An Online Peer Reviewed / Refereed Journal Volume 2 | Issue 5 | May 2024 ISSN: 2583-973X (Online)

Website: www.theacademic.in

# Biological Diversity of Pawalgarh Conservation Reserve Ramnagar Uttarakhand India

#### **Mohammad Shadab**

Department of Zoology, Unity Degree College war Rampur (UP) India

## Jitendra Singh

Research Scholar

Department of Zoology, Govt Raza PG College Rampur (UP) India,

#### Ranish

Department of Zoology, Unity Degree College war Rampur (UP) India

ADSTDACT

ARTICLE DETAILS	ABSTRACT			
Research Paper	The description of Sitabani Wildlife Sanctuary is indeed very			
Keywords:	interesting and sensitive. Its many aspects, such as natural beauty,			
·	faunal diversity, and cultural significance, make it special. This is our			
Sitabani, Conservation,	effort to highlight the importance of wildlife protection and			
Ramnagar, Tiger reserve,	environmental protection. Through this article, the general public will			
Wildlife	get awareness as well as inspiration to be free from wild animals.			

## 4. Introduction:

ADTICLE DETAILS

## 4.1 Ramnagar:

In the Kumaon region of India's Nainital district sits the city and municipal board called Ramnagar in. About 65 kilometers (40 km) separate it from the district capital of Nainital. The oldest national park and well-known travel destination, Corbett National Park, is accessible from Ramnagar. Many people also visit the adjacent Sitabani Temple and Sitabani Wildlife Sanctuary, as well as the Garjiya Devi Temple.

## 4.2 Geography of Ramnagar:



The coordinates of Ramnagar are 29.40°N 79.12°E. 345 meters (1,132 feet) are around its average elevation. Situated on the banks of the Kosi River, Ramnagar is located in the foothills of the Himalayas. The city's proximity to Corbett National Park is one of its main tourists draws. It gains even more popularity due to its close vicinity to Nainital, the well-known hill station in northern India. Several migratory species, including Ruddy Shelduck, winter at Ramnagar due to a barrage on the Kosi River.

#### 4.3 Pawalgarh Conservation:

The Himalayan state of Uttarakhand's Nainital district is home to the Pawalgarh Conservation Reserve. In December of 2012, notice that it was a conservation reserve was given. The 58.25 square kilometer PCR is located among the stunning, expansive, and abundant forests of the Ramnagar Forest Division in Ramnagar. This sanctuary is crossed by numerous small rivers that emerge from the woodlands and flow into the Kosi and Dabka rivers. More than 400 kinds of vegetation, 365 species of birds, and 33 species of animals can all be found in the reserve. One of India's best instances of ecotourism is Pawalgarh Conservation Reserve, which provides a singular experience that fosters conservation efforts while enabling one to commune with nature. The reserve features stunning scenery, lovely waterfalls, and a wide variety of fauna. Sitawani Reserve has two gates, the Terha gate through which we entered, and another gate at Sitawani Which is in Pawalgarh, whose name is written in the name of Pavalgarh itself, Pawalgarh Gate.



Figure 1: Pawalgarh conservation reserve logo

## 4.4 Sitabani Zone of Pawalgarh Conservation:



Sitabani zone: Also known as Sitabani Wildlife Sanctuary, it is a testimony to the rich biodiversity and natural beauty of the Ramnagar region in Uttarakhand. Its unique status as an independent forest, separate from the Jim Corbett National Park, highlights its importance as a paradise for bird lovers and wildlife enthusiasts. The abundance of migratory birds, including the majestic Great Hornbill and the lively Indian Pitta, paint a vivid picture of the importance of the reserve as a sanctuary for bird diversity. Moreover, the historical and cultural significance of Sitabani, named after Sita, adds another layer. Its attractions intrigue as the mythological forest where Rama's wife Sita



Figure 2: Showing trees of Soria rowsata (Sal) forest

The place where the Indian Ocean took refuge, Sitabani holds a special place in the hearts of many, reminiscent of ancient stories and eternal connections with nature. Apart from its ornithological wonders, Sitabani is also home to a diverse range of animal species, from Panthera tigris (tigers) and Panthera pardus (leopards) to Elephas maximus (elephants) and Cervidae (deer). This dynamic ecosystem underlines the importance of protecting and preserving the reserve for future generations to cherish and enjoy. As we enter an era marked by environmental challenges and rapid habitat loss, the conservation of places like Sitabani becomes increasingly urgent. Through continued efforts in habitat



restoration, wildlife conservation and community engagement, we can ensure that Sitabani remains a sanctuary for both wildlife and humans, promoting harmonious coexistence between nature and society. In short, the Sitabani Wildlife Sanctuary not only serves as a haven for wildlife, but also a symbol of our collective responsibility to safeguard the natural world for future generations. It is a place where the past meets the present, and where the wonders of nature continue to inspire awe and reverence in all who visit.

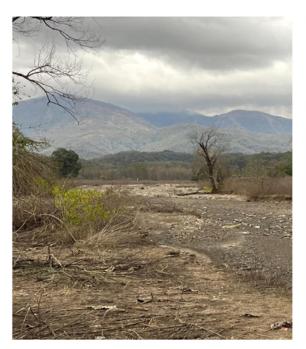




Figure 3: Some photographs of Sitabani area

### 4.5 Fauna and flora:

The landscape supports over 600 species of trees, shrubs, Bambosa eridinarifolia (bamboo), herbs, orchids, woody climbers and wetland vegetation. Soria rovata (Sal), Dalbergia sissoo (Sheesham), Anacardium occidentale (Kanjoo), Butea monosperma (Dhak), Neolamarckia cadamba (Haldu), Ficus religiosa (Peepal), Mangifera indica (Mango) and Soyamide febrifuga (Roxbya) (Rohini) trees are some of the important evergreen vegetation of the Sitabani area.



Figure 4: Adiantum Capillus, Richia, Mannia, Asterella, Targiona, And Plagiochasma



Figure 5: Marchantia colony (Marchantia polymorpha L.)

Figure 6: Elephant dung

## 4.6 Geographical Location of sitabani zone:



Address: Uttarakhand Nearest city: Ramnagar, Kotdwar Visitors: 500,000 (in 1999) Area: 1,318 km<sup>2</sup>

Established: 1936 Coordinates: 29°32′55″N 78°56′7″E / 29.54861°N 78.93528°E

Governing body: Project Tiger, Govt of UK, Wildlife Warden, Jim Corbett National Park

## 5. Tools and techniques:

GPS, field map, campas, camera (REALME8 64MP and IPHONE 13pro max), binocular, field guide and jeep safari.

## 6. Tourism planning:

Located in the serene foothills of the Himalayas, the Sitabani Wildlife Sanctuary is a part of the larger Jim Corbett National Park in Uttarakhand, India. The reserve is not governed by the CTR (Corbett Tiger Reserve) but is instead managed by the Uttarakhand Forest Department. This difference allows for more relaxed tourism and pilgrimage activities.

The history of tourism in Sitabani can be traced back to the establishment of India's first national park, Jim Corbett National Park, in 1936. Originally named Hailey National Park, it was later renamed in honor of the famous British hunter-turned-conservationist. Jim Corbett, who played a key role in its construction. Sitabani has a mythological significance as it is believed to be the place where Sita, the heroine of the Hindu epic Ramayana, stayed during her exile and where she reincarnated back into the womb of Mother Earth. This has made it an important place not only for wildlife lovers but also for pilgrims and those interested in mythology and history.







Figure 7: Panthera tigris (Tiger) roaming during a tour

Figure 8: Varsati River (Sitabani Zone)

Latest Tourism Trends in Sitabani Wildlife SanctuaryIn recent years, tourism trends in Sitabani Wildlife Sanctuary have adapted to emphasize eco-tourism and sustainable travel practices. Visitors are increasingly interested in experiences that provide minimal environmental footprint while enabling them to immerse themselves in nature. Bird watching has become an incredibly popular activity in Sitabani due to its rich bird diversity. Enthusiasts from all over the world visit to catch glimpses of rare and exotic birds. Other trends include wildlife photography, trekking, and temple visits within the reserve. Another trend is the rise of homestays and eco-lodges around the reserve, providing visitors with authentic and responsible accommodation options that contribute to local communities. Additionally, the reserve has gained popularity among adventure seekers for its jeep safaris, which are a great way to view wildlife in their natural habitat, including Panthera tigris (tigers), Elephas maximus (elephants), Cervidae (deer), and many other species. As tourism adapts to the changing preferences of travellers, the Sitabani Wildlife Sanctuary continues to offer an alluring combination of adventure, tranquility and cultural enrichment. The dynamic blend of ecological conservation efforts and promotion of local culture and heritage ensures that visitors not only enjoy the reserve's natural splendour but also contribute positively to its conservation and the well-being of its indigenous communities.

#### 7. Guide:



Our guide Anand Kumar ji (he was the guide of Teda Gate). Talking to him, we came to know that to become a guide, it is necessary to be a resident of the zone and also to be a graduate in biology. The appointment of guides is done by the Conservation Selection Committee. The Pawalgarh Conservation is run by the Uttarakhand government. In this direction, the appointment of guides is also done by the

S.No	Reg. No.	Name	Mobile Number	S.No	Reg. No.	Name	Mobile Number
1	52	Yashpal Nainwal	7819896953	37	959	Prakash Chandra	8477833252
	- 10				0.44	10 AC 12 NOVE 10	9690653388,
2 60		Virendra Singh	7055564748	38	962	Ganesh Chandra	8650039288
3	62	Devendra Kumar	7902006349	39	963	Bhuwan Sati	9315270978
4	80	Bhagwat Singh	8476855100,	40	0 964	Anand Singh	7533992580
4	80	Bhagwat Shigh	9756477649	40	904		
5	84	Mahendra singh kapkoti	9927745581	41	966	Dhirendra Singh Rawat	9568314304
6	88	Vinod Chandra Kandpal	6395428557	42	997	Naveen Chandra	7983968949
7	92	Vijay	9927622830	43	999	Pradeep Kumar	9758500976
8	105	Kamal Joshi	6338630557	44	1000	Sachin Kumar	9528481358
9	107	Deep Chandra	7409629001	45	1003	Chandramohan Singh	7508513612
10	115	Dhyani Ram	9690146757	46	1019	Mahendra Singh	8057716948
10	113	Dilyani Kani	3030140737	40	1019	Manendra Singn	8077800000
11	116	Bhuwan Chandra	6396929069	47	1022	Narendra Singh	8279655504
12	131	Preeti Bhatt	8433028188	48	1023	Deep Chandra	9720408080
13	145	Dinesh Chandra	8954372212	49	1028	Ram Singh Rawat	9634887140
14	176	Nitin Khati	8006576065	50	1030	Krishan Kumar	9761005441
15	241	Manoj Sati	9837215456	51	1041	Dayal Chandra Tripathi	9837720646
16	299	Himanshu Rawat	9568748401	52	1042	Vinod Kumar	9528653536
17	347	Ahmad Hussain	8923233786	53	1043	Harsh Budhlakoti	8218765617
18	355	Pratap Singh Chamola	7838039632	54	1044	Rajendra Kumar	7053850820
19	401	Khyali dutt kargeti	9917968683	55	1056	Salvendar Singh Rawat	8433279247
20	437	Mohan Singh Rawat	6395645224	56	1115	Prakash Chandra Sati	9411773223
21	545	Anand Prakash Sati	8979036205	57	1144	Santosh Singh	9458923609
22	598	Rajeev Bhagat	7302703640	58	1157	Rahul Sati	7983086297
23	629	Himanshu Papney	8938996823	59	1174	Vijay Kumar	9548918443
24	764	Piyush Sati	9368819390	60	1196	Ramesh Chandra Badhani	7579295056
25	837	Deep Chandra Sati	7819878225,	61	1197	Kamal Kishore Bisht	8630890613
23	657	Deep Chandra Sad	7983086297	01	1197	Kamai Kishole Bisht	
26	848	Yogesh Pandey	9410051016,	62	1212	Manohar Singh	8218258886
			8433184974				
27	882	Anil Kumar	9149298614	63	1214	Chandra Shekhar Bhatt	9411377106
28	883	Deepak Kumar	7055656368	64	1215	Sanjay Singh Bisht	7906110767
29	885	Sobhan Kumar	6397836550	65	1217	Bhupendra Singh	8279369328
30	897	Chandra Shekhar	7500226292	66	1222	Mohan Chandra Pandey	9411324204
31	902	Manish Sati	7983635218	67	1224	Neeraj Kumar Arya	9870922360
32	904	Bhawana Bhatt	7017283487	68	1225	Anvar Hussain	9557708410
33	908	Pawan Suyal	9678724064	69	1227	Narendra Singh	9761435483
34	915	Harshita Moulekhi	9068708207	70	1229	Dhirendra Devrani	9536811904
35	952	Balwant Singh	7983608897	71	1230	Himanshu Tiruwa	7906232011
36	953	Yugal Kishore Boniyal	9068708207	72	1411	Lucky Arya	9012265315

UK government.

Figure 9: Tedha get guide list



S.No	Reg. No.	Name	Mobile Number	S.No	Reg. No.	Name	Mobile Number
1	1081	Shruti	7668455401	37	367		7668586808
2	86	Rohit Kumar	7017735686	38	55	Yogesh Kumar	7906970880
3	1053	Bhuwan Chandra Balodi	9897134734	39	991	Geetanjali Pathak	8475948704
4	211	Aman Goswami	6396242634	40	427	Harshita Sati	9389091943
5	1153	Vaibhav Kandpal	6396921483	41	1086	Babita Kandpal	8755947385
6	305	Kaushik Chauhan	9548680930	42	443	Nirmla Dani	8279759529
7	267	Rakesh Chandra	8447330868	43	1024	Manoj Chandra	7830892186
8	896	Vishal Sati	7579443965	44	994	Jyoti	8006754219
9	271	Anju Pandey	9719795523	45	113	Manmohan Singh	9719582451
10	460	Gopal Dutt Nainwal	7055753568	46	1147	Akshay Kumar	7668477894
11	986	Khusaali Ram	9149163341	47	702	Lalit Sati	7302180209
12	1203	Manoj Bisht	6397638265	48	137	Bhuwan Chandra	8006986206
13	111	Prakash Chandra Singh	7668573780	49	872	Mona Tamta	7817095245
14	306	Ravindra Singh	7533872928	50	90	Harish Singh	7895641552
15	834	Deepak Tiwari	7579433798	51	1017	Soniya Balodi	6397567071
16	169	Neelam Bisht	9548546492	52	223	Mohit Singh Kapkoti	7819862634
17	245	Gaurav Kumar	8433296556	53	523	Manish Budhlakoti	9149048629
18	887	Arti	8279743649	54	1142	Chandrashekhar	7017568090
19	91	Neeraj Kumar	8791243662	55	118	Sunil Rawat	9315661370
20	377	Nisha Nigaltiya	9389297101	56	1198	Reeta Bisht	9410366324
21	958	Himani Rawat	7817873215	57	891	Chandan Singh	9015611973
22	79	Mansi Khyonshali	8272846444	58	564	Ajay Bisht,	9389324031
23	382	Pradeep Singh Bisht	7906649003	59	1178	Kamal Kandpal	7055672713
24	1158	Diljeet Singh	9389072424	60	525	Laxman Singh	8393061380
25	112	Sanjay Kandpal	6395653214	61	691	Karan Kamboj	7818875681
26	191	Deepak Thaliya	6395238789	62	1108	Santosh Kumar	7088412204
27	432	Kamal Dani	9389312673	63	38	Kavita	8218525985
28	205	Tribhuwan Singh Bisht	8938800777	64	123	Kanishk Kandpal	8433044917
29	451	Chandra Shekhar	7668810534	65	1005	Mohit Kandpal	9627899160
30	1206	Kailash Chandra	7906209492	66	621	Subhash Chandra	9927514698
31	1415	Yogesh Tamta	6396214769	67	1201	Naveen Chandra	7668716169
32	122	Ajay Kumar	7668477894	68	844	Lalit Mohan Pandey	8445753532
33	888	Rahul Bhandari	7302180209	69	53	Janki	9528784637
34	536	Gaurav Singh Pawar	7505444941	70	68	Ajay Badhani	7505085098
35	590	Bhumika Pandey	6397828299	71	504	Pankaj Kandpal	7017516483
36	1175	Mohit Kumar	9528706072	72	920	Jyoti Kandpal	9456175796

Figure 10: Pawalgarh get guide list



## 8. Jeep Safari:

Jeep Safaris are booked online for the tourist park. The Forest Department of India's requirements are followed by the forest officers who oversee all safari booking procedures. We regret to inform you that we have no control over the safari location, safari driver, or naturalist guide. The forest officials make all the decisions. Nonetheless, there are plenty of tigers in each area, and reports of wildlife sightings are often consistent. An automated computerized system keeps an eye on all these details to guarantee that safari cars are distributed equally in each location. The fare for jeep safari to Sitabani is Rs 2850/jeep, apart from this there is Rs 1430/online gate pass, Rs 800/nature guide/jeep, Rs 150/camera. Only 6 tourists can sit in one jeep.



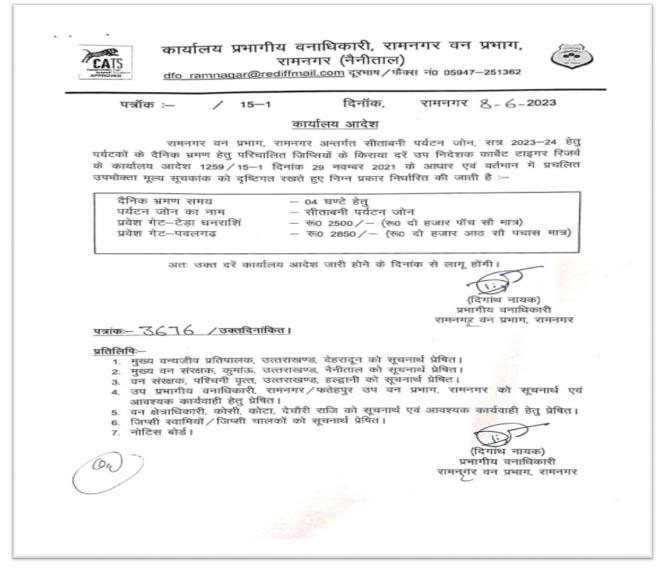


Figure 11: office notice for tourist

#### 9. Other information:

The place situated under Ramnagar forest division Sitavani is also crowded on the occasion of festivals. Thus before going to Sitavani, first chalk out the notice on the bedsite of Sitavani Conservation Reserve.



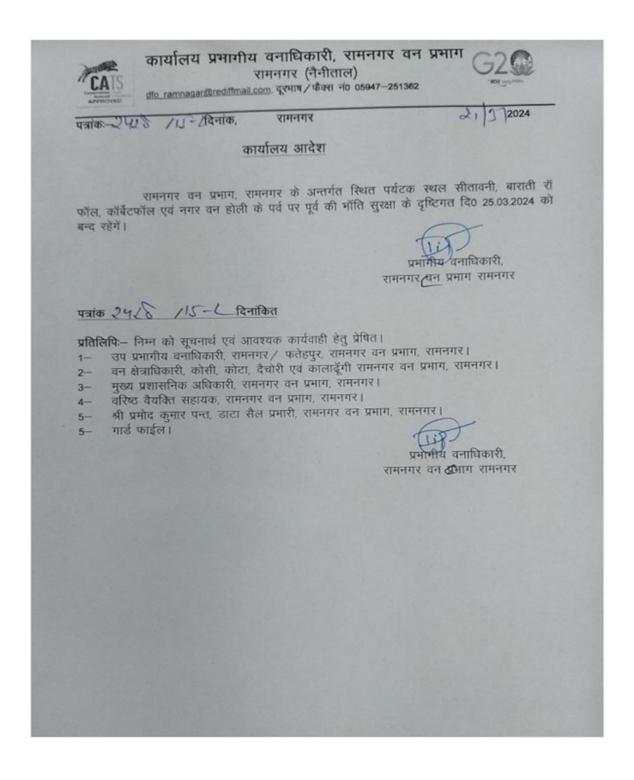




Figure 12: Holiday notice

#### 10. Best time to visit:

Located near Jim Corbett National Park in Uttarakhand, India, Sitabani Wildlife Sanctuary is a picturesque destination that attracts wildlife enthusiasts and nature lovers alike. Unlike Jim Corbett National Park, which is governed by the forest department, Sitabani is managed by the local community and is known for its rich flora and fauna. The best time to visit Sitabani Wildlife Sanctuary is from October to June. During these months, the weather is conducive for wildlife viewing and the reserve is open to visitors.

Tourists usually stay away from the monsoon season from July to September as the region receives heavy rainfall, making safari rides challenging and limiting animal visibility. Summers have pleasant weather with winters being cool and enjoyable. The period between October and March will especially be a good time for bird-watching, as many migratory birds are present. Additionally, the lush greenery after the monsoon presents a vibrant ecosystem. In the summer months, from April to June, the temperature rises, but wildlife sightings are most likely to take place during these months as animals frequently visit water bodies to drink water. The window between March to May serves as an excellent opportunity to spot panthera tigris (tigers) and other animals amid the sparse vegetation. It is advisable to book your safari well in advance during these peak months to ensure availability.





Figure 13: Mohammad Shadab, Ranish, Jitendra Singh, Vinod Kumar, Mahnaz and Shahnaz going on a jeep safari for study in the Sitabani zone.

#### 11. Result & Discussion:

The results of this study highlight several important issues related to tourism management and environmental sustainability in the Sitabani area. The significant increase in the number of visitors beyond the carrying capacity indicates that current tourism practices are not sustainable. Overcrowding can lead to environmental degradation, put pressure on local resources and reduce the experience for visitors. There is a need to implement policies that control the number of visitors to the carrying capacity of the area to minimize negative environmental impacts. The substantial CO2 emissions from fuelwood and diesel generators during the short period that the sanctuary is open highlight the environmental cost of such events. This suggests that even short-term tourism activities can have a considerable environmental impact, necessitating the adoption of cleaner energy sources and more efficient practices.

The findings underscore the importance of developing a sustainable tourism model that balances the positive and negative impacts of tourism. This includes not only controlling the number of visitors, but also promoting practices that reduce environmental impact, such as using renewable energy sources, improving waste management, and educating visitors on sustainable practices. A holistic approach that



considers the economic, social, and environmental dimensions of tourism is essential for the long-term sustainability of tourist destinations such as the Sitabani area.

This study also touches upon the evolving nature of tourism from a primarily religious activity to a multi-faceted industry involving business, education, medical tourism, and leisure. As tourism continues to grow and explore new areas, it is important to implement policies that ensure this growth is sustainable and does not come at the expense of environmental and cultural resources

#### 12. Conclusion:

Sitabani Wildlife Sanctuary is an important treasure of the natural and cultural heritage of the Uttarakhand region. Sitabani Wildlife Sanctuary has played and is playing an equally important role in the development of the region. It is an important source of employment. By providing encouragement to tourism it brings infrastructural and economic development in the region. The nation received substantial foreign exchange. The activities of Sitabani Wildlife Sanctuary depend on the livelihood of rural residents and forests help to improve their livelihood activities. Various impacts of the establishment and expansion of Sitabani Wildlife Sanctuary Park have been observed which weaken the local livelihood and affect the development of livelihoods. Being- as most of the rural people are dependent on agriculture and available resources. Access to resources, especially land has been shown to be a source of livelihood diversification into various activities. Limited access to national resources and other impacts of the park have been shown to affect the negative attitude of the local people towards conservation activities.

Sitabani Wildlife Sanctuary is an important site located in the Ramnagar region of Uttarakhand. It is a unique experience for bird lovers and wildlife enthusiasts in practice. Apart from its history and cultural significance, this practice is home to a diverse life. Its preservation is our collective responsibility and we must promote the harmonious relationship between nature and man. Sitabani is a place where one gets inspired by the beauty and wonder of nature.

#### 13. Reference:

1. Best Time To Visit Sitabani Wildlife Reserve (Jim Corbett) In 2024. (n.d.). https://travelsetu.com/guide/sitabani-wildlife-reserve-tourism/best-time-to-visit-sitabani-wildlife-reserve



- 2. Book Safari In Corbett National Park, Online Safari Booking For Jim Corbett National Park, Corbett Safari Tariff. (n.d.). https://www.corbettnationalpark.in/online-corbett-safari-booking.htm
- 3. https://doonuniversity.ac.in/admin/assets/uploads/docs/2023120518203400def48e1a.pdf
- 4. https://images.app.goo.gl/cwD3nuhZxuNhw8Fq5
- 5. Kumar, H., Pandey, B., & Anand, S. (2019, June 1). *Analyzing the Impacts of forest Ecosystem Services on Livelihood Security and Sustainability: A Case Study of Jim Corbett National Park in Uttarakhand*. International Journal of Geoheritage and Parks. https://doi.org/10.1016/j.ijgeop.2019.05.003
- 6. pawalgarh conservation researve. (n.d.). https://doonuniversity.ac.in/admin/assets/uploads/docs/2023120518203400def48e1a.pdf
- 7. Ramnagar, Nainital. (2024, April 2). Wikipedia. https://en.wikipedia.org/wiki/Ramnagar,\_Nainital
- 8. *Sitabani Wildlife Reserve*. (2023, December 26). Wikipedia. https://en-m-wikipedia-org.translate.goog/wiki/Sitabani\_Wildlife\_Reserve?\_x\_tr\_sl=en&\_x\_tr\_tl=hi&\_x\_tr\_hl=hi&\_x\_tr\_pto=sc
- 9. *Sitabani Wildlife Reserve*. (2023, December 26). Wikipedia. https://en.m.wikipedia.org/wiki/Sitabani\_Wildlife\_Reserve#:~:text=Sitabani%20Wildlife%20Reserve%20is%20a,migrating%20birds%20throughout%20the%20year

# 1. List of figures

Figure 1: Pawalgarh conservation reserve logo	Page No 4
Figure 2: Showing trees of Soria rowsata (Sal) forest	Page No 5
Figure 3: Some photographs of Sitabani area Figure 4: Adiantum Capillus, Richia, Mannia, Asterella,	Page No 6
Targiona, And Plagiochasma	Page No 6
Figure 5: Marchantia colony (Marchantia polymorpha L.)	Page No 7
Figure 6: Elephant dung	Page No 7
Figure 7: Panthera tigris (Tiger) roaming during a tour	Page No 8
Figure 8: Varsati River (Sitabani Zone)	Page No 8

Figure 11: office notice for tourist Page No 11

Figure 12: Holiday notice Page No 12

Figure 13: Mohammad Shadab, Ranish, Jitendra Singh, Vinod Kumar,

Mahnaz and Shahnaz going on a jeep safari for study in the Sitabani zone. Page No 13