

Animal Diversity of Shukacharya Hills in Sangli District, Maharashtra

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ABSTRACT

Forests are renewable resources, which have a major role in enhancing the quality of surrounding environment. The scenic effect of forest changes with seasons like patterns of kaleidoscope. Shukacharya hills is one of the pilgrim localities in Sangli district of Maharashtra located on the boundaries of Khanapur-Atpadi Tahsils. This area shows southern-tropical thorn forest. It shows plains at top, and hills and valleys at downside. The area is covered by different kinds of plants where trees are dominated. A scientific study of this locality was carried out during last 3 years by regular visits. The study reveals that this area is rich in different kinds of animals like reptiles, birds and mammals. Some animals were common in occurrence while others were noticed only when keen field observations were made. During field visits 7 reptiles, 48 birds and 9 mammals were recorded. The information on some carnivores, based on folk data, was also collected during field visits. The presence of animal diversity indicated that this area will become a tourist place in future.

INTRODUCTION

Forest is stand of trees growing close together with plants and many kinds of other organisms. The different vegetation forms like herbs, shrubs and trees provide significant parameters for animal diversity. This tropical area provides natural and varied ecological habitat for animals. The body form of animal is correlated with habitat, hence there is great diversity of reptiles, birds and mammal species in this area. The area provides nesting beds as tall trees for birds, and thick grasslands and swampy areas for residence of mammals.

Shukacharya hills is one of the most important ecological localities in southern Maharashtra, hence it is necessary to protect and maintain the diversity of the area. A scientific study was carried out during last three years with reference to animal diversity. The present report enlists, identifies and quantifies the different species of reptiles, aves and mammals. During identification, care was taken to avoid any disturbance to species.

MATERIALS AND METHODS

Shukacharya hills was visited regularly from May 2005 to May 2008. The observations on reptiles, aves and mammals were recorded. The birds were identified as per standard reference books (Salim Ali & Ripley 1972, 1983, Salim Ali 1979, Ripley 1982, Gole 1988). The reptiles were identified by Deoras (1969), and mammals by Prater (1971) and Sheshadri (1994). The data on wild carnivore animals were collected from local inhabitants. It is based on folk information.

STUDY AREA

Shukracharya hills are located at the frontiers of Khanapur-Atpadi Tahsils of Sangli district as well as Sangola Tahsil of Sholapur district. It is located 47 K/16 on toposheet map at 17°13'N latitude and 74°45'E longitude in southern Maharashtra. Shukracharya hills show an area of about 500 acres having scrubby thorn-tropical forest. This locality has also been recognized as a sacred grove. The area has two valleys with top hill point of Bhavani Mandir. Shukracharya is the highest peak of Sangli district. There are two small forts near the hill namely Bhopalgad (Banurgad) and Kuldurg.

The hills have scrubby vegetation. The soil type is black-red laterite. The hills has also a continuous natural water resource of good drinking water quality. The area receives rain during June to September ranging from 300-400 mm. The temperature ranges from 20°C-45°C. Due to good tree cover, even in summer coolness is noticed at downward side of hills.

Ecological conditions favour growth of many herbs, shrubs and trees, which are significant for biological diversity. The plant diversity is helpful for animals of different kind. During rainy season the entire area shows green cover due to plant growth. The best season to visit the hills is from July to September. The area is visited by pilgrims on every Monday in the month of August.

RESULTS AND DISCUSSION

India's rich vegetation wealth and diversity is undoubtedly due to the immense variety of climatic and altitudinal variations coupled with varied ecological habitats. The Deccan Peninsular biogeography zone of India is the most extensive but relatively homogenous zone covering about 43% of the total Indian landmass. In the Deccan Peninsular region of Maharashtra, Shukracharya hills are located in Sangli district, which is an important locality for ecological and biological studies.

A systemic and scientific study of this vital 'sacred grooves' is carried out for first time in relation to animal diversity. Shukracharya hills show typical animal diversity of varied and unique nature. During present study, different reptiles, birds and mammal species were recorded as described below.

Reptiles: Reptiles are the cold-blooded animals and highly developed creatures. During the present survey many reptiles were observed in the area at various places like grasslands, valleys and plains (Table 1).

Aves: Birds might have become highest form of life upon the earth. Birds are warm blooded vertebrates able to survive in greater climatic extremes than the other animals. The migrant birds commonly fly at up to 7000 feet to 21,000 feet.

Table 1: Reptiles observed on the Shukacharya hills.

S.N.	Common Name	Scientific Name	Order	Family
1	Common Garden Lizard	<i>Calotes versicolor</i> Daudin	Squamata (Lepidosuaria)	Agamidae
2	Indian Chameleon	<i>Chamaeleon zeylanicus</i> Laurenti	Squamata (Lepidosuaria)	Chamaeleontidae
3	Common Indian Monitor	<i>Varanus bengalensis</i> Schneider	Squamata (Lepidosuaria)	Varanidae
4	Indian Rat Snake	<i>Ptyas mucosus</i> Lin.	Serpentes	Columbridae
5	Common Indian Krait	<i>Bungarus caeruleus</i> Schneider	Serpentes	Elapidae
6	Spectacled Cobra	<i>Naja naja</i> Lin.	Serpentes	Elapidae
7	Russell's Viper	<i>Daboia russelli</i> Shaw and Nodder	Serpentes	Viperidae

Table 2: Bird species observed on the Shukacharya hills.

S.N.	Common Name	Scientific Name	Order	Family
1	Indian Pond Heron	<i>Ardeola grayii</i> Skyes	Ciconiforms	Ardeidae
2	Cattle Egret	<i>Bubulcus ibis</i> Lin.	Ciconiforms	Ardeidae
3	Little Egret	<i>Egretta garzetta</i> Lin.	Ciconiforms	Ardeidae
4	Black Shouldered Kite	<i>Elanus caeruleus</i> Desfontaines	Falconiformes	Accipitridae
5	Black Kite	<i>Milvus migrans</i> Boddaert	Falconiformes	Accipitridae
6	Pallid Harrier	<i>Circus macrourus</i> S.G. Gmelin	Falconiformes	Accipitridae
7	Indina Peafowl	<i>Pavo cristatus</i> Lin.	Galliforms	Phasianidae
8	Black winged stilt	<i>Himantopus himantopus</i> Lin.	Charadriiforms	Recurvirostridae
9	Chestnut-Bellied Sandgrouse	<i>Pterocles exustus</i> Temminck	Columbiforms	Pteroclididae
10	Rock Pigeon	<i>Columba livia</i> Gmelin	Columbiforms	Columbidae
11	Laughing Dove	<i>Stereopelia senegalensis</i> Lin.	Columbiforms	Columbidae
12	Asian Koel	<i>Eudynamis scolopacea</i> Lin.	Cuculiforms	Cuculidae
13	Greater Coucal	<i>Centropus sinensis</i> Stephens	Cuculiforms	Cuculidae
14	Barn Owl	<i>Tyto alba</i> Scopoli	Strigiforms	Strigidae
15	Eurasian Eagle Owl	<i>Bubo bubo</i> Lin.	Strigiforms	Strigidae
16	Spotted Owllet	<i>Athene brama</i> Temminck	Strigiforms	Strigidae
17	Common Indian Nightjar	<i>Caprimulgus asiaticus</i> Latham	Caprimulgiforms	Caprimulgidae
18	House Swift	<i>Apus affinis</i> J.E.Gray	Apodiforms	Apodidae
19	White-Throated Kingfisher	<i>Halcyon smyrnensis</i> Lin.	Coraciiforms	Alcedinidae
20	Common Hoopoe	<i>Upupa epops</i> Lin.	Coraciiforms	Coraciidae
21	Yellow-crowned Woodpecker	<i>Dendrocopos mahrattensis</i> Latham	Piciforms	Picidae
22	Baybacked Shrike	<i>Lanius vitatus</i> Valenciennes	Passeriforms	Laniidae
23	Long-Tailed Shrike	<i>Lanius schach</i> Lin.	Passeriforms	Laniidae
24	Chestnut-Tailed Starling	<i>Sturnus malbaricus</i> Gmelin	Passeriforms	Sturnidae
25	Brahminy Starling	<i>Sturnus pagodarum</i> Gmelin	Passeriforms	Sturnidae
26	Common Myna	<i>Acridotheres tristis</i> Lin.	Passeriforms	Sturnidae
27	House Crow	<i>Corvus splendens</i> Vieillot	Passeriforms	Corvidae
28	Large-Billed Crow	<i>Corvus macrorhynchos</i> wagler	Passeriforms	Corvidae
29	Small Minivet	<i>Pericrocotus cinnamomeus</i> Lin.	Passeriforms	Campephagidae
30	Common Iora	<i>Aegithina tiphia</i> Lin.	Passeriforms	Irenidae
31	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i> Lin.	Passeriforms	Pycnonotidae
32	Red-vented Bulbul	<i>Pycnonotus cafer</i> Lin.	Passeriforms	Pycnonotidae
33	Yellow-eyed Babbler	<i>Chrysomma sinense</i> Gmelin	Passeriforms	Muscicapidae
34	Common Babbler	<i>Turdoides caudatus</i> Dumont	Passeriforms	Muscicapidae
35	Jungle Babbler	<i>Turdoides striatus</i> Dumont	Passeriforms	Muscicapidae
36	Asian paradise-Flycatcher	<i>Terpsiphone paradisi</i> Lin.	Passeriforms	Muscicapidae
37	Ashy Prinia	<i>Prinia socialis</i> Skyes	Passeriforms	Muscicapidae
38	Common Tailorbird	<i>Orthotomus sutorius</i> Pennant	Passeriforms	Muscicapidae
39	Oriental Magpie Robin	<i>Copsychus saularis</i> Lin.	Passeriforms	Muscicapidae
40	Indina Robin	<i>Saxicoloides fulicata</i> Lin.	Passeriforms	Muscicapidae
41	Blue Rock Thrush	<i>Monticola solitarius</i> Lin.	Passeriforms	Muscicapidae
42	Great Tit	<i>Parus major</i> Lin.	Passeriforms	Paridae
43	Paddy Field Pipit	<i>Anthus novaeseelandiae</i> Gmelin	Passeriforms	Motacillidae
44	House Sparrow	<i>Passer domesticus</i> Lin.	Passeriforms	Ploceidae
45	Baya	<i>Ploceus philippinus</i> Lin.	Passeriforms	Ploceidae
46	Red Avadavat	<i>Estrilda amandava</i> Lin.	Passeriforms	Ploceidae
47	White-Rumped Munia	<i>Lonchura striata</i> Lin.	Passeriforms	Ploceidae
48	Scally-Breasted Munia	<i>Lonchura punctulata</i> Lin.	Passeriforms	Ploceidae

Table 3: Mammal species observed on the Shukacharya hills.

S.N.	Common Name	Scientific Name	Order	Family
1	Rhesus Monkey	<i>Macaca mulatta</i> Ziammerman	Primates	Cercopithecidae
2	Wolf	<i>Cans lupus</i> Sykes	Carnivora	Canidae
3	Jackal	<i>Canis aureus</i> Lin.	Carnivora	Canidae
4	Indian Fox	<i>Vulpes bengalensis</i> Shaw	Carnivora	Canidae
5	Common Mongoose	<i>Herpestes edwardsi</i> Geoffray	Carnivora	Viverridae
6	Striped Hyaena	<i>Hyaena hyaena</i> Lin.	Carnivora	Hyaenidae
7	Jungle Cat	<i>Felis chaus</i> Guldenstaedt	Carnivora	Felidae
8	Indian Blacknaped Hare	<i>Lepus nigricollis</i> Cuvier	Lagomorpha	Leporidae
9	Three Striped Palm Squirrel	<i>Funambulus palmarum</i> Lin.	Rodentia	Scuriidae

The Oriental region includes Indo-Malayan, Indo-Chinese and sub-tropical forests. Larger divisions of Indian sub-region are arid and near desert areas where the species of Ethiopian connections are found. Shukacharya hills is an important locality for the birds because of natural set up. The area shows plains, valleys and hilly regions with different plant communities. They include naturally occurring herbs, shrubs and trees. Many birds are reported associated with different plants for their nesting as well as for residence. During the present study 48 different species of birds from Shukacharya hills were recorded (Table 2).

Mammals: Mammals are the highest warm blooded animals in the scale and evolution. During present survey several mammals were observed in the area at various places (Table 3).

The study reveals that Shukacharya hills is a good natural habitat for several animals, which recorded seven reptiles, 48 birds and nine mammal species. Hence, necessary measures should be taken to maintain this important ecological area.

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