

# NATIONAL STUDBOOK

## TIBETAN WOLF (*Canis lupus chanco*)

Published as a part of the Central Zoo Authority sponsored project titled  
"Development and maintenance of studbooks for selected endangered species in Indian zoos"

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भारतीय वन्यजीव संस्थान  
Wildlife Institute of India



केन्द्रीय चिड़ियाघर प्राधिकरण  
Central Zoo Authority

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1. Himalayan Nature Park, Kufri
2. Himalayan Zoological Park, Gangtok
3. Padmaja Naidu Himalayan Zoological Park, Darjeeling
4. Pandit Govind Ballabh Pant High Altitude Zoo, Nainital

**Contributors**

# Tibetan wolf (*Canis lupus chanco*)

## Species biology

### Taxonomy

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia

Order: Carnivora

Family: Canidae

Species- *Canis lupus*

Sub-species: *Canis lupus chanco*

Species Authority: Gray, 1863

Common Name: Tibetan wolf



Systematics of wolves from the Indian subcontinent has been poorly studied and remains controversial with taxonomists accepting both the Indian *Canis lupus pallipes* and the Himalayan *C. l. chanco* to be distinct relatives of other wolves (Sharma *et al.* 2004). Based on physical characteristics, Hodgson (1847) described the Himalayan wolf as a distinct species, *C. laniger*. Later, Blanford (1888) combined *C. laniger* with *C. lupus* and elevated the Indian wolf to *C. pallipes*. Pocock (1941) described both as subspecies of *C. lupus*, making *C. laniger* and *C. pallipes* parts of the more widely distributed *C. l. pallipes* and *C. l. chanco*, respectively.

Recent molecular genetic studies have suggested the wolf population found in the Indian Trans-Himalayas to be a genetically unique species or subspecies and the oldest lineage of the wolf-dog clan worldwide (Aggarwal *et al.* 2003; Sharma *et al.* 2004). Aggarwal *et al.* (2003) proposed to revise the existing nomenclature and rechristened the two Indian wolf populations with new species/sub-species status *i.e.*, *C. himalayeansis* (or *C. lupus himalayeansis*) and *C. indica* (*C. lupus indica*), respectively. However; (Sharma *et al.* 2004) based on samples of wild origin animals collected from peninsular India (N = 45), Himalayas and Tibetan plateau (N = 23) concluded that the Indian subcontinent has three divergent, ancient and apparently parapatric mtDNA lineages within the morphologically delineated wolf. These are the peninsular and eastern Pakistan wolf lineage, the western Himalayan lineage from northwest Jammu and Kashmir and the eastern Himalayan lineage from Ladakh, Spiti, Tibet and Nepal.

Aggarwal (2007) confirmed the distinctness of Himalayan wolf from a similar wolf from China, *C. lupus chanco*, and that it represents the most ancient wolf lineage ever recorded and analysed using molecular means. Similarly, the Indian Grey Wolf was found to be distinct from the purported similar wolves from south-east Asia, *C. lupus pallipes*, and probably also represents the other ancient wolf lineage from India.

## Habitat and Ecology

The trans-Himalayan region characterised by low temperatures, and rainfall, limited floristic diversity and vegetation cover and low prey density (Rawat, 2008) are the home to two apex predators namely the Himalayan/ Tibetan wolf and Snow leopard (Habib *et al.* 2013). Field studies based on sign surveys in Nepal part of the trans-Himalayas revealed a preference for grasslands (68% of scats recovered) and a close association to pastoral communities with livestock with domestic livestock forming 65% of the prey base of the animal (Subba, 2012). Tibetan wolves descend to the valleys in winter, migrating with wild and domestic ungulates to the snow-line in summer (Prater, 1971). During winter they shelter in holes, caves and crevices in rocks while in summer thickets of reeds and scrub are used.

In the Qinghai-Tibet Plateau, hare, yak, and small rodents were found to be the most important prey species of the wolves during summers; whereas yak, sheep and hare were found to be important prey species in winters (Liu and Jiang, 2003). Badgers, Przewalski's gazelle, birds, reptiles, invertebrates and plants also formed a part of their diet in this region. Additionally they are believed to scavenge on livestock carcasses (Liu and Jiang, 2003). Davidson *et al.* (2012) reported that on the Tibetan Plateau: plateau pikas (*Ochotona curzoniae*) represented as much as 50% of their diet. In Kargil and Drass areas of Jammu and Kashmir, Maheshwari *et al.* (2010) recorded domestic and wild ungulates to be a major portion of their diet with wild rodents also contributing significantly to it.

## Social and reproductive behaviour

The species has been poorly studied, and limited information on its social and reproductive behaviour is available in literature. The social and reproductive behaviour of gray wolves described by Mech (1974) reveals wolves to be social animals usually living in packs of 5 to 8 members, though; packs of up to 36 have also been reported (Rausch, 1967). The wolf packs defend resource based territories and delineate them by scent marking while howling and fights are used for defence. Territorial conflicts also control the number of packs in an area (Mech, 1970).

The wolf pack includes the dominant "alpha pair" their off-spring and an assortment of other individuals that live and hunt in pairs. Dominance hierarchy in the pack is maintained with the adult male dominant to the adult female and pups, the female dominant to the pups, and a linear order among the pups. Social rank in pups is established normally through play-fighting, involving chasing, ambushing, and mock fighting. Separate male and female orders may develop among adults in large packs; however, the pack is usually led by the "alpha male."

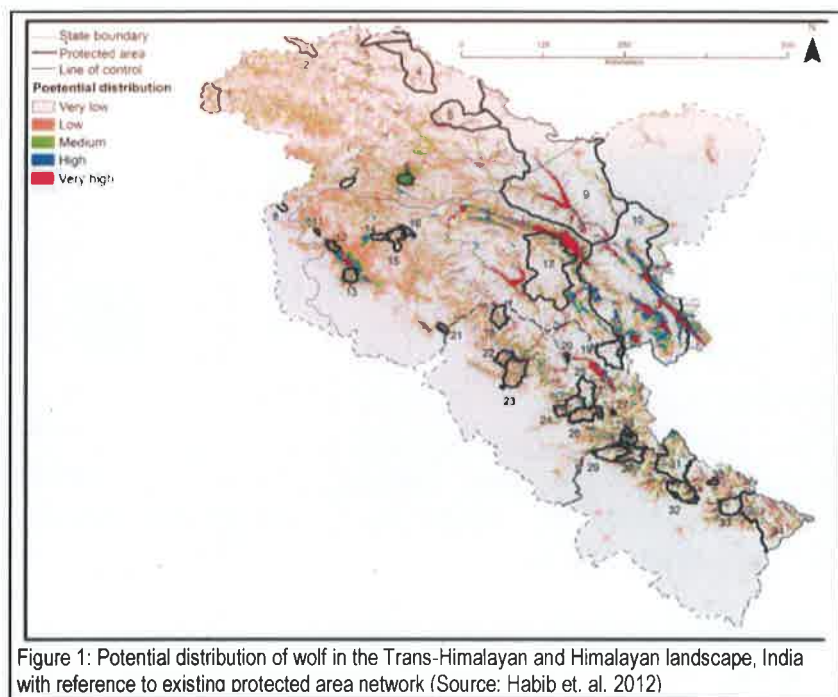
Social interactions and dominance demonstrations occur throughout the year but intensify during the breeding season. The courtship ritual consists of sniffing, nipping, head rubbing; snout grabbing, tail wagging and general play with body contact can extend from a few days to several months. Courtship may be initiated by dominant wolves of a pack or lone wolves with only a few of the several such attempts succeeding. Copulation is similar to other canids with mounting being oriented from behind. The male grasps the female around the chest and inserts his penis and thrusts until the penis is locked behind the vaginal sphincter. A mating pair can remain tied, for up to 30 minutes, during which multiple ejaculations may occur.

## Growth and development

A den often a hole in the ground or a rocky crevice is used for whelping. The dens are situated in areas with minimal disturbance with the same den being used several times. A litter comprising on an average of six pups is born blind after a gestation period of 63 days. The reproducing female takes care of the pups while the alpha male and other pack members hunt and feed the female and pups. Milk teeth erupt by the third week while weaning takes place at five weeks of age. The pups are shifted to a ground nest when they are eight weeks old where they acquire the skills essential to survival. Play and mock fights are the predominant activities of the cubs in these open dens days (Mech, 1974). The pups start accompanying their parents by 4-5 months of age (Mech and Boitani 2003). They may attain sexual maturity by two years of age but usually start reproducing only after the third year.

## Distribution

Tibetan wolf have been reported to occur in the Trans-Himalayan regions of India (Fox *et al.* 1986; Chundawat 1992; Chundawat and Qureshi 1999). They have been recently sighted in the Trans-Himalaya region of Uttarakhand, i.e., in Nanda Devi Biosphere Reserve (BR) and Gangotri National Park (NP) (Bhattacharya and Sathyakumar, 2010). Sign surveys and interviews



with local communities carried out by Habib *et al.* (2013) in the states of Jammu and Kashmir, Himachal Pradesh and Uttarakhand suggest a patchy distribution. The results of their study are presented as figure 1.

## Threats

Livestock predation by Tibetan wolves in the Trans-Himalayan region has been well documented (Fox *et al.* 1986; Fox *et al.* 1991; Chundawat 1992; Mishra 1997; Chundawat and Qureshi 1999; Maheshwari *et al.* 2010, Habib *et al.* 2013). This livestock depredation has resulted in retaliatory killing by pastoralists across their range in India and Nepal. Mishra (1997) observed that pastoralists locate dens of the wolves and then kill all the pups found there; thus effectively limiting recruitment in the population. This retaliatory killing in association with increased anthropogenic activities in their habitat has impacted populations.

## Conservation measures

The species is listed in Schedule I Part I of the Wildlife Protection Act (1972) of India. Taxonomic uncertainties between Tibetan wolf and Himalayan wolf limit conservation measures at an international level.

## Status in the wild

Accurate population estimates of the species are unavailable, however literature and recent studies by Habib *et al.* (2013) and Subba (2012) indicate that the animal is struggling for its existence across its range and is vulnerable to retaliatory killing by pastoralists.

## Status in captivity

The global captive population consists of 46 Tibetan wolves (13 males, 33 females) currently being maintained at seven institutions in Asia and Europe (ZIMS data current as on 27<sup>th</sup> June 2014). In India, the living population of Tibetan wolves (n=20) is housed at four institutions namely Padmaja Naidu Himalayan Zoological Park, Darjeeling, Himalayan Zoological Park, Gangtok, Pandit Govind Ballabh Pant High Altitude Zoo, Nainital and Himalayan Nature Park, Kufri.

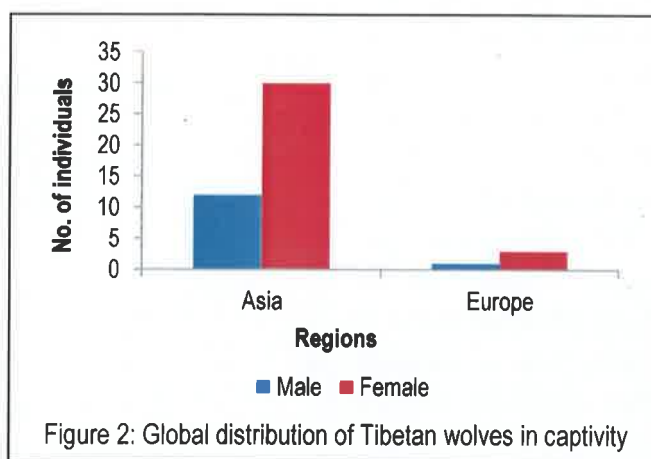


Figure 2: Global distribution of Tibetan wolves in captivity

Table 1: Status of Tibetan wolves in Indian zoos

Location	Total Individuals (M.F.U)	Living Individuals (M.F.U)	Time span during which Tibetan wolves were maintained in captivity (Years)	Births (M.F.U)	Deaths (M.F.U)
Darjeeling	47 (19.28.0)	12 (2.10.0)	1990-2014 (24)	44 (17.27.0)	15 (8.7.0)
Gangtok	14 (5.9.0)	2 (2.0.0)	1999-2014 (15)	8 (2.6.0)	11 (2.9.0)
Nainital	10 (4.6.0)	4 (2.2.0)	1997-2014 (17)	2 (1.1.0)	6 (2.4.0)
Shimla	7 (3.4.0)	2 (1.1.0)	1990-2014 (24)	0	5 (2.3.0)

## Methods

Data on individual history was collected by means of questionnaires, zoo visits and from the websites of CZA and ZIMS (Zoological Information Management System). Questionnaires were sent to the four institutions to have housed Tibetan wolves in India, requesting information for each captive specimen either housed at present or in the past. Data was entered in the Single Population Analysis and Records Keeping System (SPARKS v 1.66) (ISIS 2004) and subsequently exported to population management program PMx v 1.2 (Ballou *et al.* 2010). Data was exported from SPARKS and used as input files in PMx for further analysis. Further visualization and analysis of pedigree data was performed using the program Lineage v 1.06 (Pollak *et al.* 2001).

*add in ref.*

### Scope of the studbook and data quality

The second edition of Studbook for the Indian captive population of Tibetan wolves includes all available information from zoos in India till 31<sup>st</sup> December, 2013. The availability of data with reference to the Tibetan wolf captive population in Indian zoos is summarized in Figure 3. Complete parentage records were available for 28 of the 54 births recorded in captivity. Birth date estimates were unavailable for all the wild-born individuals. Death dates were available for 31 out of 37 mortalities in captivity. Therefore, data on only 42 individuals with precise birth and death information was used for construction of life-tables for the Tibetan wolf captive population. The fecundity and mortality values are based on small sample sizes.

Presence of a large proportion of individuals of unknown pedigrees (52% of the individuals born to parents of unknown identification and lineage) and uncertainty of life-history events (birth and death dates) in the Tibetan wolf captive population restrict analysis using PMx. Therefore, demographic analysis was limited only to descriptive accounts of the population trends, and no genetic analysis was performed. Consequently, appropriate pairing choices and population management plan could not be developed.

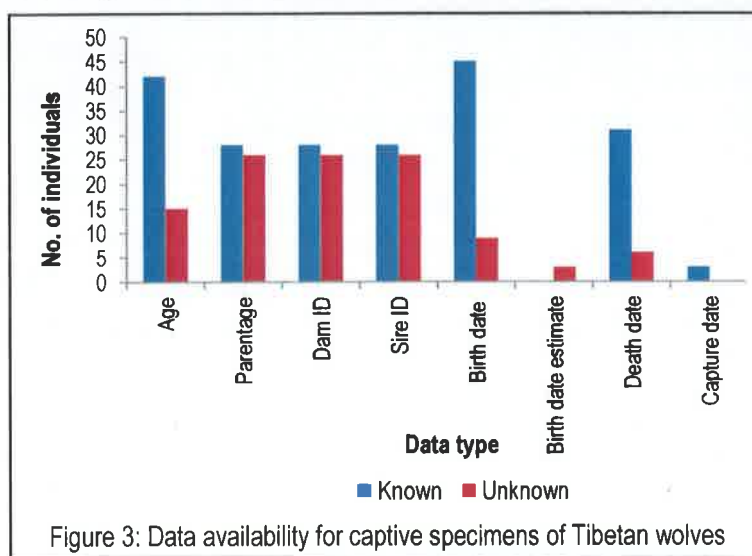


Figure 3: Data availability for captive specimens of Tibetan wolves



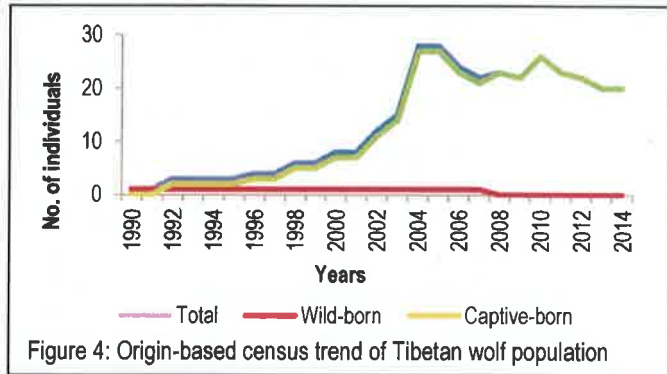
# ANALYSIS

## Demography

### Historical population

#### Census trends

Tibetan wolves have been housed in four Indian zoos since 1990 with a historical population of 57 individuals (21.36.0). This includes three (1.2.0) wild-born and 54 (20.34.0) captive-born individuals. An overview of the captive population is presented in Table 2, and the details of individual specimens in the captive



population are provided as Annexure-I. The census trends of this population are presented in figures 4 and 5. The captive population was established with 3 wild-born (1.2) individuals and the first birth in captivity occurred in 1991. No births were recorded during 1993-1995, and the population remained small with a median of only 3.5 individuals ( $4.16_{\text{Mean}} \pm 2.37_{\text{SD}}$ ) per year, during its first 11 years in captivity (1990-2001). During the next three years, the population size increased due to the birth of 25 individuals (8.17) from January, 2002 to April 2004 and relatively fewer deaths (1.4) (Figure 4). During 2005-07, the population size dropped again, due to the complete absence of births and an increase in mortalities (4.8). The population development during the last six years (2008-2013) indicates a declining trend with a slightly higher rate of mortalities (Median=2;  $2.2_{\text{Mean}} \pm 1.7_{\text{SD}}$ ) than births (Median = 1.5;  $1.7_{\text{Mean}} \pm 1.6_{\text{SD}}$ ) per year. Figure 5 indicates that the sex-ratios were equal till 1999; from 2000 onwards the sex-ratio was biased towards females with a current sex ratio of 1:1.9.

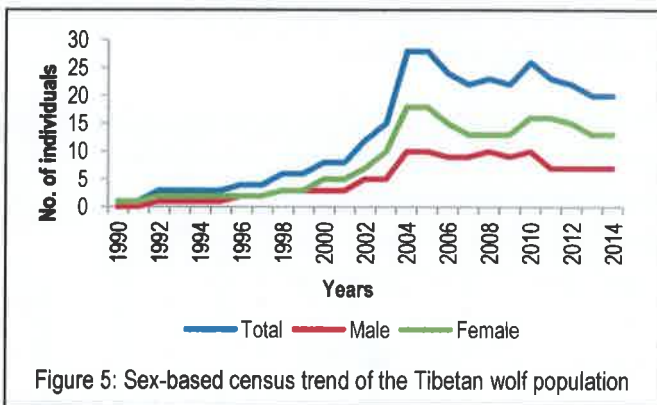


Table 2: Summary of the historical population

Population characteristics	Males	Females	Total
Total studbook size	21	36	57
Total number of acquisitions from wild	1	2	3
Total number of captive-born individuals	20	34	54
Total number of deaths	14	23	37
Total number of breeding individuals	6	7	13
Wild-born that have bred	1	1	2
Captive-born that have bred	5	6	11

#### Breeding population

Figure 6 shows the breeding population in proportion to the total population over the years. During its 24-year history in captivity, breeding was recorded only for seven years (2002-2004 and 2008-2011). Most number of individuals bred in the year 2004 when the breeding population corresponded to more

than 20% of the total births for the first and only time. Only 22.3% of individuals have bred in the population with a mean of less than one individual per year.

A total of 54 (20.34.0) births have been recorded in captivity. Parentage records for 26 of these births were not available. The reproductive output for total individuals shows a mean contribution of 0.77 and 1.33 infants per individual respectively for females and males. This is based on a total of 13 individuals (6 males, 7 females) that have reproduced. This includes 2 (1 male, 1 female) were wild-born and 11 (5 males, 6 females) captive-born individuals. The parentage records for only 3 (1 male, 2 females) captive-born individuals that contributed to breeding was available.

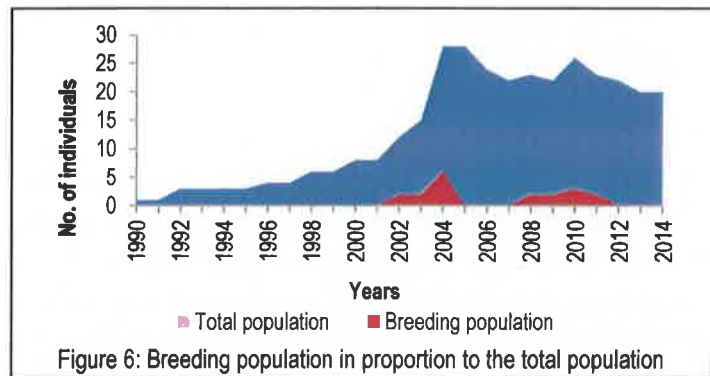


Figure 6: Breeding population in proportion to the total population

A total of seven pairs have reproduced in the population, of this; two pairs are dead while three pairs have been disrupted due to the death of either of the mates. At the end of 2013, there were 6 (3.3) individuals capable of reproduction in the captive population. However; the current population includes only two pairs capable of breeding (00031 & 00044; 00037 & 00039). No surviving offspring of the former pair has been recorded till date.

### Birth seasonality

Birth seasonality was based on data available for 44 captive births (Figure 7) revealed that births peaked in March – April with 50% births (N = 22) occurring during March and approximately 32% (N = 14) during April. Sporadic birth events were recorded during January, February, August and October.

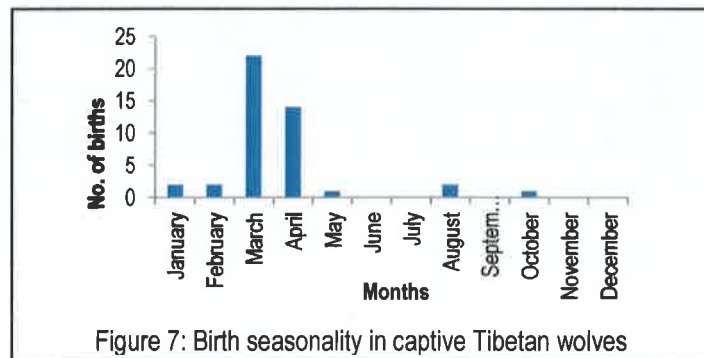


Figure 7: Birth seasonality in captive Tibetan wolves

### Age-sex structure

The age structure of the population shows a high proportion of reproductively senescent individuals and few infants and juveniles at the base (Figure 8). It can be attributed to the reduced reproductive output and small size of the captive population. The median age of the living population is 10.185 years (8.35Mean±3.71SD) years. While 45% [9 individuals (2. 7)] are within prime breeding age (3-8 years of age), individuals older than the

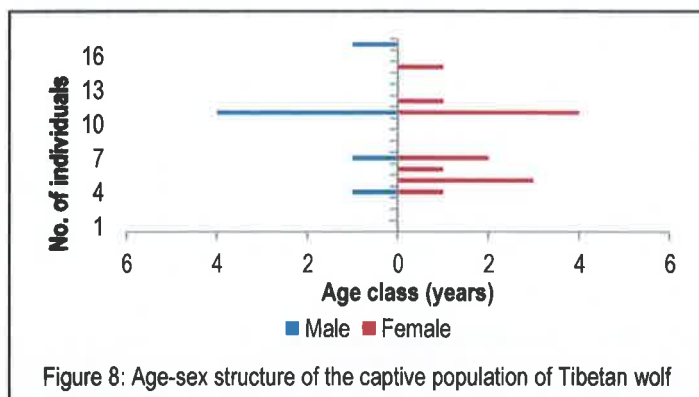


Figure 8: Age-sex structure of the captive population of Tibetan wolf

recorded breeding age (>8) totalled 55% (5.6). The age-sex structure of the population indicates that the population is currently declining due to the low reproductive output resulting in poor recruitment in the pre-reproductive age classes and is inadequate to replenish the declines caused by mortality events.

### Life-table

A life table summarizes the vital rates of the population. These are calculated based on specific tallies on age-specific birth and death events (See box for details). Table 3 summarizes the life table of the captive Tibetan wolf population. The calculations are based on a sample size of 42 individuals with information on dates of entry and exit; whereas, the minimum sample size for an accurate analysis that can be used for predictions using PMx is 30 individuals of each sex for each age class (Traylor-Holzer, 2011). The life tables are included here to indicate the mortality and fecundity trends only and may not be used for developing population projections.

Table 3: Life-table for Tibetan wolf captive population

Age (years)	Male Fecundity Rate (Mx)	Male Mortality Rate (Qx)	Female Fecundity Rate (Mx)	Female Mortality Rate (Qx)
0	0	0.04	0	0.15
1	0	0.11	0	0
2	0	0.05	0	0
3	0.051	0.01	0.08	0.05
4	0.456	0	0.223	0.11
5	0.051	0	0.15	0
6	0.454	0	0.185	0.07
7	0.112	0.07	0.094	0.01
8	0	0.12	0	0.25
9	0	0.14	0	0.09
10	0	0	0	0.03
11	0	0.09	0	0
12	0	0.27	0	0.05
13	0	0	0	0.32
14	0	0.16	0	0.48
15	0	0.3	0	0
16	0	0.16	0	0
17	0	0	0	0
18	0	0	0	0

### Age-specific fecundity

Individual life-history records (28 births of known parentage) indicate that the median age at first reproduction for females was 4.08 years (5.05Mean±1.41SD; n=5) and 4.06 years (4.78Mean±1.5SD; n=4) for males. The reproductive span for females was between 4.0-7.5 years (Figure 9). The period of peak

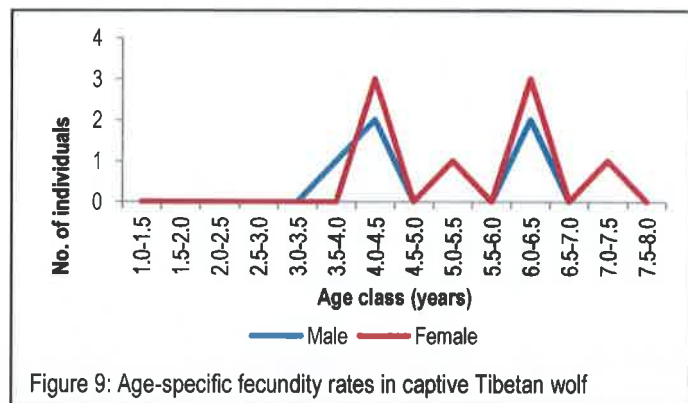


Figure 9: Age-specific fecundity rates in captive Tibetan wolf

reproduction when most females (three specimens) reproduced was at 4.5-5.0 and 6.5-7.0 years of age. Males start reproducing earlier than females (at three years) and the peak age of reproduction was same as that for females. No individuals have been recorded to breed beyond 7.5 years.

### Age-specific mortality

Age-specific mortality rate of the captive Tibetan wolf population is presented in Figure 9. A total of 37 (14.23.0) mortalities have been recorded in captivity during 1990-2014 with precise birth and death dates known for 22 individuals (8.14.0). Based on this data, it was found that infant

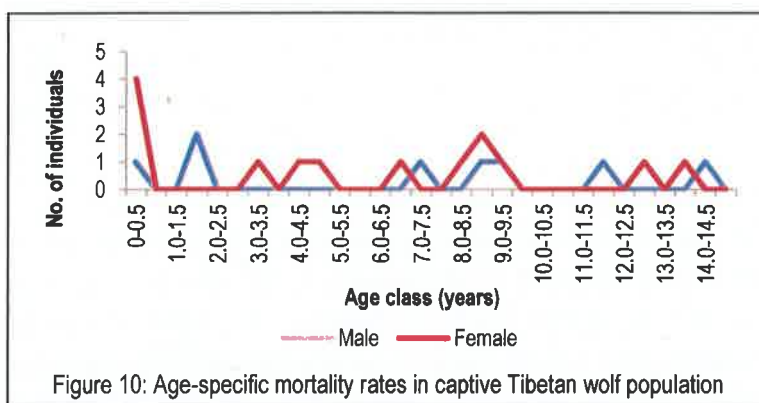


Figure 10: Age-specific mortality rates in captive Tibetan wolf population

mortality (death before one year of age) was 22.72%. After ten years, mortality starts to increase and only four captive-born animals of known age have lived for more than 10 years. The oldest male of known age has lived for 14 years. For females, the corresponding age was 18 years.

### Living population

The captive population of Tibetan wolf on December 2013 in India comprised of 20 individuals (7.13). All the individuals were captive-born. An overview of the current captive population is provided in Table.4, and the list of living individuals is provided in Annexure II.

Table 4: Summary of the living population

	Males	Females	Total
Total no. of living individuals	7	13	20
Total number of wild- born individuals	0	0	0
Total number of captive-born individuals	7	13	20
Total number of breeding individuals	3	3	6

### Population growth rates and projections

Population vital rates, generation time and population projections (see box for details) for the next 20 years derived from life table analysis are summarized in table 5. The three measures of population growth indicate a declining trend for the population with females show a higher rate of decline. The generation time (T) for males is five years while that for females is marginally higher at 5.4 years. The projected population (Figure 11) based on the current population after 20 years is 3 (2.1).

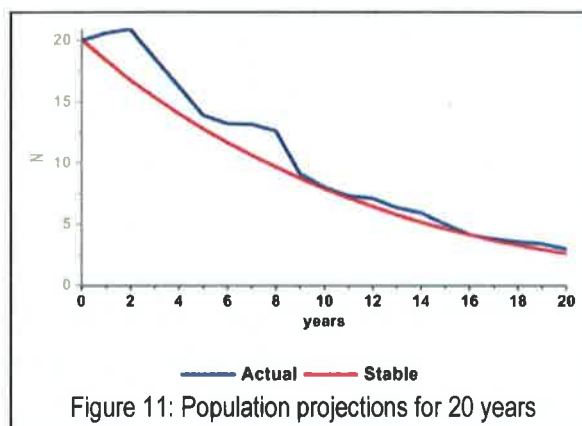


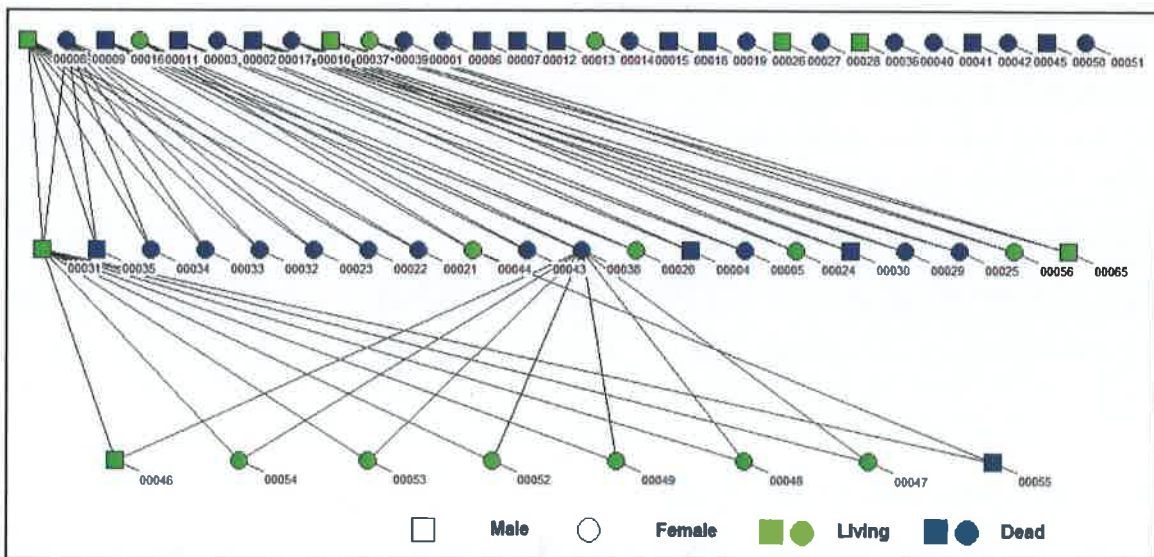
Figure 11: Population projections for 20 years

Table 5: Life-table summary

	Male	Female	Total
Instantaneous rate of change (r)	-0.022	-0.120	-0.071
Population growth rate ( $\lambda$ )	0.978	0.887	0.931
Mean generation time (T)	5	5.4	5.2
Current N	7	13	20
N at 20 years	2	1	3

### Genetic analysis

The Tibetan wolf population comprises of three wild origin animals; however, only 2 (1.1) (Studbook Nos. 00002 and 00003) contributed to its establishment. Records available from holding zoos do not suggest any subsequent supplementation. The historical population includes 54 descendants of this founder pair. From the pedigree records available, only two descendants (Studbook Nos. 00004 and 00005) could be traced back to the founders. Incomplete pedigree records limit further genetic analysis of the population. The extent to which the pedigrees could be established is presented in figure 12. The pedigree details of individual animals are provided as Annexure III.



The F1 generation includes 20 individuals; however, only 3 bred, and majority of the infants (7 out of 8) were produced by a single pair (Studbook nos. 00031 & 00038) housed at Padmaja Naidu Himalayan Zoological Park. Thus, suggesting a high level of relatedness in the current population despite limitations of adequate data for detailed genetic analysis.

### Breeding recommendations and population planning

Absence of pedigree records and dates of events limit analysis of the population and make breeding recommendations and population planning redundant. Further making breeding recommendations and population planning is also of little significance due to the small number of wild origin animals included in the program.

## Conclusions

The living population of Tibetan wolf comprising of 20 (7.13) individuals was initiated with an extremely small number of wild-born individuals (N=3) with a sex ratio of 1.2 leading to a limited sample of the wild gene pool being represented in captivity. Further limitations of data availability on dates of events and pedigrees curtailed demographic and genetic analysis.

- The limited population size renders it vulnerable to random demographic events and catastrophes.
- The population is not self-sustaining and has shown a marked decline during 2005-07 (Figure 5).
- The captive population has since inception had few individuals breeding (less than 25% of the total), and the current population of 20 individuals has a total of six breeders. The current population without supplementation is expected to decline further.

These suggest that the current captive Tibetan wolf population does not fulfil the objectives of maintaining a viable *ex-situ* population for conservation purposes. It neither retains the desired demographic trait of being capable of rapid growth nor does it retain the desired 90% of the sampled genetic diversity.

Steps to ensure the maintenance of demographically stable and genetically viable captive population can be initiated after addressing the issues that limit population growth including a review of the existing husbandry practices.

Molecular genetic analysis of the existing population can be carried out to arrive at an understanding of lineages in the current population. Further supplementation with additional founder animals can be carried out once husbandry issues are resolved. Mating choices can be based on the outcomes of the molecular genetic analysis carried out and the provenance of animals used for supplementation.

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Historical Population Tibetan wolf (*Canis lupus chanco*)

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
1.	00001	Julee	F	????	Wild	Wild	India Shimla	~ 1990 ~ 1990 30-Nov-08	Capture Transfer Death
2.	00002	Moti	F	????	Wild	Wild	India Darjeeling	~ Jan 1990 19-Jan-90 ????	Capture Transfer Death
3.	00003	Hira	M	????	Wild	Wild	India Darjeeling	~ Sep 1990 19-Sep-90 ????	Capture Transfer Death
4.	00004	Kartik	M	04-Aug-91	00003	00002	Darjeeling	04-Aug-91 ????	Birth Death
5.	00005	Laxmi 000610ECBO	F	04-Aug-91	00003	00002	Darjeeling	04-Aug-91 ????	Birth Death
6.	00006	Ibee	F	25-Feb-92	Unk	Unk	Darjeeling Nainital	25-Feb-92 21-Mar-97 10-Feb-06	Birth Transfer Death
7.	00007	Amal	M	25-Feb-92	Unk	Unk	Darjeeling Nainital	25-Feb-92 21-Mar-97 08-Dec-00	Birth Transfer Death
8.	00008	Danny Tw1 000683131E	M	13-Mar-98	Unk	Unk	Darjeeling Gangtok	13-Mar-98 05-Mar-99	Birth Transfer
9.	00009	Julie	F	13-Mar-98	Unk	Unk	Darjeeling Gangtok	13-Mar-98 05-Mar-99 05-Nov-06	Birth Transfer Death

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
10.	00010	Parbati 167 00-0611-683C	F	???	Unk	Unk	Darjeeling	??? 05-Jul-09	Birth Death
11.	00011	Akriti 170 00-0617-FB65	F	20-Mar-00	Unk	Unk	Darjeeling	20-Mar-00	Birth
12.	00012	Shambhu 6 0006B74BB0	M	~ 1996	Unk	Unk	Darjeeling Nainital	~ 1996 23-Dec-04 09-May-11	Birth Transfer Death
13.	00013	Vaidya	M	???	Unk	Unk	Darjeeling	??? 26-Mar-05	Birth Death
14.	00014	Rohini 165 00-0618-OCD4	F	20-May-04	Unk	Unk	Darjeeling	20-May-04	Birth
15.	00015	Rajani 00-061F-66FC	F	???	Unk	Unk	Darjeeling Gangtok	??? 11-Mar-05 09-Sep-05	Birth Transfer Death
16.	00016	Ramu 162 00-0611-1A53	M	07-Apr-00	Unk	Unk	Darjeeling	07-Apr-00 19-Dec-11	Birth Death
17.	00017	Shiva 00-061F476D	M	???	Unk	Unk	Darjeeling	??? 31-May-05	Birth Death
18.	00018	Babur 00-0610ECB0	M	03-Jan-02	Unk	Unk	Darjeeling Shimla	03-Jan-02 01-Jan-05 15-Jan-11	Birth Transfer Death
19.	00019	Abdul 00-0611-48C1	M	03-Jan-02	Unk	Unk	Darjeeling Shimla	03-Jan-02 01-Jan-05 26-Feb-09	Birth Transfer Death

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
20.	00020	Rita 168 00-0617-589D	F	23-Mar-04	00016	00011	Darjeeling	23-Mar-04	Birth
21.	00021	Mohani	F	10-Apr-02	00008	00009	Gangtok	10-Apr-02 03-Jun-02	Birth Death
22.	00022	Rosni Tw4 000683171A	F	10-Apr-02	00008	00009	Gangtok	10-Apr-02 16-Aug-11	Birth Death
23.	00023	Rituni	F	10-Apr-02	00008	00009	Gangtok	10-Apr-02 17-Jan-09	Birth Death
24.	00024	Laxmi-II Twlx-3 00-0617-F26E	F	18-Mar-03	00017	00010	Darjeeling Shimla	18-Mar-03 01-Jan-05	Birth Transfer
25.	00025	Saraswati 00-061F-71AC	F	18-Mar-03	00017	00010	Darjeeling Shimla	18-Mar-03 01-Jan-05 23-Aug-07	Birth Transfer Death
26.	00026	Anita 0006B73D67	F	04-Oct-03	Unk	Unk	Darjeeling Nainital	04-Oct-03 23-Dec-04 08-May-08	Birth Transfer Death
27.	00027	Barun Twbn-1 00-0618-288A	M	17-Mar-04	Unk	Unk	Darjeeling Shimla	17-Mar-04 01-Jan-05	Birth Transfer
28.	00028	Bijaya Vijay 00-0618-2DB0	F	20-Mar-04	Unk	Unk	Darjeeling Shimla	20-Mar-04 01-Jan-05 23-Aug-07	Birth Transfer Death
29.	00029	Basant 00-0618-0962	F	20-Mar-04	00017	00010	Darjeeling	20-Mar-04 ???	Birth Death

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
30.	00030	Badri 00-0617-D734	M	20-Mar-04	00017	00010	Darjeeling	20-Mar-04 30-Jul-05	Birth Death
31.	00031	Deepen 173 981098100800950	M	22-Mar-04	00008	00009	Gangtok Darjeeling	22-Mar-04 03-Nov-07	Birth Transfer
32.	00032	Rani	F	22-Mar-04	00008	00009	Gangtok	22-Mar-04 29-May-04	Birth Death
33.	00033	Tripti	F	22-Mar-04	00008	00009	Gangtok	22-Mar-04 10-Jun-04	Birth Death
34.	00034	Rupa	F	22-Mar-04	00008	00009	Gangtok	22-Mar-04 01-Jul-04	Birth Death
35.	00035	Raju	M	22-Mar-04	00008	00009	Gangtok	22-Mar-04 05-Jul-04	Birth Death
36.	00036	Sharad Tw14 6182760	M	23-Mar-04	Unk	Unk	Darjeeling Gangtok	23-Mar-04 11-Mar-05	Birth Transfer
37.	00037	Ashish 4 0006B739BF	M	23-Mar-04	Unk	Unk	Darjeeling Nainital	23-Mar-04 23-Dec-04	Birth Transfer
38.	00038	Radhika 163 00-0618-130B	F	23-Apr-04	00016	00011	Darjeeling	23-Apr-04 18-Aug-12	Birth Death
39.	00039	Sheela 0006B74BB7	F	24-Mar-04	Unk	Unk	Darjeeling Nainital	24-Mar-04 23-Dec-04	Birth Transfer
40.	00040	Heena 00-0610-FED9	F	????	Unk	Unk	Darjeeling Nainital	???? 23-Dec-04 24-Jan-06	Birth Transfer Death

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
41.	00041	Jamila 166 00-061F-7348	F	07-Apr-00	Unk	Unk	Darjeeling	07-Apr-00 26-Jan-13	Birth Death
42.	00042	Javed 00-0618-18A8	M	????	Unk	Unk	Darjeeling Gangtok	???? 11-Mar-05 16-Mar-06	Birth Transfer Death
43.	00043	Nisha 00-0615-8987	F	23-Apr-04	00016	00011	Darjeeling	23-Apr-04 07-Jan-13	Birth Death
44.	00044	Pushpa 164 00-0617-BF82	F	23-Apr-04	00016	00011	Darjeeling	23-Apr-04	Birth
45.	00045	Reena	F	????	Unk	Unk	Darjeeling Gangtok	???? 11-Mar-05 29-Nov-05	Birth Transfer Death
46.	00046	Denzong 174 95600002151766	M	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
47.	00047	Diki 175 95600002161006	F	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
48.	00048	Denka 176 9560000215919	F	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
49.	00049	Diana 177 95600002161227	F	26-Mar-09	00031	00038	Darjeeling	26-Mar-09	Birth
50.	00050	Hamid 000610E1FE	M	????	Unk	Unk	Darjeeling	???? ????	Birth Death

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
51.	00051	Bina 000617F6FF	F	????	Unk	Unk	Darjeeling	???? 03-Dec-05	Birth Death
52.	00052	Tshakee/Chekila 95000002160046	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
53.	00053	Dolma 222 956000002152156	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
54.	00054	Yankee 220 956000002161670	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
55.	00055	Danny 223	M	14-Apr-10	00031	00044	Darjeeling	14-Apr-10 26-Nov-11	Birth Death
56.	00056	Unnamed 00090	F	03-Apr-11	00037	00039	Nainital	03-Apr-11	Birth
57.	00057	Unnamed 00089	M	03-Apr-11	00037	00039	Nainital	03-Apr-11	Birth
<b>TOTALS: 21.36.0 (57)</b>									

Living Population Tibetan wolf (*Canis lupus chanco*) (Location wise)

Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
1.	00008	Danny Tw1 0006883131E	M	13-Mar-98	Unk	Unk	Darjeeling Gangtok	13-Mar-98 05-Mar-99	Birth Transfer
2.	00011	Akriti 170 00-0617-FB65	F	20-Mar-00	Unk	Unk	Darjeeling	20-Mar-00	Birth
3.	00014	Rohini 165 00-0618-OCD4	F	20-May-04	Unk	Unk	Darjeeling	20-May-04	Birth
4.	00020	Rita 168 00-0617-589D	F	23-Mar-04	00016	00011	Darjeeling	23-Mar-04	Birth
5.	00024	Laxmi-II Twix-3 00-0617-F26E	F	18-Mar-03	00017	00010	Darjeeling Shimla	18-Mar-03 01-Jan-05	Birth Transfer
6.	00027	Barun Twbn-1 00-0618-288A	M	17-Mar-04	Unk	Unk	Darjeeling Shimla	17-Mar-04 01-Jan-05	Birth Transfer
7.	00031	Deepen 173 981098100800950	M	22-Mar-04	00008	00009	Gangtok Darjeeling	22-Mar-04 03-Nov-07	Birth Transfer
8.	00036	Sharad Tw14 6182760	M	23-Mar-04	Unk	Unk	Darjeeling Gangtok	23-Mar-04 11-Mar-05	Birth Transfer
9.	00037	Ashish 4 0006B739BF	M	23-Mar-04	Unk	Unk	Darjeeling Nainital	23-Mar-04 23-Dec-04	Birth Transfer
10.	00039	Sheela	F	24-Mar-04	Unk	Unk	Darjeeling	24-Mar-04	Birth

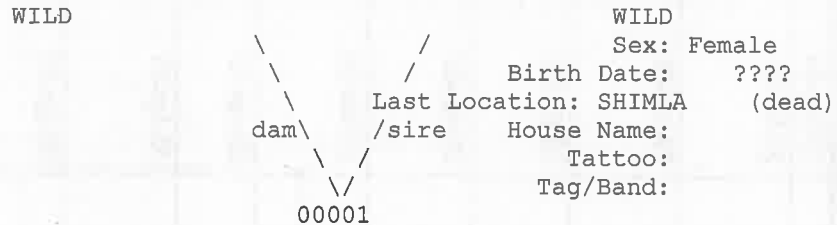
Sl. No	National Studbook No.	House Name Local ID Transponder No.	Sex	Birth Date	Sire	Dam	Location	Date	Event
11.	00044	Pushpa 164 00-0617-BF82	F	23-Apr-04	00016	00011	Nainital Darjeeling	23-Dec-04 23-Apr-04	Transfer Birth
12.	00046	Denzong 174 956000002151766	M	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
13.	00047	Diki 175 956000002161006	F	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
14.	00048	Denka 176 95600000215919	F	09-Apr-08	00031	00038	Darjeeling	09-Apr-08	Birth
15.	00049	Diana 177 956000002161227	F	26-Mar-09	00031	00038	Darjeeling	26-Mar-09	Birth
16.	00052	Tshakeel/Chekila 95000002160046	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
17.	00053	Dolma 222 956000002152156	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
18.	00054	Yankee 220 956000002161670	F	02-Apr-10	00031	00038	Darjeeling	02-Apr-10	Birth
19.	00056	Unnamed 00090	F	03-Apr-11	00037	00039	Nainital	03-Apr-11	Birth
20.	00057	Unnamed 00089	M	03-Apr-11	00037	00039	Nainital	03-Apr-11	Birth
<b>TOTALS: 7.13.0 (20)</b>									

As per CZA inventory 2013-14, total 17<sup>21</sup> individuals present at 4 locations

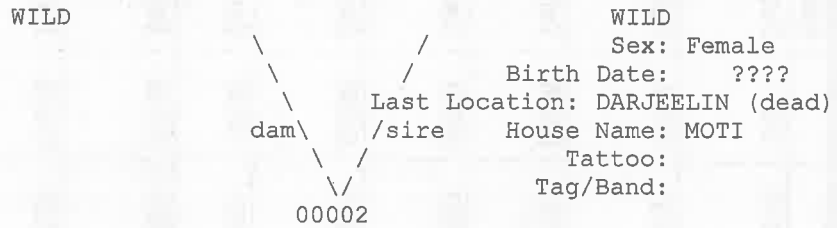


**Pedigree Chart Report:  
Tibetan Wolf (*Canis lupus chanco*) Studbook**

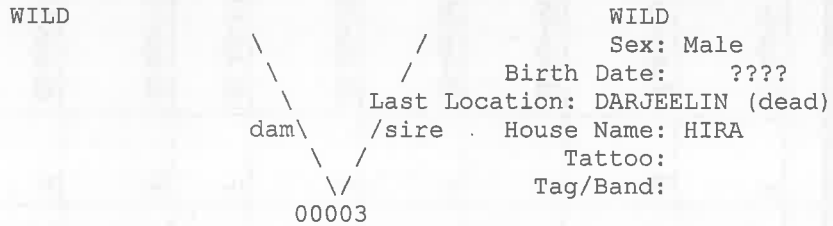
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00001



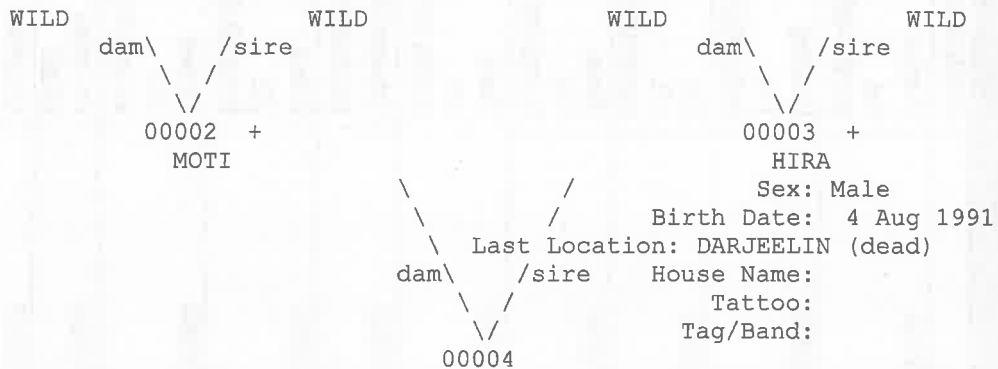
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00002



Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00003



Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00004



+ Wild-caught...

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00005  
=====

WILD dam\ /sire WILD WILD dam\ /sire WILD  
00002 + 00003 +  
MOTI HIRA  
Sex: Female  
Birth Date: 4 Aug 1991  
Last Location: DARJEELIN (dead)  
House Name:  
Tattoo:  
Tag/Band:  
+ Wild-caught... 00005

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00006  
=====

UNK dam\ /sire UNK  
Sex: Female  
Birth Date: 25 Feb 1992  
Last Location: NAINITAL (dead)  
House Name: IBEE  
Tattoo:  
Tag/Band:  
00006

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00007  
=====

UNK dam\ /sire UNK  
Sex: Male  
Birth Date: 25 Feb 1992  
Last Location: NAINITAL (dead)  
House Name: AMAL  
Tattoo:  
Tag/Band:  
00007

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00008  
=====

UNK dam\ /sire UNK  
Sex: Male  
Birth Date: 13 Mar 1998  
Last Location: GANGTOK  
House Name: danny  
Tattoo:  
Tag/Band: NIA512300/1751  
00008

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00009  
=====

UNK

UNK

Sex: Female  
Birth Date: 13 Mar 1998  
Last Location: GANGTOK (dead)  
House Name: julie  
Tattoo:  
Tag/Band:  
dam \ /  
Last Location: GANGTOK (dead)  
/sire  
00009

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00010  
=====

UNK

UNK

Sex: Female  
Birth Date: ????  
Last Location: DARJEELIN (dead)  
House Name: PARBATI  
Tattoo:  
Tag/Band:  
dam \ /  
Last Location: DARJEELIN (dead)  
/sire  
00010

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00011  
=====

UNK

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Sex: Female  
Birth Date: 20 Mar 2000  
Last Location: DARJEELIN  
House Name: Akriti  
Tattoo:  
Tag/Band:  
dam \ /  
Last Location: DARJEELIN  
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00011

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00012  
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UNK

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Sex: Male  
Birth Date: ~ 1996  
Last Location: NAINITAL (dead)  
House Name: SHAMBHU  
Tattoo:  
Tag/Band:  
dam \ /  
Last Location: NAINITAL (dead)  
/sire  
00012

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00013  
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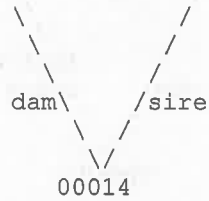
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Sex: Male  
Birth Date: ????  
Last Location: DARJEELIN (dead)  
House Name: VAIDYA  
Tattoo:  
Tag/Band:  
dam \ /  
Last Location: DARJEELIN (dead)  
/sire  
00013

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Taxon Name: CANIS LUPUS CHANCO  
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Studbook Number: 00014  
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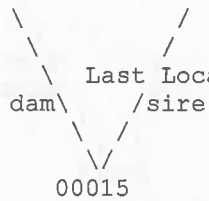
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Sex: Female  
Birth Date: 20 May 2004  
Last Location: DARJEELIN  
House Name: rohini  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO  
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Studbook Number: 00015  
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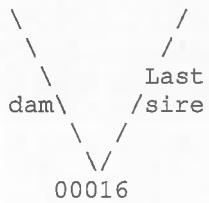
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Sex: Female  
Birth Date: ????  
Last Location: GANGTOK (dead)  
House Name:  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO  
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Studbook Number: 00016  
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UNK



UNK

Sex: Male  
Birth Date: 7 Apr 2000  
Last Location: DARJEELIN (dead)  
House Name: ramu  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO  
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Studbook Number: 00017  
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UNK



UNK

Sex: Male  
Birth Date: ????  
Last Location: DARJEELIN (dead)  
House Name: SHIVA  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00018

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Sex: Male  
Birth Date: 3 Jan 2002  
Last Location: SHIMLA (dead)  
House Name: BABUR  
Tattoo:  
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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00019

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Sex: Male  
Birth Date: 3 Jan 2002  
Last Location: SHIMLA (dead)  
House Name: ABDUL  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00020

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       00011
      Akriti
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Sex: Female  
Birth Date: 23 Mar 2004  
Last Location: DARJEELIN  
House Name: Rita  
Tattoo:  
Tag/Band:

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Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00021

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   /            \
  /              \
 /                \
dam\              /sire
 \              /
  \            /
   \          /
    \        /
     \      /
      \    /
       \  /
        \/
       00021
```

Sex: Female  
Birth Date: 10 Apr 2002  
Last Location: GANGTOK (dead)  
House Name: MOHANI  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00022  
=====

```
UNK          UNK          UNK          UNK
  dam\      /sire      dam\      /sire
   \      /          \      /
  00009          00008
  julie          danny
                Sex: Female
                Birth Date: 10 Apr 2002
                Last Location: GANGTOK (dead)
                House Name: ROSNI
                Tattoo:
                Tag/Band:

  dam\      /sire
   \      /
  00022
```

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00023  
=====

```
UNK          UNK          UNK          UNK
  dam\      /sire      dam\      /sire
   \      /          \      /
  00009          00008
  julie          danny
                Sex: Female
                Birth Date: 10 Apr 2002
                Last Location: GANGTOK (dead)
                House Name: RITUNI
                Tattoo:
                Tag/Band:

  dam\      /sire
   \      /
  00023
```

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00024  
=====

```
UNK          UNK          UNK          UNK
  dam\      /sire      dam\      /sire
   \      /          \      /
  00010          00017
  PARBATI          SHIVA
                Sex: Female
                Birth Date: 18 Mar 2003
                Last Location: SHIMLA
                House Name: LAXMIII
                Tattoo:
                Tag/Band:

  dam\      /sire
   \      /
  00024
```

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00025  
=====

UNK

UNK

UNK

UNK

dam\ /sire

dam\ /sire

00010  
PARBATI

00017  
SHIVA

Sex: Female

Birth Date: 18 Mar 2003

dam\ /sire

Last Location: SHIMLA (dead)

House Name: SARASWATI

Tattoo:

Tag/Band:

00025

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00026  
=====

UNK

UNK

Sex: Female

Birth Date: 4 Oct 2003

dam\ /sire

Last Location: NAINITAL (dead)

House Name:

Tattoo:

Tag/Band:

00026

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00027  
=====

UNK

UNK

Sex: Male

Birth Date: 17 Mar 2004

dam\ /sire

Last Location: SHIMLA

House Name: BARUN

Tattoo:

Tag/Band:

00027

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00028  
=====

UNK

UNK

Sex: Female

Birth Date: 20 Mar 2004

dam\ /sire

Last Location: SHIMLA (dead)

House Name: BIJAYA

Tattoo:

Tag/Band:

00028

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00029  
=====

```
UNK dam\ /sire UNK UNK dam\ /sire UNK
      \ /      \ /      \ /      \ /
      00010      00017
      PARBATI      SHIVA
                   Sex: Female
                   Birth Date: 20 Mar 2004
                   Last Location: DARJEELIN (dead)
                   House Name:
                   Tattoo:
                   Tag/Band:

dam\ /sire
 \ /
 00029
```

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00030  
=====

```
UNK dam\ /sire UNK UNK dam\ /sire UNK
      \ /      \ /      \ /      \ /
      00010      00017
      PARBATI      SHIVA
                   Sex: Male
                   Birth Date: 20 Mar 2004
                   Last Location: DARJEELIN (dead)
                   House Name:
                   Tattoo:
                   Tag/Band:

dam\ /sire
 \ /
 00030
```

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00031  
=====

```
UNK dam\ /sire UNK UNK dam\ /sire UNK
      \ /      \ /      \ /      \ /
      00009      00008
      julie      danny
                   Sex: Male
                   Birth Date: 22 Mar 2004
                   Last Location: DARJEELIN
                   House Name: DEEPEN
                   Tattoo:
                   Tag/Band:

dam\ /sire
 \ /
 00031
```



=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00032  
=====

UNK

UNK

UNK

UNK

dam\  
    \  
    /    /sire  
    \  
    /    \  
00009  
julie

dam\  
    \  
    /    /sire  
    \  
    /    \  
00008  
danny

    \  
    /    \  
    /    \  
dam\  
    \  
    /    /sire  
    \  
    /    \  
00032  
Sex: Female  
Birth Date: 22 Mar 2004  
Last Location: GANGTOK (dead)  
House Name: rani  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00033  
=====

UNK

UNK

UNK

UNK

dam\  
    \  
    /    /sire  
    \  
    /    \  
00009  
julie

dam\  
    \  
    /    /sire  
    \  
    /    \  
00008  
danny

    \  
    /    \  
    /    \  
dam\  
    \  
    /    /sire  
    \  
    /    \  
00033  
Sex: Female  
Birth Date: 22 Mar 2004  
Last Location: GANGTOK (dead)  
House Name: tripti  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00034  
=====

UNK

UNK

UNK

UNK

dam\  
    \  
    /    /sire  
    \  
    /    \  
00009  
julie

dam\  
    \  
    /    /sire  
    \  
    /    \  
00008  
danny

    \  
    /    \  
    /    \  
dam\  
    \  
    /    /sire  
    \  
    /    \  
00034  
Sex: Female  
Birth Date: 22 Mar 2004  
Last Location: GANGTOK (dead)  
House Name: rupa  
Tattoo:  
Tag/Band:

Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00035

UNK

dam\  
00009  
julie

UNK

UNK

dam\  
00008  
danny

UNK

Sex: Male  
Birth Date: 22 Mar 2004  
Last Location: GANGTOK (dead)  
House Name: raju  
Tattoo:  
Tag/Band:  
00035

Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00036

UNK

dam\  
00036

UNK

Sex: Male  
Birth Date: 23 Mar 2004  
Last Location: GANGTOK  
House Name: SHARAD  
Tattoo:  
Tag/Band:

Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00037

UNK

dam\  
00037

UNK

Sex: Male  
Birth Date: 23 Mar 2004  
Last Location: NAINITAL  
House Name: Ashish  
Tattoo:  
Tag/Band:

Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00038

UNK

dam\  
00011  
Akriti

UNK

UNK

dam\  
00016  
ramu

UNK

Sex: Female  
Birth Date: 23 Apr 2004  
Last Location: DARJEELIN (dead)  
House Name: Radhika  
Tattoo:  
Tag/Band:  
00038

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00039  
=====

UNK

dam \ / sire  
      V  
      00039

UNK

Sex: Female  
Birth Date: 24 Mar 2004  
Last Location: NAINITAL  
House Name: SHEELA  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00040  
=====

UNK

dam \ / sire  
      V  
      00040

UNK

Sex: Female  
Birth Date: ????  
Last Location: NAINITAL (dead)  
House Name: heena  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00041  
=====

UNK

dam \ / sire  
      V  
      00041

UNK

Sex: Female  
Birth Date: 7 Apr 2000  
Last Location: DARJEELIN (dead)  
House Name: JAMILA  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO  
=====

Studbook Number: 00042  
=====

UNK

dam \ / sire  
      V  
      00042

UNK

Sex: Male  
Birth Date: ????  
Last Location: GANGTOK (dead)  
House Name: javed  
Tattoo:  
Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00043  
=====

UNK

dam\  
    \  
    00011  
    Akriti

UNK

UNK

dam\  
    \  
    00016  
    ramu

UNK

    \  
    \  
dam\  
    \  
    00043

    \  
    \  
    Sex: Female  
    Birth Date: 23 Apr 2004  
    Last Location: DARJEELIN (dead)  
    House Name: Nisha  
    Tattoo:  
    Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00044  
=====

UNK

dam\  
    \  
    00011  
    Akriti

UNK

UNK

dam\  
    \  
    00016  
    ramu

UNK

    \  
    \  
dam\  
    \  
    00044

    \  
    \  
    Sex: Female  
    Birth Date: 23 Apr 2004  
    Last Location: DARJEELIN  
    House Name: Pushpa  
    Tattoo:  
    Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00045  
=====

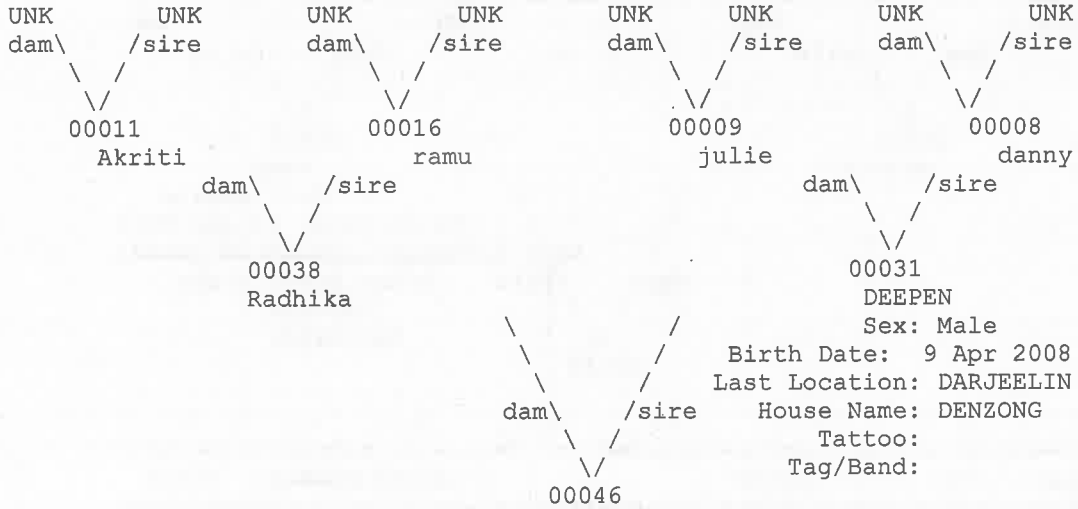
UNK

    \  
    \  
dam\  
    \  
    00045

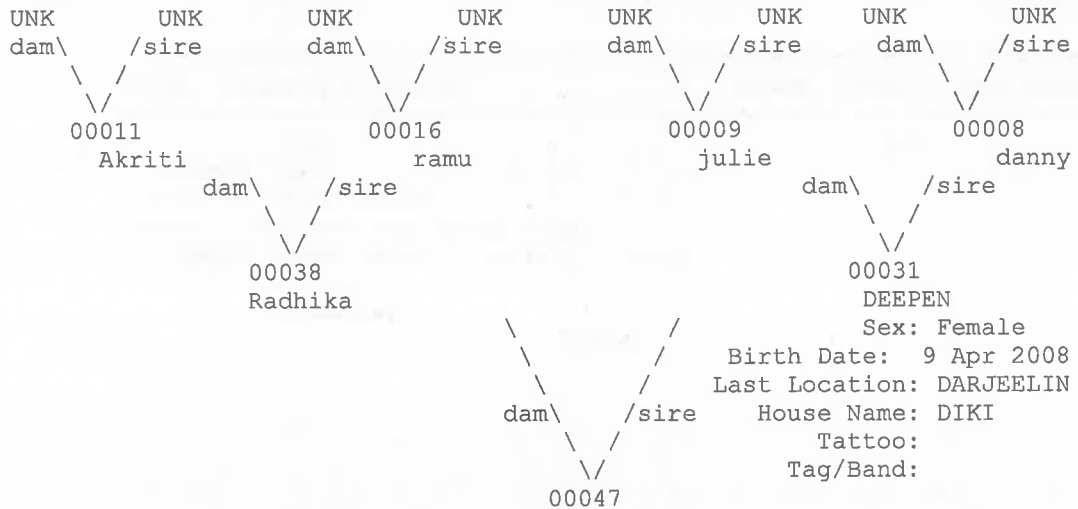
UNK

    \  
    \  
    Sex: Female  
    Birth Date: ????  
    Last Location: GANGTOK (dead)  
    House Name: REENA  
    Tattoo:  
    Tag/Band:

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00046  
=====

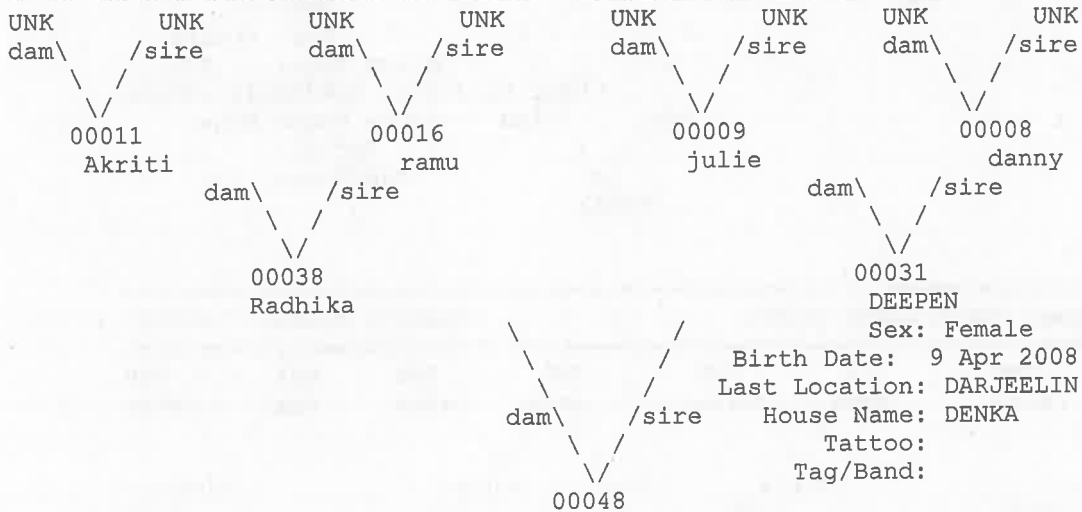


=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00047  
=====



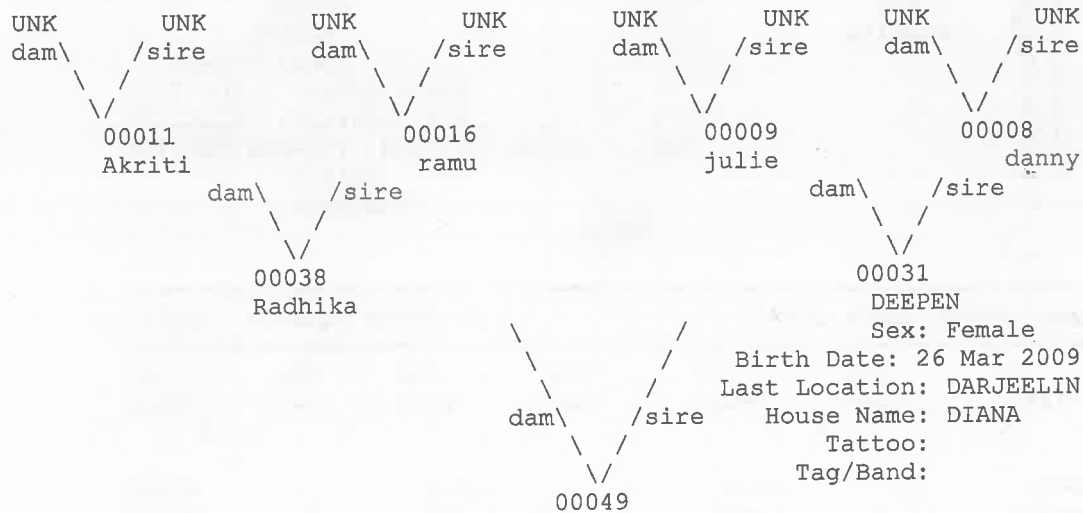
=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00048



=====  
Taxon Name: CANIS LUPUS CHANCO

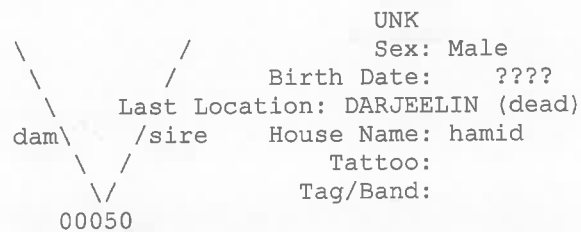
Studbook Number: 00049



=====  
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00050

UNK



Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00051

UNK

UNK

dam \ /  
00051 / sire  
Sex: Female  
Birth Date: ????  
Last Location: DARJEELIN (dead)  
House Name: Bina  
Tattoo:  
Tag/Band:

Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00052

UNK dam \ / UNK / sire  
00011 Akriti  
UNK dam \ / UNK / sire  
00016 ramu  
UNK dam \ / UNK / sire  
00009 julie  
UNK dam \ / UNK / sire  
00008 danny  
dam \ / sire  
00038 Radhika  
dam \ / sire  
00031 DEEPEN  
Sex: Female  
Birth Date: 2 Apr 2010  
Last Location: DARJEELIN  
House Name: TSHAKEE/CHEKILA  
Tattoo:  
Tag/Band:  
00052

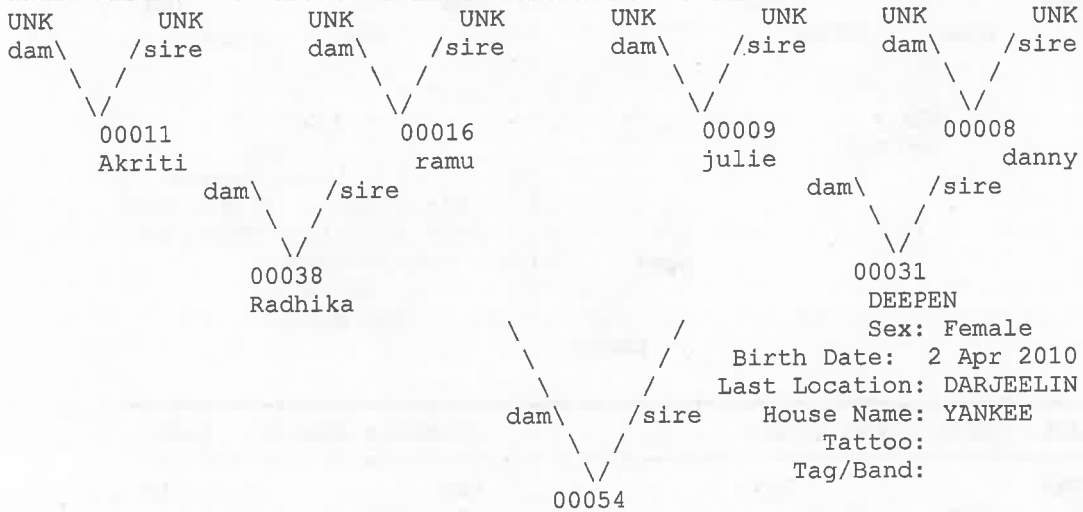
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00053

UNK dam \ / UNK / sire  
00011 Akriti  
UNK dam \ / UNK / sire  
00016 ramu  
UNK dam \ / UNK / sire  
00009 julie  
UNK dam \ / UNK / sire  
00008 danny  
dam \ / sire  
00038 Radhika  
dam \ / sire  
00031 DEEPEN  
Sex: Female  
Birth Date: 2 Apr 2010  
Last Location: DARJEELIN  
House Name: DOLMA  
Tattoo:  
Tag/Band:  
00053

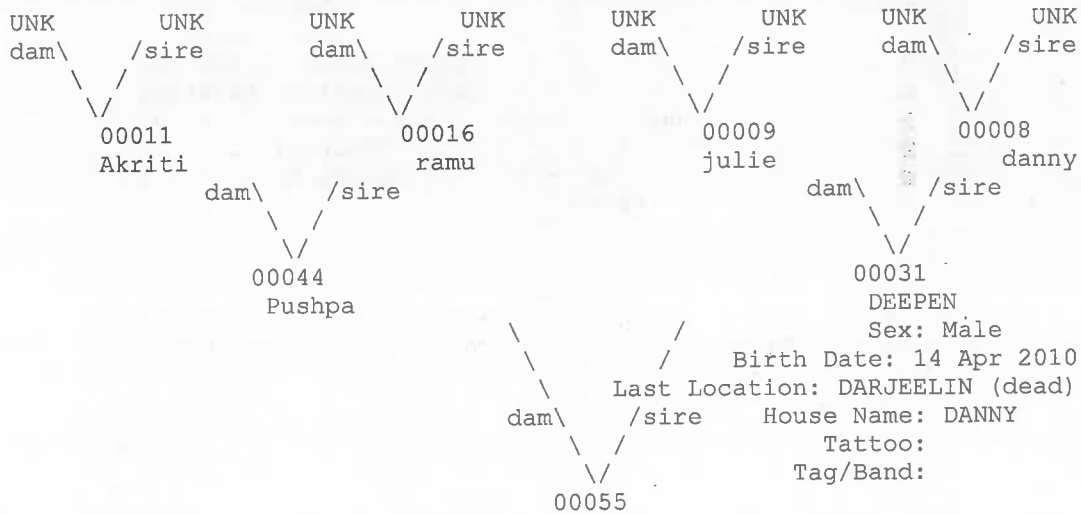
Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00054



Taxon Name: CANIS LUPUS CHANCO

Studbook Number: 00055





=====  
Name: CANIS LUPUS CHANCO Studbook Number: 00056 Taxon  
=====

```
UNK dam\ /sire UNK UNK dam\ /sire UNK
      \ /      \ /      \ /      \ /
      00039      00037
      SHEELA      Ashish
                  Sex: Female
                  Birth Date: 3 Apr 2011
                  Last Location: NAINITAL
                  House Name:
                  Tattoo:
                  Tag/Band:

dam\ /sire
 \ /
  00056
```

=====  
Taxon Name: CANIS LUPUS CHANCO Studbook Number: 00057  
=====

```
UNK dam\ /sire UNK UNK dam\ /sire UNK
      \ /      \ /      \ /      \ /
      00039      00037
      SHEELA      Ashish
                  Sex: Male
                  Birth Date: 3 Apr 2011
                  Last Location: NAINITAL
                  House Name:
                  Tattoo:
                  Tag/Band:

dam\ /sire
 \ /
  00057
```



