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Increasing monkey menace in Biswanath district of Assam, India: BNCA campus has become a paradise for Rhesus monkeys

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Abstract

A survey conducted in Biswanath district of Assam during 2020-12 has revealed that monkey has become a major threat to the crop-ecosystem in 29 out of 200 hamlets studied. Habitat fragmentation, conversion of forest area to agricultural land, shrinkage of food in natural environment, increasing tea cultivation etc. are the major reasons of the increasing menace. Their presence in some hamlets is consistent due to some favourable factors there; whereas, their absence in other villages is because of some prevailing impudent factors which have also helped intensifying the man-monkey conflict in the former hamlets. The district is likely to experience expansion in monkey's territory in future. Biswanath College of Agriculture (BNCA), Assam Agricultural University has now become a paradise for Rhesus monkeys. Their increasing population is posing a threat to the buildings, crops, crop-cafeteria, orchards, livestock-farm and research-crops in the college campus. An urgent scientific intervention to prevent such increasing menace is felt needed both at the institute level and in farmers' fields as well. The author urges to see the efficacy of the solar powered electric fencing at the institute level by adopting the model of Dr. Y S Parmar University of Horticulture & Forestry, Solan.

Keywords: Rhesus monkey, *Macaca mulatta*, BNCA, solar-electric fencing, Assam

Introduction

Assam, a state located in northeast India, falls under two global biodiversity hotspots: the Indo-Burma and the Himalayan (Myers *et al.*, 2000) [8]. It is one of the places with the highest primate diversity in India (Choudhury, 1986, 1993, 2013) [3-5]. According to the National Institute of Disaster Management, Himachal Pradesh loses farm products worth Rs 500 crore annually (Sharma, 2015) where the crop loss figure is higher than what the state spends on agriculture every year, e.g. in 2015-16, the state budgetary allocation of Himachal Pradesh for agriculture was Rs 450 crore (Chakravarty, 2015) [2]. Such a data are very important for policy-making, but, not available for all the districts of Assam. The human-monkey conflict has been seen in some parts of Biswanath district, but no systematic work so far has been made.

The ability of peasant farmers in the third world to monitor environmental occurrence around them has been ignored (Atteh, 1984) [1]. This is true with the farmers of North East Region (NER) of India also. Again, the Agricultural Extension Assistants (AEAs) are the ground extension workers having the direct contact with the farmers. They are the personnel who visit the farmers' crop-fields the most, more than anyone in the departmental hierarchy in the state of Assam. Therefore, they can provide the genuine agricultural information of his area of work. In this context, it is felt necessary to make a benchmark survey on monkey-menace with the help AEAs and famers in order to gather information on the geographical territory, damage intensity etc.

Materials and Methods

The survey was conducted in 200 hamlets of Biswanath district during 2020-21 with the help of farmers and the Agricultural Extension Assistants (AEAs) of the District Agriculture Department, Biswanath, Assam. Information on prevalence of monkey in a hamlet was taken from the concern AEA of the locality. This was later confirmed from the farmers of the villages under survey. The study areas have been shown in the following maps.

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Map1a: Map of Assam showing the Biswanath district, in red colour.

Map1b: Map of India showing the state of Assam in red colour. (https://en.wikipedia.org/wiki/Biswanath_district).



Map2: The blue balloons indicate the hamlets of Biswanath districts under study for monkey survey (2020-21). (www.google.com)

Result and discussion

The results of the survey are detailed below.

Monkeys are not omnipresent in Biswanath district:

High prevalence of Rhesus monkeys (*Macaca mulatta*) was observed in 29 out of 200 hamlets surveyed (Table 1). A hamlet, as we considered, is not just one village, but a cluster of villages. Groups of monkeys with variable number visit these hamlets regularly, - daily in some cases. From these hamlets often the leader of a monkey group visits the adjoining villages alone, but not in groups. The Nameri National Park and adjoining forest of Arunachal Pradesh are thought to be the basic sources of monkey population in the district. It is observed that the monkey is confined more in northern part of the National Highway 15. The most exception is the southern part of Biswanath Chariali town. Their presence is common in almost all the villages in both

side of Biswanath Ghat Road. The presence of patchy thin forest refugia in govt. land, large green campus of Biswanath College of Agriculture help them hide and reside temporarily. Rhesus monkey is held sacred in some parts of India (www.britannica.com/animal/rhesus-monkey) including this belt of Biswanath and people of these localities do not harm monkeys. In Biswanathghat area, there is a consistent presence of monkey because of the assured food from tourists and devotees. The population of monkey in Madhupur and its adjoining villages is so high that some people call this area as *Kishkindhanagar* of Biswanath.

Habitat fragmentation has brought the monkeys near to human settlements: Besides the big tea-gardens, there are 5753 small tea-growers in undivided Sonitpur district, including Biswanath Chariali & Gohpur

(www.teaboard.gov.in/pdf/Grower_Details_Report_SONIT_PUR). These small tea gardens are new as compared to big gardens and have been established in areas by clearing the age old forest-patches which happened to be the monkeys' habitat. This led to habitat fragmentation initial years and increasing loss of habitat with the increase in small tea growers, and expansion of big tea estates. Since the declaration of Biswanath as district with Biswanath Chariali as headquarter on 15.08.2015, there has been a rapid urbanization which is still going on. This is in terms of construction of govt. offices and residential houses and quarters etc. This is going to reduce the natural habitat of monkey and converse them in residential area and crop-fields in coming years.

Restricted territories: Monkeys are not omnipresent in the district, but, are confined to some particular localities only. They use to cause extensive damage to crops where they are present. Their damage may go up to 100% and people have left growing vegetables and started tea cultivation in some villages. The demographical composition of a hamlets matters a lot for the existence of monkeys. Some people use to kill monkeys to save their crops; some kill them to have its meat. Killing of wild animals including monkeys are reported from other parts of Assam also (Choudhury, 2013)^[5]. Rhesus monkey is a highly intelligent species (www.britannica.com/animal/rhesus-monkey) and can identify those villages where they may face trouble and do not visit such villages. Therefore, they prefer to remain restricted to the hamlets in and around the people who do not cause harm to them. Moreover, the large tea-gardens and rice-fields, sometimes, put hindrance in their movement and restrict them in some hamlets only. Monkeys do not prefer to stay long in tea-gardens where there is frequent application of pesticides. Moreover, monkeys are driven out of the gardens' territory by tea-workers.

BNCA campus - a paradise for Rhesus monkeys: Biswanath College of Agriculture, the second constituent college of the Faculty of Agriculture of Assam Agricultural University is at Biswanath Chariali located in the North Bank Plains Zone of Assam. The college campus is widely spread in a gross area of 174 hectare mainly under upland situations that includes academic buildings, library, hostels, canteen, indoor-stadium, play-grounds, auditorium, residential quarters, guest-house, roads, crop-farms, horticultural orchards, forestry, plantation crops and livestock-farm. Rhesus monkeys have received congenial environment in this large campus because of large area under vegetation. Their natural diet consists of fruits, seeds, roots, herbs, and insects, but, in areas of human habitation, they also eat crops and search through garbage for food (www.britannica.com/animal/rhesus-monkey). They are

getting enough food, places for shelter, and uninterrupted movement in the BNCA campus. Their nuisance is increasing day by day. They are causing damage to the roofs, ventilators, windows in order to make their entry points. They use to damage almost all the crops; crop like okra, chilli, ginger, garlic, turmeric, medicinal and aromatic plants are relatively less damaged. However, sometimes they uproot the seedlings of crops to cause 100% damage. The college campus has become a paradise for the Rhesus monkeys now. Their increasing population is now a perennial threat to all the buildings, crops, orchards, and livestock-farm as well as research-crops. An urgent scientific intervention to prevent such increasing menace is the need of hour. At least the PG research area must be monkey-proof; otherwise, someday the field-research will have to be confined only on crops not damaged by monkeys. Manual guarding/chasing, noise/bells, Stones/slingshots/spears/crackers/gun-fires, placement of repellent rice balls (prepared from boiled rice + crushed ground nut seeds + red chilli powder + coconut oil), dry fish, use of troop of dogs, painting individuals, translocation, sterilization/birth control, alteration of cropping patterns, maintenance of buffer zones, conservation of forest refugia are some methods used to manage the crop raiding monkeys (Mariadoss *et al.*, 2017)^[7], but, none of these can assure 100% protection. However, recent advances in electronic technology have ensured that electric fences now offer a viable option to barbed wire fences in most situations - with the added advantages of adaptability and significantly improved cost effectiveness (Macdonald, 2016)^[6].

Conclusion

The author urges to see the efficacy of the solar powered electric fencing at Biswanath College of Agriculture campus by adopting the model of Dr. Y S Parmar University of Horticulture & Forestry, Solan, HP. It is noteworthy that the solar powered fence has helped the university to raise more than 2,000 plants of different stone-fruits; the fence has proved to be highly effective in keeping marauding monkeys away besides being cost effective (www.nabard.org/demo/auth/writereaddata/ModelBankProject/1612162331). On getting success in combating the monkey-menace at BNCA campus, such model may be replicated well at farmers' crop-fields. The invasion of monkeys to some new localities has been identified in Biswanath district, but, their visit is not frequent enough to recognize it as a menace till date. It is also observed that the area under maize crop is increasing in the district due to its large demand from the manufacturers of poultry feed and fish feed. Therefore, rhesus monkey may invade in new localities and raid maize crop in future to cause substantial loss.

Table 1: Status of monkey in different hamlets of Biswanath district, Assam

No.	Name of the hamlet	GPS	Status
1	Adabheti	26°43'48.7"N 93°03'04.8"E	-ve
2	Koroini	26°43'04.1"N 93°03'03.4"E	-ve
3	Kumolia 1	26°42'22.7"N 93°06'53.5"E	-ve
4	Kumolia 2	26°42'10.8"N 93°06'40.4"E	-ve
5	Bhojmari	26°42'49.1"N 93°05'20.7"E	-ve
6	Gosai Chapori	26°41'11.4"N 92°59'47.8"E	-ve
7	Garehagi	26°43'01.3"N 93°08'41.1"E	+ve
8	Madhupur	26°43'29.0"N 93°08'46.3"E	+ve
9	Gar Bhitari	26°41'10.8"N 93°09'20.1"E	+ve
10	Era bari	26°43'21.8"N 93°09'50.0"E	+ve
11	Dagaon	26°41'48.0"N 93°08'39.6"E	+ve
12	Uttardagaon	26°42'27.1"N 93°08'16.6"E	+ve
13	Bhirgaon	26°42'18.3"N 93°09'43.8"E	+ve
14	Japorijan	26°43'21.4"N 93°11'35.1"E	-ve
15	Golia	26°42'56.1"N 93°09'25.0"E	+ve
16	Gowal Toli	26°41'35.6"N 93°09'59.0"E	-ve
17	Bholoakota	26°42'05.9"N 93°10'44.5"E	-ve
18	Silamari	26°43'28.2"N 93°12'47.1"E	-ve
19	Biswanath Ghat	26°39'49.3"N 93°10'09.4"E	+ve
20	Umatumuni river island	26°39'35.9"N 93°10'41.3"E	+ve
21	Niz Baghmari	26°43'53.9"N 93°13'40.8"E	-ve
22	Nizbaghmari Islampur	26°44'16.0"N 93°12'47.5"E	-ve
23	Kadamanibasti	26°43'23.9"N 93°07'48.9"E	+ve
24	BNCA Campus	26°43'22.4"N 93°08'11.9"E	+ve
25	Bamgaon	26°44'30.8"N 93°10'14.1"E	+ve
26	Morolgaon	26°44'20.0"N 93°10'56.3"E	+ve
27	Balipukhuri	26°44'40.1"N 93°11'53.9"E	-ve
28	Roumari 1	26°49'00.9"N 93°24'29.5"E	-ve
29	Roumari 2	26°46'59.0"N 93°25'01.8"E	-ve
30	Barajuligaon	26°50'24.8"N 93°24'31.9"E	-ve
31	Nasborgaon	26°51'23.5"N 93°24'22.6"E	-ve
32	Rangsali sonari	26°48'14.8"N 93°22'31.4"E	-ve
33	Lehugaon	26°45'53.9"N 93°10'27.1"E	-ve
34	Pabhoi	26°48'44.9"N 93°08'36.0"E	-ve
35	Tinisuti	26°55'40.4"N 93°14'19.4"E	-ve
36	Garoi mari	26°50'34.2"N 93°16'07.8"E	-ve
37	Tengabari	26°51'33.4"N 93°16'06.2"E	-ve
38	Barjarani	26°51'42.9"N 93°14'53.1"E	-ve
39	Naharbari	26°53'23.2"N 93°11'54.8"E	-ve
40	Kalahandi	26°52'05.2"N 93°11'22.9"E	-ve
41	Mijikajan	26°49'23.3"N 93°11'55.8"E	-ve
42	Kalapani	26°48'38.0"N 93°11'35.9"E	-ve
43	Laow doloni	26°47'58.6"N 93°12'03.2"E	-ve
44	Dhali	26°51'34.0"N 93°06'54.5"E	-ve
45	Pabhoi Tea Estae	26°51'01.1"N 93°08'00.1"E	-ve
46	Dhali TE	26°50'31.7"N 93°06'21.5"E	-ve
47	Dhalimara diring	26°49'19.5"N 93°06'24.5"E	-ve
48	Sailakhati Bengali	26°46'59.3"N 93°06'29.8"E	-ve
49	Miadi	26°48'34.7"N 93°06'16.3"E	-ve
50	Dwimawjwan Bodogaon	26°54'01.4"N 93°08'33.8"E	-ve
51	Balidonga	26°55'30.7"N 93°11'04.4"E	-ve
52	Naharbari Bodogaon	26°55'28.8"N 93°08'17.2"E	-ve
53	Petulibari	26°45'47.7"N 93°07'56.0"E	-ve
54	Lakhanbasti	26°49'44.1"N 93°04'26.1"E	+ve
55	Bamunipathar	26°47'58.2"N 93°07'40.4"E	+ve
56	Kuwari	26°45'33.2"N 93°08'45.0"E	+ve
57	Sakomatha	26°44'46.1"N 93°06'52.3"E	-ve
58	Pratapgarh	26°46'10.1"N 93°05'41.1"E	-ve
59	Sadharu	26°45'03.3"N 93°07'50.0"E	-ve
60	Barpathar	26°48'02.1"N 93°04'38.1"E	-ve
61	Kamarjan	26°47'15.6"N 93°04'39.2"E	-ve
62	Geruabari	26°46'50.8"N 93°10'40.5"E	-ve
63	Joypur	26°51'30.2"N 93°08'52.0"E	+ve
64	Singibil	26°50'34.5"N 93°13'44.7"E	+ve
65	Serelia	26°52'10.8"N 93°19'52.4"E	-ve

66	Borgang	26°51'46.4"N 93°17'42.3"E	-ve
67	Serelia	26°55'40.9"N 93°19'05.6"E	-ve
68	Rangagora 1	26°56'23.1"N 93°18'56.7"E	-ve
69	Rangagora 2	26°55'49.6"N 93°15'53.5"E	-ve
70	Borgang	26°54'36.1"N 93°18'13.1"E	-ve
71	Baghmari	26°44'27.3"N 93°13'33.1"E	-ve
72	Brahmaputra Chapori	26°44'41.7"N 93°13'55.4"E	-ve
73	Niz Baghmari	26°45'22.5"N 93°13'10.7"E	-ve
74	Monabaripathar	26°47'07.9"N 93°14'03.6"E	-ve
75	Jarabari	26°45'46.8"N 93°12'20.6"E	-ve
76	Bihpukhuri	26°46'48.7"N 93°13'10.1"E	-ve
77	Monabari	26°46'43.6"N 93°15'00.5"E	-ve
78	Deka pathar	26°47'22.1"N 93°17'46.1"E	-ve
79	Mijikajan	26°50'19.4"N 93°09'46.3"E	-ve
80	Fatika basti	26°45'41.3"N 93°11'12.0"E	-ve
81	Bhimajuli	26°47'23.4"N 93°08'26.2"E	-ve
82	Begunbari Bagisa	26°47'29.4"N 93°06'26.2"E	-ve
83	Pratapgarh 1	26°45'50.9"N 93°04'40.6"E	-ve
84	2no. Nalbari	26°45'18.2"N 93°03'49.0"E	-ve
85	Hatipati	26°46'45.7"N 93°03'43.8"E	-ve
86	Pratapgarh 2	26°45'20.3"N 93°05'15.1"E	-ve
87	Dighaltangani	26°48'20.4"N 93°09'41.2"E	-ve
88	Teron arong	26°54'04.2"N 93°10'16.4"E	-ve
89	Dighalipathar	26°49'50.3"N 93°27'48.4"E	-ve
90	Kuruwabasti	26°50'02.1"N 93°25'47.4"E	-ve
91	Missamari	26°50'39.0"N 93°27'16.1"E	-ve
92	Erasuti	26°48'46.7"N 93°26'47.8"E	-ve
93	Ghahigaon	26°50'32.9"N 93°29'39.7"E	-ve
94	Mirigaon	26°47'20.1"N 93°27'38.7"E	-ve
95	Gadhariapathar	26°48'51.5"N 93°28'29.5"E	-ve
96	Angrabari	26°52'49.8"N 93°33'54.8"E	-ve
97	Dhemajibari	26°48'33.7"N 93°16'38.5"E	-ve
98	Rangsali doloni	26°46'59.5"N 93°22'10.7"E	-ve
99	Tipubasti	26°47'53.1"N 93°17'10.7"E	-ve
100	Monabari Tea Estate	26°47'26.8"N 93°16'33.9"E	-ve
101	Gopalgaon	26°54'05.6"N 93°35'51.7"E	-ve
102	Mising Kathani	26°54'06.8"N 93°34'49.8"E	-ve
103	Balijan Brahmapur	26°53'42.2"N 93°34'28.9"E	-ve
104	Anandapur	26°55'21.6"N 93°33'21.7"E	-ve
105	Brahmajan TE	26°54'24.7"N 93°31'51.0"E	-ve
106	Bihmari Jaroni	26°53'06.1"N 93°22'31.0"E	-ve
107	Magurmarigaon (Satia)	26°45'37.8"N 93°02'17.4"E	-ve
108	Magurmara	26°46'47.0"N 93°03'02.1"E	+ve
109	Kacharigaon	26°44'03.0"N 93°01'38.9"E	-ve
110	Chamaguri	26°49'01.0"N 93°03'12.1"E	+ve
111	Angrabari	26°53'24.2"N 93°35'10.3"E	-ve
112	Khairaguri	26°56'54.7"N 93°36'41.2"E	-ve
113	Gahpur town area*	26°53'27.6"N 93°37'39.6"E	+ve
*Hazarikachuk, Dhenudhara, Bilotia, Tanganagaon etc.			
114	Lakhimi chapori	26°46'51.6"N 93°31'31.2"E	-ve
115	Jokapara	26°49'57.6"N 93°34'34.4"E	-ve
116	Ghimarujan	26°50'28.9"N 93°34'49.0"E	-ve
117	Charengia	26°49'09.4"N 93°31'20.1"E	-ve
118	Moranbari	26°48'28.3"N 93°31'32.5"E	-ve
119	Telenipukhuri	26°47'30.8"N 93°30'10.7"E	-ve
120	Thalipukuria	26°47'45.2"N 93°29'11.0"E	-ve
121	Hokajan	26°49'19.0"N 93°30'18.2"E	-ve
122	Barangabari	26°49'31.2"N 93°30'57.6"E	-ve
123	Dhopabar	26°48'29.2"N 93°30'43.2"E	-ve
124	Akhoiphuta	26°49'17.3"N 93°34'00.8"E	-ve
125	Rangalial	26°50'10.0"N 93°32'46.3"E	-ve
126	Na pamua	26°50'40.2"N 93°33'48.5"E	-ve
127	Natun Hatibandhiya	26°49'25.6"N 93°32'29.0"E	-ve
128	Borjohabari	26°48'24.4"N 93°32'43.7"E	-ve
129	Jalukbari	26°52'12.2"N 93°32'19.6"E	-ve
130	Bamunabri	26°51'13.0"N 93°31'19.6"E	-ve
131	Jogibari	26°52'37.8"N 93°30'52.9"E	-ve
132	Tetonpukhuri	26°52'02.3"N 93°29'04.3"E	-ve

133	Nalanibari	26°53'39.7"N 93°28'57.9"E	-ve
134	Hatijan	26°47'52.6"N 93°33'03.1"E	-ve
135	Bordoloni	26°48'21.2"N 93°34'10.7"E	-ve
136	Khaliahamari	26°48'21.5"N 93°35'19.0"E	-ve
137	Kuhimari	26°49'41.2"N 93°35'44.8"E	-ve
138	Pithiamari	26°45'56.1"N 93°19'29.2"E	-ve
139	Nonke Bangali	26°49'20.0"N 93°17'18.6"E	-ve
140	Birijan	26°53'11.5"N 93°13'18.9"E	-ve
141	Kalahandi	26°52'07.0"N 93°12'50.3"E	-ve
142	Diplonga	26°48'16.8"N 93°01'44.2"E	-ve
143	Daflagarh	26°56'30.3"N 93°29'57.1"E	+ve
144	Patarbasti	26°48'38.1"N 93°02'50.4"E	+ve
145	Ghiladharibasti	26°49'10.7"N 93°03'31.5"E	+ve
146	Barbamgaon	26°48'01.4"N 93°03'15.6"E	+ve
147	Chengamari	26°49'17.1"N 93°02'05.8"E	+ve
148	Gerekigaon	26°46'10.6"N 93°03'07.3"E	-ve
149	Malargaon	26°45'03.6"N 93°02'04.4"E	-ve
150	Mudoigaon	26°45'11.8"N 93°02'23.0"E	-ve
151	Barobhuyan	26°46'00.5"N 93°01'27.4"E	-ve
152	Pathak Kuri	26°46'30.5"N 93°00'56.6"E	-ve
153	Itakhola	26°47'58.7"N 92°58'08.1"E	+ve
154	Tengabasti	26°48'58.7"N 92°57'49.7"E	+ve
155	Habidoloni	26°46'54.6"N 92°59'28.2"E	-ve
156	Ghiladharimukh	26°43'38.1"N 93°01'45.6"E	-ve
157	Solalgaon	26°43'30.8"N 93°01'30.3"E	-ve
158	Gorpal	26°42'44.9"N 93°00'59.5"E	-ve
159	Koroini	26°43'04.1"N 93°03'03.4"E	-ve
160	Tewaripal	26°39'53.9"N 93°02'41.8"E	-ve
161	Karaiyani	26°41'40.3"N 93°02'31.3"E	-ve
162	Bagariati	26°41'04.8"N 93°04'31.7"E	-ve
163	Kalakati	26°43'23.5"N 93°04'32.2"E	-ve
164	Dubia	26°54'53.6"N 93°42'06.0"E	-ve
165	Solengipathar	26°54'18.9"N 93°39'54.1"E	-ve
166	Bardop	26°53'24.5"N 93°40'58.5"E	-ve
167	Deurigaon	26°52'28.7"N 93°45'58.5"E	-ve
168	Ghuriagaon	26°51'34.7"N 93°46'11.8"E	-ve
169	Pokpara Pathar	26°50'27.9"N 93°44'34.5"E	-ve
170	Charaibari	26°49'04.3"N 93°42'52.9"E	-ve
171	Tengakhowa	26°51'31.6"N 93°43'17.5"E	-ve
172	Bihaguri	26°50'36.5"N 93°42'23.5"E	-ve
173	Khatar Pathar	26°52'11.4"N 93°43'53.8"E	-ve
174	Kathanibasti	26°45'26.3"N 93°17'34.2"E	-ve
175	Jagara doloni	26°53'14.8"N 93°42'55.3"E	-ve
176	Barachuk Pathar	26°52'28.2"N 93°41'33.2"E	-ve
177	Balitika	26°52'57.5"N 93°39'34.2"E	-ve
178	Uzapara 1	26°51'41.7"N 93°39'43.5"E	-ve
179	Uzapara 2	26°50'25.0"N 93°38'37.4"E	-ve
180	Kakila Pathar	26°51'38.5"N 93°40'57.2"E	-ve
181	Chakura	26°52'58.6"N 93°40'42.2"E	-ve
182	Simaluguri	26°55'02.4"N 93°40'35.6"E	-ve
183	Rangajan	26°55'51.1"N 93°40'53.5"E	-ve
184	Sonajuli pam	26°56'53.1"N 93°41'31.4"E	-ve
185	Sesa Mirigaon	26°56'23.6"N 93°45'25.3"E	-ve
186	Futabhog	26°55'25.1"N 93°46'19.4"E	-ve
187	Dubijarani	26°56'04.4"N 93°43'06.6"E	-ve
188	Dehousi Kachari	26°50'58.8"N 93°38'04.5"E	-ve
189	Charabandha	26°50'02.5"N 93°40'09.0"E	-ve
190	Chirakhowa	26°48'56.0"N 93°39'07.5"E	-ve
191	Rownamukh Pathar	26°48'10.1"N 93°39'58.1"E	-ve
192	Kukurakata	26°49'19.5"N 93°37'11.5"E	-ve
193	Bhogpur pathar	26°50'57.5"N 93°36'39.4"E	-ve
194	Gormora pathar	26°54'22.2"N 93°45'24.9"E	-ve
195	Lakhipur	26°56'16.6"N 93°44'26.9"E	-ve
196	Bortamuli	26°48'30.5"N 93°37'26.4"E	-ve
197	Rajabari	26°49'44.1"N 93°41'28.2"E	-ve
198	Sutar Doloni	26°54'58.1"N 93°43'43.6"E	-ve
199	Bhaluadanga	26°53'57.0"N 93°26'01.5"E	-ve
200	Kuvari pathar	26°53'16.3"N 93°27'22.9"E	-ve

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