

## Chapter-4

### Bhitarkanika- faunal diversity

Bhitarkanika presents a variety of habitats, microhabitat and climatic conditions. Therefore, the faunal component and faunal diversity is also extremely high in comparison to other mangrove forest areas of Orissa. The habitat diversity includes agricultural fields, rivers, fresh water ponds, mangrove vegetation, tidal rivers, creek and creeklets, estuaries, mud flats, fresh water and brackish water wetlands, riverine islands, off-shore islands, muddy and sandy coastline etc. which provide home for a varied and large number of animal species. Mangroves serve as roosting, nesting, feeding, breeding and nursery ground of tidal rivers in tidal forests and in the estuarine food web. Mangrove plants are the source of rich food for the organisms of the mangrove ecosystem. The animals that are associated with the mangroves cover a wide range of vertebrate and other invertebrates including protozoans and zoo planktons. The vertebrate fauna includes a wide variety of fishes, amphibians, birds, reptiles and mammals including aquatic mammals. Because food and shelter is not a limiting factor in Bhitarkanika the number of animals of a species are also very rich. Bhitarkanika Sanctuary is home for the largest number of salt water crocodiles in the country. "Bagagahana" the heronry provides nesting and living space to about 80,000 resident and local migratory birds. Also the numerous wetlands scattered throughout the Sanctuary serve as feeding and wintering grounds for more than 50,000 migratory birds during winter and early summer months. The Sanctuary is the World's largest nesting ground of the endangered Olive Ridley sea turtle (*Lepidochelys Olivacea*).



Spotted Deer grazing on the meadows



Spotted deer looking on

Mangrove ecosystem supports a range of interconnected food chains which directly sustain the fisheries to exist. Algae and detritus sustain shrimps and prawns which provide a food source for species such as Bhekta (*Lates Spp.*), Cat fishes, etc. Fish and prawns spend most of their adult life at sea and return to the mangrove areas where they spend their early life. Some of the commercially important fishes are Illisha (*Hilsa illisha*), Khainga (*Mullet Spp.*), Bhekta (*Lates calcifer*), Kantia (*Mustus qulio*), Kokill or Anchovy (*Coilia dussumier*) etc. Some fish species that are of interest as aquarium fishes include Rice fish (*Oryzias melastigma*), Panchx (*Aplocheilus ponchax*), Puffer fish (*Chelonodon fluviatilis*), Terapon jurbua, Acer fish (*Toxotes Jaculator*), Climbing Perch (*Anabas testudineus*), Dwarf gourami (*Colisa lalia*), Species Eleotrid (*Sleeper*), Glass fish (*Chanda Spp.*), Pipe fishes, Mud skippers (*Periophthalmus* and *Bolephthalmus Spp.*) etc. The mud skippers are able to survive short periods of aerial exposure,



*Basking crocodile*



*Water monitor lizard*

skip around on the water and mud and build chimney like burrows in muddy banks of river and creeks through out the Sanctuary.

In the whole of South-East Asia as well as in the Northern Indian Ocean countries Bhitarkanika is famous for its reptilian fauna. It is an unique reptilian refuge. The reptilian fauna is largely dominated by Indo-Chinese elements. The longest estuarine crocodile of the world measuring more than seven meters long are located here.

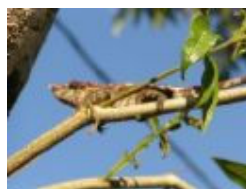
Partial albino specimens (Sankhua variety as they are locally known) are also found. The Sanctuary is the home for all the three species of Indian monitor lizards including giant specimens of India's largest lizard, the water monitor lizard *Varanus salvator*, Python *Python Molurus*.

### Faunal associations with principal habitats of mangroves

Principal habitat	Key faunal species
Tree canopy	Bats, birds, insects, mites and spiders
Higher part	<i>Littorina scabra</i> , Lamprid beetles,
Lower part & roots	<i>Littorina scabra</i> , <i>Onchidium</i> , <i>Sesarma</i> ,
Mud flats	<i>Terebralia palustris</i> , <i>Cerithedia alata</i> , fiddler crabs ( <i>Uca</i> spp.)
Coralline/rocky flat	<i>Cerithium corallinum</i> , <i>Planaxus sulcatus</i> , <i>Grapsus strigosus</i> , <i>Thalamita</i> spp.
Coast mud of mangrove edge	Polychaetes, Bivalves ( <i>Batissa</i> and <i>Gelonia</i> spp.)
Seaward mangroves	Sessile fauna ( <i>Modiolus striatulus</i> , <i>Isognomon ephippium</i> , oysters, barnacles, and serpulid worms
Dead trees and stumps	Marine wood borers, sessile fauna
Edge of streams and rivulets	<i>Scylla serrata</i> , <i>Periopthalmus</i> spp., <i>Boleophthalmus boddarti</i> , <i>Cerubrus rhyncopus</i>
Creeks and bays	Shrimps, prawns and fishes

The following is a list of species variety of important faunal families which use Bhitarkanika as their habitat.

### REPTILES



#### Lizards

Sl.No.	Common Name	Zoological Name
1.	Indian Garden Lizard	<i>Calotes versicolor</i>
2.	Fan-Throated Lizard	<i>Sitana ponticeriana</i>
3.	Indian Chameleon	<i>Chamaeleon zeylanicus</i>
4.	Spotted Indian House Gecko	<i>Hemidactylus brooki</i>
5.	Common Indian House Gecko	<i>Hemidactylus flaviviridis</i>
6.	Snake-Skink	<i>Riopa punctata</i>
7.	Indian Monitor Lizard	<i>Varanus bengalensis</i>
8.	Yellow Monitor Lizard	<i>Varanus flavescens</i>
9.	Water Monitor Lizard	<i>Varanus salvator</i>

## Snakes



Sl.No.	Common Name	Zoological Name
1.	<u>Indian Python</u>	<i>Python molurus</i>
2.	Common Green whip snake	<i>Ahaetulla nasutus</i>
3.	Golden tree snake	<i>Chrysopelea ornate</i>
4.	Indian rat snake	<i>Ptyas mucosus</i>
5.	Common Cat snake	<i>Boiga trigonata</i>
6.	Dog faced Water Snake	<i>Cerberus rhynchops</i>
7.	Buffstriped Keelback	<i>Amphiesma stolata</i>
8.	Common Worm snake	<i>Typhlina bramina</i>
9.	Common Indian Krait	<i>Bungarus caeruleus</i>
10.	Banded Krait	<i>Bungarus fasciatus</i>
11.	<u>King Cobra</u>	<i>Ohiophagus hannah</i>
12.	Hooknosed Sea Snake	<i>Enhydrina schistosa</i>
13.	Bamboo pit Viper	<i>Trimeresurus gramineus</i>
14.	Russell's Viper	<i>Vipera russelli</i>

## MAMMALS



Sl.No.	Common Name	Zoological Name
1.	Spotted Deer	<i>Axis axis</i>
2.	Sambar	<i>Cervus unicolor</i>
3.	Indian Wild Boar	<i>Sus scrofa</i>
4.	Asiatic jackal	<i>Canis aureus</i>
5.	Fishing Cat	<i>Felis viverrina</i>
6.	The Jungle Cat	<i>Felis</i>
7.	The Leopard Cat	<i>Felis bengalensis</i>
8.	The Stripped Hyaena	<i>Hyaena hyaena</i>
9.	Common Mongoose	<i>Herpestes Edwardsi</i>
10.	Smooth Coated Indian Otter	<i>Lutra perspicillata</i>
11.	The Small Indian Civet	<i>Viverricula indica</i>
12.	Common Palm Civet	<i>Paradoxurus hermaphroditus</i>
13.	House Shrew	<i>Suncus</i>

14.	Rhesus Macaque	<i>Macaca mulatta mulatta</i>
15.	Three striped palm squirrel	<i>Funambulus palmarum palmarum</i>
16.	The Indian Percupine	<i>Hystix indica</i>
17.	Indian Field Mouse	<i>Mus booduga</i>
18.	Common White bellied House Rat	<i>Rattus rattus arboreus</i>
19.	The Bandicoot Rat	<i>Bandicota indica</i>
20.	Shortnosed Fruit Bat	<i>Cynopterus sphinx sphinx</i>
21.	Indian Pipistrelle	<i>Pipistrellus cormandra cormandra</i>
22.	Chemenia	<i>Taphozous melanopogon melanopogon</i>
23.	Gangetic dolphin	<i>Platamista gangetica</i>
24.	Humpback dolphin	<i>Sousa chinensis</i>
25.	Irrawady Dolphin	<i>Orcaella brevirostris</i>
26.	Little Indian Porpoise	<i>Neophocaena phocaenoides</i>

### FISHES



Sl.No.	Common Name	Zoological Name
1.	Ilisha	<i>Hilsa ilisha</i>
2.	Khainga	<i>Mullet sp.</i>
3.	Bhekti	<i>Lates calcifer</i>
4.	Kanna	<i>Mustus gulio</i>
5.	Kokill or Anchovy	<i>Coilia dussumieri</i>
6.	Rice Fish	<i>Oryzias melastigma</i>
7.	Panchax	<i>Aplocheilus ponchax</i>
8.	Puffer Fish	<i>Chelonodon fluviatilis</i>
9.	Acher Fish	<i>Toxotes jaculator</i>
10.	Climbing Perch	<i>Anabas testudineus</i>
11.	Dwarf gourami	<i>Colisa lalia</i>
12.	Eleotrid	<i>Sleeper</i>
13.	Glass Fish	<i>Chanda sp.</i>
14.	Pipe Fish	<i>Periophthaemus sp.</i>
15.	Mud skipper	<i>Boleophthaemus sp.</i>

### TURTLES



Sl.No.	Common Name	Zoological Name
1.	Leatherback Sea Turtle	<i>Dermochelys coriacea</i>
2.	The Green Sea Turtle	<i>Chelonia mydas</i>
3.	The Hawksbill Sea Turtle	<i>Eremochelys imbricate</i>
4.	<u>The Olive Ridley Sea Turtle</u>	<i>Lepidochelys Olivacea</i>
5.	Hadua Nadi Kainchha	<i>Batagur baska</i>
6.	South Indian Roofed Turtle	<i>Kachuga tentoria</i>
7.	North Indian Roofed Turtle	<i>Kachuga tecta</i>
8.	Indian Flapshell Turtle	<i>Lissemys punctata</i>
9.	Indian or Gangis short shelled Turtle	<i>Trionyx gangeticus / Aspideratus gangeticus</i>
10.	Asian Giant soft shelled Turtle	<i>Pelochelys bibroni</i>

## CROCODILES



Sl.No.	Common Name	Zoological Name
1.	<u>The Estuarine or Salt Water Crocodile</u>	<i>Crocodylus porosus</i>

## AMPHIBIANS



Sl.No.	Common Name	Zoological Name
1.	Common Indian Toad	<i>Bufo melanostictus</i>
2.	Common Tree Frog	<i>Polypedates maculates</i>
3.	Indian Skipper Frog	<i>Rana cyanophlyctis</i>
4.	Indian Cricket Frog	<i>Rana limnocharis</i>
5.	Indian Bull Frog	<i>Rana tigerina</i>

## BIRDS



Sl.No.	Common Name	Zoological Name
1.	Little Grebe	<i>Tachybaptus</i>
2.	Grey or Spotbilled Pelican	<i>Pelecanus philippensis</i>
3.	Little Cormorant	<i>Phalacrocorax niger</i>
4.	Darter	<i>Anhinga melanogaster</i>
5.	Purple Heron	<i>Ardea purpurea</i>
6.	Pond Heron	<i>Ardeola grayii</i>
7.	Little Heron	<i>Butorides striatus</i>
8.	Grey Heron	<i>Ardea cinerea</i>
9.	Black Crowned Night Heron	<i>Nycticorax nycticorax</i>
10.	Little Egret	<i>Egretta garzetta</i>
11.	Intermediate Egret	<i>Mesophoyx intermedia</i>
12.	Great Egret	<i>Casmerodius albus</i>
13.	Cattle Egret	<i>Bubulcus ibis</i>
14.	Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>
15.	Black Bittern	<i>Dupetor flavicollis</i>
16.	Lesser Adjutant	<i>Leptoptilos javanicus</i>
17.	<u>Painted Stork</u>	<i>Mycteria leucocephala</i>
18.	White Necked Stork	<i>Ciconia episcopus</i>
19.	Black Necked Stork	<i>Ephippiorhynchus asiaticus</i>
20.	Asian OpenBill	<i>Anastomus oscitans</i>
21.	Black Headed White Ibis	<i>Threskiornis melanocephalus</i>
22.	Spoonbill	<i>Platalea leucorodia</i>
23.	Lesser Flamingo	<i>Phoenicopterus minor</i>
24.	Bar Headed Goose	<i>Anser indicus</i>
25.	Lesser Whistling Teal	<i>Dendrocygna javanica</i>
26.	Brahminy Duck	<i>Tadorna ferruginea</i>
27.	Comb Duck	<i>Sarkidiornis melanotos</i>
28.	Common Teal	<i>Anas crecca</i>
29.	Pintail	<i>Anas acuta</i>
30.	Shoveller	<i>Anas clypetta</i>
31.	Gadwall	<i>Anas strepera</i>
32.	Garganey	<i>Anas querquedula</i>
33.	Wigeon	<i>Anas Penelope</i>
34.	Common Pochard	<i>Aythya ferina</i>
35.	Common Kestrel	<i>Falco tinnunculus</i>
36.	Black Kite	<i>Milvus migrans</i>
37.	Brahminy Kite	<i>Haliastur Indus</i>
38.	Oriental Honey Buzzard	<i>Pernis ptilorhyncus</i>
39.	Shikra	<i>Accipiter badius</i>

40.	Osprey	<i>Pandion haliaetus</i>
41.	Lesser Spotted Eagle	<i>Aquila pomarina</i>
42.	<u>White Bellied Sea Eagle</u>	<i>Haliaeetus leucogaster</i>
43.	Crested Serpent	<i>Spilornis cheela</i>
44.	Short Toed Snake Eagle	<i>Circaetus gallicus</i>
45.	Tawny Eagle	<i>Aquila rapax</i>
46.	Changeable Hawk Eagle	<i>Spizaetus cirrhatus</i>
47.	White Rumped Vulture	<i>Gyps bengalensis</i>
48.	Long Billed Vulture	<i>Gyps indicus</i>
49.	Pied Harrier	<i>Circus melanoleucos</i>
50.	Pallied Harrier	<i>Curcus macroarvus</i>
51.	Marsh Harrier	<i>Circus aeruginosus</i>
52.	Red Jungle Fowl	<i>Gallus gallus</i>
53.	White Breasted Waterhen	<i>Amautornis phoenicurus</i>
54.	Water Cock	<i>Gallicrex cinerea</i>
55.	Purple Swamphen	<i>Porphyrio porphyrio</i>
56.	Common Moorhen	<i>Gallinula chloropus</i>
57.	Salty Breasted Rail	<i>Gallirallus striatus</i>
58.	Bronze Winged Jacana	<i>Metopidius indicus</i>
59.	Red Wattled Lapwing	<i>Vanellus indicus</i>
60.	Grey Headed Lapwing	<i>Vanellus cinereus</i>
61.	Yellow Wattled Lapwing	<i>Vanellus malabaricus</i>
62.	Black Bellied Plover	<i>Pluvialis squatarola</i>
63.	<u>Pacific Golden Plover</u>	<i>Pluvialis fulva</i>
64.	Large Sand Plover	<i>Charadrius leschenaultia</i>
65.	Little Ringed Plover	<i>Charadrius dubius</i>
66.	Kentish Plover	<i>Charadrius alexandrinus</i>
67.	Lesser Sand Plover	<i>Charadrius mongolus</i>
68.	Black Winged Stilt	<i>Himantopus himantopus</i>
69.	Eurasian Thick-Knee	<i>Burhinus oedicnemus</i>
70.	Eurasian Curlew	<i>Numenius arquata</i>
71.	Brown Headed Gull	<i>Larus brunnicephalus</i>
72.	Black Headed Gull	<i>Larus ridibundus</i>
73.	Heuglin's Gull	<i>Larus heuglini</i>
74.	Pallas Gull	<i>Larus ichthyaeus</i>
75.	Whiskered Tern	<i>Chlidonais hybridus</i>
76.	Gull Billed Tern	<i>Gelochelidon nilotica</i>
77.	River Tern	<i>Sterna aurantia</i>
78.	Little Tern	<i>Sterna albifrons</i>
79.	Lesser Crested Tern	<i>Sterna bengalensis</i>
80.	Common Tern	<i>Sterna hirundo</i>
81.	Black Bellied Tern	<i>Sterna acuticauda</i>
82.	Indian Skimmer	<i>Rynchops albicollis</i>
83.	Rock Pigeon	<i>Columba livia</i>
84.	Orange Breasted Green Pigeon	<i>Treron bicincta</i>
85.	Eurasian Collared Dove	<i>Streptopelia decaocto</i>
86.	Spotted Dove	<i>Streptopelia chinensis</i>
87.	Oriental Turtle Dove	<i>Streptopelia orientalis</i>

88.	Little Brown Dove	<i>Streptopelia senegalensis</i>
89.	Emerald Dove	<i>Chalcophaps indica</i>
90.	Large Indian Parakeet	<i>Psittaculla eupatria</i>
91.	Rose Ringed Parakeet	<i>Psittacula krameri</i>
92.	Blossom Headed Parakeet	<i>Psittaculla roseatta</i>
93.	Asian Koel	<i>Eudynamys scolopacea</i>
94.	Green Billed Malkhona	<i>Phaenicophaeus tristis</i>
95.	Greater Coucal	<i>Centropus sinensis</i>
96.	Spotted Owlet	<i>Athene brama</i>
97.	Grey Night Jar	<i>Caprimulgus indicus</i>
98.	Large Tailed Night Jar	<i>Caprimulgus macrurus</i>
99.	Common Indian Night Jar	<i>Caprimulgus asiaticus</i>
100.	Palm Swift	<i>Cypsiurus balasiensis</i>
101.	Common King Fisher	<i>Alcedo atthis</i>
102.	Pied King Fisher	<i>Ceryle rudis</i>
103.	Brown Winged King Fisher	<i>Halcyon amauroptera</i>
104.	White Breasted King Fisher	<i>Halycon smymensis</i>
105.	<u>Collared King Fisher</u>	<i>Todiramphus chloris</i>
106.	Black Capped King Fisher	<i>Halcyon pileata</i>
107.	Chestnut Headed Bee-Eater	<i>Merops leschenaultia</i>
108.	Stork-Billed KingFisher	<i>Halcyon capenris</i>
109.	Blue Tailed Bee Eater	<i>Merops phillippinus</i>
110.	Green Bee Eater	<i>Merops orientalis</i>
111.	Collared Scops Owl	<i>Otus bakkamoena</i>
112.	Pied Cuckoo	<i>Clamator jacobinus</i>
113.	Chestnut Winged Cuckoo	<i>Clamator coromandus</i>
114.	Common Hawk Cuckoo	<i>Hierococcyx varius</i>
115.	Indian Roller	<i>Coracias benghalensis</i>
116.	Common Hoopoe	<i>Upupa epops</i>
117.	Indian Grey Hornbill	<i>Ocyeros birostris</i>
118.	Large Green Barbet	<i>Megalaima virens</i>
119.	Coppersmith Barbet	<i>Megalaina haemacephala</i>
120.	Fulvous Breasted Wood Pecker	<i>Dendrocops macei</i>
121.	Rufous Wood Pecker	<i>Celeus brachyurus</i>
122.	Grey Headed Wood Pecker	<i>Picus canus</i>
123.	Black Rumped Flameback	<i>Dinopium benghalense</i>
124.	Greater Flameback	<i>Chrysocolaptes lucidus</i>
125.	Ashy Crowned Sparrow Lark	<i>Eremopterix grisea</i>
126.	Oriental Sky Lark	<i>Alauda gulgula</i>
127.	Barn Swallow	<i>Hirundo rustica</i>
128.	Red Rumped Swallow	<i>Hirundo daurica</i>
129.	Golden Oriole	<i>Oriolus oriolus</i>
130.	Black Hooded Oriole	<i>Orilous xanthornus</i>
131.	Black Drongo	<i>Dicrurus macrocercus</i>
132.	White Belled Drongo	<i>Dicrurus caerulescens</i>
133.	Chestnut Tailed Starling	<i>Sturnus malabaricus</i>
134.	Asian Pied Starling	<i>Sturnus contra</i>
135.	Common Myna	<i>Acridotheres tristis</i>

136.	Jungle Myna	<i>Acridotheres fuscus</i>
137.	Rufous Treepie	<i>Dendro citta vagabunda</i>
138.	House Crow	<i>Corvus splendens</i>
139.	Large Billed Crow	<i>Corvus macror hynchos</i>
140.	Small Minivet	<i>Pericrocotus cinnamomeus</i>
141.	Scarlet Minivet	<i>Pericrocotus flammeus</i>
142.	Black Winged Cuckooshrike	<i>Coracina melaschistos</i>
143.	Black Headed Cuckoo Shrike	<i>Coracina melanoptera</i>
144.	Common Iora	<i>Aegithina tiphia</i>
145.	Red Whiskered Bulbul	<i>Pycnonotus jocosus</i>
146.	Red Vented Bulbul	<i>Pycnonotus cafer</i>
147.	Olive Backed Pipit	<i>Anthus hodgsoni</i>
148.	Paddy Field Pipit	<i>Anthus rufulus</i>
149.	Citrine Wagtail	<i>Motacilla cirreola</i>
150.	Yellow Wagtail	<i>Motacilla flora</i>
151.	Forest Wagtail	<i>Dendronanthus indicus</i>
152.	Purple Rumped Sun Bird	<i>Nectarinia zeylonica</i>
153.	Purple Sun Bird	<i>Nectarinia asiatica</i>
154.	Oriental White-Eye	<i>Zosterops palpebrosus</i>
155.	Pintail Snipe	<i>Gallinago stenura</i>
156.	Black Tailed Godwit	<i>Limosa limosa</i>
157.	Bar Tailed Godwit	<i>Limosa lapponica</i>
158.	Whimbrel	<i>Numenius plaeopus</i>
159.	Common Red Shank	<i>Tringa tetanus</i>
160.	Common Green Shank	<i>Tringa nebularia</i>
161.	Green Sand Piper	<i>Tringa ochropus</i>
162.	Wood Sand Piper	<i>Tringa glareola</i>
163.	Terek Sand Piper	<i>Xenus cinereus</i>
164.	Common Sand Piper	<i>Actitis hypoleucos</i>
165.	Ruddy Turnstone	<i>Arenaria interpres</i>
166.	Little Stint	<i>Calidris minuta</i>
167.	Temminck's Stint	<i>Calidris temminckii</i>
168.	Dunlin	<i>Calidris alpine</i>
169.	Ruff	<i>Philomachus pugnax</i>
170.	Great Thich Knee	<i>Esacus recurvirostris</i>
171.	Eurasian Oystercatcher	<i>Haematopus ostralegus</i>
172.	Pied Avocet	<i>Recurvirostra avocetta</i>
173.	Oriental Pratincole	<i>Glareola maldivarum</i>
174.	Indian Pitta	<i>Pitta brachyuran</i>
175.	Brown Shrike	<i>Lanius cristatus</i>
176.	White Throated Fantail	<i>Rhipidura albicollis</i>
177.	Black Naped Monarch	<i>Hypothymis azurea</i>
178.	Asian Paradise Flycatcher	<i>Terpsiphone paradise</i>
179.	Red Throated Flycatcher	<i>Ficedula parva</i>
180.	Verditer Flycatcher	<i>Eumyias thalassina</i>
181.	Blue Throated Flycatcher	<i>Cyornis rube culoides</i>
182.	Orange Headed Thrush	<i>Zoothera citrine</i>
183.	Oriental Magpie Robin	<i>Copsychus saularis</i>

184.	Black Redstart	<i>Phoenicurus oshrurus</i>
185.	Great Tit	<i>Parus major</i>
186.	Common Tailor Bird	<i>Orthotomus sutorius</i>
187.	Common Chief Chaff	<i>Phylloscopus collybita</i>
188.	Chestnut Capped Babbler	<i>Timalia pileata</i>
189.	Common Babbler	<i>Turdoides caudatus</i>
190.	Jungle Babbler	<i>Turdoides straitus</i>
191.	Striped Tit Babbler	<i>Macronous gularis</i>
192.	Black Headed Munia	<i>Lonchura Malacca</i>
193.	Baya Weaver	<i>Ploceus philippinus</i>
194.	Mangrove Whistler	<i>Pachycephala grisola</i>
195.	Tickell's Thrush	<i>Turdus unicolor</i>
196.	Indian Silverbill	<i>Lonchura malabarica</i>
197.	Goliath Heron	<i>Ardea goliath</i>

### Bagagahan-The Heronry :



The inter tidal zones, mudflats & the forested wet lands provide an ideal habitat to a large number of resident and migratory birds. More than 215 species of birds have been sighted in this area. The encouraging fact is the colonial nesting of large number of resident water birds in an island, locally called "Bagagahan. This heronry is one of the largest in the country. The following species of colonial birds have been recorded, nesting in heronry.

Sl.No.	Common Name	Scientific Name
1.	Asian Open bill	<i>Anastomus oscitans</i>
2.	Little cormorant	<i>Phalacrocorax niger</i>
3.	Little egret	<i>Egretta garzetta</i>
4.	<u>Night heron</u>	<i>Nycticorax nycticorax</i>
5.	Grey heron	<i>Ardea cinerea</i>
6.	Darter	<i>Anhinga rufa melanogaster</i>
7.	Large egret	<i>Casmerodius albus</i>
8.	White ibis	<i>Threskiornis melanocephalus</i>
9.	Cattle egret	<i>Bubulcus ibis</i>
10.	Purple Heron	<i>Ardea purpurea</i>

The above birds, mainly nest in the mangrove trees such as *Excoecaria agallocha*, *Heritiera fomes*, *Cynometra iripa*, *Hibiscus tiliaceus* and *Tamarix troupii*. By the first week of June, the birds start arriving at this heronry and the nesting process gets over by the end of November. Enumeration of these birds is carried out during August and September every year. It is observed that the relative abundance of various species of birds, which nest in Bhitarkanika varies every year. The Asian open bill which constitutes almost 60% of the total population of

nesting birds feeds exclusively on molluscs meat that they obtain from the agricultural fields, surrounding the national Park. Since the area is a deltaic region and the land is very fertile, the farmers hardly use any fertilizer or chemicals in their agricultural fields. Thus pollution free agricultural fields provide enough molluscs for the birds to sustain. Bagagahan is a feather in the crown of Bhitarkanika.

### **Honey & Honey Bees :**

The tree canopy of Bhitarkanika mangrove ecosystem has certain distinctions. Honey bees are particularly abundant during the flowering season of mangrove trees being specifically attracted to the plentiful nectar. The quality of honey differs greatly according to the flowering period of different species of mangrove trees. Large quantities of about 3000 to 5000 kg of honey is produced particularly during February to May each season. The local tribals known as 'Dalei' are specialized honey collectors who have been collecting honey (the local name for honey is "Mahu") for generations. Good quality honey is mainly collected in the flowering season from Garani (*Ceriops spp.*) and Kharsi (*Aegiceras corniculatum*) trees.

### **Mud Dwellers :**

The animals found in the mangrove community according to their habitats can be categorized as *Mud dwellers*, the aquatic inhabitants restricted to the water ways, *Forest dwellers* found in the forests and *Canopy dwellers* found in the tree canopy.



The mangrove mud is a very special habitat which may further provide a variety of microhabitats. The mud-dwelling animals or the mud dwellers show fascinating unusual features of structure, function and behaviour of which are characteristics of the amphibious fish (*Periophthalmus* and *Bolephthalmus* spp.) and a variety of crabs and molluscs. These mud dwellers are abundantly found along all river banks and mud flats of the Bhitarkanika mangrove area. About eight species of crabs are found.



**Horseshoe Crab (*T. Gigas*)**



**Horseshoe Crab (*C. Rotundicauda*)**

King crabs or the Horse-shoe crabs find their way to Bhitarkanika mud flats for their mating and laying of eggs, where their pre-historic trilobite larvae thrived in the pristine and primitive Bhitarkanika mangrove atmosphere. Out of the four species of horse shoe crabs of the World, two species are found in India viz; *Tachypleus gigas* and *Carcinoscorpius rotundicauda*. Both these species are found in Bhitarkanika along Gahirmatha coast (Brahmani-Baitarani delta) and

in the adjoining Mahanadi delta. King crabs are slaughtered widely for the extraction of the highly priced chemical "lectine" as a result of which they have become threatened globally. Fortunately enough, Bhitarkanika provides environmental conditions conducive to nourish both species of Indian horse shoe crabs.



The other interesting crab species are the Feeder crabs (*Uca* spp.) and Hermit crabs. Other mud dwellers include varieties of snails and bivalves. Among the crustaceans, the tiger prawn *Peneaus monodon* is the main economic attraction of the tidal creeks rivers, estuaries and off shore coastal waters. Though the prawns breed in sea. the post larval stages of the species are nourished in the high nutrient rich nursery of the mangrove environment till they reach the adult stage. Other important prawns include *Peneaus indicus* and *Metapeneaus affinis* etc.

**Sources:**

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