Herpetological Survey of Muhayyamat Island (south), Western Islands, Abu Dhabi, UAE

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Introduction

A herpetological survey of the Muhayyamat island (south) (*photo 1*) was carried out on 20th April 2003. This survey was done in conjunction with a TERC and MERC survey. Due to certain circumstances only a detailed survey of the south island was possible during this trip.

The Muhayyamat island (south) is a coral outcrop which lies over 100 kms from Jebel Dana towards Qatar. The island is covered with sparse vegetation and there seems to be occasional human presence which was evident by falcon traps and remains of temporary structures left-over from occasional visitors.

Photo 1. Overall view of Muhayyamat Island showing sparse vegetation cover and rocky coastline.

Survey Method

The survey method involved walking from the north end of the island towards the southern tip along the western shore. Then we headed straight north through the centre of the island to the starting point. The transect covered points A-B-C-D-A as shown on the diagram on page 4. This was an initial survey of the island so the method employed was to actively search under the sparse vegetation and under the large amount of debris littering the shoreline such as polystyrene fishing floats, plywood sheets, planks, large pieces of rope, etc.(*photo 2*) Once a likely spot was located a few minutes were spent turning over the debris and disturbing the substrate beneath to uncover any specimens. The survey started at 08:00 hrs and ended at 09:45 hrs.

Photo 2. Debris on the island – in this picture a plank of wood that yielded the highest number of geckos and a lizard.

Results

A total of 30 geckos and 2 lizards were recorded in a total walking transect covering 4 km (see diagram page 4 from point A-B-C-D-A). Out of these sightings 4 geckos and 2 lizards were collected for further identification in the lab.

The geckos were found on point A, B and C. While the lizards were found on point C and D. In all cases both the gecko and lizards were found under debris and none were found under any natural vegetation or small rocks. The rocky shoreline also did not yield any specimens

showing that they favoured the washed up debris and in one case (point D) the lizard was under a plastic sheet and rock.

The 2 species were identified as follows:

1) Family: GEKKONIDAE - Arabian desert gecko (*Bunopus tuberculatus*)



2) Family: LACERTIDAE – Short-nosed lizard (*Mesalina brevirostris*)



Discussion

The herpetological survey on Muhayyamat island (south) yielded quite a high number of geckos and lizards for a short survey. The other interesting observation was that they were exclusively found under human-related debris as opposed to natural cover (e.g. vegetation and rocks). It seems this debris may be providing a favourable micro-habitat for these herps. Along the western shore they were limited to the cover provided by the debris washed up on the beaches which are more prevalent along the western shore as compared to the eastern shore of the island.

An additional survey was carried out on the Jebel Danna – Sila coastline on the mainland on 21st April 2003 between 15:00 hrs and 18:30 hrs. This involved driving along the beach and stopping at intervals to check under similar human-related debris washed up on the shore as seen on Muhayyamat island (south). This transect was approximately 10 kms long and during this survey, despite several intensive searches, no signs of any reptiles were observed.

It is obvious that Muhayyamat island (south) did have a high herp density as compared to the coastline. The possible reasons that immediately seem apparent are:

- Human disturbance
- Lack of introduced predators

There were no introduced predators observed on Muhayyamat island (south) e.g. cats and rats. It was not possible to conduct a detailed survey on Muhayyamat island (north) which also has some semi-permanent wooden shacks and is probably visited by occasional visitors and falcon hunters. What would be useful is to conduct a similar survey on Muhayyamat island (north) island and compare it with the southern island to see if there are any differences in occurrence and population densities.

Conclusion

It would be important to conduct rapid surveys on other islands because we may be witnessing a situation where undisturbed islands may reflect the rich herpetofauna of UAE as it may have existed before large-scale human interference. Surveys between islands populated by humans and those that are unpopulated may provide some useful data and information on the herpetofauna of the UAE.

Diagram 4. Location and transect points on Muhayyamat Island (south), Abu Dhabi, UAE