



SHORT COMMUNICATION

**OBSERVATIONS OF ROCK SEMAPHORE GECKO (*PRISTURUS RUPESTRIS*)
IN AL JABAL AL AKHDAR SCENIC RESERVE, SULTANATE OF OMAN:
A REVIEW**

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INTRODUCTION

The Sultanate of Oman is the third largest and probably the most diverse country in the Arabian Peninsula (5th National Report to CBD, 2014). It borders the United Arab Emirates in the northwest, Saudi Arabia in the West, and Yemen in the southwest. The coast is formed by the Arabian Sea in the south and east, and the Gulf of Oman in the northeast (<http://www.omansultanate.com/>; Khan, 2015).

Sultanate of Oman is located in the southeastern quarter of the Arabian Peninsula and covers a total land area of approximately 300,000 square kilometers. The land area is composed of varying topographic features: valleys and desert account for 82 percent of the land mass; mountain ranges, 15 percent; and the coastal plain, 3 percent. The Sultanate of Oman's vast landscapes and seascapes host one of the richest biodiversity in the region. Its unique fauna and flora at the north and central parts of the country are sharing species with that of Pakistan and Iran, while those at the southern parts are of African affinities. As presented, over four thousand species composed the entire biological diversity of Oman with a number of species in the protected categories (Khan, 2015).

The Sultanate of Oman has 1200 plant species (3 globally threatened), 323 species of Macro algae, 182 species of Phytoplankton, four species of Sea grasses, 399 species of Arthropods, 58 species of Molluscs, 253 species of Corals, 56 species of Echinoderms (4th NRCBD, 2010), 766 marine invertebrate species, and 988 species of fishes

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(13 globally threatened)(Reginald, 2014). There are 103 Reptiles species, five species of marine turtles, including four nesting species viz, Loggerhead Turtle (*Caretta caretta*), Green Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*) and Olive Ridley Turtle (*Lepidochelys olivacea*) (Salm and Salm, 1991), 518 species of birds (12 globally threatened)including 433 migratory species (Eriksen, 2009) and 93 species of mammals (20 globally threatened) (5th NRCBD, 2014) including six species of large mammals (Reginald, 2014).

The Sultanate of Oman has been one of the leading countries in the region in terms of showing interest in natural reserves and ensuring balanced ecosystems. The establishment of natural reserves and the protection of biodiversity through the promulgation of the necessary environmental laws and legislations mirror the royal interest in preserving biodiversity, maintaining natural resources and achieving sustainable development. Out of its belief in the importance of preserving nature, natural resources and biodiversity, the Sultanate, since 1970s, has declared many natural reserves. These natural reserves constitute a network that now covers most parts of the Oman. The protected areas provide the healthy milieu for the different species in the Sultanate. They also house a large number of rare wild animal and plant species. In 2013 Qurm Mangrove Reserve in Muscat was listed as a Wetland of International Importance (Ramsar Site) with a total area of 171 ha (National Report to Ramsar COP 12, 2015).

As part of the constant endeavor made by the Sultanate to maintain natural resources, the Sultanate will give high

Table 1. List of Protected areas of Sultanate of Oman (Data based on the WDPA October release 2014 United Nations List of Protected areas of Oman).

Designation Type/Name of Protected Area/Designation in English	Status	Year of Designation	Area (km ²)	IUCN category
National				
Area of particular interest				
Al-Sareen	Designated	1976	670.00	Not Reported
Al-Khawair	Designated	2006	4.20	Not Reported
KhawrSalalah	Designated	1986	0.0006	Not Reported
RasAlShajer	Designated	1985	93.00	Not Reported
Nature Reserve				
Al Diymaniyat Islands Nature Reserve	Designated	1996	203.00	IV
Al Jabal Al Akhdar Scenic Reserve	Designated	2011	122.00	V
Al Qurum Nature Reserve	Designated	1975	0.0009	IV
Al Saleel National Park	Designated	1997	220.00	II
Al Wusta Wetland Reserve	Designated	2014	3400.00	II
Al Wusta Wildlife Reserve	Designated	1994	2824.30	II
JabalQahwan Nature Reserve	Designated	2014	289.50	II
JabalSamhan Nature Reserve	Designated	1997	4500.00	II
Khawr Al Baleed	Designated	1997	1.00	IV
Khawr Al Dahareez	Designated	1997	0.0006	IV
Khawr Al Mughsayi	Designated	1997	0.0006	IV
Khawr Al QurumAlKabeer	Designated	1997	0.0001	IV
Khawr Al QurumAlSagheer	Designated	1997	0.0004	IV
KhawrAwqad	Designated	1997	0.0002	IV
KhawrRawri	Designated	1997	8.20	IV
KhawrSawli	Designated	1997	1.00	IV
KhawrTaqah	Designated	1997	1.07	IV
Ra`s Al Hadd	Designated	1996	120.00	IV

priority to sustainable investment in developing natural reserves. It will also utilize modern technologies to achieve this national objective.

The Sultanate has 18 Natural Reserves (Table 1) that stretch over 11692.505 km² or 4% of the total size of the country. These natural reserves constitute the integrated National Protected Areas system that ensures the preservation of the wild life in its natural environment. They also contribute to promoting the environmental tourism and creating job opportunities for the locals living nearby these areas.

In December 2014, the Ministry of Environment and Climate Affairs, Sultanate of Oman and IUCN Commission on Ecosystem Management, West Asia jointly organized International Training Workshop on Conservation and Management of Protected Areas, during the workshop participants visited Al Jabal Al Akhdar Scenic Reserve (Figs. 1-4) and observed the biodiversity of this beautiful Reserve, in this communication, we shared our some observations regarding Rock Semaphore gecko (*Pristurus rupestris*).

DISCUSSION

During the one day visit, we recorded 20 Rock Semaphore gecko (*Pristurus rupestris* Blanford, 1874) in Al Jabal Al Akhdar Scenic Reserve area. Semaphore gecko is the widely distributed species in the genus, being found in the Arabian Peninsula, northeast Africa, coastal Iran, and Baluchistan province of Pakistan in the east (Arnold, 1993, 2009; Sindaco and Jeremčenko, 2008; Gholamifard *et al.*, 2009). Rock Semaphore Gecko is the common lizard in Oman.

Rock Semaphore gecko (*Pristurus rupestris*) is one of the smallest species (Figs. 5-7), measuring usually less than 30 mm of snout-vent length. It is found from sea level up to 2330 m in the Jebel Akhdar, northern Oman (Badiane *et al.*, 2014). *Pristurus rupestris* is diurnal, heliothermic, and is a passive forager, spending long periods at feeding perches (Arnold, 1980, 1993).

This species occurs in the rocky formations within flat, hard, sandy desert and gravelly plains. It also occurs in open, dry woodland and shrub land. It can be found under



Fig. 1. A beautiful view of Habitat of Al Jabal Al Akhdar Scenic Reserve.



Fig. 2. Flora of Al Jabal Al Akhdar Scenic Reserve.

stones, on the walls of abandoned buildings, on beaches and among rocks. It is an egg-laying species.

The Rock Semaphore Gecko, *Pristurus* species signal to every alternative with body postures and tail movements, earning them the name 'semaphore geckos' (Hellyer and Aspinall, 2005; Feulner, 2004). The Semaphore lizard contains a comparatively planate, soft-skinned body. Its eyes are quite little compared to most alternative Geckos, and also the rounded pupils don't contract to slits in bright

light-weight (Hellyer and Aspinall, 2005; Halliday and Adler, 2002). The limbs of are quite long and slender, and also the slender tail is longer than the top and body combined (Boulenger, 1885), male have a crest of pointed scales on the highest of the tail (Boulenger, 1885; Hellyer and Aspinall, 2005). The body of the Semaphore lizard is usually greyish-brown or olive on top of with darker and lighter spots, and generally with little red spots on the perimeters. A dark streak passes through the attention, and there could also be a light-weight cherry-red band on



Fig. 3. Observations of biodiversity at Al Jabal Al Akhdar Scenic Reserve.



Fig. 4. Discussion at Al Jabal Al Akhdar Scenic Reserve.

the rear (Boulenger, 1885). The Semaphore lizard closely resembles the bar-tailed semaphore lizard (*Pristurus celerrimus*), however is smaller, with a shorter and fewer prominently banded tail (Hellyer and Aspinall, 2005; Feulner, 2004). Also called Blandford's semaphore lizard, Blanford's semaphore lizard, Dwarf rock lizard, Persia rock lizard. The Size of this lizard are total length 8.5 cm (Boulenger, 1885) tail length 5.3 cm (Boulenger, 1885).

Biology of Rock Semaphore Gecko

The Semaphore lizard hunts throughout the day, generally lying in assist a rocky perch to ambush passing prey, typically little invertebrates like ants (Feulner, 2004). comparatively very little data is accessible on the biology of this species, but like alternative Geckos, it's seemingly to put either one or 2 hard-shelled eggs (Halliday and Adler, 2002; Mousa Disi *et al.*, 2010).



Fig. 5. Rock Semaphore Gecko (*Pristurus rupestris*) at Al Jabal Al Akhdar Scenic Reserve.

A number of various visual signals are known within the Semaphore gecko, together with curling or flicking the tail, wagging it from aspect to aspect, or passing waves of movement on it. varied totally different body postures are used (Hellyer and Aspinall, 2005; Feulner, 2004) though the precise that means of those gestures is unclear (Hellyer and Aspinall, 2005), they will convey threat, submission, aggression, social control, or alternative social signals.

Habitat of Rock Semaphore Gecko

This common lizard is found in rocky areas at intervals sandy desert and gravel plains, further more as open, dry timberland and shrubland (Mousa Disi *et al.*, 2010). The Semaphore lizard conjointly happens in cities and might be found in gardens (Hellyer and Aspinall, 2005). it's generally found on rocks, beneath stones, or on walls IUCN Red List (January, 2011; Hellyer and Aspinall, 2005; Feulner, 2004), and has been recorded from water



Fig. 6. Rock Semaphore Gecko (*Pristurus rupestris*) at Al Jabal Al Akhdar Scenic Reserve.

level up to elevations of around 3,000 m (Mousa Disi *et al.*, 2010).

The IUCN Status

The Rock Semaphore gecko(lizard) is listed as Least Concern (LC) on the IUCN Red List (Mousa Disi *et al.*, 2010).

Threats of Rock semaphore gecko(lizard)

The Rock semaphore lizard contains a wide distribution and an outsized, stable population, and isn't presently thought-about in danger of extinction (Mousa Disi *et al.*, 2010). A number of the areas during which this species happens are struggling from overgrazing, urbanization, the over-extraction of water resources, and environs degradation (Tourenq *et al.*, 2009; WWF - Wadi Wurayah, Fujairah, 2011), however the Rock semaphore

lizard isn't identified to face any major threats at the present (Mousa Disi *et al.*, 2010).

RECOMMENDATION

A systematic scientific work recommends to determine the current population distribution, status and major threats to the Rock semaphore gecko and preparation conservation and management plan.

ACKNOWLEDGEMENT

The authors and IUCN Commission on Ecosystem Management, West Asia would like to acknowledge the Minister of Ministry of Environment and Climate affairs, Sultanate of Oman for providing hospitality and arrangement of Al Jabal Al Akhdar Scenic Reserve visit.



Fig. 7. Rock Semaphore Gecko (*Pristurus rupestris*) at Al Jabal Al Akhdar Scenic Reserve.

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Received: Dec 29, 2015; Revised: Feb 17, 2016;
Accepted: May 10, 2016