gazelles were photographed on the north-eastern cliffs of the island. Both camera traps (NM24) and (NM25) photographed a male Arabian Gazelle on 7 January and 22 February 2023 respectively (Image 2). Moreover, on 6 December 2022 during the camera



Image 3. Photograph taken by the survey team on which appears to be an Arabian gazelle foot in the northeastern cliffs of Masirah Island.

trap survey conducted by the Environment Authority, remains of an Arabian Gazelle foot were found close to where the camera traps photographed both gazelles (Image 3). There were also recent sightings by locals in the area. Regardless of a fairly large camera trapping survey, only two individuals were captured by camera traps in an area covering only 22 km². This indicates that the population may be both small and isolated. It

is difficult to know the reason for the populations' small size, however this population on Masirah island could be genetically different from the rest of the Arabian Gazelle population. Currently, an ongoing camera trap survey is being conducted on the island and this will provide a better understanding of their current distribution and population size. Further research on their genetics is required and therefore a plan is currently being designed to collect fecal pellets, tissue, and bone from the remains of dead Arabian Gazelle for genetic analysis to determine any genetic differences with the remaining Arabian Gazelle population in Oman. Another future research for the Arabian Gazelle in Masirah island would be to have a long-term camera trap study in place to understand their population status and distribution. Setting global positioning system (GPS) collars on Arabian Gazelle would allow us to gain an understanding of their home range estimation, movement patterns, and resource selection.

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