



International Journal of Fauna and Biological Studies

Available online at www.faanajournal.com

I
J
F
B
S
International
Journal of
Fauna And
Biological
Studies

ISSN 2347-2677
IJFBS 2015; 2(6): 08-13
Received: 09-09-2015
Accepted: 11-10-2015

CP Singh
Department of Zoology Janta
Mahavidyalaya Ajitmal Auraiya
(U. P) India.

Dr. Yogesh Dixit
Department of Zoology Janta
Mahavidyalaya Ajitmal Auraiya
(U. P) India.

Dr. RRS Chauhan
Department of Zoology Janta
Mahavidyalaya Ajitmal Auraiya
(U. P) India.

SB Mishra
National Chambal Sanctuary UP
India.

Investigation of wild species in Yamuna - Chambal forest, in Etawah - Auraiya (UP) India

CP Singh, Dr Yogesh Dixit, Dr RRS Chauhan, SB Mishra

Abstract

A detailed exploration of Yamuna –Chambal forest was carried out between Udi to Pachnada in March 2012 to Sep 2014. The entire study area is covering about 3000 Sq. km from Udi to Pachnada. The riverine study stretch of Chambal and Yamuna was surveyed by row boat, motor boat and the forests stretch surveyed on foot and on motor cycle for documented important land marks and various activities. Occasionally information gathered from local people and forest department staff members. The general achievements were-

Riverine Achievements

- Chambal is unpolluted river.
- At Bhareh confluence (Chambal with Yamuna) water was found less polluted due to mixing of Yamuna water.
- Avian fauna was satisfactory.
- Gharial population is higher than mugger.
- Dolphin population is high at Herpura.
- Hard shell turtle high but soft shell turtle is less.
- Deforestation and fishing is main anti conservation.
- River bank condition is much concern.

Annelids, Molluscs and Arthropods were noticed as main Invertebrates.

Forest Achievements

1. More than 350 species of forest vegetations have been presented.
2. Deforestation, mining and cultivation were main anti conservation activities.
3. Main Mammalian species were Mole, Hedgehog, Rats, Rabbit, Squirrel, Porcupine, Pangolin, Fox, Mongoose, Jungle cat, Jackal, Hyena, Weasels, Ratel, Stag, Nilgai, Ban gai, Wild boar, Sambhar.
4. Main reptiles noticed in this area were Python, Cobra, and black headed snake Racer, Double headed snakes, Monitor lizard and calottes Vishkhaper and Skinks.
5. All common birds were present.
6. Invertebrates fauna were Annelids, terrestrial univalve Molluscs, and many species of Arthropods such as Arachnids, Millipedes, Centipedes, Crustaceans and Insects.
7. Nilgai, Jackal and Wild boar population is satisfactory.
8. Python population is increasing in this area.

Keywords: Chambal, Forest, Gharial, Dolphin, Python, Porcupine, Birds and Insects.

Introduction

The Chambal River originates from Vindhya Range of Mhow District near Indore Madhya Pradesh lying 24° 55' and 25° 50' N, and 75° 18' E. It is a clear, fast flowing and unpolluted river of India. Chambal forming boundary of Rajasthan, M.P. and U.P. It joins the Yamuna near Bhareh of Etawah District of U.P. During 1978/79 this river was declared as a Crocodile Sanctuary under the crocodile breeding project with an aim to provide protection of Gharials habitat and conservation. This river provides suitable habitat and shelter even of Gharials to Muger Dolphin, Turtle, Wetland birds, Migratory birds and terrestrial animals.

Till now in National Chambal Sanctuary studies were conducted for aquatic fauna by Chauhan and Mishra 1998 [1], Sherma and Rao [8], Naraina *et al.* 2006 [7], Hussain and Chaudhary 1995 [6], CP *et al.* 2014 [5], Kumar *et al.* 1998 [4], Rao *et al.*, 1989 [2] Behrara and Rao 1999 [3] Till there was no published record of Forest species of Chambal –Yamuna and was no precise data about whole wild species occurrence and a very few little information is available related

Correspondence:
CP Singh
Department of Zoology Janta
Mahavidyalaya Ajitmal Auraiya
(U. P) India.

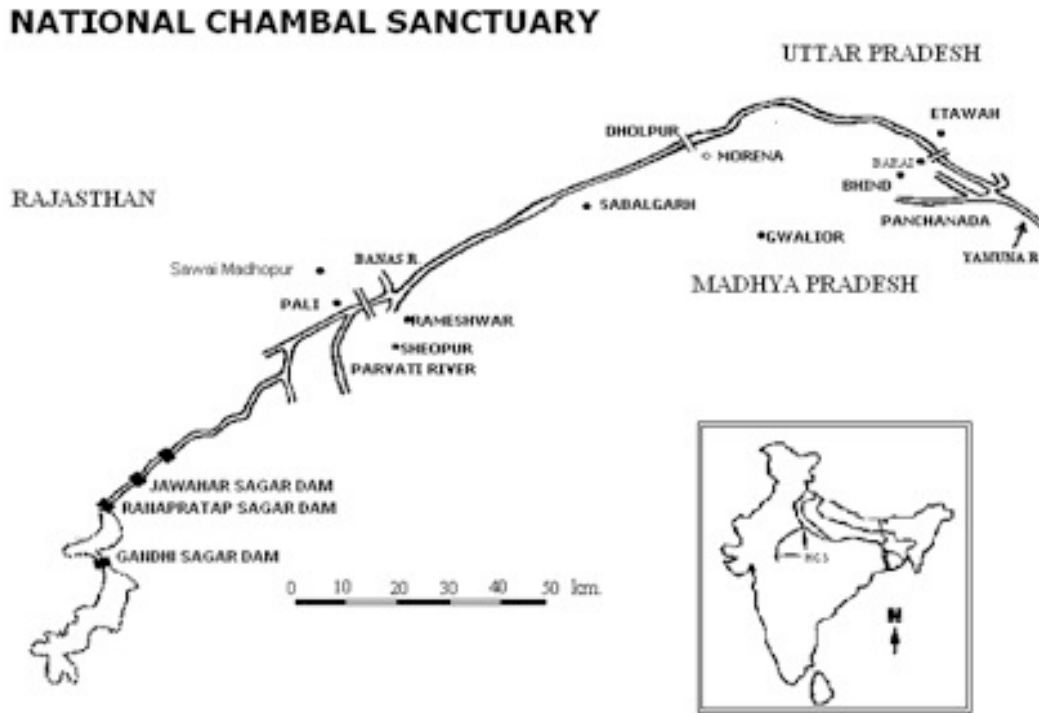
to wild animals in this area, The main purpose of this study for assessment of wild species of this protected area and make strategy for their conservation and habitat management and identification of threats for survivorship of fauna.

Study area

We carried out the study along 60 Km along Chambal river between Udi (N26° 42' 23, E 0 78° 54' 34.5) to Pachnada (Map) the whole study area is divided in two parts, First part is reverine and second is forest area on both sides of Chambal

and Yamuna. This stretch is expanded as large ridges and crags of forest and with a number of arid thorny vegetations. The entire study is divided in fours surveys for summaries the data.

- (i) Survey of Chambal River from Udi to Pachnada.
- (ii) Survey of Chambal Forest.
- (iii) Survey of Yamuna River from Dibholi to Bhareh confluence
- (iv) Survey of Yamuna forest



Dolphin Habitat Mahuasooda near Bhareh confluence.

Methodology

The entire reverine study area surveyed by Motor boat or row boat and forest area surveyed by on foot, in the survey of forest the methods are used i. e. linear method and branching method or by sampling method. The information of occurrence of species gathered from local people and staff members of forest departments. All the essential recorded on a field sheet and for visual aid a Sony camera used for took photographs

and binocular used for locating animals. Pug marks, body parts fecal mater dead skeleton were examined for indirect evidences of occurrence of land species and also living burrows explored for occurrence of burrowing species such as Pangolin, Porcupine and Monitor lizards etc.

Results and Discussion

A Detailed map of study area is given here. The photographic evidences showing on plates recoding of occurrence of fauna and flora, anti conservation activities and pollution status, the whole investigated area is divined in two four parts.

I Survey of Chambal River from Udi to Pachnada:

Vegetation

Juliflora, Jhao, Desi babool, Neem, Sheesham Peepal.

Invertebrate

Crab, Water bug, Water scorpion, Dragon flies, Damsel flies, Yellow wasps and Potter Wasps, Black ants, Beetles, Butter flies, Grass hopper, Spider, Moths.

Fishes

Rohu, Tengan, Wllago, Notopterus, Catla, Parhin, Gonch, Rita, Kalabasu, Kawai (observed only in confluence region at Bhareh).

Amphibian

Frog and Toad.

Reptiles

Mugger, Gharial, Soft shell turtle, hard shell turtle and Water snakes.

Aves

Painted Stork, Woolly-necked Stork, Grey heron, Cattle egret, Comb duck, Wag tail, Common Shelduck, Cormorant, Spoon bill, Plover Osprey, Pariah kite, Egyptian vulture, king fisher, Black ibis, Red crested pochard, River lapwing, Red wattled Lapwing, white breasted king fisher, Geese, thicknee Black winged Stilt, Indian Skimmer, Pretnicole, Bar headed goose, Drongo, Pelicans, Crane, Open bill, Parrot, Lesser whistling duck, Indian Peafowl,

Mammals

Only Dolphins found but otter not observed.

Anthropogenic activities

Ferry services, seasonal cultivation cremation, fishing and deforestation

II Survey of Chambal forest:

Vegetations

Jull flora shesham Rionj, Desi babool,

Invertebrates

Grass hopper Praying Mantis spiders beetles weevils bugs butterflies moths wasps ants white ants dragon flies Damsel flies Univalves Earth worm Centipede Julus and Scorpion

Amphibians

Toad and frog.

Reptiles

Python, Cobra, Monitor lizard, Racer Double headed, Blind Snakes, Black headed Snakes, Garden lizard, Turtle

Aves

Parrot, House crow, Jungle crow, Robin, Fly catcher, Coucal, Koel, Laughing Dove, Red vented Bulbul, Black shoulder kite, Ghughu, Owl, Indian Pea fowl, House sparrow, Bea eater, Grey francolin and Quill.

Mammals

Nilgai, Stag, Indian, Wild boar, Hare, Squirrel, Rat, Pangolin, Porcupine, Jackal, Hyena, Wild cat, Weasel, Common Mongoose, Small Indian Mongoose, Indian fox, Hedgehog, Sambar,

Anthropogenic activities

Deforestation, cremation, seasonal cultivation, poaching.

III Survey of Yamuna River from Dibholi to Bhareh confluence

Vegetations Julliflora Dessi babool, Sheesham, Rionj, Neem, Peepal.

Invertebrates

Crab Leech, Earth worm, Univalves, Bivalves, Butterflies, moths, water scorpion Water beetle Mole Cricket, Weevil, Dragon flies, Damsel flies, Spiders, Julus, Centipedes, Velvet mite, Wasps Ants, Honey bees, Bugs, Grasshopper, Praying mantis, cricket, Ground beetle, Anthia sexguttata Dung beetle,

Leaf beetle, Potato beetle, Tiger beetle Cockroach, Earwigs, mosquitoes and House flies.

Fishes Kawai (Tilapia Mozambique) Parhin, Wallago, Rohu, Anabas, Narrain, Kalabasu.

Amphibian

Frog and toad

Reptiles Information only occurrence of Gharials, But Mugger not found, Water snakes, Soft Shell Turtle, Hard shell Turtle, Monitor lizard, Garden lizard, Grass Shink, Ladakhi Rod Shink.

Aves

Pond heron, Grey heron, Painted stork, Black necked Stork, Open bill, Snake bird, Indian Roller, Flamingo, Pelican, Sand piper, King fisher, white White bickered kingfisher, Spoon bill, Black winged stilts, River lapwing, Red wattled lapwing, Gowit, Woolly necked Stork, Catle egret, Cormorant, Egyptian Vulture,

Mammals

Dolphin Noticed only near Bhareh confluence region up to Sikrori

Bridge in Flooded condition in rainy season,

Anthropogenic activities

Seasonal cultivation Agricultural expansion mining and sand mining deforestation high level, poaching of Neelgai Wild boar, monitor lizard and birds

IV Survey of Yamuna forest from Dibholi to Pachnada

Vegetation Julliflora, Desi babool, Sheesham, Rionj, Kanji Bamboo, Arhu Neem, Peepal, Chhekur.

Invertebrates

Earthworm, Centipede Julus, Spider, Scorpion, Crustacean, Velvet Mite, Univalves, Butterflies, Moths, Ground beetle, Tiger beetle, Garden beetle, Bugs, Leaf beetle, Dung beetle, Grass Hopper, Poekilocerus Cricket, Dragon flies Damsel flies Yellow wasp Potter wasp, Anthia.

Amphibian Toad and frog.

Reptiles Python, Cobra, Racer Double Headed Monitor Lizard, Garden Lizard, Grass Shink Turtle, Blind Snake, Black headed Snake,

Aves

Indian Roller, Common Myna, Bank Myna, Asian Pied Starling, Collared Dove, Spotted Dove, Laughing Dove, Rock pigeon Indian Robin, Oriental Magpie, Asian Paradise Flycatcher, Black Drongo, Bee eater, Rufous Treepie, Common Hoopoe, Grey francolin Quail, Greater Coucal, Koel, Asian Koel, Drongo Cuckoo, Parhina, House Crow, Jungle crow, Indian Grey Hornbill, Common flameback, Red vented Bulbul, Red Whiskered Bulbul, owl Ghughu Jungle Prinia, Ashy Prinia, Crested Lark, Jungle Wag tail, White wagtail, Pipit, Black shoulder kite, Baya Weaver, Eurasian Tree Sparrow, Jungle Babbler Egyptian vulture, Eagle, Indian Peafowl, Thicknee, Owl, Ghughu, Anthropogenic activities

Mammals Jackal, Porcupine, Pangolin, Nilgai, Sambhar, Mongooses, Weasel, Ratel, Bangai, Hyena, Hare Hedgehog Rat, Mole, Squirrel, Wild boar,

Anthropogenic activities- deforestation, sand mining and agricultural expansions. Poaching of Wild boar and Neelgai



Row boat survey of River Chambal



Porcupine in Pachdewra forest near Ajitmal



A Flock of cormorant on Babasidh Sandbar in Chambal River



Jackal in Yamuna Forest near Sikrori



Painted Stork at Pachnada

During our surveys we found that Chambal Yamuna forest provide natural habitat for a number of wild species as well as aquatic animals. The areas monitored by us where wild fauna are free to move, breed and feed and attained their necessities for survival.

This area is good for insect diversity. The population of Neelgai and Wild boar are increasing in herbivores. They cause serious damage of crops and siltation. The new species also introduced in this area known as Bangai they also nuisance for farmers. But the population of Porcupine and Pangolin is much concerned due to poaching and Habitat destruction and environmental conditions. In carnivores the population of Jackals is increasing on wide range but on other hand the absence of wolf is a method of great concern. The population of Hyena, Fox, Weasel, Ratel, Leopard is decreased

dramatically.

In the study the snake's species are recorded as Python, Dumuhi, Racer Black Headed Cobra and Water snakes. Pythons is mainly recorded during early winter season is basking in sun light and moving in day time for searching of food in Agricultural areas and near Villages and also in forest But number of Cobra is decreased. In lizard calottes is common but Monitor lizard is facing serious threats due to hunting and habitat loss.

The author also observed that due to absence of tall tree in the study area the Peacock migrate to the sides of village for shelter at night and egg laying this is not suitable for their

survival.

During month of May and June about every year forest part burnt by fire so this caused dramatic Damage of Natural Habitat and most of vegetation brunet in this incident a number of species' eggs new hatchlings were died.

Most of the staff members are less interested in Research activities and in conservation of wild animals. The ecosystem of National Chambal Sanctuary is provided good abode for two famous pet animals one is Jamuna pari goats and other is Bhadawari Buffaloes, these are the main pet animal of this area and they are main source for revenue for local people.



Different kinds of insect of National Chambal Sanctuary.

Acknowledgment

We are grateful to Department of Zoology, Janta Mahavidyalaya Ajiitmal Auraiya U P for providing us facilities required for conducting this research. We also express our thanks we are also thankful to U P Forest Department for permission and logistic support to carry out this study. I am thanks to Mr Aushutosh Tirpathi Cordinater GCA and Dr Shailendra singh Director TSA India for their valuable suggestion in preparation of this paper. We also thanks to Boatman Mr. Nibbulal and Mr. Jai Krishan was very helpful and cooperative during our surveys. Last but not the least we thank our field assistants, for their rigorous efforts during the surveys.

References

1. Naraina S, Rajeev Chauhan, Mishra SB. Exploration of Pachnada (District Etawah Uttar Pradesh, India) and its tributaries : A Status Survey, Eco. Env 1998; 4(3):131-138.
2. Rao RJ, Hussain SA, Sharma RK. The status and conservation of Gangetic dolphin *Platanista gangetica* in national Chambal Sanctuary. Tiger paper April –June 1989, 6-10.
3. Rao RJ, Sandeep Behera. Observations the behaviors of Gangetic dolphin *Platanista gangetica* in the upper Ganga River, Journal Bombay Natural History Society. 1999, 196(1).
4. Kumar Sagar, Chauhan RRS, Khalif M. Plankton Diversity of the River Yamuna in District Etawah (U.P.) India. Bio science Research Bulletin 1998; 14(2):93-98.
5. Singh CP, Chauhan RRS, Mishra SB. Status, Habitat and distribution pattern of the Gangetic dolphin (*Platanista gangetica*) in National Chambal sanctuary, Uttar Pradesh. India, Journal of Entomology and Zoology Studies. 2014; 2(3):179-181.
6. Hussain SA, Chaudhary BC. Distribution and status of the smooth coated otter (*Lutra perspicillata*) Biological Conservation 1997; 80:199-206.
7. Naraina S, Ashish Tirpathi, Mishra SB. Population ecology of fresh water turtle *Kachuga tentoria* near Pachnada (Etawah. U.P.) Journal of Env Bio. 2006; 279(3):589-596.
8. Rao RJ, Sherma RK. Annual Gharial census north National Chambal Sanctuary Tiger Paper 1985; 14(1):1987.