

National Studbook of Grey Peacock Pheasant (*Polyplectron bicalcaratum*)



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



केन्द्रीय चिड़ियाघर प्राधिकरण
Central Zoo Authority

November, 2010

Indian National Studbook of
Grey Peacock Pheasant
(*Polyplectron bicalcaratum*)

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Supported by



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Authors

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Grey Peacock Pheasant: Biology and Status

Taxonomy

Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	Galliformes
Family:	Phasianidae
Scientific Name:	<i>Polyplectron bicalcaratum</i>
Species	Linnaeus 1758
Authority:	
Common Name/s:	Munowwar, Deyodahuk, Deoderik (Assam); Deodurrug (Garó), Dao dip, Dao dai dip, Mejoor (Cachar); Burruminrui (Nagaland); Katmōr (Chitagong).

Grey Peacock Pheasants are the most widely distributed of all peacock pheasants occurring over most of mainland south-east Asia. Grey Peacock Pheasants are traditionally classified as belonging to the sub-family phasianinae of the family phasianidae. The sub-family includes the most charismatic members of the order Galliformes, a diverse group of birds commonly referred to as game birds. The family Phasianidae is characterized by strong sexual dimorphism with the males being highly ornate with bright colours and adornments such as wattles and long tails and usually larger than females with longer tails. The family Phasianidae with a presence only in the old world i.e. Asia and Africa; includes two subfamilies: phasianinae and perdicinae.

Phylogeny of pheasants is still not completely understood more so for Peacock pheasants; and several phylogenies for the group have been proposed. Any phylogeny must however satisfy two different requirements:

1. Arrive at an understanding of the affinities within the group to explain their evolutionary history and relationships.
2. Provide a standard list of species to enable conservation biologists to be able to accurately identify the taxa being discussed.

Traditional taxonomy placed the grey peacock pheasant in the subfamily phasianinae in the family phasianidae however recent molecular genetic evidence suggests that they are more closely related to peafowl and partridges than to other pheasants. More evidence is required before it can be reassigned with either the pheasants or as recent evidence suggests with peacocks or partridges.

The species is represented by four subspecies:

Polyplectron bicalcaratum bakeri (Lowe, 1925): Bhutan grey pheasant more widely known as Himalayan grey peacock pheasant. It is the palest and greyest form.

Polyplectron bicalcaratum bailyi (Rothschild, 1906): Hainan grey peacock pheasant. It is considered a separate species by Beebe (1918-1922). Dark grey coloured form with white markings.

Polyplectron bicalcaratum biclaccaratum (Linnaeus, 1758): Burmese grey peacock pheasant. Dark brown and buff coloured specimens.

Polyplectron bicalcaratum ghigii (Delacour and Jabouille, 1924): Ghigi's grey peacock pheasant. Browner than *P.b. bicalcaratum* with buff coloured surrounds on the tail ocelli.

Placement of the Grey Peacock within Phasianidae

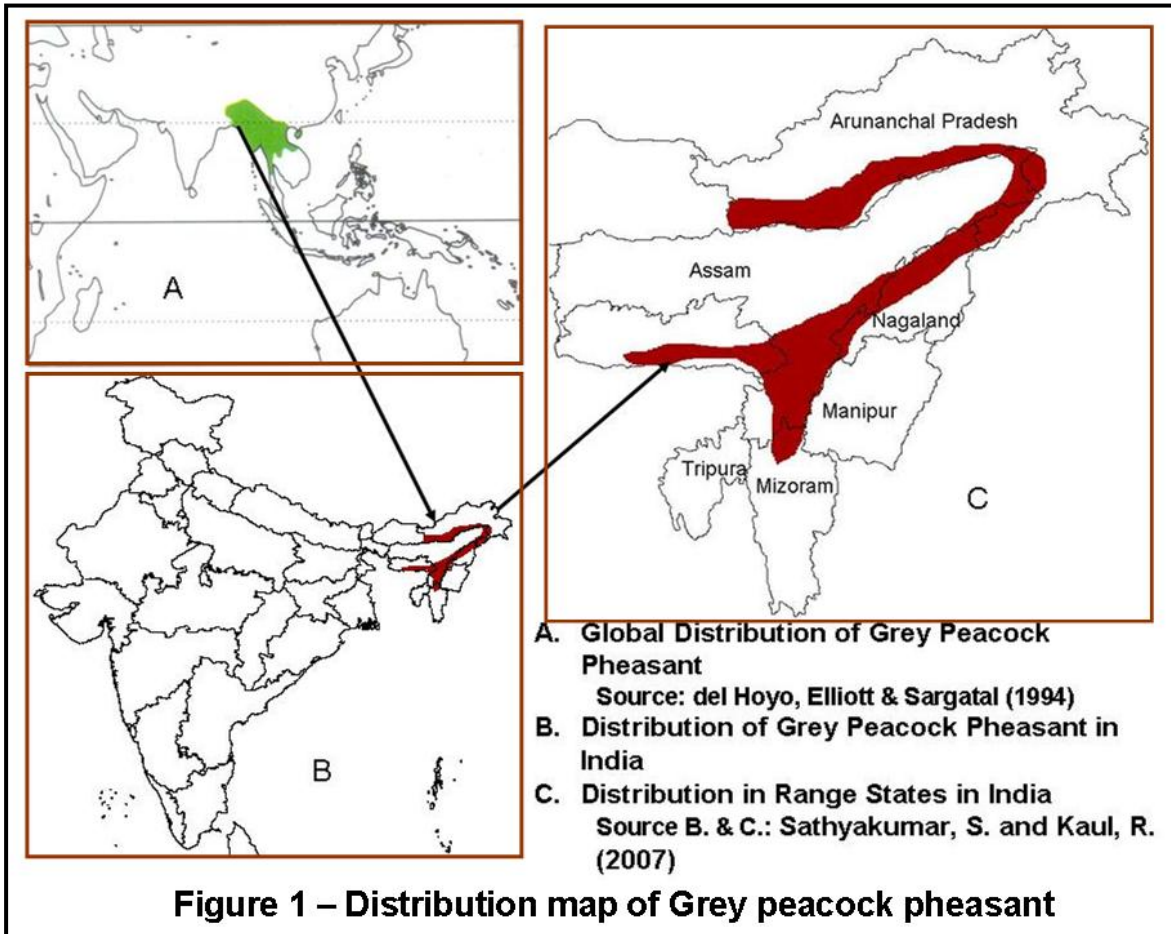
*Traditional studies have placed the grey peacock with either the pheasants or the peafowl depending on the classification approach (Beebe 1990a,b; Delacour 1977; Johnsgard 1986). The peacock pheasants (genus *Polyplectron*) have always been classified as a pheasant because of their characteristics, but received the name peacock because of their eyed feathers and display (Bergmann 1980). The assignment of the grey peacock as a pheasant seems reasonable because of their behavior and appearance, but recent phylogenetic studies have placed them with the peafowl (Kimball et al. 1997, 1999; Kimball and Ligon 1999).*

In the maximum likelihood tree (Figure 2), the grey peacock pairs as a sister taxa to the peafowl-partridge group. In the equally weighted maximum parsimony and constrained weighted parsimony trees (Figure 3), it groups with the two old-world partridges. Since the grey peacock is highly mobile, it cannot be ruled out as being a pheasant with any certainty, but it is becoming increasingly unlikely with the mounting evidence (Kimball et al. 1999; this study). It has been paired with both the partridges and the peafowl in this study, so a plausible alteration to the original question is that it may be a member of either group. Johnsgard (1986, 1988) hypothesized that many or all of the typical pheasant lineages evolved from a partridge-like ancestor, but there are no data to support this. However, this theory may explain why a pheasant-like bird is grouping basally with the partridges. To determine whether the grey peacock belongs with the partridges or peafowl, more data are necessary. More species of peacock pheasants must be sequenced, along with more species of peafowl and partridge.

Bush K. L., Strobeck C. (2003) Phylogenetic Relationships of the Phasianidae Reveals Possible Non-Pheasant Taxa *Journal of Heredity* 94(6):472–489

Distribution

In India the species has been recorded as commonly distributed in the central and eastern Himalayas from Sikkim through Arunachal Pradesh and northeastern states of Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura.



The distribution of the various subspecies has been recognized as:

- *P.b. bakeri*: North east India (Sikkim, Arunachal Pradesh and parts of Assam, Manipur) Sylhet (Bangladesh) and Bhutan.
- *P.b. bicalcaratum*: South China, Myanmar and Bangladesh (Chitagong), Burma (Chin and Kachin hills) and central Laos. In India it is reported from north-east Assam.
- *P.b. bailyii*: Central and north eastern Vietnam and Central Laos.
- *P.b. katsumatae*: Island of Hainan in China.

Biology

The bird inhabits both evergreen and deciduous forests with thick undergrowth in the plains and foothills however its upper distribution is debated. They are fairly abundant in thick cover along banks of rivers. Even found in tangled scrub and secondary growth or mixed bamboo and thick scrub. Usually not seen near human land use forms like cultivations near forest and wooded tea gardens.

The male are identified by their larger size, sharp contrast between their dark grey with paler bars forward pointing bushy crest and the whitish throat and cheeks. The rest of the plumage is relatively uniform vermiculated and barred grey-brown with numerous mainly green with buff and white colour that surrounds the eye spots on the upperpart. The females are smaller and darker, especially the head. The eye spots are dark grey or blackish and are less conspicuous.

Males of *P.b. bakeri* have 210-240 mm wing length and 350-240mm tail length whereas wing length of females measure from 175–215 mm with tail 230-255 mm long. Males of *P.b. bakeri* weigh between 568 – 910 g and female weigh around 460-500 g. Male has brownish buff head and neck with a crest of hair-like feathers upstanding. Rest of the upper part is grayish brown with spots on back and bars on rump and whitish upper tail coverts. Violet green blue, white rimmed eye-spots (ocelli) are studded on the mantle, wing coverts and tail, under surface of which the spots appear black. The under part of throat and chin are whitish. Female is almost similar but is duller and have a shorter tail. The bare skin around eyes is yellowish somewhat flesh colour. Iris is white to grey and bill is creamy flesh colour. Its legs are dark grey in colour and are quite powerful, adapted for scratching. Ocelli on mantle are comparatively less brilliant and more whitish on throat. Chicks have a dark chestnut colour and they have two faint streaks running down their back. The sub-species are identified primarily on the basis of colouration, for ex. *P.b bicalcaratum* is generally more buffy-brown as compared to *P.b. bakeri* which is more grey and less buff.

These birds attain sexual maturity during the first year and breeding takes place between the months of March and June chiefly during April and May. The nest is in a shallow depression often at the foot of clump of a bamboo or in thick bushes. The nest is well hidden by dry leaves and surrounding thick vegetation. It is often located in the proximity of water. The clutch size is mostly reported to be two but instances of three or four eggs in *P.b. bakeri* have also been recorded. The eggs are cream coloured with an average size of 40 eggs being 46.5 X 35.9 mm. The incubation period is 21 days and it is performed by female alone. The chicks once they come out are fed by the mother by regurgitating the food, learning to pick food from ground only after first the few days. For protection the chicks move under the cover of their mother's tail wherever they go.

The birds mainly feed upon an omnivorous diet that include grains, berries, seeds, wild figs, insects, grubs, snails and other small animals. They especially seem to like termites and can also feed upon bamboo seeds and young shoots of green crops depending on their availability. These birds do not seem to have a specific roosting site and it is reported that the male perches on a branch to crow in the morning or late afternoon. They generally remain hidden in dense undergrowth and are extremely swift on their legs.

Behaviour

Foraging behaviour:

When feeding, the birds move very slowly, scratching for food in a methodical, secretive and restrained manner. Moving in the undergrowth, they slink under obstructions instead of hopping over them.

Social and mating behaviour:

The bird occurs in pairs and not in flocks, except when the chicks are young. These pairs that bond during mating may remain together throughout the year or separate during incubation itself. During breeding season each pair has their own

protected territories. Before mating the male displays beautifully. Both lateral and frontal displays occur. During the former the cock lowers its near wing while stretching the farther one and the tail, to the fullest extent, forming a fan behind which the head is partly hidden. By doing so it aims to dazzle the hen with its brilliant metallic ocelli. In a second posture it lowers its head and tail to the ground and tilts his body to vertical while spreading its tail and wings; thus forming a remarkable visual pattern of somewhat triangular or rounded brown feathered shield. The female remains disinterested during these performances but may respond with a similar posture but of a lesser degree and then the copulation takes place.

Calls: During the second posture the male also produces a melodious chirping whistle to attract the female. The male generally make a crowing call sounding like *phee-hoo* or guttural *hoo* which is loud but their calls have been reported to not carry very far. The call has been variously interpreted as a challenge call to attraction call and even musical or chuckling note. Another common call that sounds like *ok-kok-kok* is a series of croaking calls uttered in rapid succession. It has been interpreted as a chuckle as also an alarm call.

Threats

The major threat to the population of this bird is habitat loss mainly due to the practice of *jhum* cultivation followed in the north-eastern states of India. Subsistence hunting for food is another problem that threatens the species. The species is being put on sale across the world to be used in fly tye equipments (fly tyes are artificial flies / baits used for angling.), in addition to being bred as a gamebird.

Conservation Status

Despite the above threats the species is reported to be fairly abundant although populations are reported to be declining. In the Indian Wildlife Protection Act (IWPA) it has been listed as Schedule I, though the IUCN red list of threatened

species (2010) lists it as LC. CITES has listed it as an Appendix II species since 1975.

Methods

The data for the present studbook was collected through mailed questionnaires and the CZA website (cza.nic.in). The data collected has been summarized in the listing of living animals and historical listing.

Status in Captivity

Table 1 Status in captivity in Indian zoos

Sl. No.	Zoo Name	Male	Female	Unsexed	Total
1.	Kamala Nehru Zoological Park, Ahmedabad	0	0	2	2
2	Alipore Zoo, Kolkatta	8	13	1	22
3.	Padamaja Naidu Himalayan Zoological Park, Darjeeling	2	3	3	8
4.	Veer mata Jijabhai Bhonsle Udyan, Mumbai	1	0	0	1
	Total	11	16	6	33

Further demographic and genetic analysis of the data was not carried out as the data available from zoos has poor information on the pedigree records and dates of entry and exit of specimens.

Table 2 Location-wise Listing of Living Grey Peacock Pheasant in Indian Zoos

Sl. No	Home Name and Tag No./Transponder No./ID No./Ring No.	National Studbook No.	International Studbook No.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
1	Unnamed13	00013		Unk	Unk	Unk	24 June 1994	Ahmedabad	Birth	24 June 1994	
2	Unnamed14	00014		Unk	Unk	Unk	18 June 1995	Ahmedabad	Birth	18 June 1995	
3	GPP8 Transponder No. CB/CZA/INDIA/07/1558	00032		F	Unk.	Unk.	7 Apr 2002	Darjeeling	Birth	7 Apr 2002	
4	GPP1 Transponder No. CB/CZA/INDIA/07/1551	00034		M	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	
5	Transponder No. CB/CZA/INDIA/07/1560	00035		F	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	
6	GPP2 Transponder No. CB/CZA/INDIA/07/1556	00036		M	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	Age at entry approx. 2 years.
7	GPP4 Transponder No. CB/CZA/INDIA/07/1553	00049		F	Unk.	Unk.	22 Feb 2007	Darjeeling	Birth	22 Feb 2007	
8	GPP10 Transponder No. 07/CB/CZA/INDIA/1569	00052		Unk	Unk.	Unk.	18 Apr 2008	Darjeeling	Birth	18 Apr 2008	
9	GPP 11	00053		Unk	Unk	Unk	29 May 2009	Darjeeling	Birth	29 May 2009	
10	GPP 13	00054		Unk	Unk	Unk	29 May 2009	Darjeeling	Birth	29 May 2009	
11	ID No. 2 Ring No. 15190	00017		F	Unk	Unk	15 Feb 2001	Kolkata	Birth	15 Feb 2001	
12	ID No. 5 Ring No. 15140	00019		F	Unk	Unk	15 Mar 2001	Kolkata	Birth	15 Mar 2001	
13	ID No. 6 Ring No. 16066	00023		F	Unk	Unk	26 Feb 2002	Kolkata	Birth	26 Feb 2002	
14	ID No. 12 Ring No. 15878	00024		M	Unk	Unk	5 Mar 2002	Kolkata	Birth	5 Mar 2002	
15	ID No. 13 Ring No. 15879	00027		M	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	
16	ID No. 9 Ring No. 16069	00028		F	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	

Sl. No	Home Name and Tag No./Transponder No. /ID No./Ring No.	National Studbook No.	International Studbook No.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
17	ID No. 10 Ring No. 16070	00029		F	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	
18	ID No. 14 Ring No. 15880	00030		M	Unk.	Unk.	27 Mar 2002	Kolkata	Birth	27 Mar 2002	
19	ID No. 15 Ring No. 15881	00031		M	Unk.	Unk.	7 Apr 2002	Kolkata	Birth	7 Apr 2002	
20	ID No. 16 Ring No. 15903	00033		M	Unk.	Unk.	27 Apr 2002	Kolkata	Birth	27 Apr 2002	
21	Transponder No. CB/CZA/INDIA/07/1559	00037		M	Unk.	Unk.	~July 2003	Kolkata	Acquisition	20 Janu 2004	
22	ID No. 17 Ring No. 18143	00038		F	Unk.	Unk.	1 Feb 2003	Kolkata	Birth	1 Feb 2003	
23	ID No. 18 Ring No. 18144	00039		F	Unk.	Unk.	20 Feb 2003	Kolkata	Birth	20 Feb 2003	
24	ID No. 20 Ring No. 571	00042		F	Unk.	00038	22 Feb 2005	Kolkata	Birth	22 Feb 2005	
25	ID No. 21 Ring No. 572	00043		F	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
26	ID No. 22 Ring No. 573	00044		M	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
27	ID No. 23 Ring No. 574	00045		F	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
28	GPP5 Transponder No. CB/CZA/INDIA/07/1554	00046		F	Unk.	Unk.	~2006	Kolkata	Birth	~2006	Age at entry approx. 3 years.
29	GPP7 Transponder No. CB/CZA/INDIA/07/1557	00047		F	Unk.	Unk.	~2006	Kolkata	Birth	~2006	Age at entry approx. 3 years.
30	GPP3 Transponder No. CB/CZA/INDIA/07/1552	00048		M	Unk.	Unk.	2 Feb 2007	Kolkata	Birth	2 Feb 2007	Age at entry approx. 2 years.
31	GPP6 Transponder No. CB/CZA/INDIA/07/1555	00050		F	Unk.	Unk.	19 Apr 2007	Kolkata	Birth	19 Apr 2007	Age at entry approx. 3 years.
32	GPP9 Transponder No. 07/CB/CZA/INDIA/1572	00051		Unk.	Unk.	Unk.	1 Apr 2008	Kolkata	Birth	1 Apr 2008	
33	Unnamed17	00041		M	Unk.	Unk.	22 Jul 2004	Mumbai	Birth	22 Jul 2004	

Table 3 Historical Listing of Grey Peacock Pheasant in Indian Zoos

Sl. No.	Home Name and Tag No./Transponder No./ID No./Ring No.	National Studbook No.	International Studbook no.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
1	Unnamed1	00001		Unk	Unk	Unk	~ Dec 1971	Ahmedabad	Acquisition	29 July1972	Purchased from dealer.
2	Unnamed2	00002		Unk	Unk	Unk	~ Feb 1984	Ahmedabad	Acquisition Death	17 Aug 1984 20 Apr 1993	Exchanged with dealer from Guwahati
3.	Unnamed3	00003		Unk	Unk	Unk	~ Feb 1984	Ahmedabad	Acquisition Death	17 Aug 1984 30 Oct 1993	Exchanged with dealer from Guwahati
4.	Unnamed4	00004		Unk	Unk	Unk	~ Oct 1984	Ahmedabad	Acquisition Death	4 Apr 1985 11 Jun 1994	Exchanged from Bhagalpur
5	Unnamed5	00005		Unk	Unk	Unk	~ Oct 1984	Ahmedabad	Acquisition Death	4 Apr 1985 12 Oct 1998	Exchanged from Bhagalpur
6	Unnamed6	00006		Unk	Unk	Unk	16 Mar 1989	Ahmedabad	Birth Death	16 Mar 1989 13 Sept 1991	
7.	Unnamed7	00007		F	Unk	Unk	5 Mar 1990	Mumbai	Birth Death	5 Mar 1990 7 Jan 2003	Died due to respiratory disease
8	Unnamed8	00008		M	Unk	Unk	5 Mar 1990	Mumbai	Birth Death	5 Mar 1990 6 Jul 2006	Died due to Septicemia. Old age factors.
9	Unnamed9	00009		F	Unk	Unk	25 Feb 1992	Mumbai	Birth Death	25 Feb 1992 31 Jan 1994	Died due to Enteritis
10	Unnamed10	00010		F	Unk	Unk	25 Feb 1992	Mumbai	Birth	25 Feb 1992	
11	Unnamed11	00011		Unk	Unk	Unk	~ Oct 1992	Ahmedabad	Acquisition Death	20 Apr 1993 20 Apr 1993	Exchanged from Baroda Zoo.
12	Unnamed12	00012		F	Unk	Unk	25 Aug 1993	Mumbai	Birth	25 Aug 1993	
13.	Unnamed13	00013		Unk	Unk	Unk	24 June 1994	Ahmedabad	Birth	24 June 1994	
14	Unnamed14	00014		Unk	Unk	Unk	18 June 1995	Ahmedabad	Birth	18 June 1995	
15	Unnamed15	00015		F	Unk	Unk	26 June 1999	Mumbai	Birth Death	26 June 1999 12 Nov 1999	Died due to infighting. Injury haemorrhage
16	ID No. 1	00016		F	Unk	Unk	4 Feb 2001	Kolkata	Birth	4 Feb 2001	

Sl. No.	Home Name and Tag No./Transponder No./ID No./Ring No.	National Studbook No.	International Studbook no.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
	Ring No. 15189								Death	30 Apr 2006	
17	ID No. 2 Ring No. 15190	00017		F	Unk	Unk	15 Feb 2001	Kolkata	Birth	15 Feb 2001	
18	ID No. 3 Ring No. 15191	00018		F	Unk.	Unk.	25 Feb 2001	Kolkata	Birth Death	25 Feb 2001 1 Oct 2001	
19	ID No. 5 Ring No. 15140	00019		F	Unk	Unk	15 Mar 2001	Kolkata	Birth	15 Mar 2001	
20	ID No. 4 Ring No. 15192	00020		F	Unk	Unk	25 Mar 2001	Kolkata	Birth Death	25 Mar 2001 26 Mar 2004	
21	Unnamed16	00021		F	Unk	Unk	19 Apr 2001	Mumbai	Birth	19 Apr 2001	
22	ID No. 11 Ring No. 15876	00022		M	Unk	Unk	2 Feb 2002	Kolkata	Birth Death	2 Feb 2002 16 Apr 2006	
23	ID No. 6 Ring No. 16066	00023		F	Unk	Unk	26 Feb 2002	Kolkata	Birth	26 Feb 2002	
24	ID No. 12 Ring No. 15878	00024		M	Unk	Unk	5 Mar 2002	Kolkata	Birth	5 Mar 2002	
25	ID No. 7 Ring No. 16067	00025		F	Unk	Unk	5 Mar 2002	Kolkata	Birth Death	5 Mar 2002 16 th May 2004	
26	ID No. 8 Ring No. 16068	00026		F	Unk.	Unk.	10 Mar 2002	Kolkata	Birth Death	10 Mar 2002 5 Jul 2005	
27	ID No. 13 Ring No. 15879	00027		M	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	
28	ID No. 9 Ring No. 16069	00028		F	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	
29	ID No. 10 Ring No. 16070	00029		F	Unk.	Unk.	14 Mar 2002	Kolkata	Birth	14 Mar 2002	
30	ID No. 14 Ring No. 15880	00030		M	Unk.	Unk.	27 Mar 2002	Kolkata	Birth	27 Mar 2002	
31	ID No. 15 Ring No. 15881	00031		M	Unk.	Unk.	7 Apr 2002	Kolkata	Birth	7 Apr 2002	
32	GPP8 Transponder No. CB/CZA/INDIA/07/1558	00032		F	Unk.	Unk.	7 Apr 2002	Darjeeling	Birth	7 Apr 2002	
33	ID No. 16 Ring No. 15903	00033		M	Unk.	Unk.	27 Apr 2002	Kolkata	Birth	27 Apr 2002	

Sl. No.	Home Name and Tag No./Transponder No./ID No./Ring No.	National Studbook No.	International Studbook no.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
34	GPP1 Transponder No. CB/CZA/INDIA/07/1551	00034		M	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	
35	Transponder No. CB/CZA/INDIA/07/1560	00035		F	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	
36	GPP2 Transponder No. CB/CZA/INDIA/07/1556	00036		M	Unk.	Unk.	10 May 2002	Darjeeling	Birth	10 May 2002	Age at entry approx. 2 years.
37	ID No. 17 Ring No. 18143	00037		F	Unk.	Unk.	1 Feb 2003	Kolkata	Birth	1 Feb 2003	
38	ID No. 18 Ring No. 18144	00038		F	Unk.	Unk.	20 Feb 2003	Kolkata	Birth	20 Feb 2003	
39	ID No. 19 Ring No. 18145	00039		F	Unk.	Unk.	26 Mar 2003	Kolkata	Birth Death	26 Mar 2003 6 Nov 2007	
40	Transponder No. CB/CZA/INDIA/07/1559	00040		M	Unk.	Unk.	~ July 2003	Darjeeling	Acquisition	20 Jan 2004	
41.	Unnamed17	00041		M	Unk.	Unk.	22 Jul 2004	Mumbai	Birth	22 Jul 2004	
42	ID No. 20 Ring No. 571	00042		F	Unk.	ID No.17	22 Feb 2005	Kolkata	Birth	22 Feb 2005	
43	ID No. 21 Ring No. 572	00043		F	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
44	ID No. 22 Ring No. 573	00044		M	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
45	ID No. 23 Ring No. 574	00045		F	Unk.	Unk.	31 Mar 2005	Kolkata	Birth	31 Mar 2005	
46	GPP5 Transponder No. CB/CZA/INDIA/07/1554	00046		F	Unk.	Unk.	~2006	Darjeeling	Birth	~2006	Age at entry approx. 3 years.
47	GPP7 Transponder No. CB/CZA/INDIA/07/1557	00047		F	Unk.	Unk.	~2006	Darjeeling	Birth	~2006	Age at entry approx. 3 years.
48	GPP3 Transponder No. CB/CZA/INDIA/07/1552	00048		M	Unk.	Unk.	2 Feb 2007	Darjeeling	Birth	2 Feb 2007	Age at entry approx. 2 years.
49	GPP4	00049		F	Unk.	Unk.	22 Feb 2007	Darjeeling	Birth	22 Feb 2007	

SI. No.	Home Name and Tag No./Transponder No./ID No./Ring No.	National Studbook No.	International Studbook no.	Sex	Sire	Dam	Birth Date	Location	Event	Date	Remarks
	Transponder No. CB/CZA/INDIA/07/1553										
50	GPP6 Transponder No. CB/CZA/INDIA/07/1555	00050		F	Unk.	Unk.	19 Apr 2007	Darjeeling	Birth	19 Apr 2007	Age at entry approx. 3 years.
51	GPP9 Transponder No. 07/CB/CZA/INDIA/1572	00051		Unk.	Unk.	Unk.	1 Apr 2008	Darjeeling	Birth	1 Apr 2008	
52	GPP10 Transponder No. 07/CB/CZA/INDIA/1569	00052		Unk	Unk.	Unk.	18 Apr 2008	Darjeeling	Birth	18 Apr 2008	
53	GPP 11	00053		Unk	Unk	Unk	29 May 2009	Darjeeling	Birth	29 May 2009	
54	GPP 13	00054		Unk	Unk	Unk	29 May 2009	Darjeeling	Birth	29 May 2009	

The way ahead

A review of literature suggests that the species adapts well to captivity and can be easily bred. Details of husbandry and care are provided in Singh and Singh 1995. However prior to initiation of the conservation breeding program it is suggested that a more detailed assessment of their status in the wild be carried out as the IUCN red list of threatened species 2010 lists it as a species of least concern with no clear information available on its population status in the wild. The taxonomic uncertainties about the species need to be conclusively addressed using molecular genetic techniques. Also a detailed parentage analysis of the specimens existing in captivity needs to be carried out using molecular genetic techniques prior to carrying out further breeding.

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