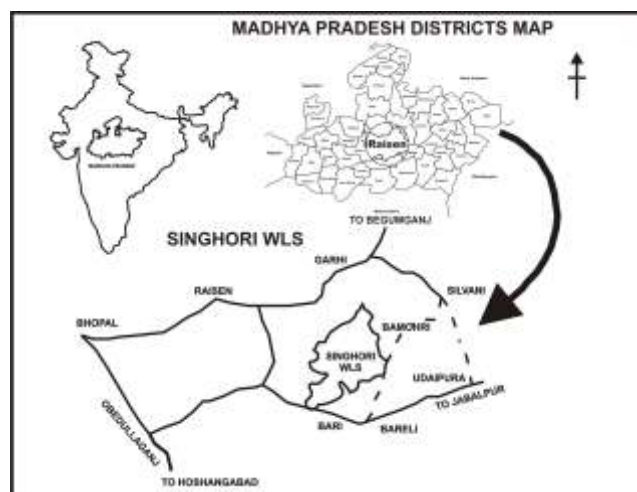


SACHIN R. PATIL

ABSTRACT

Key words: Freshwater and Land Mollusca, Habitat Structure, Singhori Wildlife Sanctuary.

Since the fauna of the Singhori Wildlife Sanctuary has not been studied earlier and no authentic information on mollusca is available, faunistic surveys were conducted from April, 2009 to March, 2012 to understand the malacological profile of this area.



Map : Location of Singhori Wildlife Sanctuary (Not to Scale)

Material and Methods

Study Area

Singhori Wildlife Sanctuary was notified and came in to existence in July, 1976 in Bari tehsil of Raizen district of Madhya Pradesh (Map). The sanctuary spans over 287.910 km² and geographically located between 22°45' and 22°55' N latitudes and 77°15' and 78°0' E longitudes. The topography is hilly. Most of the streams are seasonal in the sanctuary. Ghoghara and Barna are the two main streams in the sanctuary. According to Dwivedi (2003) there are two forest types viz. teak forests and mixed deciduous forests with teak (*Tectona grandis*) as main tree crop in the sanctuary. The sanctuary inhabits wildlife typical of the central India.

Faunistic surveys of the Singhori Wildlife Sanctuary, Raisen district of Madhya Pradesh were

Singhori Wildlife sanctuary was found to inhabit 17 species of freshwater and land molluscan belonging to 11 genera under 8 families and 4 orders.

Table 1: Taxonomic list of freshwater and land Mollusca from the Singhori Wildlife Sanctuary, Raisen Dist., Madhya Pradesh

Taxa and Zoological Name	Habitat	Locality	No. of specimens studied
Phylum: Mollusca			
Class: Gastropoda			
Subclass: Prosobranchia			
Order: Mesogastropoda			
Superfamily: Viviparoidea			
Family: Viviparidae			
Subfamily: Viviparinae			
<i>Bellamya bengalensis</i> (Lamarck)	River-Bank	Arjania, Badi, Bhagdehi, Peepalwadi	53
<i>Bellamya bengalensis</i> race <i>doliaris</i> (Gould)	River-Bank	Panzirpa, Senkua, Mugeha river Barna dam	30
<i>Bellamya bengalensis</i> form <i>eburnea</i> (Annandale)	River-Bank	Ekyawan river, Senkua	07
<i>Bellamya bengalensis</i> form <i>typica</i> (Lamarck)	River-Bank	Ratanpur, Panzirpa	12
Superfamily: Cerithioidea			
Family: Thiaridae			
Subfamily: Thiarinae			
<i>Tarebia lineata</i> (Gray)	River-Bank	Ekyawan, Mugeha rivers, Peepalwadi Barna dam, Badi	29
<i>Melanoides tuberculata</i> (Mueller)	River-Bank	Peepalwadi, Mugeha river	12
<i>Thiara (Thiara) scabra</i> (Mueller)	River-Bank	Barna dam	02
Subclass: Pulmonata			
Order: Basommatophora			
Superfamily: Lymnaeoidea			
Family: Lymnaeidae			
<i>Lymnea (Pseudosuccinea) accuminata</i> Lamarck	River-Bank	Bhagdehi, Badi, Peepalwadi	77
<i>Lymnea (Pseudosuccinea) luteola</i> Lamarck	River-Bank	Bajani	32
Superfamily: Planorboidea			
Family: Planorbidae			
Subfamily: Planorbinae			
<i>Gyraulus convexiusculus</i> (Hutton)	River-Bank	Panzirpa	01
Family: Bullinidae			
Subfamily: Bullininae			
<i>Indoplanorbis exustus</i> (Deshayes)	River-Bank	Kartoli, Panzirpa, Senkua, Bhagdehi Badi, Peepalwadi	48
Order: Stylommatophora			
Family: Subulinidae			
Subfamily: Rumininae			
<i>Zootecus insularis</i> (Ehrenberg)	Forest floor	Padariyakala	05
Class: Bivalvia			
Subclass: Paleoheterodonta			
Order: Trigonoida			
Superfamily: Unionoidea			
Family: Unionidae			
Subfamily: Ambleminae			
<i>Lamellidens corrianus</i> (Lea)	River-Benthic	Ratanpur, Ekyawan river, Badi, Arjania, Bamhori	12
<i>Parreysia (Parreysia) corrugata</i> (Mueller)	River-Benthic	Ekyawan, Mugeha rivers	13
<i>Parreysia (Radiatula) caerulea</i> (Lea)	River-Benthic	Ekyawan, Mugeha rivers, Panzirpa, Senkua, Arjania, Bamhori	45
<i>Parreysia (Radiatula) shurtleffiana</i> (Lea)	River-Benthic	Bamhori	03
Subclass: Heterodonta			
Order: Veneroida			
Superfamily: Corbiculoidea			
Family: Corbiculidae			
<i>Corbicula striatella</i> Deshayes	River-Benthic	Arjania	05

*Bellamya bengalensis* (Lamarck)*Iarebia lineata* (Gray)*Melanoides tuberculata* (Mueller)*Thiara (Thiara) scabra* (Mueller)*Zootecus insularis* (Ehrenberg)*Lamellidens corrianus* (Lea)

Plate 1: Freshwater and Land Mollusca from the Singhori WS, M.P.

undertaken during April, 2009 to March, 2012. Collection and preservation of the freshwater and land molluscs was based on Ramkrishna and Dey (2007) and Mitra *et al.* (2004) respectively. Molluscs were collected from various habitats and localities of the sanctuary (Table 1) and preserved in rectified spirit. Identified specimens were deposited and registered with the National Zoological

Collections of the Zoological Survey of India, Central Zone Regional Centre, Jabalpur, M. P. Digital SLR (Nikon-D70s) camera was used to photograph the identified species in laboratory conditions. Photographs of selected species are given in Plate-1. The key followed for identification is based on Vaught (1989); Ramakrishna and Dey (2007) and Mitra *et al.* (2004) for freshwater and land mollusca.

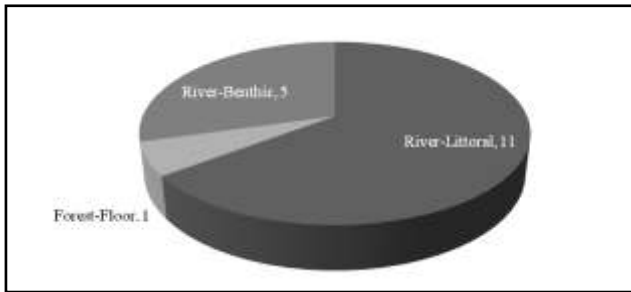


Fig. 1: Habitat Structure of Mollusca in Singhori WS, M.P.

Results and Discussion

Based on present faunistic surveys of the Singhori Wildlife Sanctuary, Raisen district of Madhya Pradesh 386 specimens of freshwater and land molluscs were studied. A total of 17 species under 11 genera, 8 families and 4 orders were identified. All the species were

documented for the first time from the sanctuary. As per habitat structure given in Table 1, 11 species were found in littoral zone and 5 species were specific from benthic zone of rivers, forest streams and water-holes while 1 species of land mollusca was also recorded (Fig. 1). This indicates more species diversity in littoral zone inhabiting freshwater mollusca than benthic zone and land inhabitants. During surveys only one land mollusc was collected. This may be attributed to the fact that most of collection was done during dry seasons.

Faunistic surveys conducted during the three years from this protected area revealed and helped to understand and focus on many aspects of future taxonomic research and conservation efforts as a baseline data is the result of the present work.

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रायसेन, मध्यप्रदेश (भारत) के सिंधोरी वन्यजीव अभ्यारण में माल्यूसकेन फौना का प्रारंभिक अध्ययन

सचिन आर. पाटिल

सारांश

सिंधोरी वन्यजीव अभ्यारण, रायसेन जिला, मध्यप्रदेश से ताजा पानी और भूमि पर रहने वाली माल्यूसकेन प्रजाति की समेकित सूची पहली बार रिपोर्ट की गई है। 386 नमूनों का अध्ययन करने के उपरान्त ताजा पानी की 17 और भूमि माल्यूसका के चार अनुक्रमों के 8 कुलों की 11 वंशों से संबंधित प्रजातियों की पहचान की गई है। वासस्थल संरचना के अध्ययन से पता चलता है कि तटवर्ती क्षेत्र में ताजा पानी में रहने वाली माल्यूसका की संख्या नितलस्थ क्षेत्र और भू-स्थलों से अधिक हो सकती है।

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