

National Studbook of Mouse Deer (*Moschiola Indica*)

Published as a part of the Central Zoo Authority sponsored project titled “Development and Maintenance of Studbooks for Selected Endangered Species in Indian Zoos” awarded to the Wildlife Institute of India vide sanction order: Central Zoo Authority letter no. 9-2/2012-CZA(NA)/418 dated 7th March 2012]

Published: August 2017



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



केन्द्रीय चिड़ियाघर प्राधिकरण
Central Zoo Authority

National Studbook of Mouse Deer (*Moschiola Indica*)

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

PROJECT PERSONNEL

Research Assistant

Ms. Neema Sangmo Lama

Project Consultant

Anupam Srivastav, Ph.D.

Project Investigator

Dr. Parag Nigam

Cover Photo: Tiger Cell, WII

Copyright © WII, Dehradun, and CZA, New Delhi, 2017

This report may be quoted freely but the source must be acknowledged and cited as:

Wildlife Institute of India (2017) National Studbook of Mouse Deer (*Moschiola Indica*), Wildlife Institute of India, Dehradun and Central Zoo Authority, New Delhi. TR. No 2017/009 pages:75.

For correspondence:

Project Investigator, Studbook Project,
Wildlife Institute of India,
PO Box 18, Dehradun, 248001
Uttarakhand, India

FOREWORD

Reduction in size of available habitats through fragmentation and degradation in association with intense poaching pressure are attributed for the decline in Mouse Deer populations in their natural habitats. This has led to initiation of *ex-situ* conservation efforts for the species in Indian Zoos. Effectiveness of these efforts through scientific management practices ensure long-term demographic stability and genetic viability of the captive population. Pedigree records contained in studbooks forms the basis for this effort.

The Central Zoo Authority (CZA) in collaboration with zoos in India has initiated a conservation-breeding program for threatened species in Indian zoos. Mouse Deer is a species identified under this initiative. As a part of this endeavour a Memorandum of Understanding has been signed with the Wildlife Institute of India for compilation and update of studbooks of identified species in Indian zoos.

As part of the project outcomes, the WII has compiled the National Studbook of Mouse Deer (*Moschiola indica*) in Indian zoos. The recommendations contained in the studbook form the basis for the long-term management of the species in captivity. It is hoped that the holding institutions will adopt the recommendations and keep the WII informed of changes in their populations on a regular basis to enable the timely update of the studbook.

**(Dr. D.N. Singh, I.F.S.)
Member Secretary
Central Zoo Authority**

ACKNOWLEDGEMENTS

The National Studbook of Mouse Deer (*Moschiola indica*) is a part of the assignment to the Wildlife Institute of India, Dehradun by the Central Zoo Authority, New Delhi for the development and maintenance of studbooks of selected endangered species in Indian zoos.

The authors are thankful to the Central Zoo Authority for the financial support in carrying out the assignment. The guidance and support extended by Dr. D.N. Singh, IFS, Member Secretary, CZA is gratefully acknowledged. The authors also thank Dr. Brij Kishore Gupta, Evaluation and Monitoring Officer, Dr. Devender Singh, Scientific Officer and the support staff of the Central Zoo Authority for facilitating this work.

The valuable advice and support provided by Dr. V.B. Mathur, Director, WII and Dr. G.S. Rawat, Dean, Faculty of Wildlife Sciences, is duly acknowledged.

Authors sincerely acknowledge the support from the Directors, Veterinarians and other personnel from holding zoos (provided below) for providing pedigree information that led to the successful development of the studbook.

Nehru Zoological Park, Hyderabad
Nandankanan Biological Park, Bhubaneswar
Assam State Zoo Cum Botanical Garden, Guwahati
Sri Chamarajendra Zoological Gardens, Mysore
Mahendra Chaudhury Zoological Park, Mohali
Dr. K.Shivarma Karanth Pililkula Biological Park, Mangalore
Sri Venkateswara Zoological Park, Tirupati
Arignar Anna Zoological Park, Chennai

The efforts of Mr. Mukesh Arora in layout and design of this document are gratefully acknowledged.

Authors

CONTENTS

| | |
|--|----|
| Species Biology: Mouse Deer (<i>Moschiola indica</i>) | 1 |
| Status in Captivity | 3 |
| Methods | 4 |
| Scope of the Studbook | 4 |
| Analysis | 4 |
| Genetic Status | 6 |
| Pairing Recommendations | 6 |
| Targets for Population Management | 8 |
| Conclusions and Recommendations | 10 |
| References | 11 |
| Appendix I: Historical Population of Mouse Deer (<i>Moschiola indica</i>) | 12 |
| Appendix II: Living Population of Mouse Deer (<i>Moschiola indica</i>) | 20 |
| Appendix III: Pedigree Chart Report of Mouse Deer (<i>Moschiola indica</i>) | 26 |
| Appendix IV: Location Glossary - Mouse Deer (<i>Moschiola indica</i>) | 50 |

Species Biology: Mouse Deer (*Moschiola indica*)

Mouse deer is a small solitary artiodactyl inhabiting forests with dense cover. They lack antlers that are characteristic to the order Cetartiodactyla and considered evolutionarily primitive. They are elusive nocturnal animals resulting in their being poorly studied. During daytime, they remain concealed and emerge during the night to forage and mate.

Taxonomy

Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Cetartiodactyla
Family: Tragulidae
Genus: *Moschiola*
Species: *indica*



The family Tragulidae to which the three existing genera of mouse deer or chevrotains belong is considered to be the basal ungulate family from which present day ungulates have evolved. All species lack antlers, have elongated canines that are more prominent in males and have short and thin legs with four toes on each feet. They have a four-chambered stomach with a poorly developed omasum (Webb and Taylor, 1980). Based on these traits, they share similarities with both suids and other ruminants and are considered a link between these forms (Raman 2004).

Conventional taxonomy considered them to be a sister group of ruminantia and recognized four species in the family tragulidae that include the African Water Chevrotain (*Hyemoschus aquaticus*), the Indian and Sri Lankan (*Tragulus meminna*), and the South-East Asian Lesser and Greater Mouse-deer (*Tragulus javanicus*, and *T. napu*) (Groves & Grubb 1982). Groves & Grubb (1982) suggested renaming the genera of the Indian and Sri Lankan animals to *Moschiola*. A further split of the Indian and Sri Lankan populations into distinct species *Moschiola indica* for the Indian animals and the Sri Lankan animals as *M. meminna* and from the dry Zone, and *M. kathygre* n. sp. from Sri Lanka's Wet Zone based on analysis of body size and skull morphometry (Groves and Meijaard 2005). Detailed molecular phylogeny of the family remains to be elucidated as the present taxonomic descriptions are based on morphometric features and fossil record.

Natural history:

Characteristic identification features of all species included under the family tragulidae are absence of horns or antlers that are present in cervids and bovids and elongated canines that are prominent in males (Raman 2004). Scent glands associated with other ruminant families are absent in mouse deer and a chin gland is used for marking. They weigh between 2 – 4 kg and have a shoulder height of 25 – 30 cm. A study of captive animals at Nehru Zoological Park revealed that the females reach sexual maturity at an age of 145 days (Parvathi 2014). They are usually solitary and the home range of a male may overlap that of several females. Their home ranges are small in size and range from 13 – 24 hectares. The species *Moschiola indica* is a nocturnal and shy animal, rapidly moving into dense cover on being disturbed (Raman 2004).

Habitat:

They inhabit dense forested areas in tropical evergreen rainforests and deciduous forests that have dense understory. Fruits form an important component of the diet and the animals play an important ecological role as seed dispersers, besides forming a prey base for small and large carnivores (Prater 1971). They inhabit a variety of forest types that include tropical deciduous, moist evergreen and semi-evergreen forests up to around 1,850 m elevation (Prater 1971). Recent studies indicate that the understory vegetation structure and availability of cover from predators dictates habitat choice (Sridhar et al. 2013). Ramesh et al. (2012) suggest that they prefer areas that provide them with high-energy foods such as fungi, tubers and fallen fruits and cover that provides protection from predators. A camera trap study from Mudumalai documents their frugivorous nature and the role they play in seed dispersal (Prasad, 2009).

Behaviour

The elusive nature of the species has resulted in availability of limited information about the species. Literature based on studies of other members of the family suggests that males maintain large home ranges that include the home ranges of several females. Intra-sexual overlap of home ranges has not been recorded. They communicate through scent marks and vocalizations. Vocalizations signal intent to approach and are followed by answer calls. A female in estrous is sought out by a male that follows her while making cry-like vocalizations.

Reproduction

A study in captivity documented that the females reach first estrous at 145 days and unlike other ungulates, there is a single successful mounting. A single fawn is born after a gestation period of 154 days (range 150 – 163 days) and weaned at four months of age. The species shows post-partum estrous and becomes receptive within four to six hours after fawning resulting in an inter-birth interval that ranged from 150 to 170 days. (Parvathi et al 2014).

Distribution:

The species is distributed across India, in the Deccan peninsula including Eastern and Western Ghats, Central India, Gangetic plains except West Bengal and the Terai region bordering India and Nepal. It is reported from most of the protected areas from the above landscapes; however, presence in Nepal remains questionable with no recent reports (Duckworth and Timmins 2015). Baral and others (2009) suggest the likely presence of the species in Chitwan though no recent records are available.

Threats and Conservation Status

Poaching for consumption remains one of the most common threats reported for the species

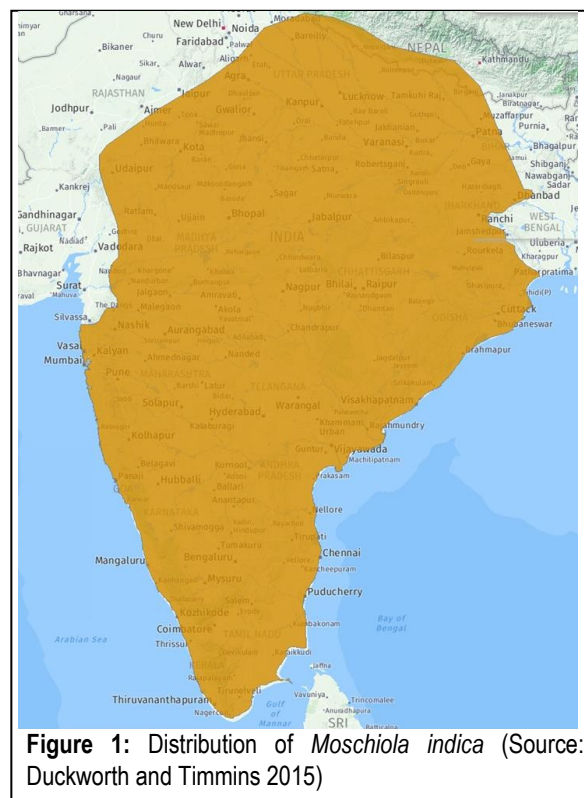


Figure 1: Distribution of *Moschiola indica* (Source: Duckworth and Timmins 2015)

(Madhusudan and Karanth, 2000, 2002). Conversion of forest for anthropogenic activities is an additional threat that has adversely affected the species (Duckworth and Timmins 2015).

The species is placed in Schedule I of the Wildlife Protection Act (1972) due to the above threats; however, the IUCN Red List (2015) based on an assessment by Duckworth and Timmins (2015) considers it a species of Least Concern (LC). The rationale used for this is the lack of available information on population trends and its large distribution range much of which continues to support the species.

Status in Captivity

The species is present in captivity in six zoos in India and in two zoos outside the country in the Asian region according to information obtained from the Species 360 website. The studbook records a historical population of 71.74.6 (151) specimens and the current population of 50.54.6 (110), while information obtained from the CZA inventory indicates presence of the species at 11 institutions with a current population size of 80.61.81

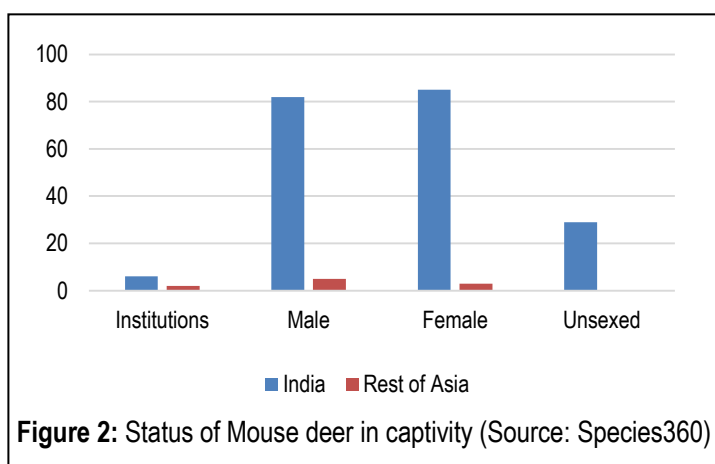


Figure 2: Status of Mouse deer in captivity (Source: Species360)

(222) specimens. The zoo wise status of the species in India based on CZA inventory and studbook is placed below as table 1.

Table 1: Current Status of Mouse Deer in Indian Zoos

| Sl. No. | Zoo Name | CZA Inventory Report 2016 – 2017 * | | | | Based on data made available by holding zoos | | | |
|---------|---|------------------------------------|-----------|-----------|------------|--|-----------|----------|------------|
| | | M | F | U | T | M | F | U | T |
| 1. | Assam State Zoo Cum Botanical Garden, Guwahati | 4 | 2 | 3 | 9 | 3 | 3 | 3 | 9 |
| 2. | Nehru Zoological Park, Hyderabad | 57 | 40 | 73 | 170 | 43 | 40 | 0 | 83 |
| 3. | Mahendra Chaudhury Zoological Park, Mohali | 2 | 2 | 1 | 5 | 1 | 1 | 2 | 4 |
| 4. | Sri Venkateswara Zoological Park, Tirupati | 2 | 1 | 2 | 5 | 0 | 0 | 0 | 0 |
| 5. | Vanavigyan Kendra, Warangal | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 |
| 6. | Sakkarbaug Zoo, Junagadh | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 7. | Kanan Pandari Zoo, Bilaspur | 4 | 3 | 2 | 9 | 0 | 0 | 0 | 0 |
| 8. | Dr. K.Shivarma Karanth Piliikula Biological Park, Mangalore | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 9. | Dr. Shyamaprasad Mukharjee Zoological Garden, Surat | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 |
| 10. | Sri Chamarajendra Zoological Gardens, Mysore | 0 | 4 | 0 | 4 | 0 | 4 | 1 | 5 |
| 11. | Nandankanan Biological Park, Bhubaneswar | 5 | 3 | 0 | 8 | 1 | 3 | 0 | 4 |
| 12. | Arignar Anna Zoological Park, Chennai | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 5 |
| | Total | 80 | 61 | 81 | 222 | 50 | 54 | 6 | 110 |

* Source: <http://cza.nic.in/inventory.html> downloaded on 9.8.2017

Methods

Data on individual history was collected by means of questionnaires, zoo visits and from the websites of CZA and Species360. Questionnaires were sent to the institutions housing Mouse deer in India, requesting information for each captive specimen. Data was entered in the Single Population Analysis and Records Keeping System (SPARKS v 1.66) (ISIS 2004) and subsequently exported to population management programme PMx v 1.2 (Ballou *et al.*, 2011) for further analysis.

Scope of the Studbook

- The studbook includes all specimens present in Indian zoos for whom records were available from holding institutions; efforts were also made to retrieve information from the taxon report of the species from the Species360 website.
- The mnemonics present in the SPARKS software were used as names for individual institutions and the same are listed in the location glossary (Appendix IV). The mnemonic India was used for all specimens acquired from the wild.
- The CZA inventory was used as a benchmark for population estimates and deviations from the same (Table 1) are attributed to unavailability of required information from holding institutions though repeated requests for the same were made. Further, the information from holding institutions has not been uploaded on the Species360 website.
- Transfer of 5.2.0 (7) specimens from Nehru Zoological Park, Hyderabad to Nandankanan Biological Park, Bhubaneswar during December 2016 has not been recorded in the studbook, as information on identities of individuals transferred was unavailable from both institutions though the taxon report obtained from Species360 website records the transfer.

Analysis

Historical Population

The studbook records 71.74.6 (151) specimens housed at nine Indian zoos. The earliest record of the species in captivity was in 1995 at Nandankanan Biological Park, Bhubaneswar with the entry of 1.1.0 (2) specimens. The first recorded birth in captivity also occurred at the same location in 2002. Since then the historical population has increased to 151 specimens with the inclusion of a total of 12.14.0 (26) wild origin animals and 59.60.6 (125) captive births. Reproductive activity; however, has been limited to only 23.23.0 (46) specimens. Table 2 and Figure 3 summarize the historical population and indicates that population growth has been largely driven by captive births, primarily due to efforts made by Nehru Zoological Park, Hyderabad. Information of individual specimens is provided in Appendix I.

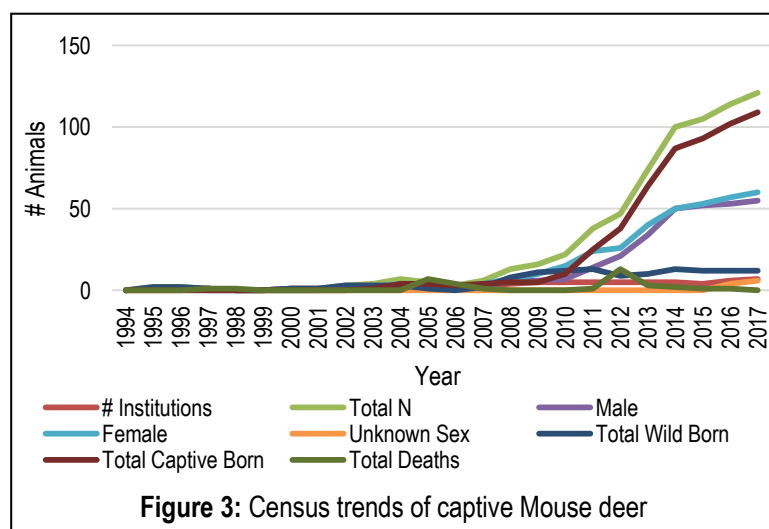


Figure 3: Census trends of captive Mouse deer

Table 2: Summary of the historical population

| | Males | Females | Unsexed | Total |
|--|-------|---------|---------|-------|
| Total Studbook size | 71 | 74 | 6 | 151 |
| Total number of acquisitions from wild | 12 | 14 | 0 | 26 |
| Total number of captive births | 59 | 60 | 6 | 125 |
| Total number of deaths | 17 | 18 | 0 | 35 |
| Total number of breeding individuals | 23 | 23 | 0 | 46 |

Living population

The studbook records 53.57.6 (116) living specimens at six Indian zoos. The population includes 5.7.0 (12) specimens of wild origin and has 20.19.0 (39) effective breeders, while 48.50.6 (104) individuals are present in the reproductively active age classes. Table 3 summarizes the status of living population while Appendix II provides details of specimens present at each location.

Table 3: Summary of the living population

| | Males | Females | Unsexed | Total |
|--|-------|---------|---------|-------|
| Total no. of living individuals | 53 | 57 | 6 | 116 |
| Total number of wild-born individuals | 5 | 7 | 0 | 12 |
| Total number of captive-born individuals | 48 | 50 | 6 | 104 |
| Total number of breeding individuals | 20 | 19 | 0 | 39 |

Age Distribution

The age and sex distribution of the living population indicates the presence of 53.57.6 (116) known age specimens. It also shows the presence of individuals across all age classes. The population has 49 males and 53 females in reproductively active age classes, three males and 4 females are reproductively senescent while the gender of six specimens at the base of the pyramid is not known. The age pyramid indicates a population that is capable of rapid growth, a trend that is reflected over the last seven years in (Figure 3) the census trends of the population.

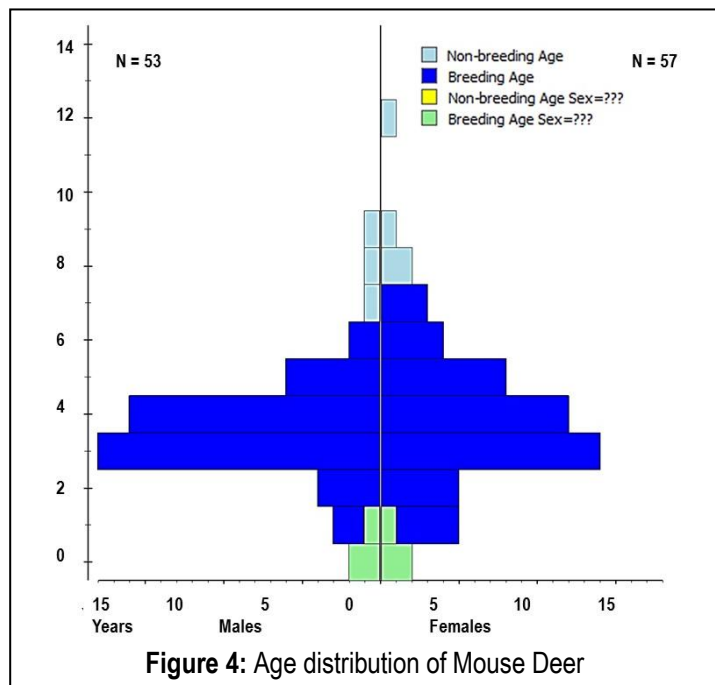


Figure 4: Age distribution of Mouse Deer

Vital Rates of the Population

Vital rates of the population based on life-table analysis of the studbook population indicate a stable population with an extended generation time (onset of reproduction at 5 months of age); however, the census trends indicate a rapid growth in the population since 2010. The decline in population is

Table 4: Vital rates of the captive population

| | Male | Female | Total |
|--------------------------------------|-----------|-----------|-----------|
| Population growth rate (λ) | 1.015 | 0.878 | 0.992 |
| Generation time (T) | 2.7 Years | 2.6 Years | 2.7 Years |
| Projected population (N 20) | 58.1 | 63.7 | 121.8 |

likely due to the delay in onset of reproductive activity in the captive population resulting in a projected population after 20 years (N20) to be only seven individuals.

Census Trends Based on CZA Inventory

A perusal of CZA inventory of the species for the period 2016 – 2017 indicates the presence of 80.61.81(222) specimens housed at 11 zoos in the country. Census trends based on CZA inventory indicate a rapid growth in the captive population from 2014 onwards, attributed to rapid growth in population at Nehru Zoological Park, Hyderabad. The zoo currently houses 57.40.73 (170) and has reported 37.20.0 (57) births during 2016 – 2017.

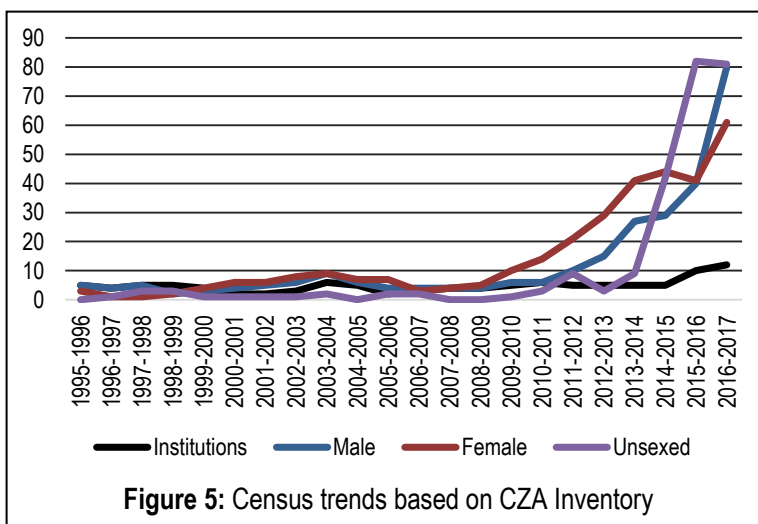


Figure 5: Census trends based on CZA Inventory

The declining population trends observed in the studbook population may be due to the lack of complete records from holding institutions as events reported in the CZA inventory are incompletely reflected in the studbook database.

Genetic Status

The current population of 53.57.6 (116) includes 5.7.0 (12) specimens of wild origin; seven (4.3) of these have representatives in the living population. The lineages of dams 23 and 29 and sires 24 and 25 are overrepresented in the population with limited contributions by the remaining

Table 5: Genetic Summary

| Parameters | Values |
|---------------------------------|--------|
| Founders | 10 |
| Living Animals | 116 |
| Percent Pedigree Known | 71% |
| Gene Diversity (GD) | 0.8547 |
| Founder Genome Equivalent (FGE) | 3.44 |
| Mean Inbreeding (F) | 0.0716 |
| Ne/N | 0.335 |

founders. Limitations in record keeping have resulted in complete information being available for only 71% of the current population. The population retains approximately 85% of the genetic diversity sampled from the nine founders. The low value of FGE indicates unequal representation of founder genome in the current population. Breeding between related individuals has been avoided as is indicated by the low value of F, while the ratio effective population size to census population size indicates that approximately 34% of the population is reproductively active.

Pairing Recommendations

The pairing of specimens for mating based on 'Mate Suitability Index' (MSI) is provided in Table 6. A description of MSI is provided in box 1. The pairing of specimens proposed in table 6 indicates an increase in the genetic diversity retained from the current 85% to 90% along with an increase in FGE from 3.44 to 5.22 and ensures avoidance of mating between closely related individuals in the

population. The pairing recommendations are aimed at maximizing the retention of genetic diversity (dGD) of the existing population and minimizing movement of animals between institutions.

Table 6: Pairing recommendations for Mouse Deer in Indian Zoos

| Dam | Location | Sire | Location | dGD | MSI | Remarks |
|-----|-------------|------|-----------|--------|-----|--|
| 23 | HYDERABAD | 25 | HYDERABAD | 0.0017 | 1 | NSB 23 (Dam) to be paired with (Sires) NSB 125 first as increase in dGD is highest, followed by pairings with NSB 78, 71 and 25 respectively. |
| 23 | HYDERABAD | 78 | HYDERABAD | 0.0155 | 1 | |
| 23 | HYDERABAD | 71 | HYDERABAD | 0.0106 | 2 | |
| 23 | HYDERABAD | 125 | HYDERABAD | 0.0269 | 2 | |
| 29 | HYDERABAD | 49 | HYDERABAD | 0.0078 | 1 | |
| 30 | HYDERABAD | 129 | HYDERABAD | 0.0323 | 1 | NSB 129 (Sire) to be paired with (Dams) NSB 30 and 139 first and then transferred to Mangalore to pair 33 and 92. |
| 30 | HYDERABAD | 130 | HYDERABAD | 0.0431 | 1 | NSB 130 (Sire) to be paired with (Dams) NSB 30, 52 and 139 first as increase in dGD is higher and then transferred to Mysore, Mangalore, and Nandankanan respectively. |
| 32 | MYSORE | 130 | HYDERABAD | 0.0446 | 1 | NSB 130 (Sire) to be paired with (Dams) NSB 30, 52 and 139 first as increase in dGD is higher and then transferred to Mysore, Mangalore, and Nandankanan respectively. |
| 33 | MANGALORE | 129 | HYDERABAD | 0.0357 | 1 | NSB 129 (Sire) to be paired with (Dams) NSB 30 and 139 first and then transferred to Mangalore to pair with (Dams) NSB 33 and 92. |
| 52 | NANDANKANAN | 130 | HYDERABAD | 0.0465 | 1 | NSB 130 (Sire) to be paired with (Dams) NSB 30, 52 and 139 first as increase in dGD is higher and then transferred to Mangalore, and Nandankanan respectively. |
| 56 | HYDERABAD | 126 | HYDERABAD | 0.0275 | 2 | NSB 126 (Sire) to be paired with NSB 56 (Dam) and then transferred to MADRAS. |
| 90 | HYDERABAD | 87 | HYDERABAD | 0.0255 | 2 | |
| 92 | MANGALORE | 37 | MANGALORE | 0.0053 | 1 | |
| 92 | MANGALORE | 129 | HYDERABAD | 0.0374 | 1 | NSB 129 to be paired with NSB 30 and 139 first and then transferred to Mangalore to pair 33 and 92. |
| 92 | MANGALORE | 130 | HYDERABAD | 0.0479 | 1 | NSB 130 to be paired with NSB 30, 52 and 139 first as increase in dGD is higher and then transferred to Mysore, Mangalore, and Nandankanan respectively. |
| 95 | MYSORE | 78 | HYDERABAD | 0.02 | 2 | NSB 78 (Sire) to be transferred to MYSORE after pairing with (Dams) 23 and 139 at Hyderabad |
| 95 | MYSORE | 74 | HYDERABAD | 0.0122 | 3 | NSB 74 (Sire) to be paired with NSB 145 (Dam) at HYDERABAD and transferred to MYSORE to pair with NSB 95 (Dam) |
| 95 | MYSORE | 119 | HYDERABAD | 0.0265 | 3 | NSB 119 to be transferred to MYSORE |
| 95 | MYSORE | 135 | HYDERABAD | 0.0521 | 3 | NSB 135 (Sire) to be paired with NSB 145 (Dam) and transferred to MYSORE to pair with NSB 95 (Dam) |
| 117 | HYDERABAD | 86 | HYDERABAD | 0.024 | 3 | NSB 86 (Sire) to be transferred to MADRAS after pairing with NSB 117 (Dam) |
| 139 | HYDERABAD | 129 | HYDERABAD | 0.04 | 1 | NSB 129 to be transferred to MANGALORE after successful mating with NSB 30 at HYDERABAD |
| 139 | HYDERABAD | 130 | HYDERABAD | 0.0501 | 1 | NSB 130 to be paired with NSB 30, 52 and 139 first as increase in dGD is higher and then transferred to Mysore, Mangalore, and Nandankanan respectively. |

| Dam | Location | Sire | Location | dGD | MSI | Remarks |
|-----|-----------|------|-----------|--------|-----|--|
| 139 | HYDERABAD | 78 | HYDERABAD | 0.0495 | 2 | |
| 145 | HYDERABAD | 74 | HYDERABAD | 0.0126 | 2 | NSB 74 (Sire) to be paired with NSB 145 (Dam) at HYDERABAD and transferred to MYSORE to pair with NSB 95 (Dam) |
| 145 | HYDERABAD | 87 | HYDERABAD | 0.0256 | 2 | |
| 145 | HYDERABAD | 135 | HYDERABAD | 0.052 | 2 | NSB 135 (Sire) to be paired with NSB 145 (Dam) and transferred to MYSORE to pair with NSB 95 (Dam) |
| 147 | MADRAS | 130 | HYDERABAD | 0.0513 | 1 | NSB 147 (Dam) to be transferred to MYSORE/ MANGALORE/ NANDANKANAN to pair with NSB 130 (Sire). |
| 147 | MADRAS | 126 | HYDERABAD | 0.0286 | 3 | NSB 126 to be paired with NSB 56 and then transferred to MADRAS as it is the only pairing that is available for NSB 147. |
| 148 | MADRAS | 86 | HYDERABAD | 0.0251 | 3 | NSB 86 (Sire) to be transferred to MADRAS after pairing with NSB 117 (Dam) to pair with (Dams) NSB 148 and 149. |
| 149 | MADRAS | 86 | HYDERABAD | 0.0248 | 3 | |

The pairing between specimens not included in table 6 should be avoided to reduce further loss of genetic diversity.

Box 1: Mate Suitability Index (MSI)

It is a numerical genetic assessment of a male-female pair that incorporates several variables into one ranking (MSI range is 1 to 7, with 1 being the most genetically beneficial).

The default value in the table is the *MSI* (Mate Suitability Index) value for each male –female pair. *MSI* is a composite score that integrates four genetic components into a single index:

Delta GD (dGD): Change in gene diversity (GD) of the population if one offspring is produced by the pair. Positive dGD increases the GD of the population, while negative dGD decreases GD.

Differences in MK values (MKDiff): Difference in the genetic value (mean kinship value) of the male and female. Breeding a pair with a large MKDiff is detrimental because it combines under-represented and over-represented genetic lines.

Inbreeding coefficient (F): Inbreeding coefficient of any offspring resulting from the pair (i.e., the kinship value for the pair). Inbreeding is considered to be detrimental to the fitness of the resulting offspring.

Unknown ancestry: The amount of unknown ancestry in the male and female. Incomplete pedigree information means that the genetic value and relatedness of a pair cannot be accurately calculated.

- 1 = very beneficial (genetically) to the population;
- 2 = moderately beneficial,
- 3 = slightly beneficial;
- 4 = slightly detrimental,
- 5 = detrimental, should only be used if demographically necessary
- 6 = very detrimental (should be considered only if demographic considerations override preservation of genetic diversity)
- “-“= very highly detrimental (should not be paired, due to high level of kinship of pair)

Using Pairwise Info

The default table of *MSI* values for pairs can be used to quickly assess the relative genetic value of a pair, subset of pairs, potential mates for one individual, and many other valuable data when making breeding recommendations. This can be especially helpful to quickly explore options for pairing individuals at one

Targets for Population Management

The current captive population of Mouse deer 53.57.6 (116) (included in the studbook) held at six institutions includes 49.53.6 (108) specimens in the reproductively active age classes. Only 20.19.0

(39) of these specimens are; however, reproductively active leading to limited recruitment in the population with a marginal decline in the population. The population presently has a Maximum potential lambda of 0.9921 and retains approximately 85% of the genetic diversity sampled from only ten founders. The population also has an unequal representation of the founder genome as is indicated by the value of FGE (3.34). Multiple simulations were run using PMx for determining the fate of the current population and to assess the effect of different management interventions on the population.

Scenario I

The simulation was run based on the status of the population. It revealed that the current population without interventions is likely to persist for the next 100 years, while retaining very low levels of genetic diversity. It would therefore be unlikely to achieve conservation goals. The results of the simulation are presented in figure 6.

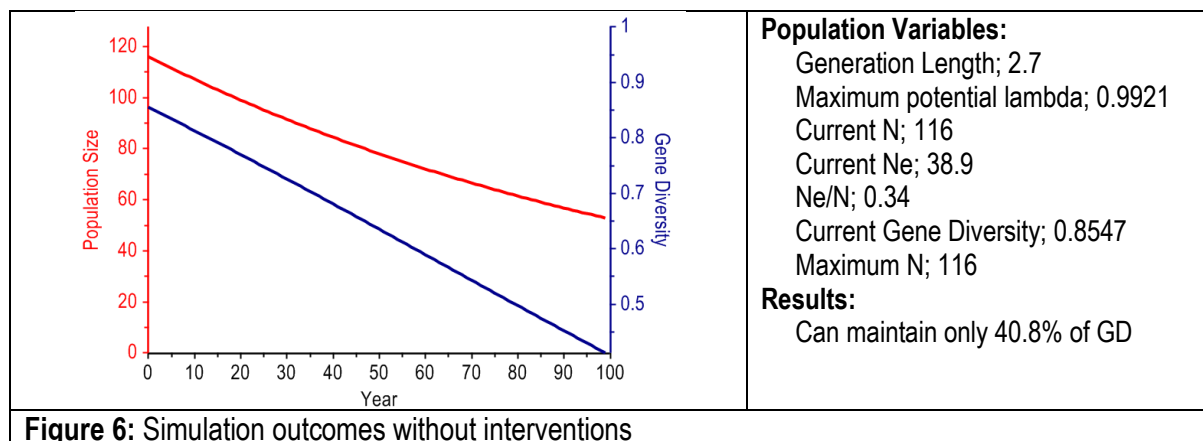


Figure 6: Simulation outcomes without interventions

Scenario II

The small founder base of the existing population and the inability of the population in achieving conservation goals necessitates management interventions. Increasing the population size to 200 specimens, supplementation of the population with one effective founder every third year for the next 100 years and ensuring a population growth rate of 5% can ensure the demographic stability and genetic viability of the population for the next 100 years. The outcome of the simulation presented in figure 7 indicates that the population will be able to achieve conservation goals with the interventions suggested.

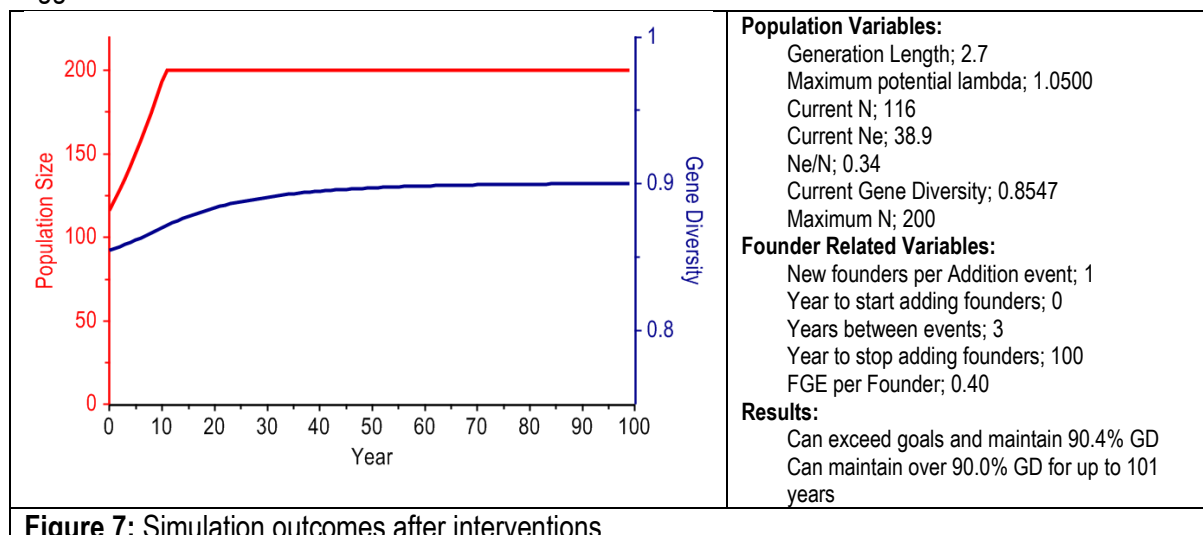


Figure 7: Simulation outcomes after interventions

Conclusions and Recommendations

Mouse deer (*Moschiola indica*) is included in Schedule I of the Wildlife Protection Act (1972); however, it is listed as a species of least concern in the IUCN Red List of Threatened Species. Intense poaching of the species has necessitated its *ex-situ* conservation and Central Zoo Authority has identified it for conservation breeding in Indian Zoos.

Analysis of the captive population based on records made available by holding zoos indicates that the living population includes 53.57.6 (116) housed at six zoos. The population is currently declining (population $\lambda = 0.9921$) and retains approximately 85% of the genetic diversity derived from nine founders that is unequally represented in the population (FGE = 3.34). Perusal of the Species360 website for assessing the global status of the population revealed its presence at only two locations outside India with an unviable population size.

Analysis of available records carried out suggests that inclusion of one effective founder every second year, increase in growth rate (population $\lambda = 1.05$) through effective utilization of breeding age specimens and increasing the population size to 200 specimens can ensure the achievement of conservation goals.

The captive population of Mouse deer in Indian zoos therefore requires intensive management efforts towards ensuring achievement of *ex-situ* conservation goals to address the following concerns:

- Judicious use of new founders being included in the program is suggested to ensure retention of maximum genetic diversity while causing least impact on the free-ranging populations.
- Availability of complete pedigree records is critical for developing an effective management plan for the species. Marking of all animals using externally visible marks and accurate record keeping are essential for ensuring effective management.
- The specimens that are acquired as founders should be assessed for their genetic and reproductive fitness before inclusion in the conservation-breeding programme. The relatedness of these specimens with individuals in the captive population and with each other should be assessed using appropriate molecular genetics tools.
- A review of available literature indicates that the taxonomy of the species is currently based fossil records, morphometry and anatomy of the species. The taxonomy and phylogeny of the species needs to conclusively elucidated using molecular genetic tools for identification of management units for their effective conservation

Population records based on CZA inventory; however, show the presence of 80.61.81(222) specimens at 11 zoos in the country and a rapid growth in population witnessed from 2014 onwards. Inclusion of this information in the SPARKS database may alter the outcomes of the analysis carried out.

References:

1. Ballou, J.D., Lacy, R.C. and Pollak, J.P. (2011). PMx: software for demographic and genetic analysis and management of pedigreed populations (version 1.2). Chicago Zoological Society, Brookfield, IL, USA. Available from: <http://www.vortex10.org/PMx.html>
2. Baral HS, Shah KB, Duckwotha JW (2009) Clarification of the status of Indian Chevrotain *Moschiola indica* in Nepal. Vert. Zool. 59:197–200
3. Duckworth, J.W. and Timmins, R. (2015). *Moschiola indica*. The IUCN Red List of Threatened Species 2015: e.T136585A61979067. <http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T136585A61979067.en>. Downloaded on 20 April 2017.
4. ISIS (International Species Information System) (2004). SPARKS 1.54: Single Population Analysis and Records Keeping System. Eagan, MN: International Species Information System. Available from: www.isis.org
5. Nowak, R. M. (eds) (1999). *Walker's Mammals of the World*. 6th edition. Johns Hopkins University Press.
6. Groves, C. and Meijaard, E. (2005). Intraspecific variation in *Moschiola*, the Indian Chevrotain. The Raffles Bulletin of Zoology. Supplement 12:413–421
7. Madhusudan, M. D. and Karanth, K. U. (2000). Hunting for an answer: is local hunting compatible with large mammal conservation in India. In: Robinson, J. G. and Bennett, E. L. (eds). *Hunting for sustainability in tropical forests*. – Columbia University Press, New York, USA: 339–355.
8. Madhusudan, M. D. and Karanth, K. U. (2002): Local hunting and the conservation of large mammals in India. – *Ambio*, 31: 49–54.
9. (2011). *Handbook of the Mammals of the World. Volume 2. Hoofed Mammals*, Edition: 1st, Publisher: Lynx Edicions, Editors: D. E. Wilson, R. A. Mittermeier, pp.320–335
10. Meijaard, E. and C. P. Groves, (2004). A taxonomic revision of the *Tragulus* mouse deer (Artiodactyla). *Zoological Journal of the Linnaean Society of London*, 140: 63–102.
11. Parvathi, S., Rao, M., Kumar, V. and Umaphathy, G. (2014). Observations on reproductive performance of Indian mouse deer (*Moschiola indica*) in captivity. *Current Science*, VOL. 106, NO. 3, pp 439 – 441
12. Prasad S, Pittet A, Sukumar R (2010). Who really ate the fruit? A novel approach to camera trapping for quantifying frugivory by ruminants. *Ecol Res* 25:225–231. doi:10.1007/s11284-009-0650-1
13. Prater, S. 1971. *The Book of Indian Animals*. Bombay Natural History Society, Bombay, India
14. Raman, T.R.S. (2004). Mouse deer (*Moschiola meminna* Erxleben, 1777). *ENVIS Bulletin* 7: 131–140.
15. Ramesh, T., Kalle, R., Sankar, K. and Qureshi, Q. (2012). Dry season factors determining habitat use and distribution of mouse deer (*Moschiola indica*) in the Western Ghats. *Eur. J. Wildl. Res.* DOI 10.1007/s10344-012-0676-5
16. Sridhar, S., Edgaonkar, A. and Kumar, A. (2013). Understorey structure and refuges from predators influences habitat-use by a small ungulate, the Indian chevrotain (*Moschiola indica*) *Ecological Research* DOI: 10.1007/s11284-013-1031-3
17. Webb, S. D. and Taylor, B. E., (1980). The phylogeny of hornless ruminants and a description of the cranium of *Archaeomeryx*. *Bull. Am. Mus. Nat. Hist.*, 167, 121–154.

Historical Population of Mouse Deer (*Moschiola indica*) in Indian Zoos

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|------|--------------------|--|------------------------------|--------------------------------|
| 1 _____ | M | ???? | WILD | WILD | INDIA NANDANKAN | ???? ~ Apr 1995 22-Jun-98 | Capture Transfer Death | |
| 2 _____ | F | ???? | WILD | WILD | INDIA NANDANKAN | ???? ~ Apr 1995 04-Feb-97 | Capture Transfer Death | |
| 3 _____ | M | ???? | WILD | WILD | INDIA NANDANKAN | ~25 Jul 2002 04-Aug-02 04-Aug-06 | Capture Transfer Death | |
| 4 _____ | F | ???? | WILD | WILD | INDIA NANDANKAN | ~27 Jul 2002 06-Aug-02 14-Jul-05 | Capture Transfer Death | Recd. from Ghumsur Division |
| 5 _____ | F | 18-Aug-03 | UNK | UNK | NANDANKAN | 18-Aug-03 05-Aug-06 | Birth Death | |
| 6 _____ | F | 01-Mar-04 | UNK | UNK | NANDANKAN | 01-Mar-04 17-Sep-06 | Birth Death | |
| 7 _____ | M | 08-Sep-04 | UNK | UNK | NANDANKAN | 08-Sep-04 21-Sep-07 | Birth Death | |
| 8 _____ M00775 | M | ~ 2000 | WILD | WILD | INDIA MYSORE | ~ 2000 11-Nov-04 11-Jan-05 | Capture Transfer Death | |
| 9 _____ 20148 RAMYA 0006B72CE1 | F | 29-Nov-04 | UNK | UNK | HYDERABAD | 29-Nov-04 21-Nov-12 | Birth Death | |
| 10 _____ | M | 09-Apr-05 | UNK | UNK | NANDANKAN | 09-Apr-05 14-Jul-05 | Birth Death | |
| 11 _____ | M | 06-Jun-05 | UNK | UNK | NANDANKAN | 06-Jun-05 06-Jun-05 | Birth Death | |
| 12 _____ | F | ???? | WILD | WILD | INDIA NANDANKAN | ~26 Aug 2005 04-Sep-05 06-Sep-05 | Capture Transfer Death | |
| 13 _____ | M | 08-Oct-05 | UNK | UNK | NANDANKAN | 08-Oct-05 25-Dec-05 | Birth Death | |
| 14 _____ | M | 22-Dec-05 | UNK | UNK | NANDANKAN | 22-Dec-05 27-Dec-05 | Birth Death | |
| 15 _____ 20149 RADHA 0006B72859 | F | 14-May-06 | UNK | UNK | HYDERABAD | 14-May-06 16-Aug-12 | Birth Death | |
| 16 _____ | F | 07-Jul-06 | UNK | UNK | NANDANKAN | 07-Jul-06 03-Aug-06 | Birth Death | |
| 17 _____ GANESHA 100024 | M | 01-Jan-06 | WILD | WILD | INDIA MANGALORE | ~ Feb 2007 03-Mar-07 19-Oct-12 | Capture Transfer Death | |
| 18 _____ 20150 RAKESH 0006112311 | M | 18-Aug-07 | UNK | UNK | HYDERABAD | 18-Aug-07 | Birth | |
| 19 _____ 20151 RAFIA | F | 04-Sep-07 | UNK | UNK | HYDERABAD | 04-Sep-07 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|--------------|------|------|------------------------------|--|---------------------------------|--|
| 0006B7246B | | | | | | | | |
| 20 00074D5FC5 M00317 5000158 | F | ~ 2004 | WILD | WILD | INDIA MYSORE HYDERABAD | ~ 1 Oct 2007 20-Oct-07 10-Apr-13 | Capture Transfer Transfer | |
| 21 HARISHA 100025 | M | 01-Jan-07 | WILD | WILD | INDIA MANGALORE | ~ Feb 2008 07-Mar-08 18-Oct-12 | Capture Transfer Death | Recd. from RFO Mangalore |
| 22 _____ | M | ???? | WILD | WILD | INDIA NANDANKAN | ~25 Mar 2008 03-Apr-08 06-Nov-11 | Capture Transfer Death | Recd. from Bhubaneswar |
| 23 ROSY 000610DE1A 20154 | F | ???? | WILD | WILD | INDIA HYDERABAD | ???? 12-Apr-08 | Capture Transfer | |
| 24 RAJESH 00061110A4 20153 | M | ???? | WILD | WILD | INDIA HYDERABAD | ???? 20-Apr-08 | Capture Transfer | |
| 25 VENKAT 20158 | M | ???? | WILD | WILD | INDIA HYDERABAD | ???? 01-Jun-08 | Capture Transfer | |
| 26 _____ | F | 01-Jan-07 | WILD | WILD | INDIA MANGALORE | ~ 1 Nov 2008 11-Nov-08 25-Oct-12 | Capture Transfer Death | Recd. from RFO Mangalore |
| 27 20152 RAJITHA 000610E5C5 | F | 15-Dec-08 | UNK | UNK | HYDERABAD | 15-Dec-08 | Birth | |
| 28 M00318 | F | ~ 1 Jan 2008 | WILD | WILD | INDIA MYSORE | ~ 1 Apr 2009 14-Apr-09 31-Oct-12 | Capture Transfer Death | |
| 29 RAZIA 6.11E+07 20155 | F | ???? | WILD | WILD | INDIA HYDERABAD | ???? 12-Jun-09 | Capture Transfer | |
| 30 PREETHI 000715423B | F | 29-Jan-10 | 17 | 26 | MANGALORE HYDERABAD | 29-Jan-10 ~15 Mar 2014 | Birth Transfer | KINNI at MANGALORE PREETHI at HYDERABAD |
| 31 20156 RINKY 0006111FDB | F | 13-May-10 | UNK | 23 | HYDERABAD | 13-May-10 | Birth | |
| 32 M00319 | F | ~ 1 Jan 2009 | WILD | WILD | INDIA MYSORE | ~25 Jun 2010 01-Jul-10 | Capture Transfer | |
| 33 | F | 23-Jul-10 | 17 | 26 | MANGALORE | 23-Jul-10 | Birth | |
| 34 20157 KARTIKA | F | 25-Nov-10 | 24 | 29 | HYDERABAD | 25-Nov-10 | Birth | |
| 35 _____ | M | 17-Dec-10 | 17 | 26 | MANGALORE | 17-Dec-10 27-Oct-12 | Birth Death | |
| 36 20160 ARJUN | M | 23-Mar-11 | 24 | 23 | HYDERABAD MYSORE | 23-Mar-11 10-Sep-12 24-Jul-16 | Birth Transfer Death | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|--------------|------|------|---------------------------------|--|---------------------------------|-------------------------|
| 000652579E | | | | | | | | |
| 37 | M | 23-Jan-11 | 21 | 30 | MANGALORE | 23-Jan-11 | Birth | |
| 38 | M | 23-Jan-11 | UNK | UNK | MANGALORE | 23-Jan-11 07-Jul-13 | Birth Death | |
| 39 | F | 04-Mar-11 | UNK | UNK | MANGALORE | 04-Mar-11 26-Oct-12 | Birth Death | |
| 40 20159 NITYA | F | 06-Apr-11 | 24 | 31 | HYDERABAD | 06-Apr-11 | Birth | |
| 41 | F | 20-May-11 | UNK | UNK | MANGALORE | 20-May-11 27-Oct-12 | Birth Death | |
| 42 RAM 7.16E+60 | M | 28-Jun-11 | UNK | UNK | MANGALORE | 28-Jun-11 | Birth | |
| 43 20161 SHRAVANI | F | 30-Jul-11 | 18 | 9 | HYDERABAD | 30-Jul-11 | Birth | |
| 44 20162 GANESH | M | 24-Aug-11 | 24 | 23 | HYDERABAD | 24-Aug-11 | Birth | |
| 45 20163 HASINI | F | 19-Sep-11 | 24 | 31 | HYDERABAD | 19-Sep-11 | Birth | |
| 46 20164 ASHWINI | F | 25-Sep-11 | 24 | 34 | HYDERABAD | 25-Sep-11 | Birth | |
| 47 20165 RAJINI | F | 01-Oct-11 | 24 | 27 | HYDERABAD | 01-Oct-11 | Birth | |
| 48 20166 KAPIL M01040 | M | 01-Oct-11 | 24 | 29 | HYDERABAD MYSORE | 01-Oct-11 09-Apr-13 18-Jan-14 | Birth Transfer Death | |
| 49 VISHAL 0007156828 20167 | M | ~15 Sep 2011 | WILD | WILD | INDIA VISAKAPAT HYDERABAD | ~15 Sep 2011 01-Oct-11 01-Nov-11 | Capture Transfer Transfer | |
| 50 | F | 20-Oct-11 | UNK | UNK | MANGALORE | 20-Oct-11 24-Oct-12 | Birth Death | |
| 51 | M | 27-Nov-11 | UNK | UNK | MANGALORE | 27-Nov-11 24-Nov-12 | Birth Death | |
| 52 | F | ???? | WILD | WILD | INDIA NANDANKAN | ~ 1 Dec 2011 13-Dec-11 | Capture Transfer | |
| 53 KIRAN | M | 27-Jan-12 | 24 | 23 | HYDERABAD | 27-Jan-12 | Birth | |
| 54 SHARADHA | F | 07-Feb-12 | 18 | 9 | HYDERABAD | 07-Feb-12 20-Apr-14 | Birth Death | |
| 55 SHIVA | M | 19-Feb-12 | 24 | 31 | HYDERABAD | 19-Feb-12 18-May-13 | Birth Death | |
| 56 KEERTI 000715592E | F | 29-Feb-12 | 25 | 34 | HYDERABAD | 29-Feb-12 | Birth | |
| 57 | F | 01-Jan-10 | WILD | WILD | INDIA MANGALORE | ~10 Feb 2012 29-Feb-12 17-Oct-12 | Capture Transfer Death | Recd. from RFO Udipi |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|--------------|------|------|------------------------|--|------------------------------|-------------------------|
| 58 _____ | F | 01-Jan-10 | WILD | WILD | INDIA MANGALORE | ~ 2 Feb 2012 29-Feb-12 18-Oct-12 | Capture Transfer Death | Recd. from RFO Udipi |
| 59 REKHA 0007153BBA | F | 05-Mar-12 | 24 | 29 | HYDERABAD | 05-Mar-12 | Birth | |
| 60 RAHUL 00071542EE | M | 12-Apr-12 | 24 | 27 | HYDERABAD | 12-Apr-12 | Birth | |
| 61 NAVEEN 0007153AF5 | M | 27-Jun-12 | 24 | 23 | HYDERABAD | 27-Jun-12 | Birth | |
| 62 SWATI 000715480B | F | 06-Jul-12 | 36 | 43 | HYDERABAD | 06-Jul-12 | Birth | |
| 63 HONEY 000715345B | F | 23-Jul-12 | 24 | 31 | HYDERABAD | 23-Jul-12 | Birth | |
| 64 KARUNYA 00074D443B | M | 30-Jul-12 | 25 | 34 | HYDERABAD | 30-Jul-12 | Birth | |
| 65 SAKHI 00071510F0 | F | 06-Aug-12 | 24 | 29 | HYDERABAD | 06-Aug-12 | Birth | |
| 66 VINITHA | F | 13-Sep-12 | 24 | 27 | HYDERABAD | 13-Sep-12 | Birth | |
| 67 500156 VINITH 100148 | M | 13-Sep-12 | 24 | 27 | HYDERABAD MANGALORE | 13-Sep-12 05-Mar-14 | Birth Transfer | |
| 68 | F | 24-Sep-12 | UNK | UNK | NANDANKAN | 24-Sep-12 | Birth | |
| 69 PRANAV | M | 30-Oct-12 | 44 | 47 | HYDERABAD | 30-Oct-12 | Birth | |
| 70 HARSHA 0007152648 | F | 20-Nov-12 | 25 | 45 | HYDERABAD | 20-Nov-12 | Birth | |
| 71 SHRAVAN 0007157277 | M | 04-Dec-12 | 49 | 46 | HYDERABAD | 04-Dec-12 | Birth | |
| 72 SACHIN | M | 08-Dec-12 | 24 | 23 | HYDERABAD | 08-Dec-12 | Birth | |
| 73 RAGHU 000715279A | M | 09-Dec-12 | 36 | 43 | HYDERABAD | 09-Dec-12 | Birth | |
| 74 KARAN 0007154F5D | M | 31-Dec-12 | 25 | 34 | HYDERABAD | 31-Dec-12 | Birth | |
| 75 | M | ~ 2 Mar 2013 | WILD | WILD | INDIA NANDANKAN | ~ 2 Mar 2013 23-Mar-13 02-Apr-13 | Capture Transfer Death | |
| 76 RAVI | M | 06-Jan-13 | 24 | 29 | HYDERABAD | 06-Jan-13 | Birth | |
| 77 SHRUTHI | F | 07-Jan-13 | 24 | 31 | HYDERABAD | 07-Jan-13 | Birth | |
| 78 | M | 12-Jan-13 | 49 | 56 | HYDERABAD | 12-Jan-13 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|------|--------------------|---------------------------|---------------------|----------------------------|
| NARENDER 0007155F30 | | | | | | | | |
| 79 VINODHA 00071569FF | F | 14-Feb-13 | 24 | 27 | HYDERABAD | 14-Feb-13 | Birth | |
| 80 VIKAS | M | 30-Mar-13 | 25 | 63 | HYDERABAD | 30-Mar-13 | Birth | |
| 81 RAJU 00071552F3 | M | 18-Apr-13 | 55 | 54 | HYDERABAD | 18-Apr-13 | Birth | |
| 82 SANJAY 0007151213 | M | 26-Apr-13 | 53 | 47 | HYDERABAD | 26-Apr-13 | Birth | |
| 83 | F | 09-May-13 | 44 | 43 | HYDERABAD | 09-May-13 | Birth | |
| 84 | M | 13-May-13 | 24 | 23 | HYDERABAD | 13-May-13 | Birth | |
| 85 PRAVEEN 00071559A9 | M | 14-May-13 | 44 | 40 | HYDERABAD | 14-May-13 | Birth | |
| 86 KUNAL 0007154A0E | M | 20-May-13 | 25 | 56 | HYDERABAD | 20-May-13 | Birth | |
| 87 CHAITANYA 7.16E+23 | M | 03-Jun-13 | 25 | 34 | HYDERABAD | 03-Jun-13 | Birth | |
| 88 SINDHU 0007152B50 | F | 08-Jun-13 | 24 | 29 | HYDERABAD | 08-Jun-13 | Birth | |
| 89 PRANEETHA 000715395E | F | 12-Jun-13 | 64 | 65 | HYDERABAD | 12-Jun-13 | Birth | |
| 90 SANA 000715395E | F | 17-Jun-13 | 49 | 45 | HYDERABAD | 17-Jun-13 | Birth | |
| 91 | M | 02-Apr-13 | UNK | UNK | NANDANKAN | 02-Apr-13 | Birth | |
| 92 | F | ~-Jan-11 | WILD | WILD | INDIA MANGALORE | ~ 1 May 2013 10-May-13 | Capture Transfer | Recd. from RFO Bantawal |
| 93 | F | 31-Dec-13 | UNK | UNK | NANDANKAN | 31-Dec-13 | Birth | |
| 94 M01070 | F | 12-Oct-13 | 36 | UNK | MYSORE | 12-Oct-13 | Birth | |
| 95 M01134 | F | 30-Sep-14 | 36 | 32 | MYSORE | 30-Sep-14 | Birth | |
| 96 PREEFAM MD0004 | M | 03-Dec-14 | UNK | UNK | HYDERABAD ASSAM | 03-Dec-14 29-Jul-16 | Birth Transfer | |
| 97 MD0003 BHANU | M | 15-Dec-14 | UNK | UNK | HYDERABAD ASSAM | 15-Dec-14 29-Jul-16 | Birth Transfer | |
| 98 SARDHYA MD0002 | F | 10-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 10-Jan-15 29-Jul-16 | Birth Transfer | |
| 99 SAHIFHYA MD0005 | F | 12-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 12-Jan-15 29-Jul-16 | Birth Transfer | |
| 100 PRANAFHI | F | 12-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 12-Jan-15 29-Jul-16 | Birth Transfer | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|-----|------------------------|--------------------------------|------------------------------|---------|
| MD0006 | | | | | | | | |
| 101 SHIVA MD0001 | M | 15-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 15-Jan-15 29-Jul-16 | Birth Transfer | |
| 102 MD001 | F | ???? | UNK | UNK | INDIA BANNERGHA | ???? 26-Mar-09 16-Jun-15 | Capture Transfer Death | |
| 103 M01203 | F | 05-Mar-16 | 36 | 94 | MYSORE | 05-Mar-16 | Birth | |
| 104 MDEER1 | M | ~ 2015 | UNK | UNK | HYDERABAD CHATBIR Z | ~ 2015 17-Mar-16 | Birth Transfer | |
| 105 MDEER1 | F | ~ 2015 | UNK | UNK | HYDERABAD CHATBIR Z | ~ 2015 17-Mar-16 | Birth Transfer | |
| 106 M01224 | ? | 16-Jun-16 | 36 | UNK | MYSORE | 16-Jun-16 | Birth | |
| 107 MDEER1 | ? | 04-Jul-16 | UNK | UNK | CHATBIR Z | 04-Jul-16 | Birth | |
| 108 MDEER1 | ? | 01-Nov-16 | UNK | UNK | CHATBIR Z | 01-Nov-16 | Birth | |
| 109 MD0007 | ? | 12-Nov-16 | UNK | UNK | ASSAM | 12-Nov-16 | Birth | |
| 110 MD0008 | ? | 02-Jan-17 | UNK | UNK | ASSAM | 02-Jan-17 | Birth | |
| 111 MD0009 | ? | 09-Feb-17 | UNK | UNK | ASSAM | 09-Feb-17 | Birth | |
| 112 TAG22 RATNA 0007151AC7 | F | 06-Jan-13 | 24 | 29 | HYDERABAD | 06-Jan-13 | Birth | |
| 113 TAG09 VANITHA 00071560D7 | F | 30-Mar-13 | 25 | 63 | HYDERABAD | 30-Mar-13 | Birth | |
| 114 TAG41 CHANDINI 00071522EC | F | 13-Jul-13 | 44 | 62 | HYDERABAD | 13-Jul-13 | Birth | |
| 115 TAG41 TARUN 00071567C6 | M | 20-Aug-13 | 53 | 112 | HYDERABAD | 20-Aug-13 | Birth | |
| 116 TAG37 PRAMEELA 0007152CF3 | F | 09-Oct-13 | 53 | 47 | HYDERABAD | 09-Oct-13 | Birth | |
| 117 TAG17 MALALA 0007155EE8 | F | 14-Oct-13 | 44 | 40 | HYDERABAD | 14-Oct-13 | Birth | |
| 118 TAG40 BOBBY 00071530A9 | M | 28-Oct-13 | 24 | 23 | HYDERABAD | 28-Oct-13 | Birth | |
| 119 MURTHY | M | 04-Nov-13 | 25 | 34 | HYDERABAD | 04-Nov-13 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|------|--------------------|---------------------------|---------------------|---------------------------|
| 0007153D24 | | | | | | | | |
| 120 TAG13 SAGAR 00071507FA | M | 30-Nov-13 | 24 | 31 | HYDERABAD | 30-Nov-13 | Birth | |
| 121 CHRIST | M | 25-Dec-13 | 72 | 77 | HYDERABAD | 25-Dec-13 | Birth | |
| 122 RAMESH | M | 21-Jan-14 | 24 | 29 | HYDERABAD | 21-Jan-14 | Birth | |
| 123 SHASHANK | M | 23-Jan-14 | 64 | 79 | HYDERABAD | 23-Jan-14 | Birth | |
| 124 TAG38 RIYA 0007154D31 | F | 25-Jan-14 | 53 | 112 | HYDERABAD | 25-Jan-14 | Birth | |
| 125 VIJAY | M | 10-Feb-14 | 49 | 46 | HYDERABAD | 10-Feb-14 | Birth | |
| 126 TEJA | M | 11-Feb-14 | 49 | 45 | HYDERABAD | 11-Feb-14 | Birth | |
| 127 VINAY | M | 15-Feb-14 | 61 | 56 | HYDERABAD | 15-Feb-14 | Birth | |
| 128 GAYATHRI | F | 18-Feb-14 | 74 | 54 | HYDERABAD | 18-Feb-14 | Birth | |
| 129 SRINIVAS 0007150A78 | M | ~ 2009 | WILD | WILD | INDIA HYDERABAD | ~ 1 Mar 2014 04-Mar-14 | Capture Transfer | Recd. from Tirupati FD |
| 130 BALAJI 0007157468 | M | ~ 2010 | WILD | WILD | INDIA HYDERABAD | ~ 1 Mar 2014 04-Mar-14 | Capture Transfer | |
| 131 ANUP | M | 08-Mar-14 | 25 | 63 | HYDERABAD | 08-Mar-14 | Birth | |
| 132 SWAMY | M | 19-Mar-14 | 44 | 40 | HYDERABAD | 19-Mar-14 | Birth | |
| 133 ABINAYA | F | 24-Mar-14 | 64 | 89 | HYDERABAD | 24-Mar-14 | Birth | |
| 134 VIBHAV | M | 01-Apr-14 | 24 | 23 | HYDERABAD | 01-Apr-14 | Birth | |
| 135 ARVIND | M | 09-Apr-14 | 25 | 34 | HYDERABAD | 09-Apr-14 | Birth | |
| 136 DHONI | M | 04-May-14 | 73 | 113 | HYDERABAD | 04-May-14 | Birth | |
| 137 JWALA | F | 07-May-14 | 78 | 62 | HYDERABAD | 07-May-14 | Birth | |
| 138 JAGAN | M | 10-May-14 | 84 | 87 | HYDERABAD | 10-May-14 | Birth | |
| 139 PADMAVATI | F | ~ 2014 | WILD | WILD | INDIA HYDERABAD | ~ 9 May 2014 12-May-14 | Capture Transfer | Recd. from Tirupati FD |
| 140 JAVED | M | 12-Jun-14 | 120 | 114 | HYDERABAD | 12-Jun-14 | Birth | |
| 141 RAINA | M | 14-Jun-14 | 64 | 79 | HYDERABAD | 14-Jun-14 | Birth | |
| 142 RANI | F | 22-Jun-14 | 24 | 29 | HYDERABAD | 22-Jun-14 | Birth | |
| 143 RUPA | F | 22-Jun-14 | 78 | 47 | HYDERABAD | 22-Jun-14 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|-----|---------------------|------------------------|-------------------|---------|
| 144 SMITHA | F | 27-Jun-14 | 53 | 112 | HYDERABAD | 27-Jun-14 | Birth | |
| 145 BUJJI | F | 15-Jul-14 | 49 | 45 | HYDERABAD | 15-Jul-14 | Birth | |
| 146 AMRUTHA | F | 26-Jul-14 | 64 | 65 | HYDERABAD | 26-Jul-14 | Birth | |
| 147 SWARNA SR-171 | F | 14-Feb-16 | 129 | 30 | HYDERABAD MADRAS | 14-Feb-16 21-Jul-17 | Birth Transfer | |
| 148 ANJALI SR-163 | F | 11-Jan-16 | 24 | 23 | HYDERABAD MADRAS | 11-Jan-16 21-Jul-17 | Birth Transfer | |
| 149 PADMA SR-165 | F | 09-Jan-16 | 44 | 40 | HYDERABAD MADRAS | 09-Jan-16 21-Jul-17 | Birth Transfer | |
| 150 ASHOK SR-162 | M | 20-Jan-16 | 64 | 65 | HYDERABAD MADRAS | 20-Jan-16 21-Jul-17 | Birth Transfer | |
| 151 MANOJ TIWARI SR-168 | M | 05-Jan-16 | 87 | 89 | HYDERABAD MADRAS | 05-Jan-16 21-Jul-17 | Birth Transfer | |
| TOTALS: 71.74.6 (151) | | | | | | | | |

Living Population of Mouse Deer (*Moschiola indica*) in Indian Zoos

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|---|-----|------------|------|------|------------------------------|--|---------------------------------|---------|
| Assam State Zoo cum Botanical Garden, Guwahati | | | | | | | | |
| 96 PREEFAM MD0004 | M | 03-Dec-14 | UNK | UNK | HYDERABAD ASSAM | 03-Dec-14 29-Jul-16 | Birth Transfer | |
| 97 BHANU MD0003 | M | 15-Dec-14 | UNK | UNK | HYDERABAD ASSAM | 15-Dec-14 29-Jul-16 | Birth Transfer | |
| 98 SARDHYA MD0002 | F | 10-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 10-Jan-15 29-Jul-16 | Birth Transfer | |
| 99 SAHIFHYA MD0005 | F | 12-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 12-Jan-15 29-Jul-16 | Birth Transfer | |
| 100 PRANAFHI MD0006 | F | 12-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 12-Jan-15 29-Jul-16 | Birth Transfer | |
| 101 SHIVA MD0001 | M | 15-Jan-15 | UNK | UNK | HYDERABAD ASSAM | 15-Jan-15 29-Jul-16 | Birth Transfer | |
| 109 MD0007 | ? | 12-Nov-16 | UNK | UNK | ASSAM | 12-Nov-16 | Birth | |
| 110 MD0008 | ? | 02-Jan-17 | UNK | UNK | ASSAM | 02-Jan-17 | Birth | |
| 111 MD0009 | ? | 09-Feb-17 | UNK | UNK | ASSAM | 09-Feb-17 | Birth | |
| Totals: 3.3.3 (9) | | | | | | | | |
| M. C. Zoological Park, Chatbir | | | | | | | | |
| 104 MDEER1 | M | ~ 2015 | UNK | UNK | HYDERABAD CHATBIR Z | ~ 2015 17-Mar-16 | Birth Transfer | |
| 105 MDEER1 | F | ~ 2015 | UNK | UNK | HYDERABAD CHATBIR Z | ~ 2015 17-Mar-16 | Birth Transfer | |
| 107 MDEER1 | ? | 04-Jul-16 | UNK | UNK | CHATBIR Z | 04-Jul-16 | Birth | |
| 108 MDEER1 | ? | 01-Nov-16 | UNK | UNK | CHATBIR Z | 01-Nov-16 | Birth | |
| Totals: 1.1.2 (4) | | | | | | | | |
| Nehru Zoological Park, Hyderabad | | | | | | | | |
| 18 20150 RAKESH 0006112311 | M | 18-Aug-07 | UNK | UNK | HYDERABAD | 18-Aug-07 | Birth | |
| 19 20151 RAFIA 0006B7246B | F | 04-Sep-07 | UNK | UNK | HYDERABAD | 04-Sep-07 | Birth | |
| 20 M00317 50158 00074D5FC5 | F | ~ 2004 | WILD | WILD | INDIA MYSORE HYDERABAD | ~ 1 Oct 2007 20-Oct-07 10-Apr-13 | Capture Transfer Transfer | |
| 23 ROSY | F | ???? | WILD | WILD | INDIA HYDERABAD | ???? 12-Apr-08 | Capture Transfer | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|--------------|------|------|---------------------------------|--|---------------------------------|--|
| 20154 000610DE1A | | | | | | | | |
| 24 RAJESH 20153 00061110A4 | M | ???? | WILD | WILD | INDIA HYDERABAD | ???? 20-Apr-08 | Capture Transfer | |
| 25 VENKAT 20158 | M | ???? | WILD | WILD | INDIA HYDERABAD | ???? 01-Jun-08 | Capture Transfer | |
| 27 20152 RAJITHA 000610E5C5 | F | 15-Dec-08 | UNK | UNK | HYDERABAD | 15-Dec-08 | Birth | |
| 29 RAZIA 20155 6.11E+07 | F | ???? | WILD | WILD | INDIA HYDERABAD | ???? 12-Jun-09 | Capture Transfer | |
| 30 100110 PREETHI 000715423B | F | 29-Jan-10 | 17 | 26 | MANGALORE HYDERABAD | 29-Jan-10 ~15 Mar 2014 | Birth Transfer | KINNI at MANGALORE PREETHI at HYDERABAD |
| 31 20156 RINKY 0006111FDB | F | 13-May-10 | UNK | 23 | HYDERABAD | 13-May-10 | Birth | |
| 34 20157 KARTIKA | F | 25-Nov-10 | 24 | 29 | HYDERABAD | 25-Nov-10 | Birth | |
| 40 20159 NITYA | F | 06-Apr-11 | 24 | 31 | HYDERABAD | 06-Apr-11 | Birth | |
| 43 20161 SHRAVANI | F | 30-Jul-11 | 18 | 9 | HYDERABAD | 30-Jul-11 | Birth | |
| 44 20162 GANESH | M | 24-Aug-11 | 24 | 23 | HYDERABAD | 24-Aug-11 | Birth | |
| 45 20163 HASINI | F | 19-Sep-11 | 24 | 31 | HYDERABAD | 19-Sep-11 | Birth | |
| 46 20164 ASHWINI | F | 25-Sep-11 | 24 | 34 | HYDERABAD | 25-Sep-11 | Birth | |
| 47 20165 RAJINI | F | 01-Oct-11 | 24 | 27 | HYDERABAD | 01-Oct-11 | Birth | |
| 49 VISHAL 20167 0007156828 | M | ~15 Sep 2011 | WILD | WILD | INDIA VISAKAPAT HYDERABAD | ~15 Sep 2011 01-Oct-11 01-Nov-11 | Capture Transfer Transfer | |
| 53 KIRAN | M | 27-Jan-12 | 24 | 23 | HYDERABAD | 27-Jan-12 | Birth | |
| 56 KEERTI 000715592E | F | 29-Feb-12 | 25 | 34 | HYDERABAD | 29-Feb-12 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|-----|-----------|-----------|-------|---------|
| 59 REKHA 0007153BBA | F | 05-Mar-12 | 24 | 29 | HYDERABAD | 05-Mar-12 | Birth | |
| 60 RAHUL 00071542EE | M | 12-Apr-12 | 24 | 27 | HYDERABAD | 12-Apr-12 | Birth | |
| 61 NAVEEN 0007153AF5 | M | 27-Jun-12 | 24 | 23 | HYDERABAD | 27-Jun-12 | Birth | |
| 62 SWATI 000715480B | F | 06-Jul-12 | 36 | 43 | HYDERABAD | 06-Jul-12 | Birth | |
| 63 HONEY 000715345B | F | 23-Jul-12 | 24 | 31 | HYDERABAD | 23-Jul-12 | Birth | |
| 64 KARUNYA 00074D443B | M | 30-Jul-12 | 25 | 34 | HYDERABAD | 30-Jul-12 | Birth | |
| 65 SAKHI 00071510F0 | F | 06-Aug-12 | 24 | 29 | HYDERABAD | 06-Aug-12 | Birth | |
| 66 VINITHA | F | 13-Sep-12 | 24 | 27 | HYDERABAD | 13-Sep-12 | Birth | |
| 69 PRANAV | M | 30-Oct-12 | 44 | 47 | HYDERABAD | 30-Oct-12 | Birth | |
| 70 HARSHA 0007152648 | F | 20-Nov-12 | 25 | 45 | HYDERABAD | 20-Nov-12 | Birth | |
| 71 SHRAVAN 0007157277 | M | 04-Dec-12 | 49 | 46 | HYDERABAD | 04-Dec-12 | Birth | |
| 72 SACHIN | M | 08-Dec-12 | 24 | 23 | HYDERABAD | 08-Dec-12 | Birth | |
| 73 RAGHU 000715279A | M | 09-Dec-12 | 36 | 43 | HYDERABAD | 09-Dec-12 | Birth | |
| 74 KARAN 0007154F5D | M | 31-Dec-12 | 25 | 34 | HYDERABAD | 31-Dec-12 | Birth | |
| 76 RAVI | M | 06-Jan-13 | 24 | 29 | HYDERABAD | 06-Jan-13 | Birth | |
| 77 SHRUTHI | F | 07-Jan-13 | 24 | 31 | HYDERABAD | 07-Jan-13 | Birth | |
| 78 NARENDER 0007155F30 | M | 12-Jan-13 | 49 | 56 | HYDERABAD | 12-Jan-13 | Birth | |
| 79 VINODHA 00071569FF | F | 14-Feb-13 | 24 | 27 | HYDERABAD | 14-Feb-13 | Birth | |
| 80 VIKAS | M | 30-Mar-13 | 25 | 63 | HYDERABAD | 30-Mar-13 | Birth | |
| 81 RAJU 00071552F3 | M | 18-Apr-13 | 55 | 54 | HYDERABAD | 18-Apr-13 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|-----|-----------|-----------|-------|---------|
| 82 SANJAY | M | 26-Apr-13 | 53 | 47 | HYDERABAD | 26-Apr-13 | Birth | |
| 83 | F | 09-May-13 | 44 | 43 | HYDERABAD | 09-May-13 | Birth | |
| 84 | M | 13-May-13 | 24 | 23 | HYDERABAD | 13-May-13 | Birth | |
| 85 PRAVEEN 00071559A9 | M | 14-May-13 | 44 | 40 | HYDERABAD | 14-May-13 | Birth | |
| 86 KUNAL 0007154A0E | M | 20-May-13 | 25 | 56 | HYDERABAD | 20-May-13 | Birth | |
| 87 CHAITANYA 7.16E+23 | M | 03-Jun-13 | 25 | 34 | HYDERABAD | 03-Jun-13 | Birth | |
| 88 SINDHU 0007152B50 | F | 08-Jun-13 | 24 | 29 | HYDERABAD | 08-Jun-13 | Birth | |
| 89 PRANEETHA 000715395E | F | 12-Jun-13 | 64 | 65 | HYDERABAD | 12-Jun-13 | Birth | |
| 90 SANA 000715395E | F | 17-Jun-13 | 49 | 45 | HYDERABAD | 17-Jun-13 | Birth | |
| 112 TAG22 RATNA 0007151AC7 | F | 06-Jan-13 | 24 | 29 | HYDERABAD | 06-Jan-13 | Birth | |
| 113 TAG09 VANITHA 00071560D7 | F | 30-Mar-13 | 25 | 63 | HYDERABAD | 30-Mar-13 | Birth | |
| 114 TAG41 CHANDINI 00071522EC | F | 13-Jul-13 | 44 | 62 | HYDERABAD | 13-Jul-13 | Birth | |
| 115 TAG41 TARUN 00071567C6 | M | 20-Aug-13 | 53 | 112 | HYDERABAD | 20-Aug-13 | Birth | |
| 116 TAG37 PRAMEELA 0007152CF3 | F | 09-Oct-13 | 53 | 47 | HYDERABAD | 09-Oct-13 | Birth | |
| 117 TAG17 MALALA 0007155EE8 | F | 14-Oct-13 | 44 | 40 | HYDERABAD | 14-Oct-13 | Birth | |
| 118 TAG40 BOBBY 00071530A9 | M | 28-Oct-13 | 24 | 23 | HYDERABAD | 28-Oct-13 | Birth | |
| 119 MURTHY 0007153D24 | M | 04-Nov-13 | 25 | 34 | HYDERABAD | 04-Nov-13 | Birth | |
| 120 TAG13 | M | 30-Nov-13 | 24 | 31 | HYDERABAD | 30-Nov-13 | Birth | |

| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|------------|------|------|--------------------|---------------------------|---------------------|----------------------------------|
| SAGAR 00071507FA | | | | | | | | |
| 121 CHRIST | M | 25-Dec-13 | 72 | 77 | HYDERABAD | 25-Dec-13 | Birth | |
| 122 RAMESH | M | 21-Jan-14 | 24 | 29 | HYDERABAD | 21-Jan-14 | Birth | |
| 123 SHASHANK | M | 23-Jan-14 | 64 | 79 | HYDERABAD | 23-Jan-14 | Birth | |
| 124 TAG38 RIYA 0007154D31 | F | 25-Jan-14 | 53 | 112 | HYDERABAD | 25-Jan-14 | Birth | |
| 125 VIJAY | M | 10-Feb-14 | 49 | 46 | HYDERABAD | 10-Feb-14 | Birth | |
| 126 TEJA | M | 11-Feb-14 | 49 | 45 | HYDERABAD | 11-Feb-14 | Birth | |
| 127 VINAY | M | 15-Feb-14 | 61 | 56 | HYDERABAD | 15-Feb-14 | Birth | |
| 128 GAYATHRI | F | 18-Feb-14 | 74 | 54 | HYDERABAD | 18-Feb-14 | Birth | |
| 129 SRINIVAS 0007150A78 | M | ~ 2009 | WILD | WILD | INDIA HYDERABAD | ~ 1 Mar 2014 04-Mar-14 | Capture Transfer | Captured from Tirpuati Forest |
| 130 BALAJI TAG49 0007157468 | M | ~ 2010 | WILD | WILD | INDIA HYDERABAD | ~ 1 Mar 2014 04-Mar-14 | Capture Transfer | |
| 131 ANUP | M | 08-Mar-14 | 25 | 63 | HYDERABAD | 08-Mar-14 | Birth | |
| 132 SWAMY | M | 19-Mar-14 | 44 | 40 | HYDERABAD | 19-Mar-14 | Birth | |
| 133 ABINAYA | F | 24-Mar-14 | 64 | 89 | HYDERABAD | 24-Mar-14 | Birth | |
| 134 VIBHAV | M | 01-Apr-14 | 24 | 23 | HYDERABAD | 01-Apr-14 | Birth | |
| 135 ARVIND | M | 09-Apr-14 | 25 | 34 | HYDERABAD | 09-Apr-14 | Birth | |
| 136 DHONI | M | 04-May-14 | 73 | 113 | HYDERABAD | 04-May-14 | Birth | |
| 137 JWALA | F | 07-May-14 | 78 | 62 | HYDERABAD | 07-May-14 | Birth | |
| 138 JAGAN | M | 10-May-14 | 84 | 87 | HYDERABAD | 10-May-14 | Birth | |
| 139 PADMAVATI | F | ~ 2014 | WILD | WILD | INDIA HYDERABAD | ~ 9 May 2014 12-May-14 | Capture Transfer | Captured from Tirpuati Forest |
| 140 JAVED | M | 12-Jun-14 | 120 | 114 | HYDERABAD | 12-Jun-14 | Birth | |
| 141 RAINA | M | 14-Jun-14 | 64 | 79 | HYDERABAD | 14-Jun-14 | Birth | |
| 142 RANI | F | 22-Jun-14 | 24 | 29 | HYDERABAD | 22-Jun-14 | Birth | |
| 143 RUPA | F | 22-Jun-14 | 78 | 47 | HYDERABAD | 22-Jun-14 | Birth | |
| 144 SMITHA | F | 27-Jun-14 | 53 | 112 | HYDERABAD | 27-Jun-14 | Birth | |

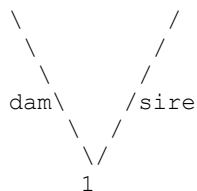
| Stud# Local ID Name Transponder | Sex | Birth Date | Sire | Dam | Location | Date | Event | Remarks |
|--|-----|--------------|------|------|---------------------|---------------------------|---------------------|------------------------------|
| 145 BUJJI | F | 15-Jul-14 | 49 | 45 | HYDERABAD | 15-Jul-14 | Birth | |
| 146 AMRUTHA | F | 26-Jul-14 | 64 | 65 | HYDERABAD | 26-Jul-14 | Birth | |
| Totals: 43.40.0 (83) | | | | | | | | |
| Arignar Anna Zoological Park, Chennai | | | | | | | | |
| 147 SWARNA SR-171 | F | 14-Feb-16 | 129 | 30 | HYDERABAD MADRAS | 14-Feb-16 21-Jul-17 | Birth Transfer | |
| 148 ANJALI SR-163 | F | 11-Jan-16 | 24 | 23 | HYDERABAD MADRAS | 11-Jan-16 21-Jul-17 | Birth Transfer | |
| 149 PADMA SR-165 | F | 09-Jan-16 | 44 | 40 | HYDERABAD MADRAS | 09-Jan-16 21-Jul-17 | Birth Transfer | |
| 150 ASHOK SR-162 | M | 20-Jan-16 | 64 | 65 | HYDERABAD MADRAS | 20-Jan-16 21-Jul-17 | Birth Transfer | |
| 151 MANOJ TIWAR SR-168 | M | 05-Jan-16 | 87 | 89 | HYDERABAD MADRAS | 05-Jan-16 21-Jul-17 | Birth Transfer | |
| Totals: 2.3.0 (5) | | | | | | | | |
| Sri Chamarajendra Zoological Park, Mysore | | | | | | | | |
| 32 M00319 | F | ~ 1 Jan 2009 | WILD | WILD | INDIA MYSORE | ~25 Jun 2010 01-Jul-10 | Capture Transfer | |
| 94 M01070 | F | 12-Oct-13 | 36 | UNK | MYSORE | 12-Oct-13 | Birth | |
| 95 M01134 | F | 30-Sep-14 | 36 | 32 | MYSORE | 30-Sep-14 | Birth | |
| 103 M01203 | F | 05-Mar-16 | 36 | 94 | MYSORE | 05-Mar-16 | Birth | |
| 106 M01224 | ? | 16-Jun-16 | 36 | UNK | MYSORE | 16-Jun-16 | Birth | |
| Totals: 0.4.1 (5) | | | | | | | | |
| Nandankanan Biological Park, Bhubaneswar | | | | | | | | |
| 52 | F | ???? | WILD | WILD | INDIA NANDANKAN | ~ 1 Dec 2011 13-Dec-11 | Capture Transfer | |
| 68 | F | 24-Sep-12 | UNK | UNK | NANDANKAN | 24-Sep-12 | Birth | |
| 91 | M | 02-Apr-13 | UNK | UNK | NANDANKAN | 02-Apr-13 | Birth | |
| 93 | F | 31-Dec-13 | UNK | UNK | NANDANKAN | 31-Dec-13 | Birth | |
| Totals: 1.3.0 (4) | | | | | | | | |
| | | | | | | | | Totals: 50.54.6 (110) |

Pedigree Chart Report Mouse Deer (*Moschiola indica*)

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 1
=====

WILD



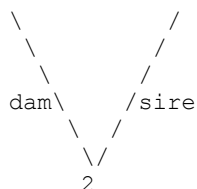
WILD

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

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 2
=====

WILD



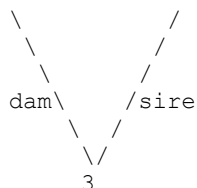
WILD

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

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 3
=====

WILD



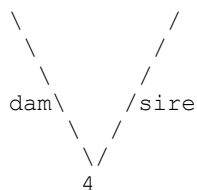
WILD

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

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 4
=====

WILD



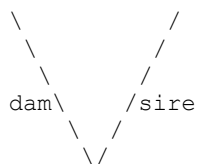
WILD

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

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 5
=====

UNK



UNK

Sex: Female
Birth Date: 18 Aug 2003
Last Location: NANDANKAN (dead)
House Name:
Tattoo:
Tag/Band:

=====

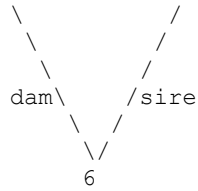
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 6

=====

UNK

UNK



Sex: Female
 Birth Date: 1 Mar 2004
 Last Location: NANDANKAN (dead)
 House Name:
 Tattoo:
 Tag/Band:

=====

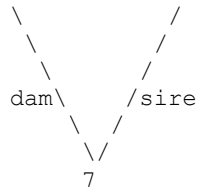
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 7

=====

UNK

UNK



Sex: Male
 Birth Date: 8 Sep 2004
 Last Location: NANDANKAN (dead)
 House Name:
 Tattoo:
 Tag/Band:

=====

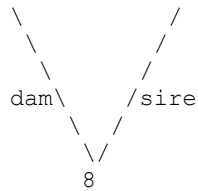
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 8

=====

WILD

WILD



Sex: Male
 Birth Date: ~ 2000
 Last Location: MYSORE (dead)
 House Name:
 Tattoo:
 Tag/Band:

=====

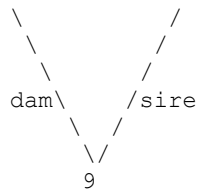
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 9

=====

UNK

UNK



Sex: Female
 Birth Date: 29 Nov 2004
 Last Location: HYDERABAD (dead)
 House Name: RAMYA
 Tattoo:
 Tag/Band:

=====

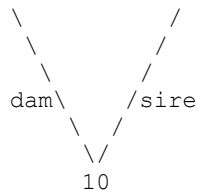
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 10

=====

UNK

UNK



Sex: Male
 Birth Date: 9 Apr 2005
 Last Location: NANDANKAN (dead)
 House Name:
 Tattoo:
 Tag/Band:

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 11
=====
UNK                                                       UNK
                                                         Sex: Male
                                                         Birth Date: 6 Jun 2005
                                                         Last Location: NANDANKAN (dead)
                                                         House Name:
                                                         Tattoo:
                                                         Tag/Band:
    \
    \  dam \ /  sire
     \    \ /
      \    V
       \   /
        \ /
         V
          11

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 12
=====
WILD                                                       WILD
                                                         Sex: Female
                                                         Birth Date:      ???
                                                         Last Location: NANDANKAN (dead)
                                                         House Name:
                                                         Tattoo:
                                                         Tag/Band:
    \
    \  dam \ /  sire
     \    \ /
      \    V
       \   /
        \ /
         V
          12

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 13
=====
UNK                                                       UNK
                                                         Sex: Male
                                                         Birth Date: 8 Oct 2005
                                                         Last Location: NANDANKAN (dead)
                                                         House Name:
                                                         Tattoo:
                                                         Tag/Band:
    \
    \  dam \ /  sire
     \    \ /
      \    V
       \   /
        \ /
         V
          13

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 14
=====
UNK                                                       UNK
                                                         Sex: Male
                                                         Birth Date: 22 Dec 2005
                                                         Last Location: NANDANKAN (dead)
                                                         House Name:
                                                         Tattoo:
                                                         Tag/Band:
    \
    \  dam \ /  sire
     \    \ /
      \    V
       \   /
        \ /
         V
          14

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 15
=====
UNK                                                       UNK
                                                         Sex: Female
                                                         Birth Date: 14 May 2006
                                                         Last Location: HYDERABAD (dead)
                                                         House Name: RADHA
                                                         Tattoo:
                                                         Tag/Band:
    \
    \  dam \ /  sire
     \    \ /
      \    V
       \   /
        \ /
         V
          15

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 16
=====
UNK                                                         UNK
                                                           Sex: Female
                                                           Birth Date: 7 Jul 2006
                                                           Last Location: NANDANKAN (dead)
                                                           House Name:
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    16

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 17
=====
WILD                                                         WILD
                                                           Sex: Male
                                                           Birth Date: 1 Jan 2006
                                                           Last Location: MANGALORE (dead)
                                                           House Name: GANESHA
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    17

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 18
=====
UNK                                                         UNK
                                                           Sex: Male
                                                           Birth Date: 18 Aug 2007
                                                           Last Location: HYDERABAD
                                                           House Name: RAKESH
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    18

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 19
=====
UNK                                                         UNK
                                                           Sex: Female
                                                           Birth Date: 4 Sep 2007
                                                           Last Location: HYDERABAD
                                                           House Name: RAFIA
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    19

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 20
=====
WILD                                                         WILD
                                                           Sex: Female
                                                           Birth Date: ~ 2004
                                                           Last Location: HYDERABAD
                                                           House Name:
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    20

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 21
=====
WILD                                                       WILD
                                                           Sex: Male
                                                           Birth Date: 1 Jan 2007
                                                           Last Location: MANGALORE (dead)
                                                           House Name: HARISHA
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    21

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 22
=====
WILD                                                       WILD
                                                           Sex: Male
                                                           Birth Date:      ???
                                                           Last Location: NANDANKAN (dead)
                                                           House Name:
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    22

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 23
=====
WILD                                                       WILD
                                                           Sex: Female
                                                           Birth Date:      ???
                                                           Last Location: HYDERABAD
                                                           House Name: ROSY
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    23

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 24
=====
WILD                                                       WILD
                                                           Sex: Male
                                                           Birth Date:      ???
                                                           Last Location: HYDERABAD
                                                           House Name: RAJESH
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    24

```

```

=====
Taxon Name: MOSCHIOLA INDICA                               Studbook Number: 25
=====
WILD                                                       WILD
                                                           Sex: Male
                                                           Birth Date:      ???
                                                           Last Location: HYDERABAD
                                                           House Name: VENKAT
                                                           Tattoo:
                                                           Tag/Band:
    \
     \
dam \  /sire
     /
    /
    25

```



```

=====
Taxon Name: MOSCHIOLA INDICA                      Studbook Number: 26
=====
WILD                                              WILD
                                                Sex: Female
                                                Birth Date: 1 Jan 2007
                                                Last Location: MANGALORE (dead)
dam \ /sire                                     House Name:
  \ /                                           Tattoo:
   V                                           Tag/Band:
  26

```

```

=====
Taxon Name: MOSCHIOLA INDICA                      Studbook Number: 27
=====
UNK                                              UNK
                                                Sex: Female
                                                Birth Date: 15 Dec 2008
                                                Last Location: HYDERABAD
dam \ /sire                                     House Name: RAJITHA
  \ /                                           Tattoo:
   V                                           Tag/Band:
  27

```

```

=====
Taxon Name: MOSCHIOLA INDICA                      Studbook Number: 28
=====
WILD                                              WILD
                                                Sex: Female
                                                Birth Date:~ 1 Jan 2008
                                                Last Location: MYSORE (dead)
dam \ /sire                                     House Name:
  \ /                                           Tattoo:
   V                                           Tag/Band:
  28

```

```

=====
Taxon Name: MOSCHIOLA INDICA                      Studbook Number: 29
=====
WILD                                              WILD
                                                Sex: Female
                                                Birth Date: ???
                                                Last Location: HYDERABAD
dam \ /sire                                     House Name: RAZIA
  \ /                                           Tattoo:
   V                                           Tag/Band:
  29

```

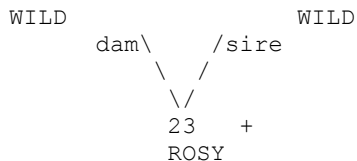
```

=====
Taxon Name: MOSCHIOLA INDICA                      Studbook Number: 30
=====
WILD dam \ /sire WILD                          WILD dam \ /sire WILD
  \ /                                           \ /
   V                                           V
  26 +                                         17 +
                                                GANESHA
                                                Sex: Female
                                                Birth Date: 29 Jan 2010
                                                Last Location: HYDERABAD
dam \ /sire                                     House Name: PREETHI at HYDE
  \ /                                           Tattoo:
   V                                           Tag/Band:
  26 +

```

+ Wild-caught... 30

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 31
=====

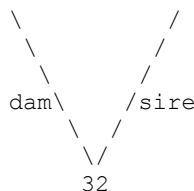


UNK
Sex: Female
Birth Date: 13 May 2010
Last Location: HYDERABAD
House Name: RINKY
Tattoo:
Tag/Band:

+ Wild-caught...

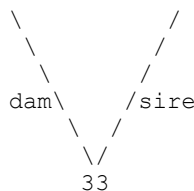
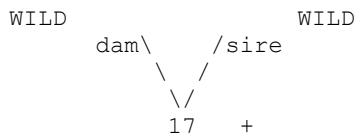
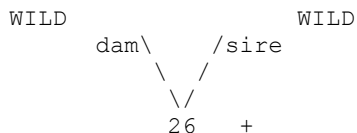
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 32
=====

WILD



WILD
Sex: Female
Birth Date: ~ 1 Jan 2009
Last Location: MYSORE
House Name:
Tattoo:
Tag/Band:

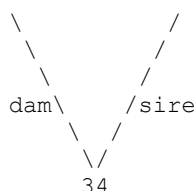
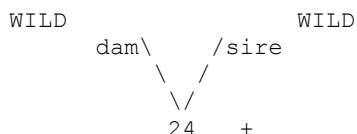
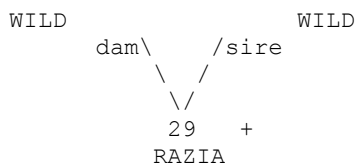
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 33
=====



GANESHA
Sex: Female
Birth Date: 23 Jul 2010
Last Location: MANGALORE
House Name:
Tattoo:
Tag/Band:

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 34
=====



RAJESH
Sex: Female
Birth Date: 25 Nov 2010
Last Location: HYDERABAD
House Name: KARTIKA
Tattoo:
Tag/Band:

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 35
=====

```
WILD dam\ /sire WILD WILD dam\ /sire WILD
      \  /      \  /      \  /      \  /
      26 +      17 +
              GANESHA
              Sex: Male
              Birth Date: 17 Dec 2010
              Last Location: MANGALORE (dead)
              House Name:
              Tattoo:
              Tag/Band:
+ Wild-caught...
              dam\ /sire
              \  /
              35
```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 36
=====

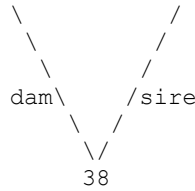
```
WILD dam\ /sire WILD WILD dam\ /sire WILD
      \  /      \  /      \  /      \  /
      23 +      24 +
      ROSY      RAJESH
              Sex: Male
              Birth Date: 23 Mar 2011
              Last Location: MYSORE (dead)
              House Name: ARJUN
              Tattoo:
              Tag/Band:
+ Wild-caught...
              dam\ /sire
              \  /
              36
```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 37
=====

```
WILD WILD WILD WILD WILD WILD
dam\ /sire dam\ /sire dam\ /sire dam\ /sire
 \  /      \  /      \  /      \  /
 26 +      17 +      21 +
      GANESHA      HARISHA
              Sex: Male
              Birth Date: 23 Jan 2011
              Last Location: MANGALORE
              House Name:
              Tattoo:
              Tag/Band:
+ Wild-caught...
      dam\ /sire
      \  /
      30
      PREETHI
              dam\ /sire
              \  /
              37
```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 38
=====

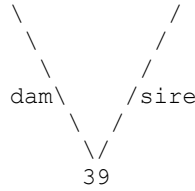
UNK



UNK
Sex: Male
Birth Date: 23 Jan 2011
Last Location: MANGALORE (dead)
House Name:
Tattoo:
Tag/Band:

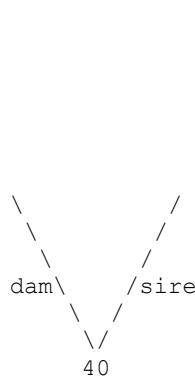
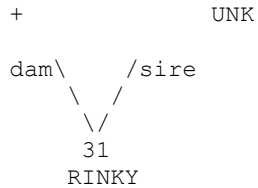
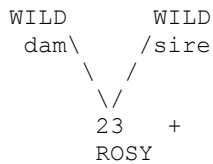
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 39
=====

UNK



UNK
Sex: Female
Birth Date: 4 Mar 2011
Last Location: MANGALORE (dead)
House Name:
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 40
=====

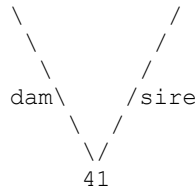


UNK
WILD WILD
dam\' /sire
24 +
RAJESH
Sex: Female
Birth Date: 6 Apr 2011
Last Location: HYDERABAD
House Name: NITYA
Tattoo:
Tag/Band:

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 41
=====

UNK



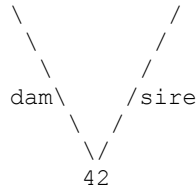
UNK
Sex: Female
Birth Date: 20 May 2011
Last Location: MANGALORE (dead)
House Name:
Tattoo:
Tag/Band:

=====

Taxon Name: MOSCHIOLA INDICA Studbook Number: 42

=====

UNK



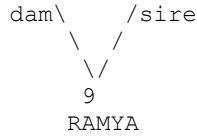
UNK
 Sex: Male
 Birth Date: 28 Jun 2011
 Last Location: MANGALORE
 House Name: RAM
 Tattoo:
 Tag/Band:

=====

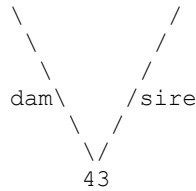
Taxon Name: MOSCHIOLA INDICA Studbook Number: 43

=====

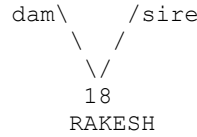
UNK



UNK



UNK



UNK

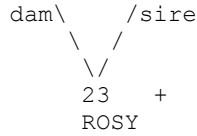
UNK
 Sex: Female
 Birth Date: 30 Jul 2011
 Last Location: HYDERABAD
 House Name: SHRAVANI
 Tattoo:
 Tag/Band:

=====

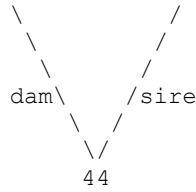
Taxon Name: MOSCHIOLA INDICA Studbook Number: 44

=====

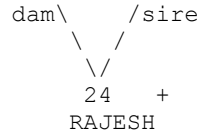
WILD



WILD



WILD



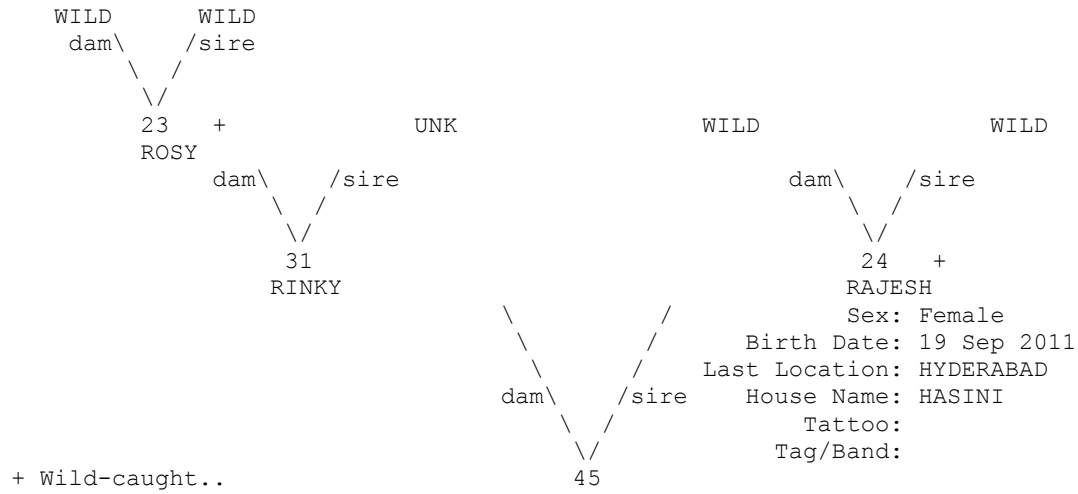
WILD

WILD
 Sex: Male
 Birth Date: 24 Aug 2011
 Last Location: HYDERABAD
 House Name: GANESH
 Tattoo:
 Tag/Band:

+ Wild-caught...

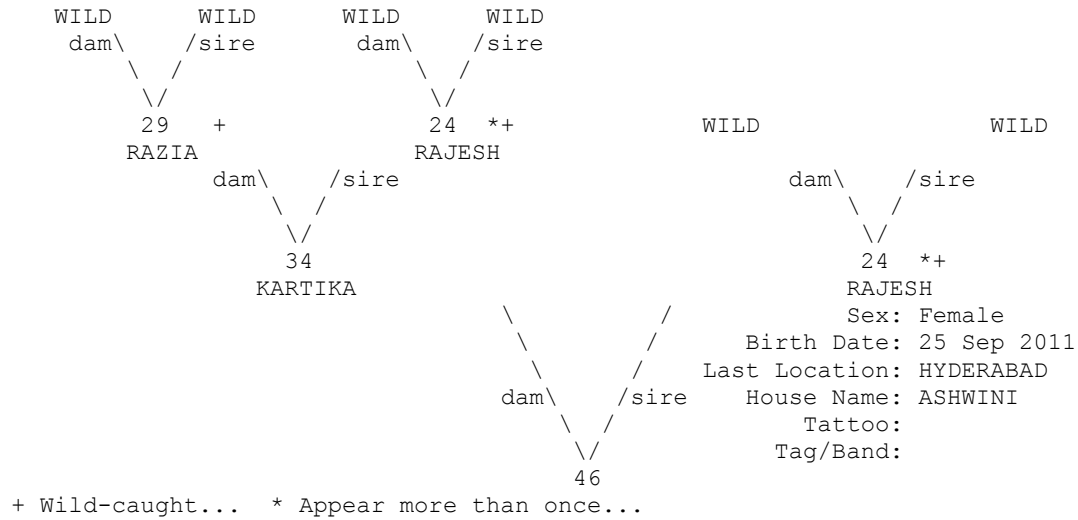
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 45
=====



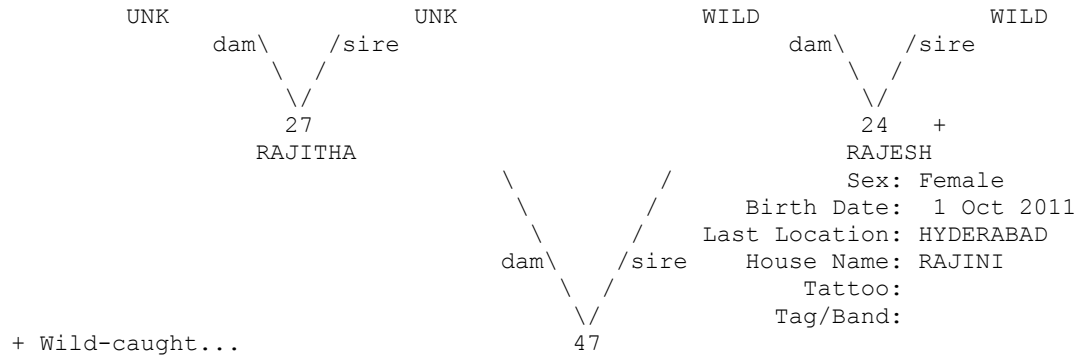
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 46
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 47
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 48
=====

WILD

dam \
 \ /
 29 +
 RAZIA

WILD

dam \
 \ /
 48

WILD

dam \
 \ /
 24 +
 RAJESH

WILD

Sex: Male
Birth Date: 1 Oct 2011
Last Location: MYSORE (dead)
House Name: KAPIL
Tattoo:
Tag/Band:

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 49
=====

WILD

dam \
 \ /
 49

WILD

Sex: Male
Birth Date: ~15 Sep 2011
Last Location: HYDERABAD
House Name: VISHAL
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 50
=====

UNK

dam \
 \ /
 50

UNK

Sex: Female
Birth Date: 20 Oct 2011
Last Location: MANGALORE (dead)
House Name:
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 51
=====

UNK

dam \
 \ /
 51

UNK

Sex: Male
Birth Date: 27 Nov 2011
Last Location: MANGALORE (dead)
House Name:
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 52
=====

WILD

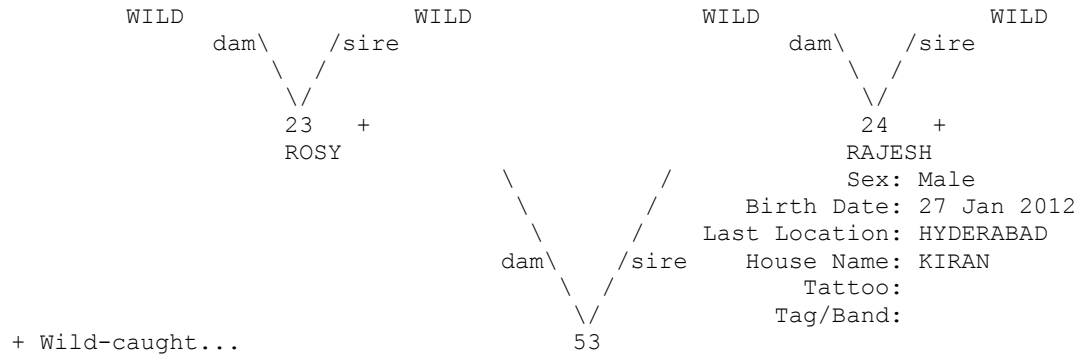
dam \
 \ /
 52

WILD

Sex: Female
Birth Date: ????
Last Location: NANDANKAN
House Name:
Tattoo:
Tag/Band:

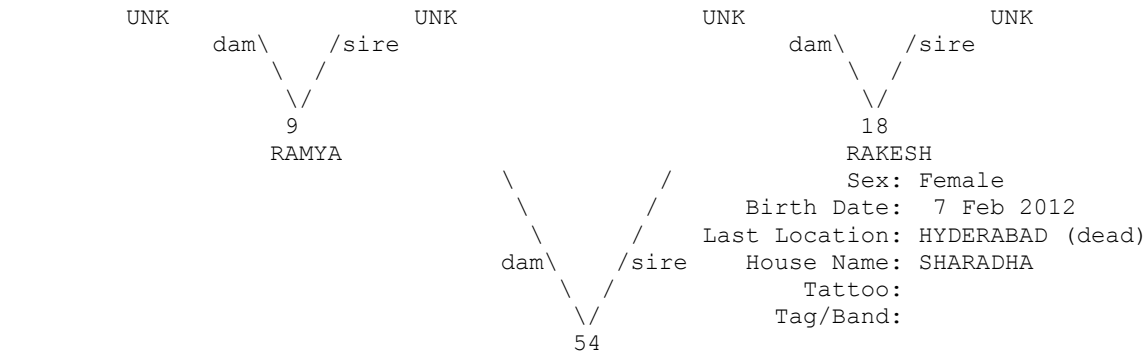
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 53
=====



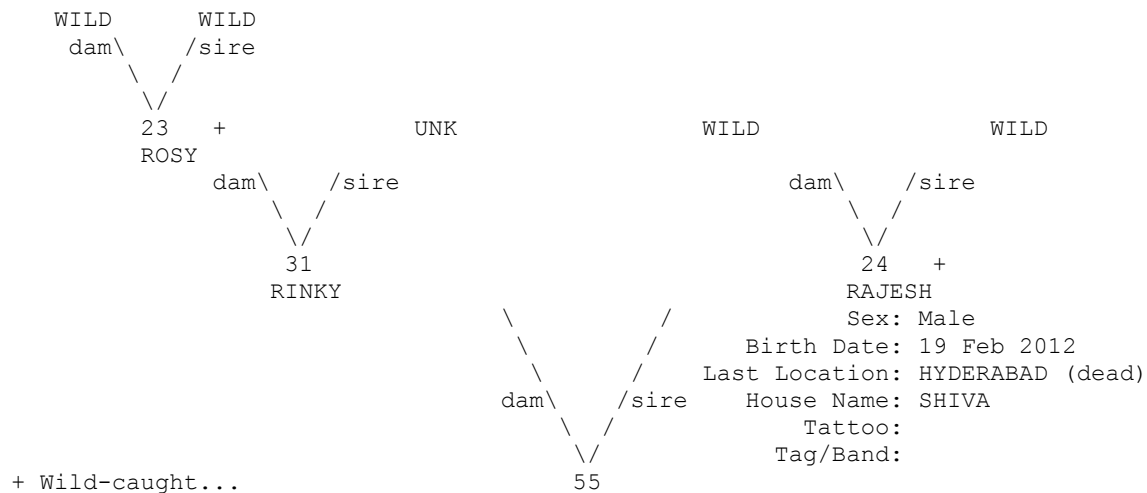
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 54
=====

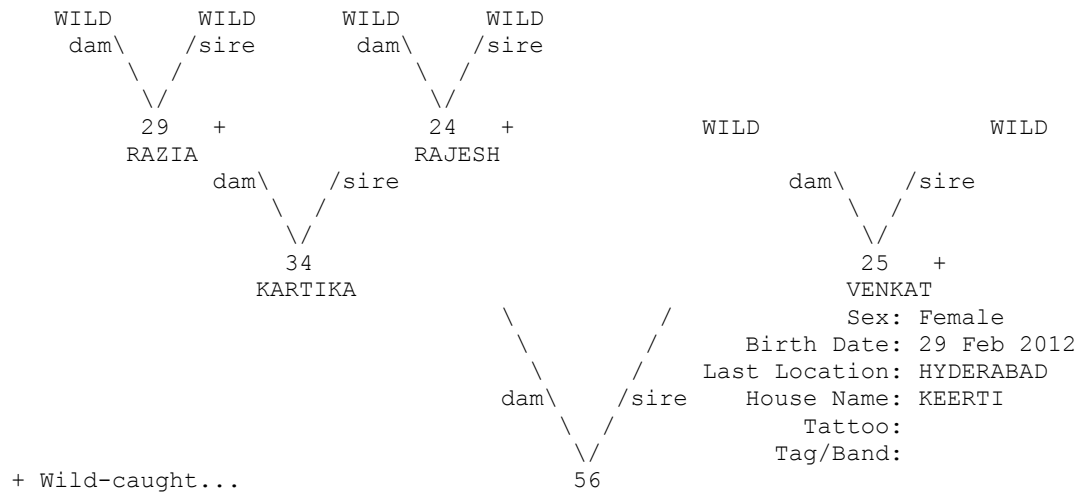


=====
Taxon Name: MOSCHIOLA INDICA

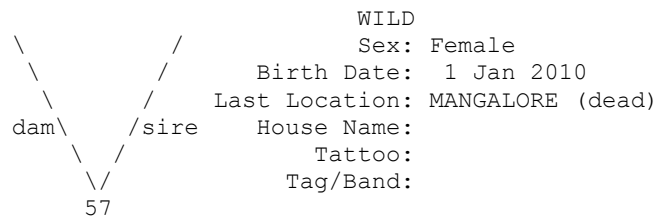
Studbook Number: 55
=====



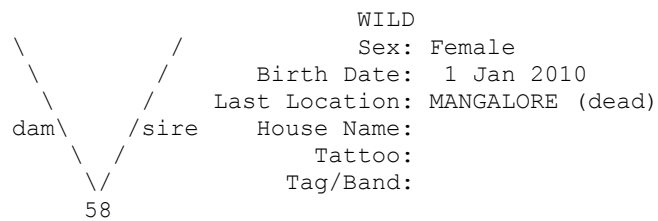
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 56
=====



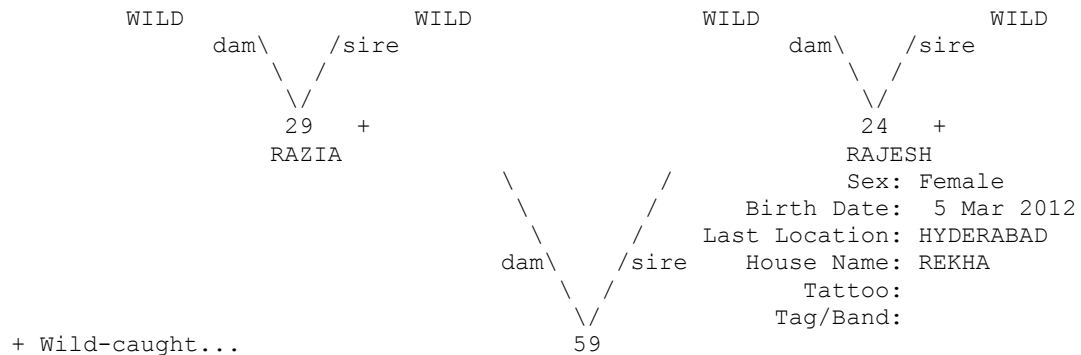
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 57
=====



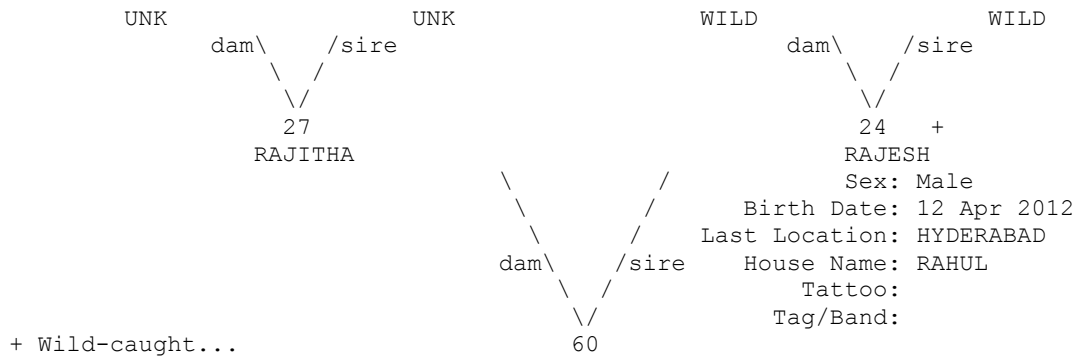
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 58
=====



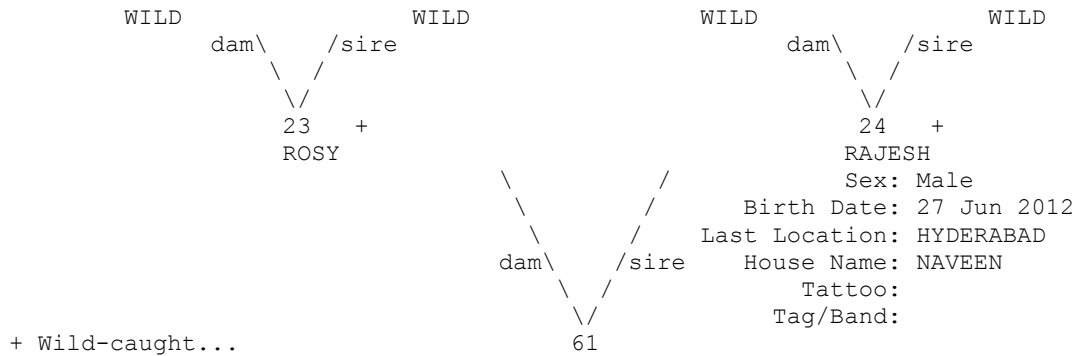
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 59
=====



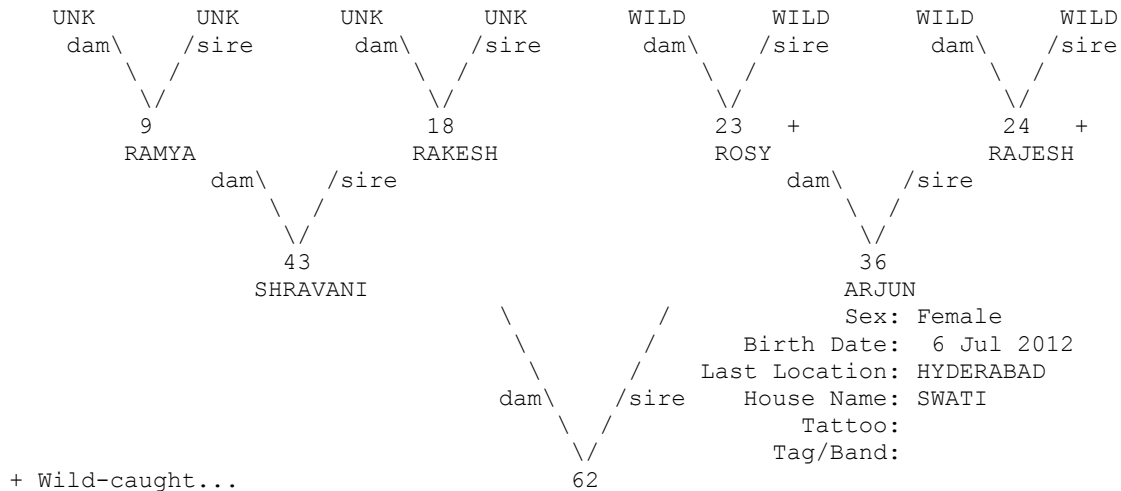
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 60
=====



=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 61
=====

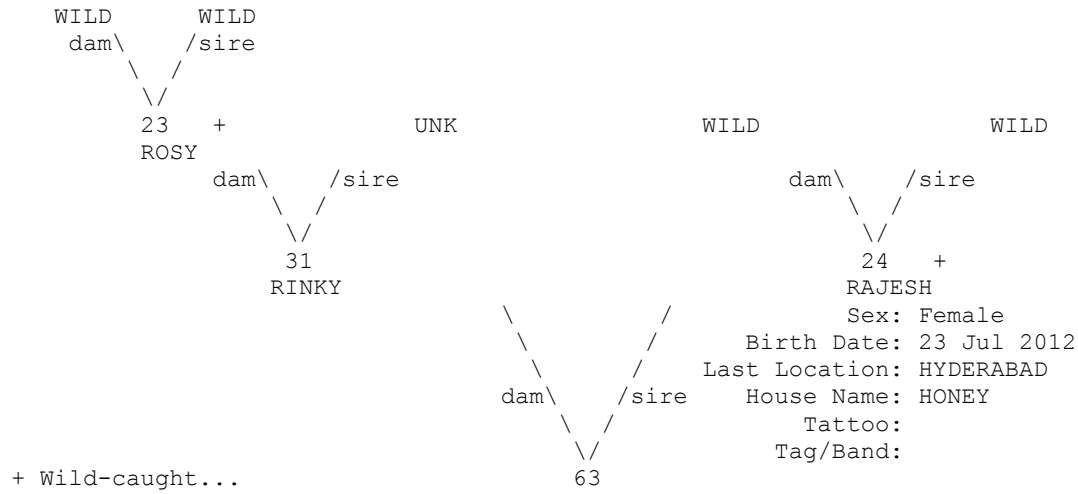


=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 62
=====



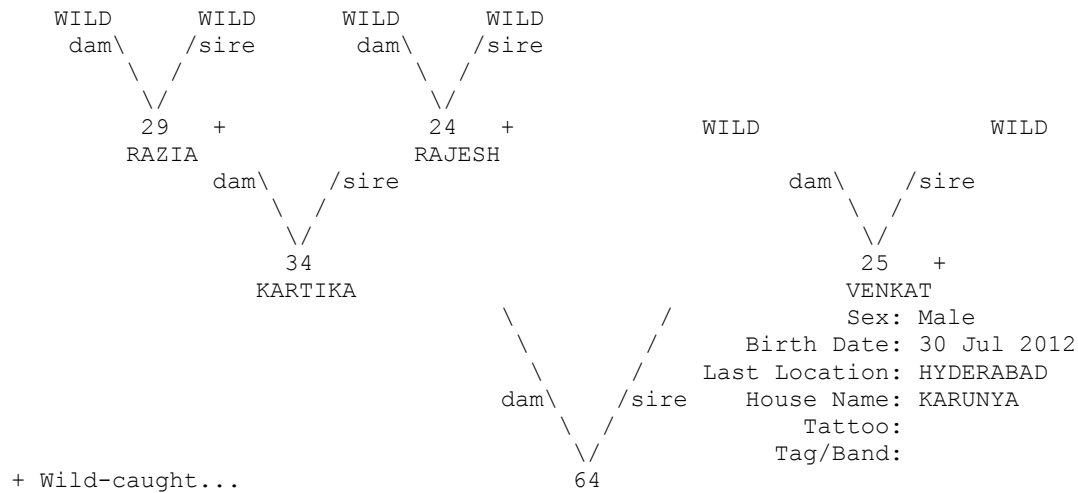
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 63
=====



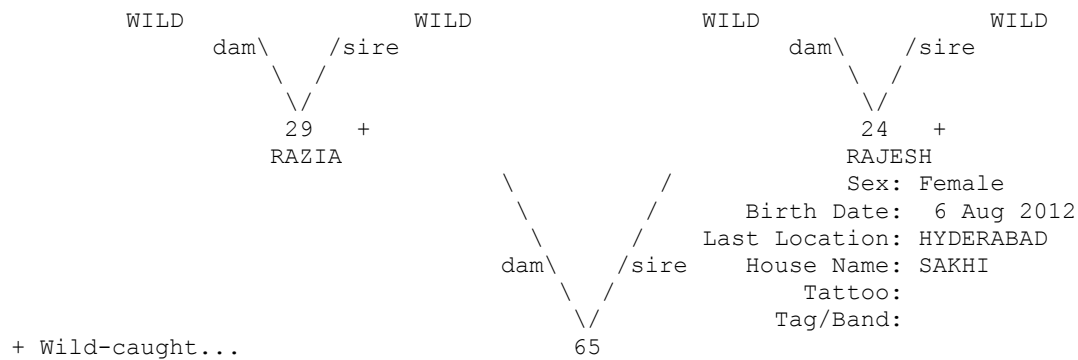
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 64
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 65
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 66
=====

UNK

dam \ /sire

UNK

27

RAJITHA

WILD

dam \ /sire

WILD

24

+

RAJESH

Sex: Female

Birth Date: 13 Sep 2012

Last Location: HYDERABAD

House Name: VINITHA

Tattoo:

Tag/Band:

\\ /
dam \ /sire
\\ /
66

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 67
=====

UNK

dam \ /sire

UNK

27

RAJITHA

WILD

dam \ /sire

WILD

24

+

RAJESH

Sex: Male

Birth Date: 13 Sep 2012

Last Location: MANGALORE

House Name: VINITH

Tattoo:

Tag/Band:

\\ /
dam \ /sire
\\ /
67

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 68
=====

UNK

\\ /
dam \ /sire
\\ /
68

UNK

Sex: Female

Birth Date: 24 Sep 2012

Last Location: NANDANKAN

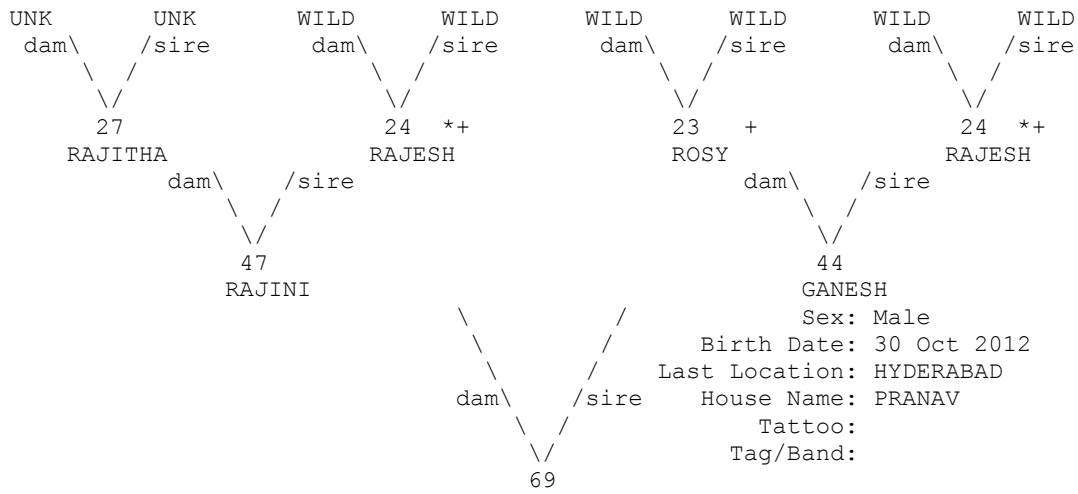
House Name:

Tattoo:

Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

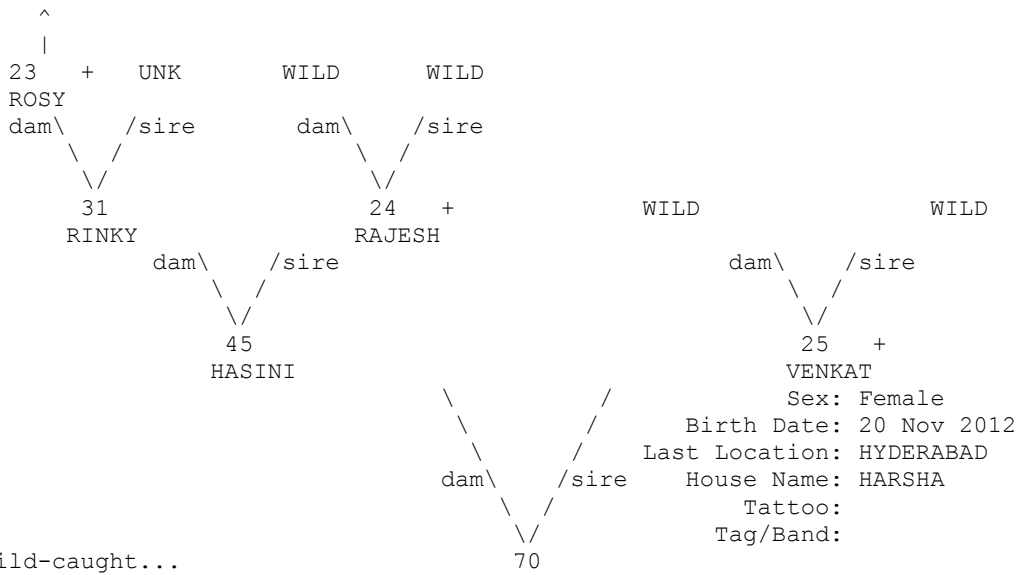
Studbook Number: 69
=====



+ Wild-caught... * Appear more than once...

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 70
=====

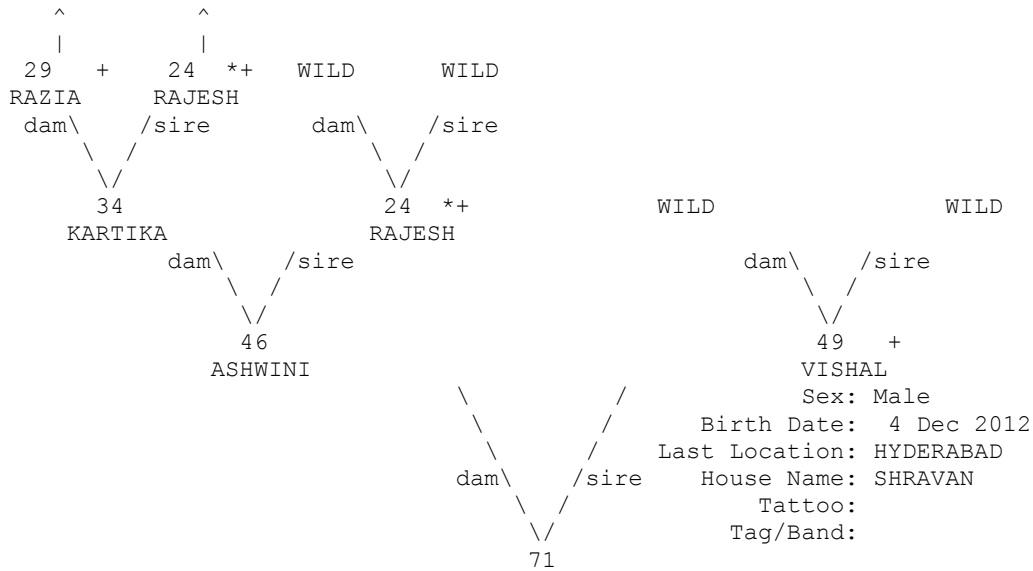


+ Wild-caught...

^ Pedigree continues beyond top of page...

=====
Taxon Name: MOSCHIOLA INDICA

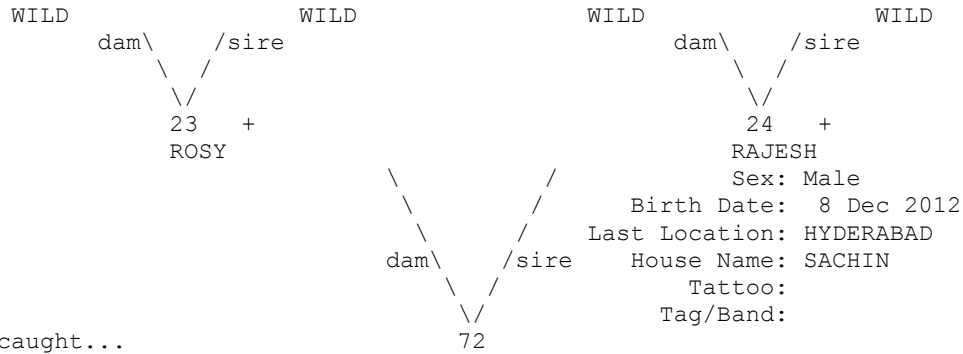
Studbook Number: 71
=====



+ Wild-caught... * Appear more than once...
^ Pedigree continues beyond top of page...

=====
Taxon Name: MOSCHIOLA INDICA

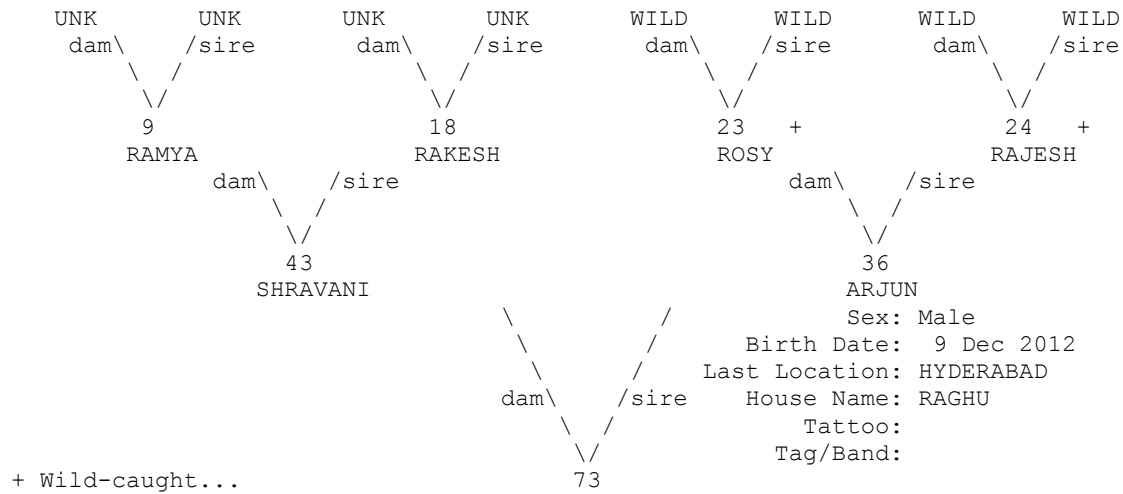
Studbook Number: 72
=====



+ Wild-caught...

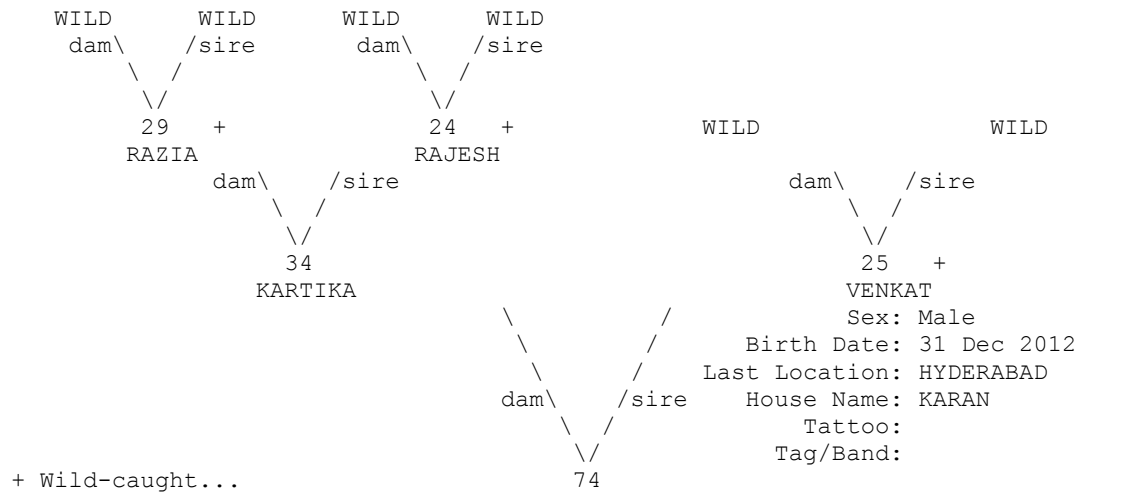
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 73
=====



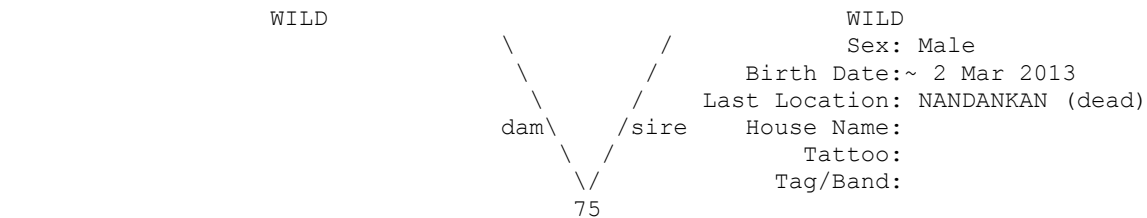
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 74
=====

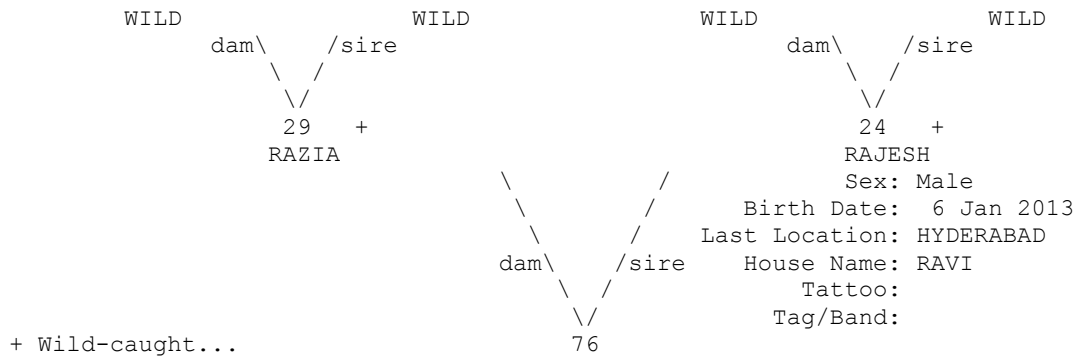


=====
Taxon Name: MOSCHIOLA INDICA

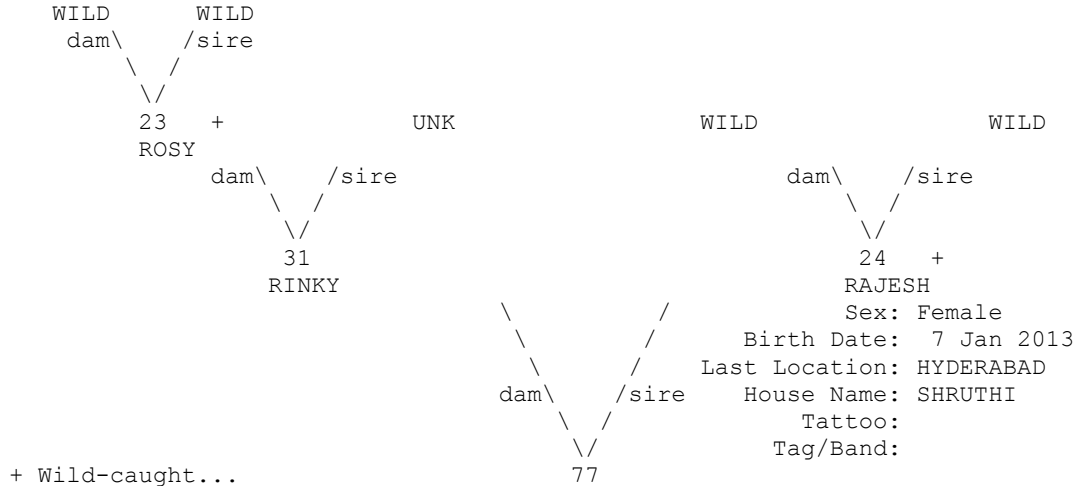
Studbook Number: 75
=====



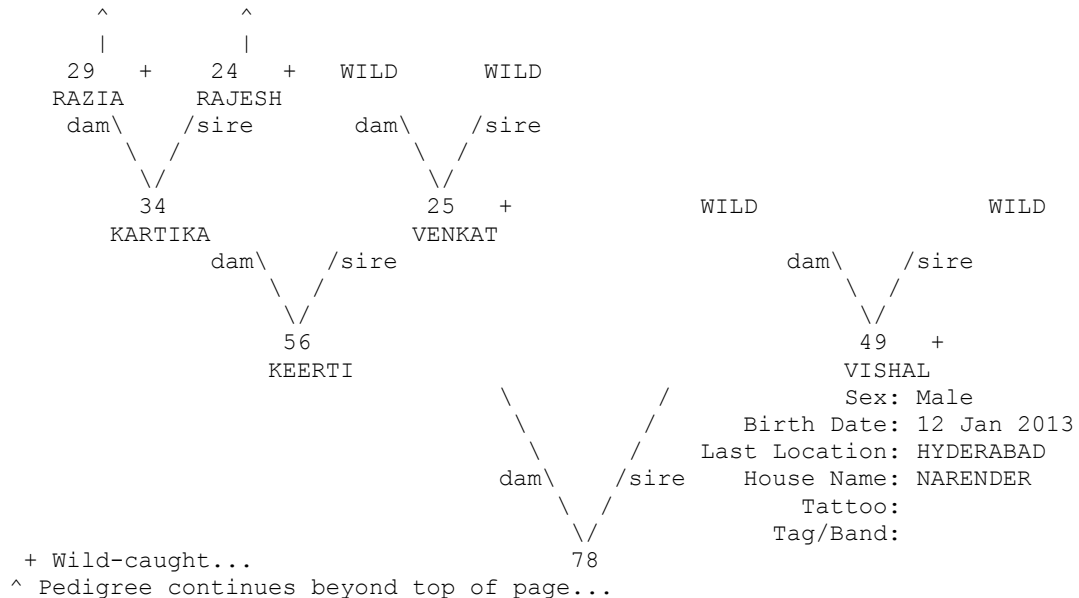
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 76
=====



=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 77
=====

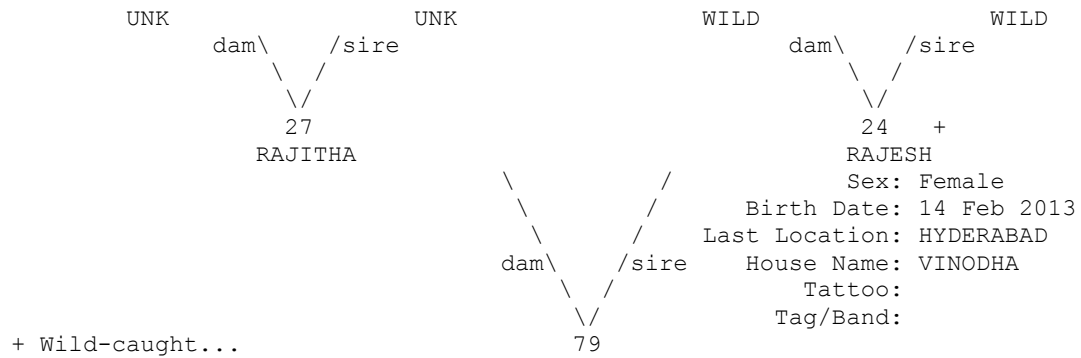


=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 78
=====



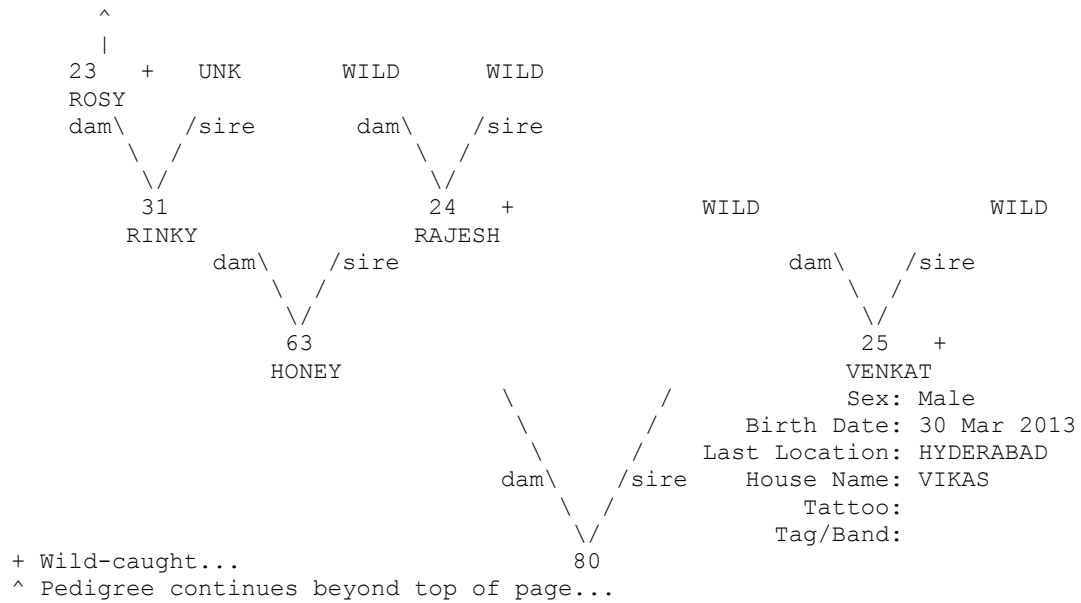
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 79
=====



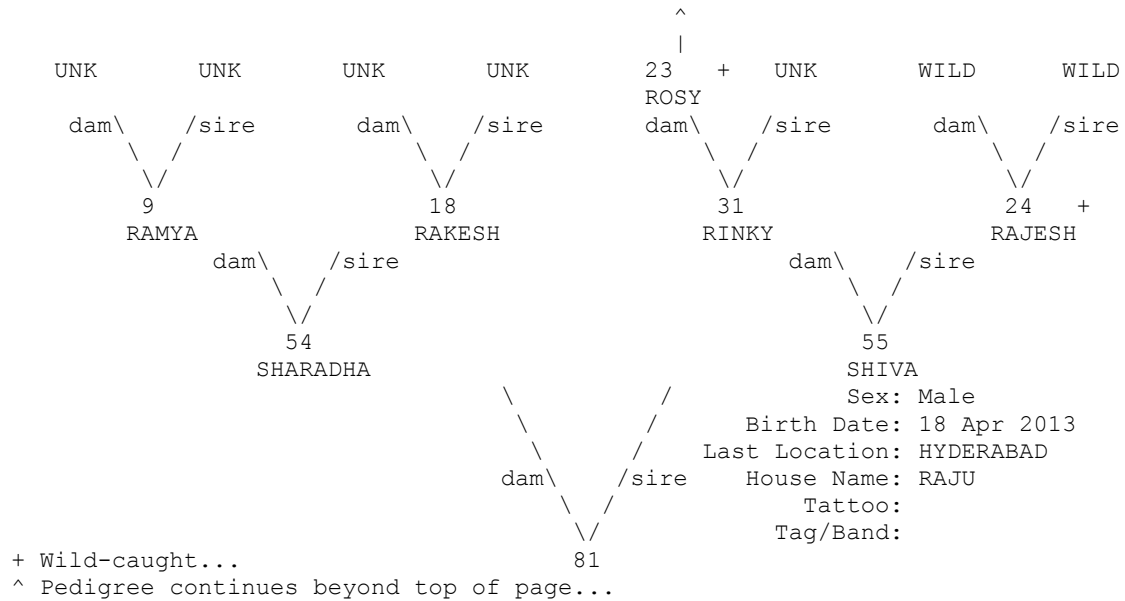
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 80
=====



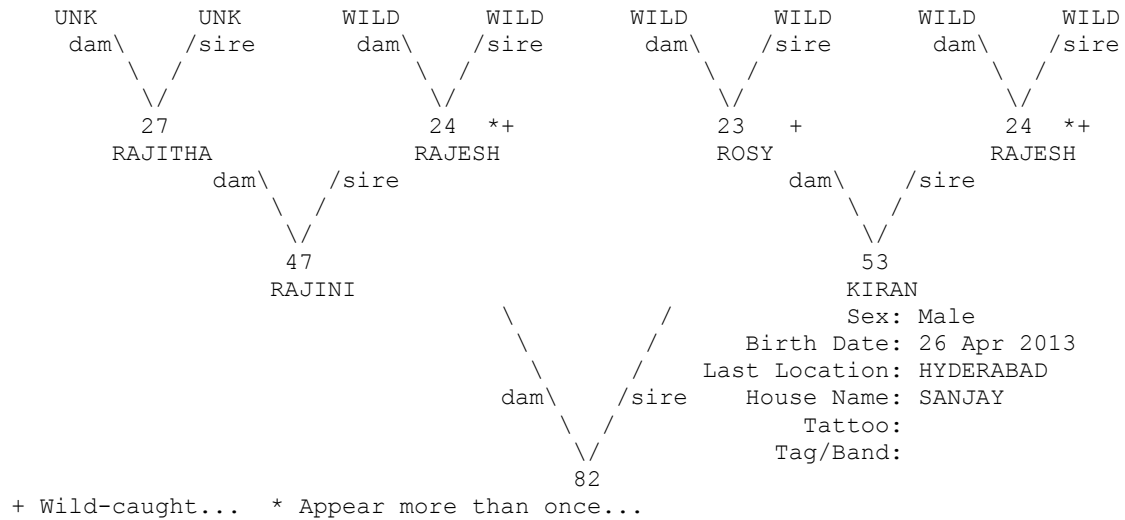
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 81
=====



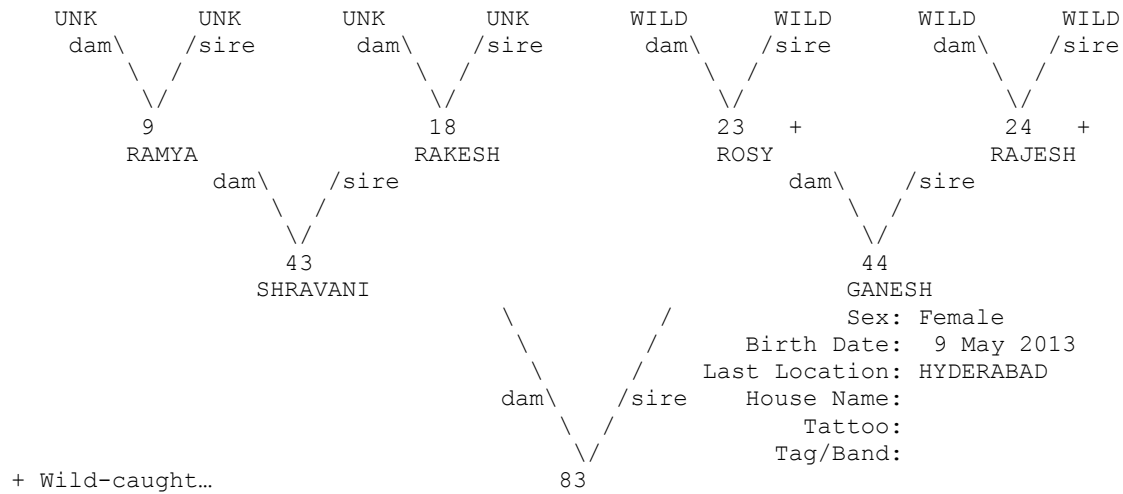
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 82
=====



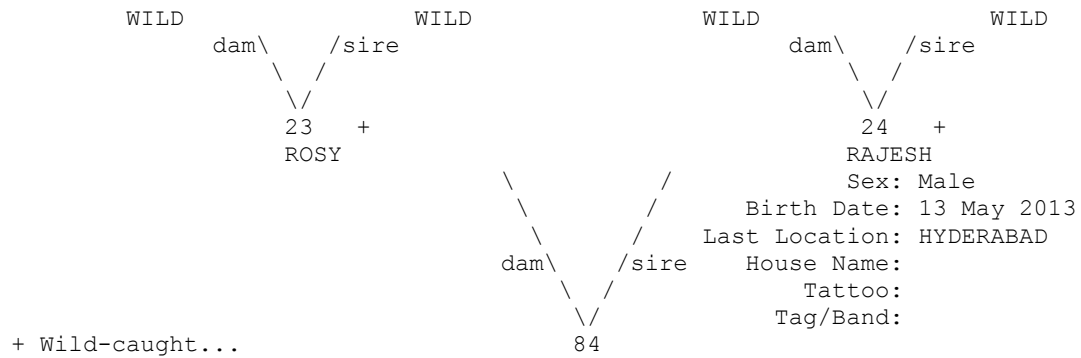
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 83
=====



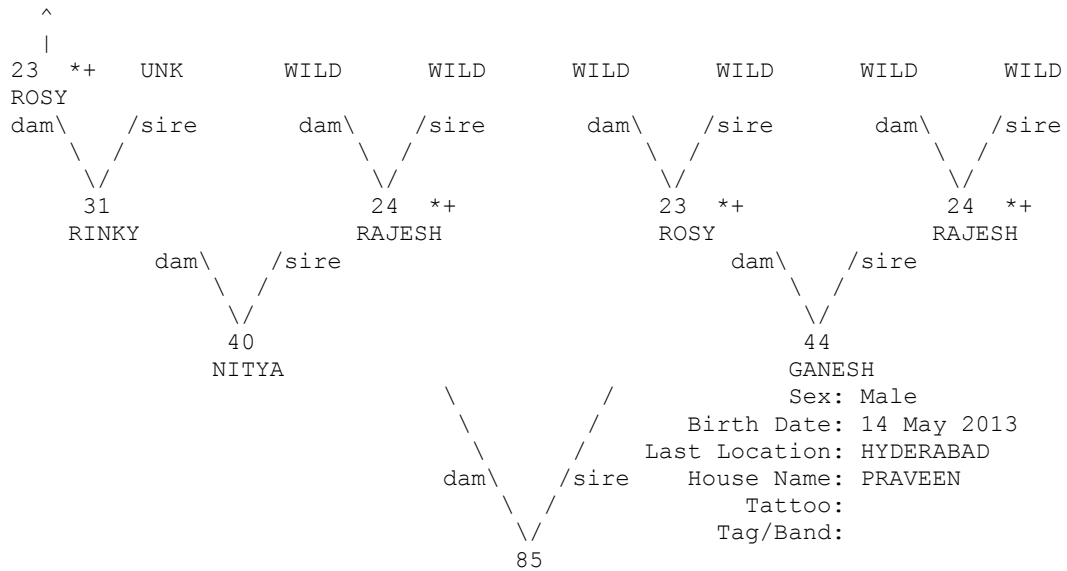
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 84
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 85
=====

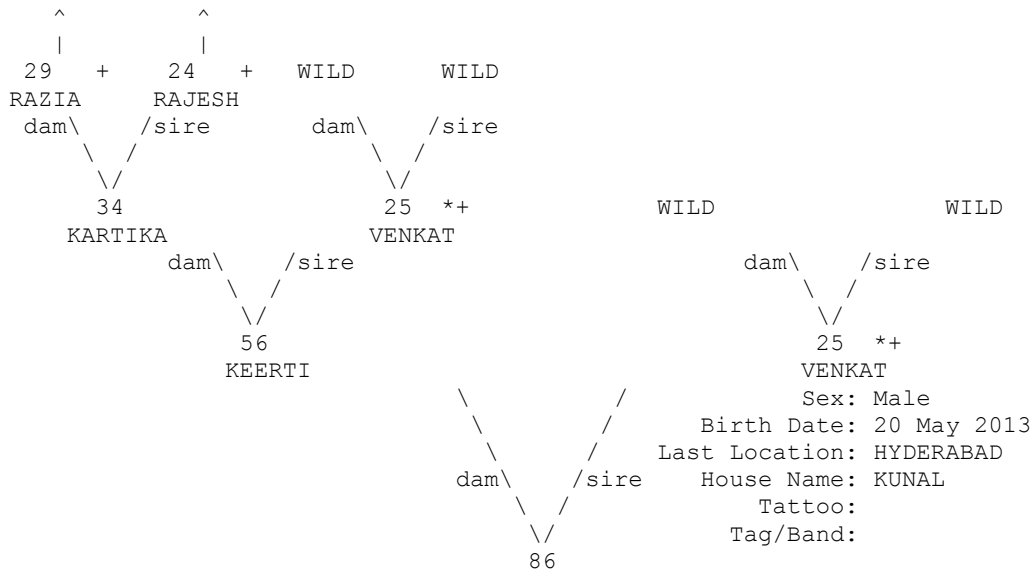


+ Wild-caught... * Appear more than once...

^ Pedigree continues beyond top of page...

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 86
=====

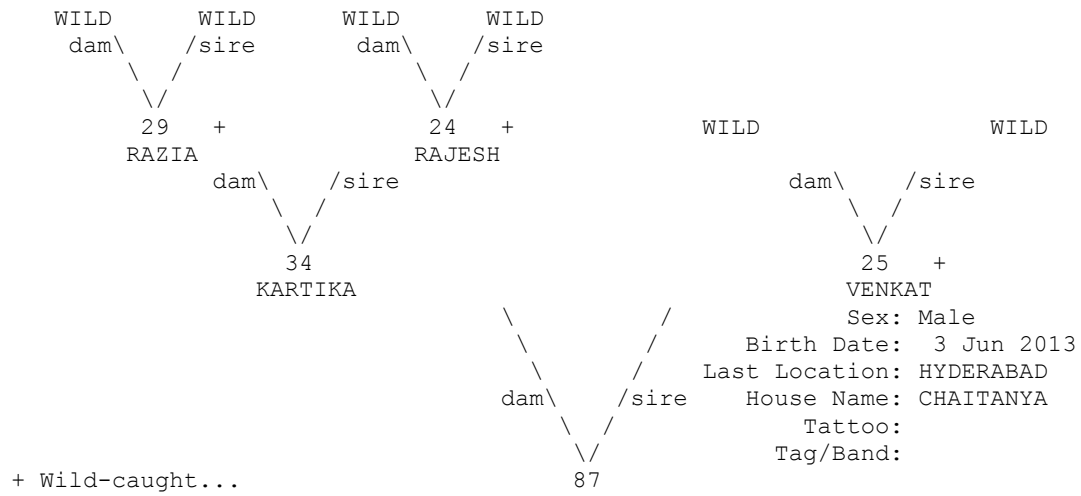


+ Wild-caught... * Appear more than once...

^ Pedigree continues beyond top of page...

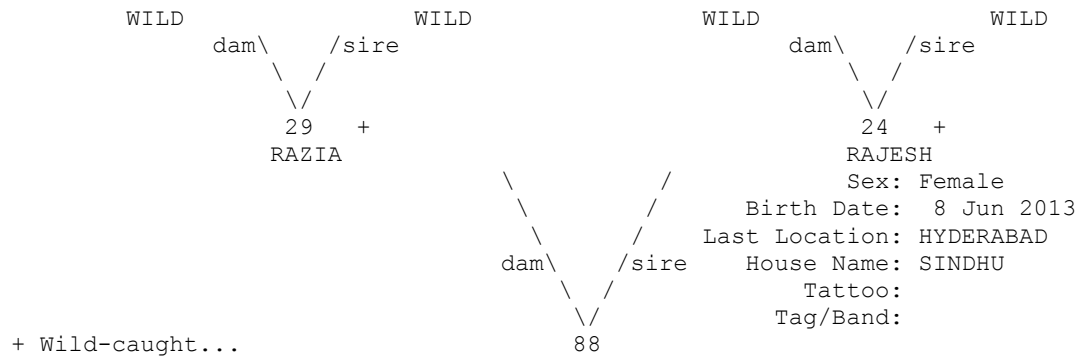
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 87
=====



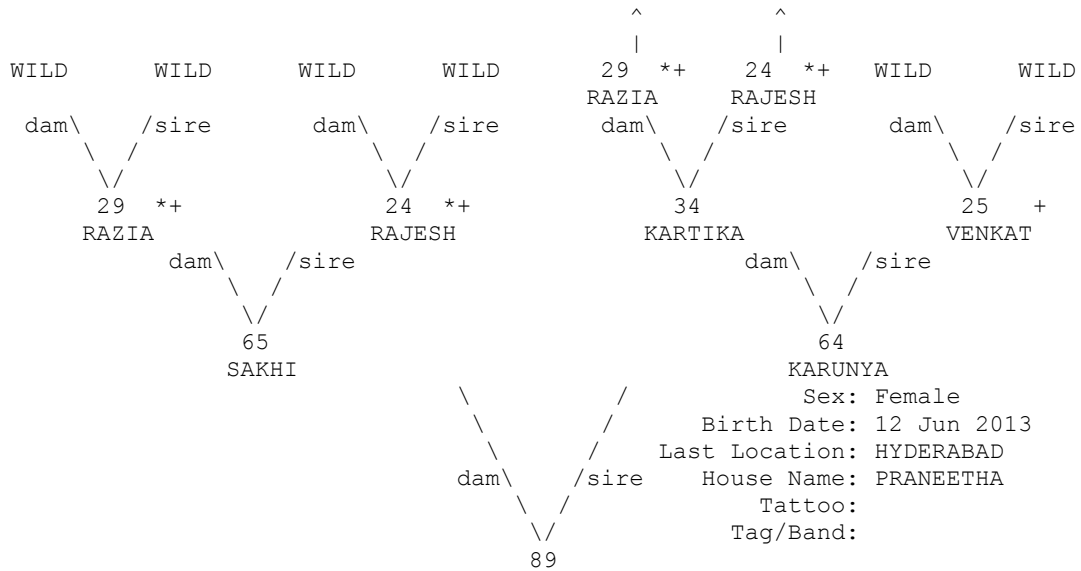
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 88
=====



=====
Taxon Name: MOSCHIOLA INDICA

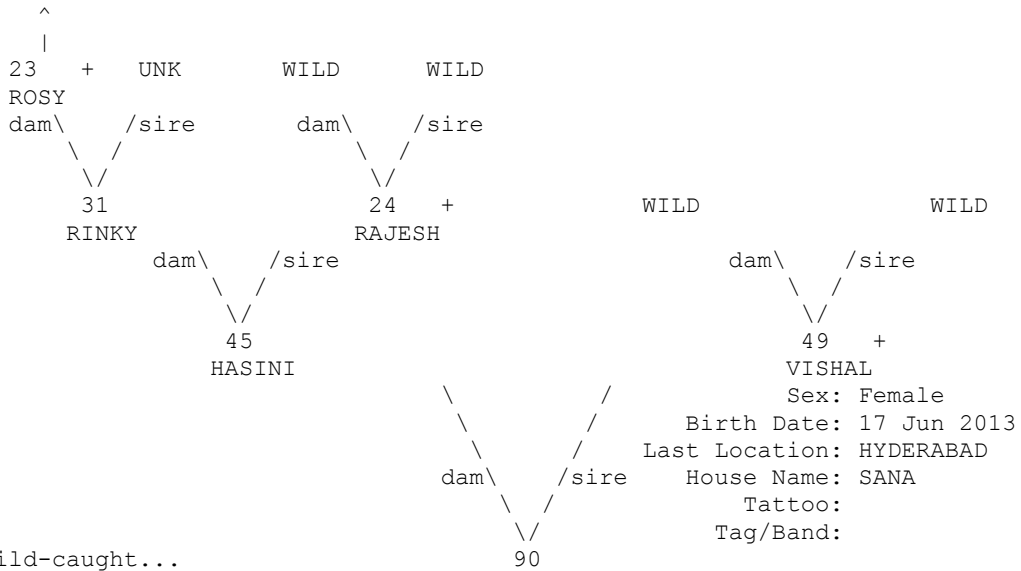
Studbook Number: 89
=====



+ Wild-caught... * Appear more than once...
^ Pedigree continues beyond top of page...

=====
Taxon Name: MOSCHIOLA INDICA

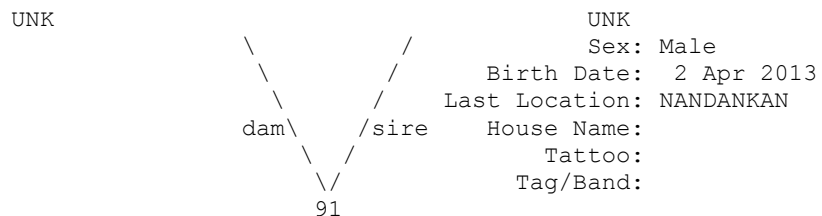
Studbook Number: 90
=====



+ Wild-caught...
^ Pedigree continues beyond top of page...

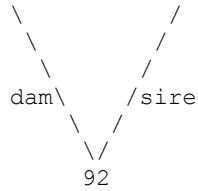
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 91
=====



=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 92
 =====

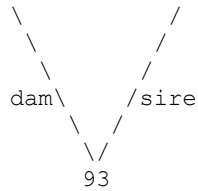
WILD



WILD
 Sex: Female
 Birth Date: 1 Jan 2011
 Last Location: MANGALORE
 House Name:
 Tattoo:
 Tag/Band:

=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 93
 =====

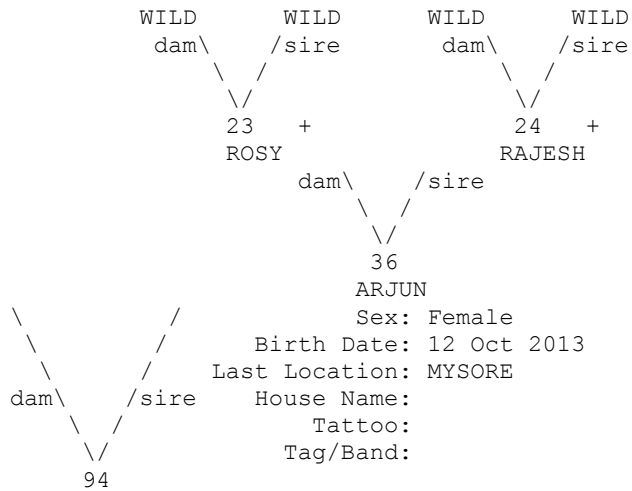
UNK



UNK
 Sex: Female
 Birth Date: 31 Dec 2013
 Last Location: NANDANKAN
 House Name:
 Tattoo:
 Tag/Band:

=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 94
 =====

UNK

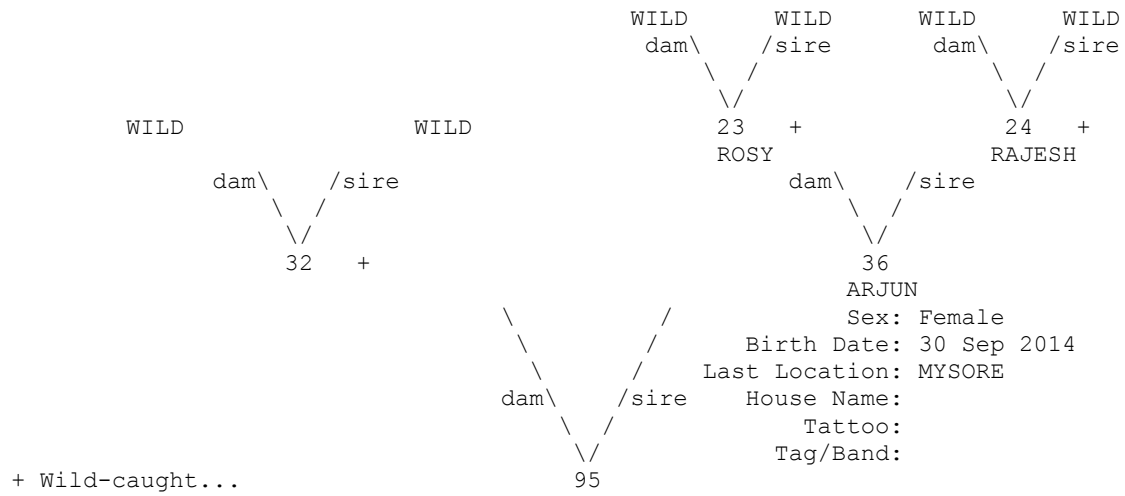


Sex: Female
 Birth Date: 12 Oct 2013
 Last Location: MYSORE
 House Name:
 Tattoo:
 Tag/Band:

+ Wild-caught...

=====
Taxon Name: MOSCHIOLA INDICA

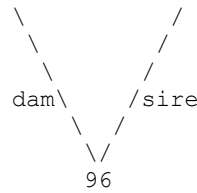
Studbook Number: 95
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 96
=====

UNK

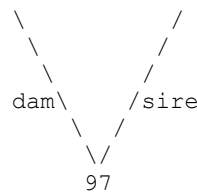


UNK
Sex: Male
Birth Date: 3 Dec 2014
Last Location: ASSAM
House Name: PREEFAM
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 97
=====

UNK

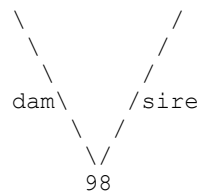


UNK
Sex: Male
Birth Date: 15 Dec 2014
Last Location: ASSAM
House Name: BHANU
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 98
=====

UNK



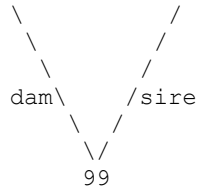
UNK
Sex: Female
Birth Date: 10 Jan 2015
Last Location: ASSAM
House Name: SARDHYA
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA
=====

Studbook Number: 99
=====

UNK

UNK



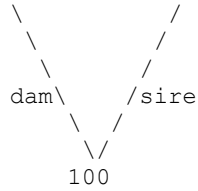
Sex: Female
Birth Date: 12 Jan 2015
Last Location: ASSAM
House Name: SAHIFHYA
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA
=====

Studbook Number: 100
=====

UNK

UNK



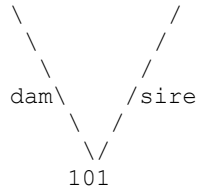
Sex: Female
Birth Date: 12 Jan 2015
Last Location: ASSAM
House Name: PRANAFHI
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA
=====

Studbook Number: 101
=====

UNK

UNK



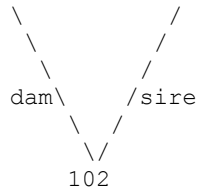
Sex: Male
Birth Date: 15 Jan 2015
Last Location: ASSAM
House Name: SHIVA
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA
=====

Studbook Number: 102
=====

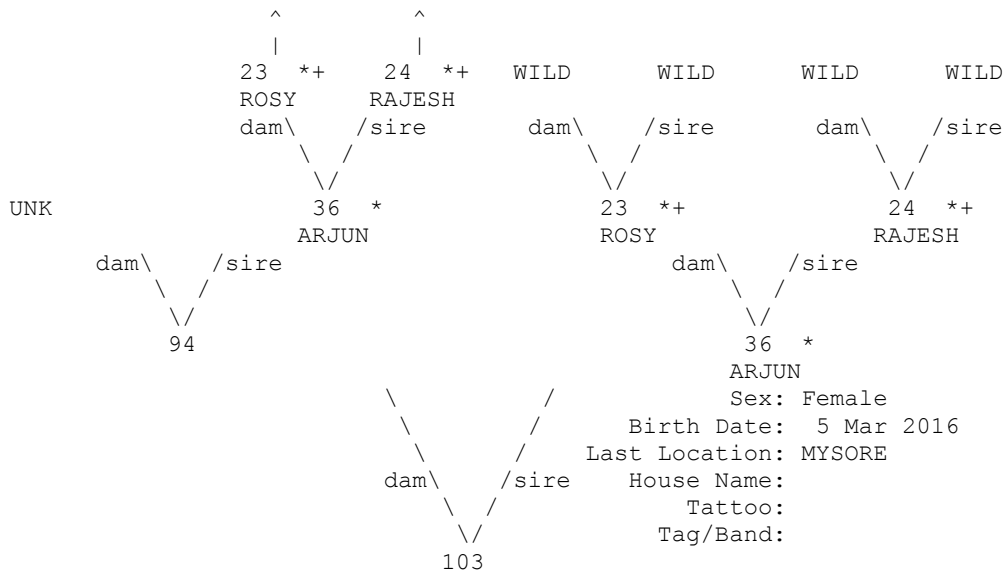
UNK

UNK



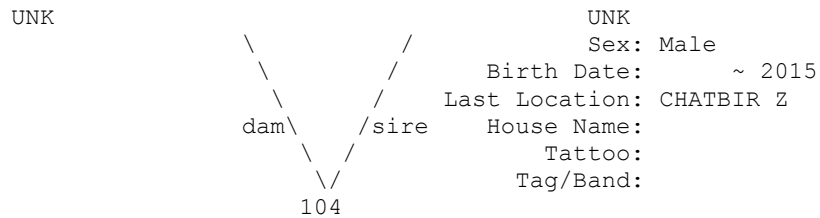
Sex: Female
Birth Date: ????
Last Location: BANNERGHA (dead)
House Name:
Tattoo:
Tag/Band:

=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 103
 =====

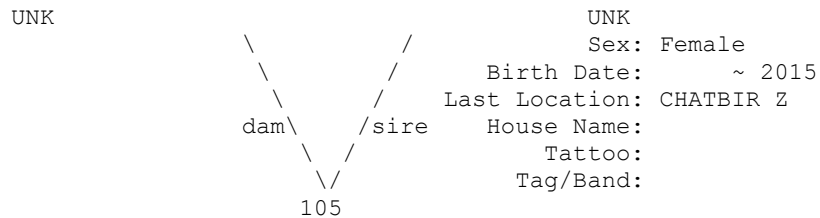


+ Wild-caught... * Appear more than once...
 ^ Pedigree continues beyond top of page...

=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 104
 =====



=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 105
 =====



=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 106
=====

```

                                WILD      WILD      WILD      WILD
                                dam\     /sire    dam\     /sire
                                \      /       \      /
                                23  +      24  +
                                ROSY          RAJESH
                                dam\     /sire
                                \      /
                                36
                                ARJUN
                                Sex: Unknown
                                Birth Date: 16 Jun 2016
                                Last Location: MYSORE
                                House Name:
                                Tattoo:
                                Tag/Band:
                                /
                                /
                                dam\     /sire
                                \      /
                                106
+ Wild-caught...

```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 107
=====

```

                                UNK
                                Sex: Unknown
                                Birth Date: 4 Jul 2016
                                Last Location: CHATBIR Z
                                House Name:
                                Tattoo:
                                Tag/Band:
                                /
                                /
                                dam\     /sire
                                \      /
                                107

```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 108
=====

```

                                UNK
                                Sex: Unknown
                                Birth Date: 1 Nov 2016
                                Last Location: CHATBIR Z
                                House Name:
                                Tattoo:
                                Tag/Band:
                                /
                                /
                                dam\     /sire
                                \      /
                                108

```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 109
=====

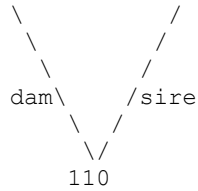
```

                                UNK
                                Sex: Unknown
                                Birth Date: 12 Nov 2016
                                Last Location: ASSAM
                                House Name:
                                Tattoo:
                                Tag/Band:
                                /
                                /
                                dam\     /sire
                                \      /
                                109

```

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 110
=====

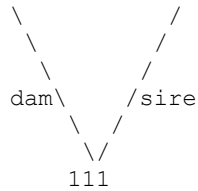
UNK



UNK
Sex: Unknown
Birth Date: 2 Jan 2017
Last Location: ASSAM
House Name:
Tattoo:
Tag/Band:

=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 111
=====

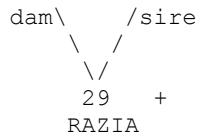
UNK



UNK
Sex: Unknown
Birth Date: 9 Feb 2017
Last Location: ASSAM
House Name:
Tattoo:
Tag/Band:

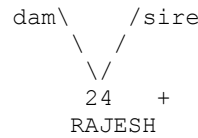
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 112
=====

WILD

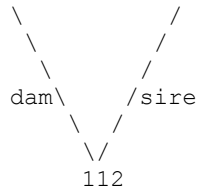


WILD

WILD



WILD

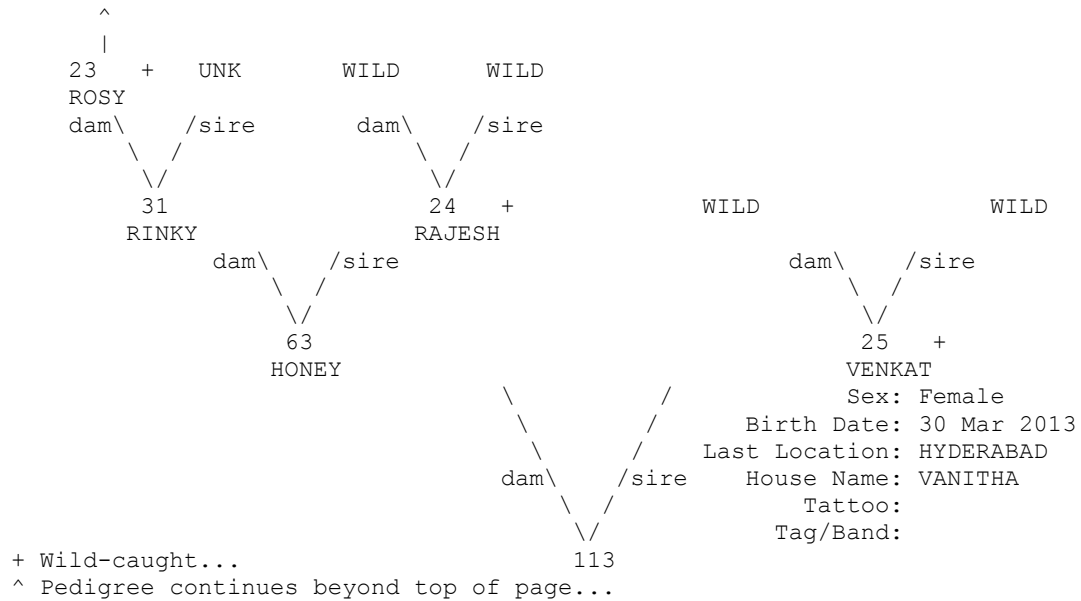


Sex: Female
Birth Date: 6 Jan 2013
Last Location: HYDERABAD
House Name: RATNA
Tattoo:
Tag/Band:

+ Wild-caught...

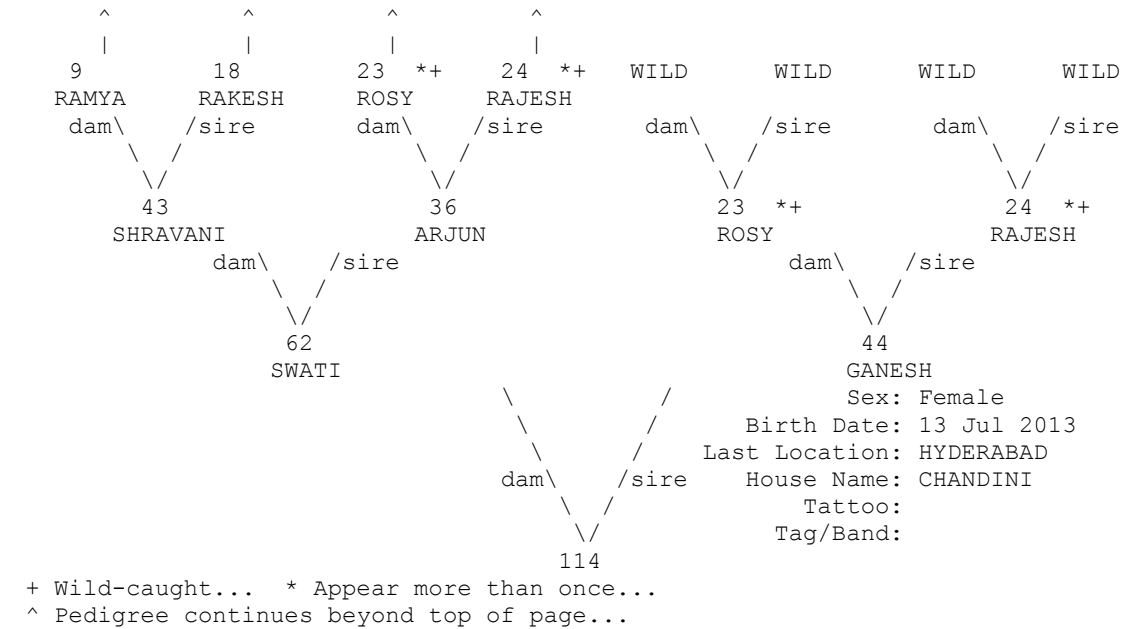
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 113
=====



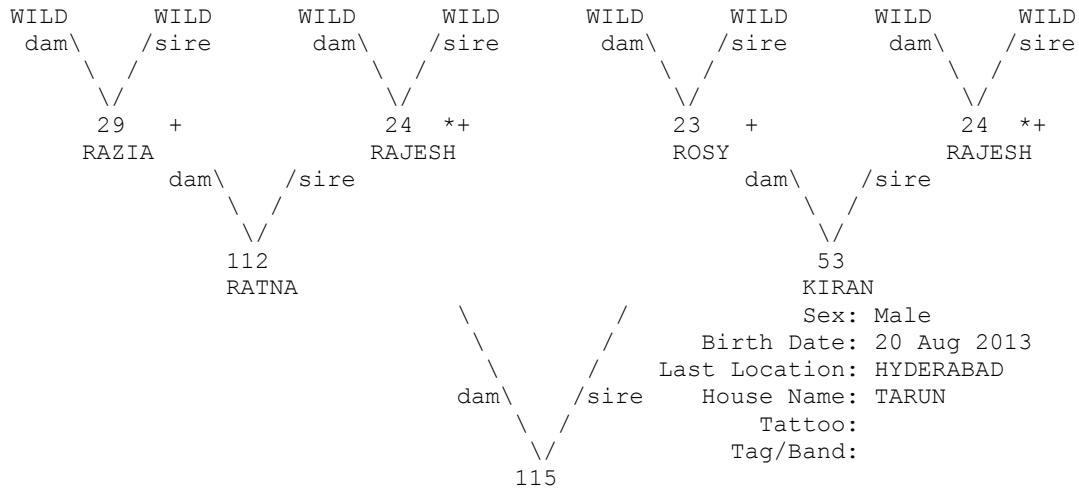
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 114
=====



=====
Taxon Name: MOSCHIOLA INDICA

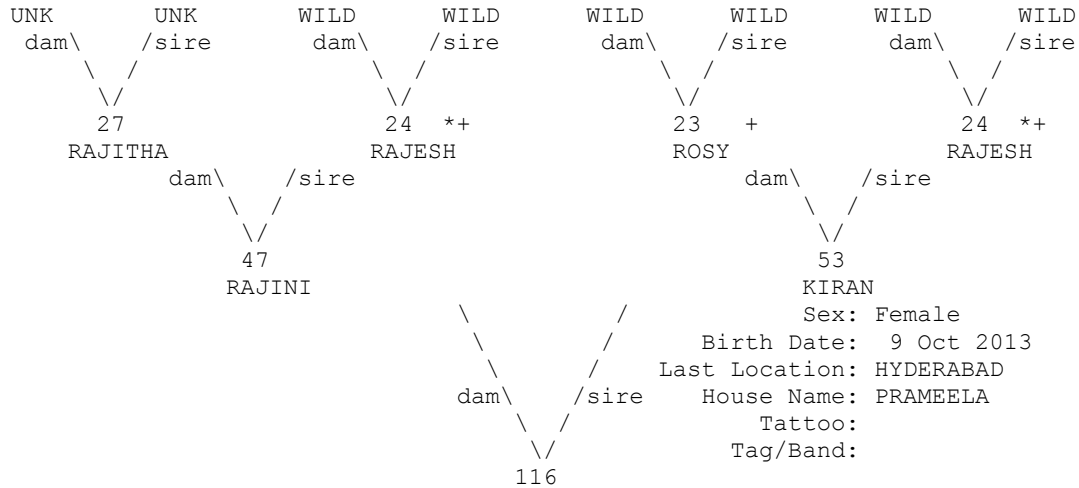
Studbook Number: 115
=====



+ Wild-caught... * Appear more than once...

=====
Taxon Name: MOSCHIOLA INDICA

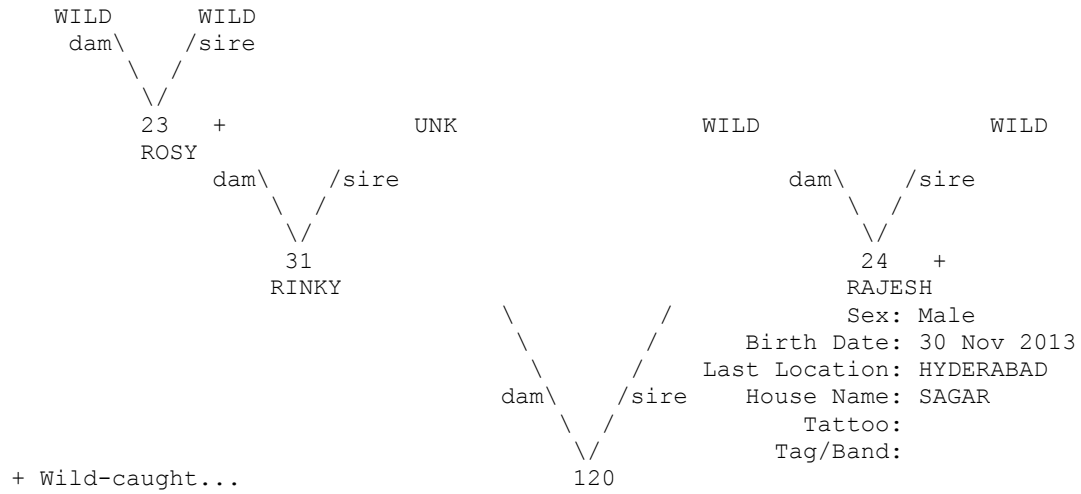
Studbook Number: 116
=====



+ Wild-caught... * Appear more than once...

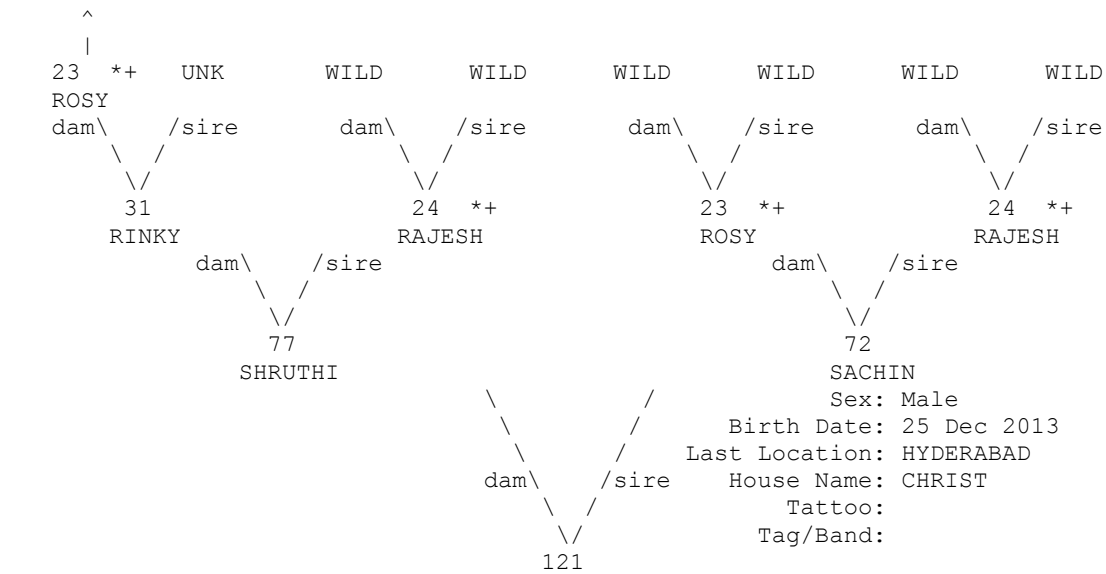
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 120
=====

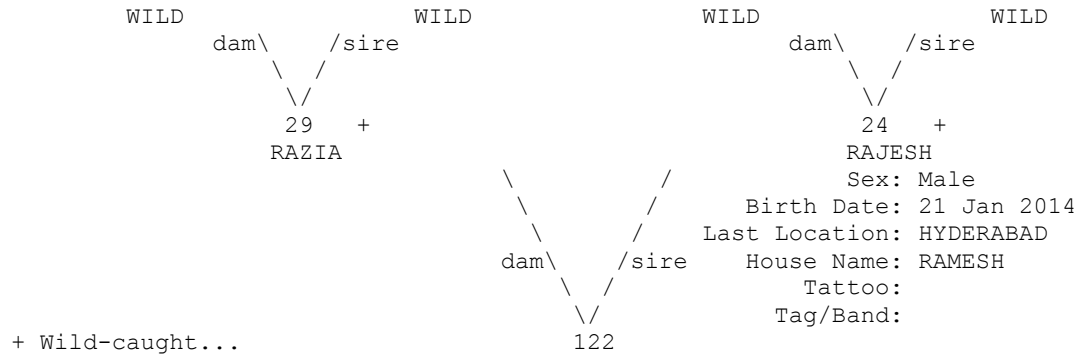


=====
Taxon Name: MOSCHIOLA INDICA

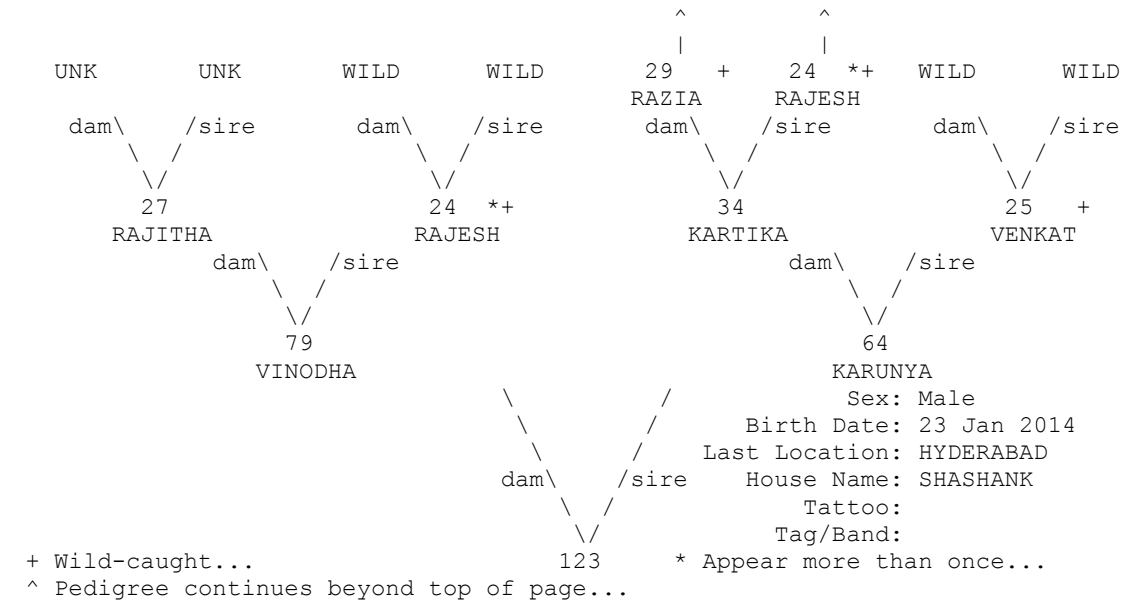
Studbook Number: 121
=====



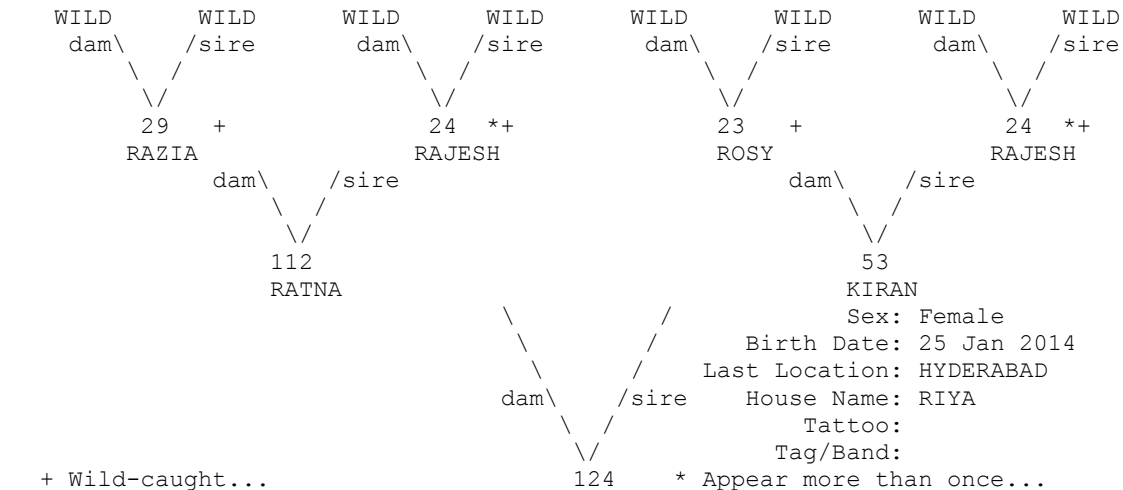
=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 122
=====



=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 123
=====

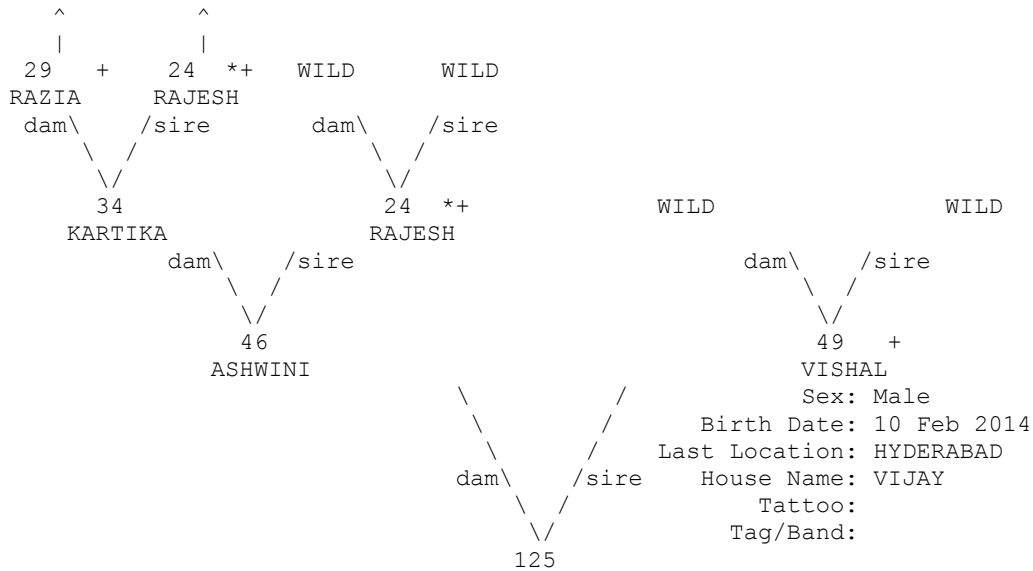


=====
Taxon Name: MOSCHIOLA INDICA Studbook Number: 124
=====



=====
Taxon Name: MOSCHIOLA INDICA

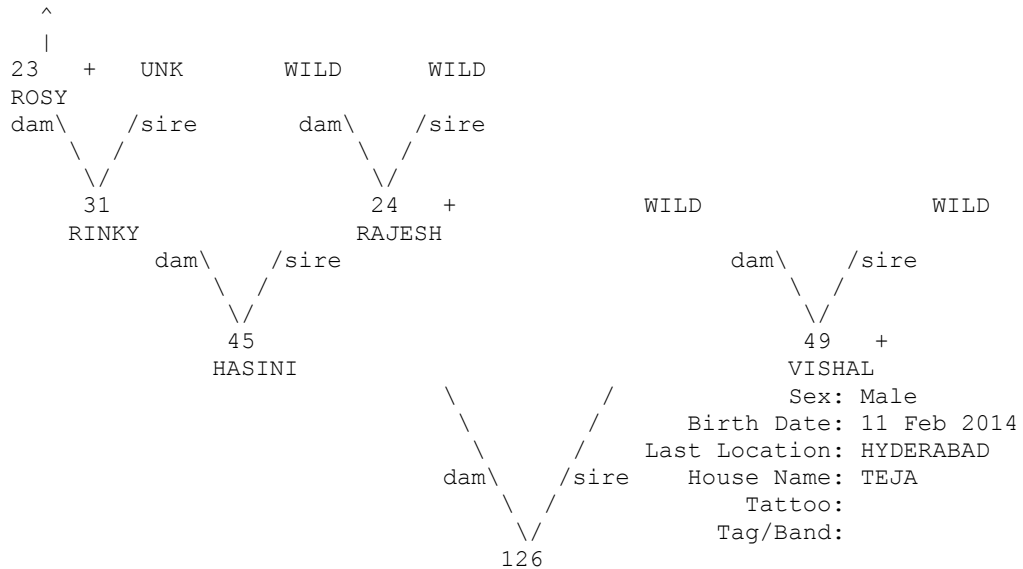
Studbook Number: 125
=====



+ Wild-caught... * Appear more than once...
^ Pedigree continues beyond top of page...

=====
Taxon Name: MOSCHIOLA INDICA

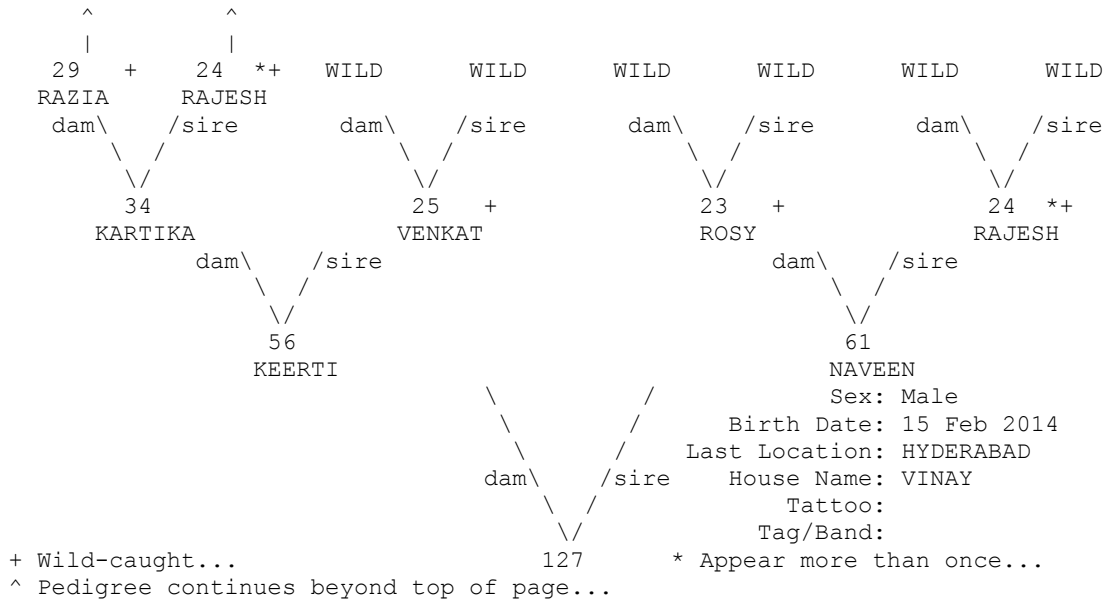
Studbook Number: 126
=====



+ Wild-caught...
^ Pedigree continues beyond top of page...

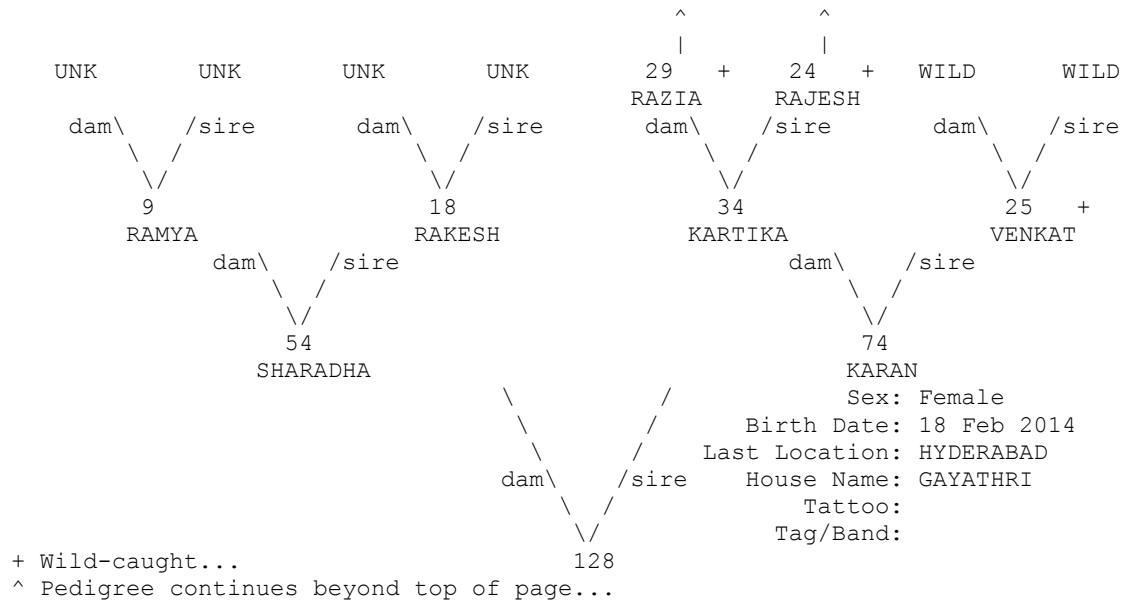
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 127
=====



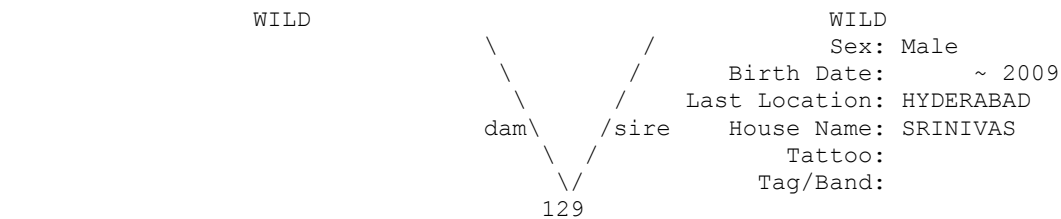
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 128
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 129
=====

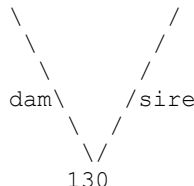


=====

Taxon Name: MOSCHIOLA INDICA Studbook Number: 130

=====

WILD

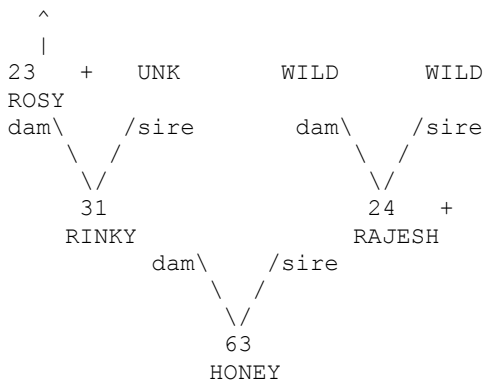


WILD
Sex: Male
Birth Date: ~ 2010
Last Location: HYDERABAD
House Name: BALAJI
Tattoo:
Tag/Band:

=====

Taxon Name: MOSCHIOLA INDICA Studbook Number: 131

=====



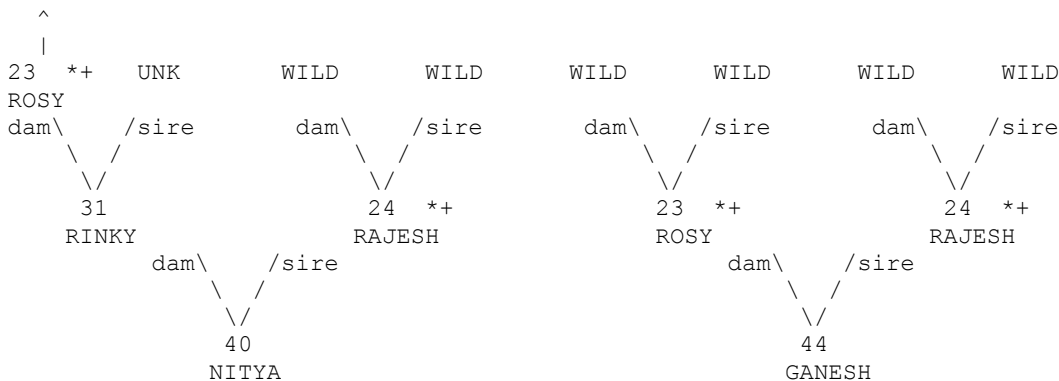
WILD WILD
WILD WILD
Sex: Male
Birth Date: 8 Mar 2014
Last Location: HYDERABAD
House Name: ANUP
Tattoo:
Tag/Band:

+ Wild-caught...
^ Pedigree continues beyond top of page...

=====

Taxon Name: MOSCHIOLA INDICA Studbook Number: 132

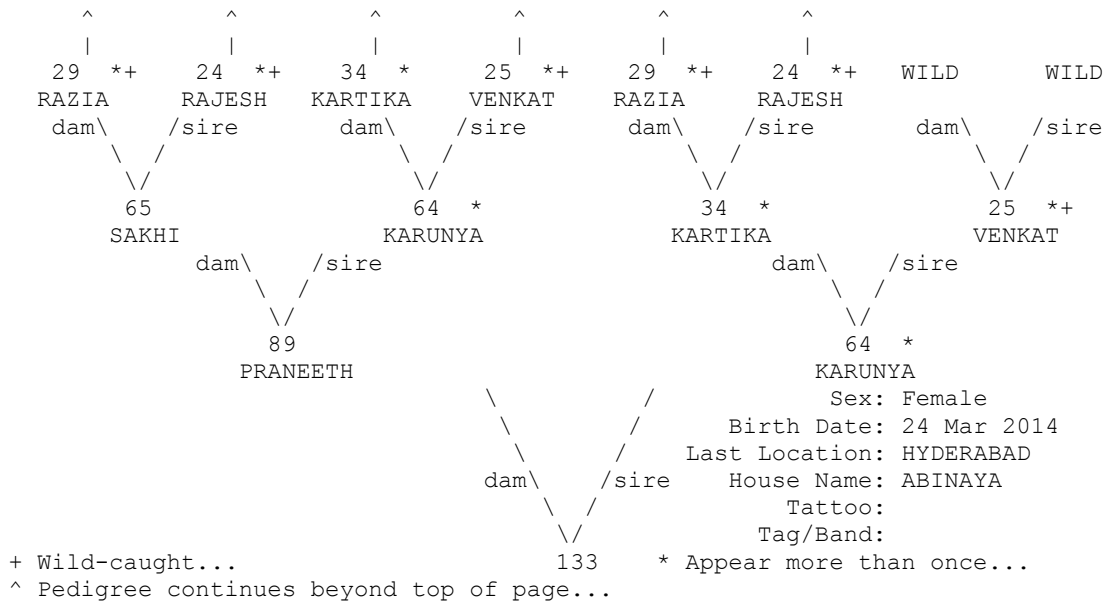
=====



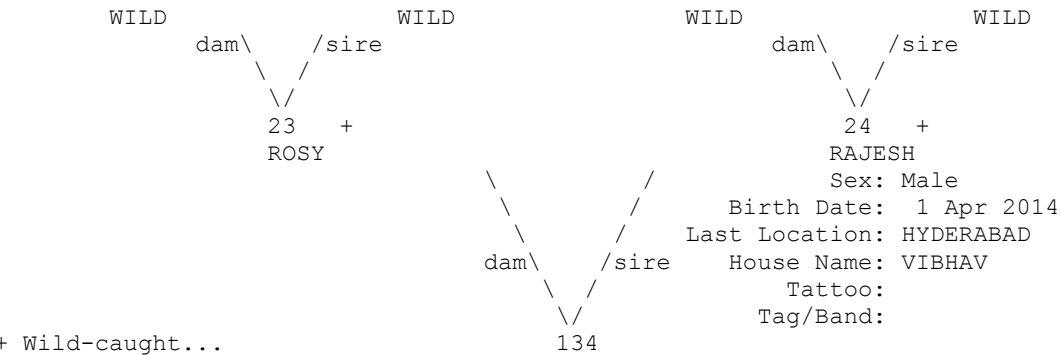
WILD WILD WILD WILD WILD WILD
Sex: Male
Birth Date: 19 Mar 2014
Last Location: HYDERABAD
House Name: SWAMY
Tattoo:
Tag/Band:

+ Wild-caught...
^ Pedigree continues beyond top of page... * Appear more than once...

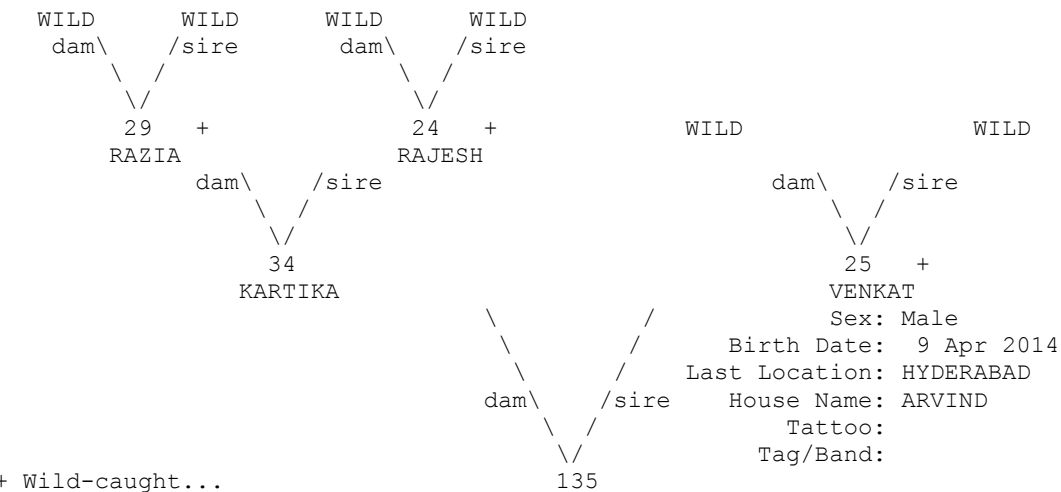
=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 133
 =====



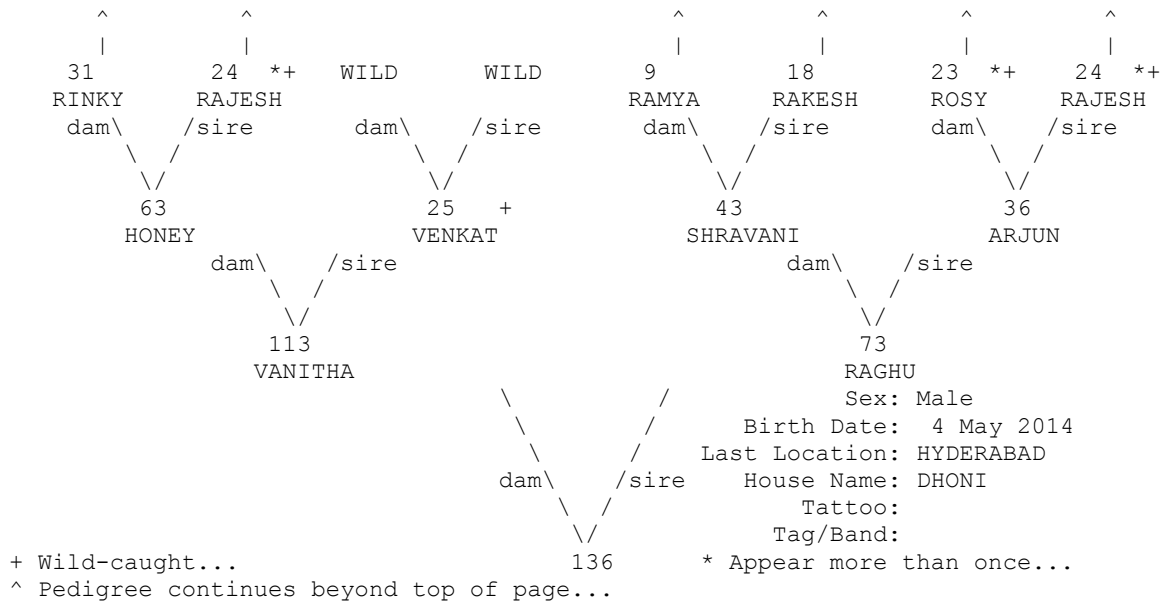
=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 134
 =====



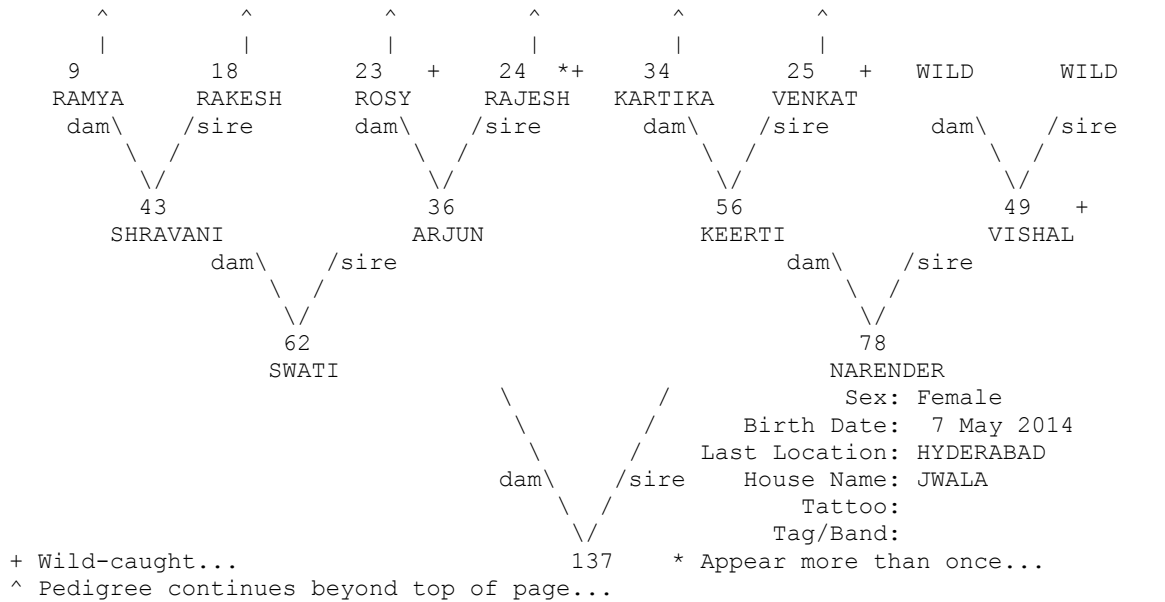
=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 135
 =====



=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 136
 =====

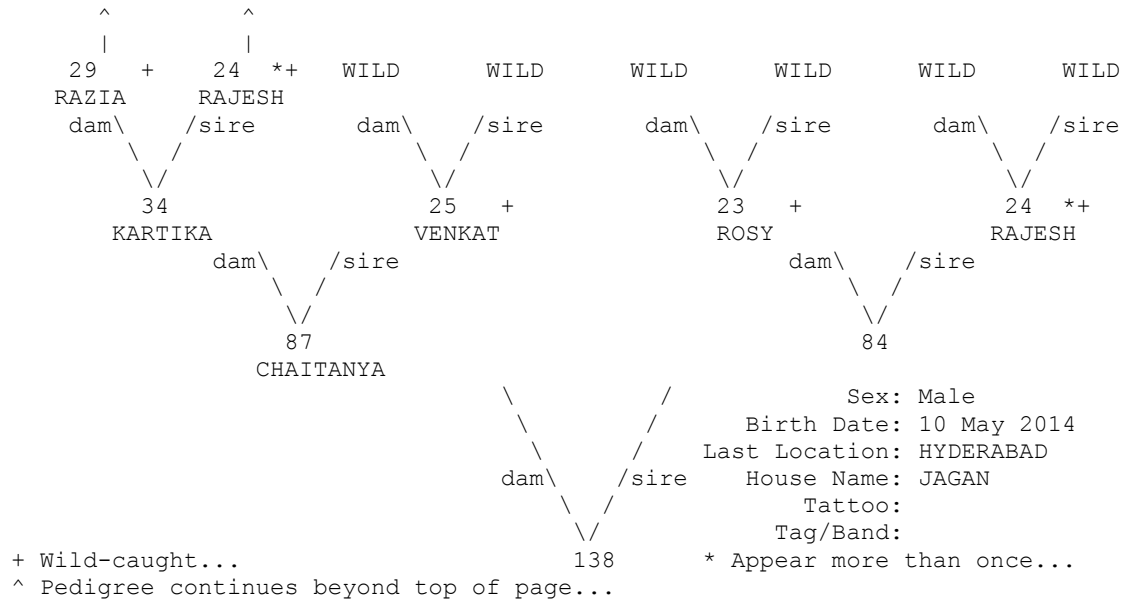


=====
 Taxon Name: MOSCHIOLA INDICA Studbook Number: 137
 =====



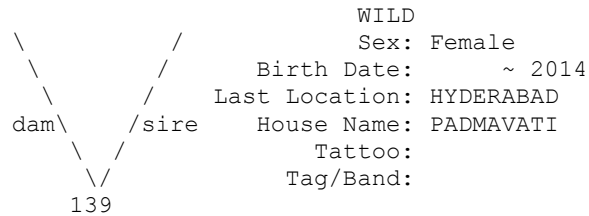
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 138
=====



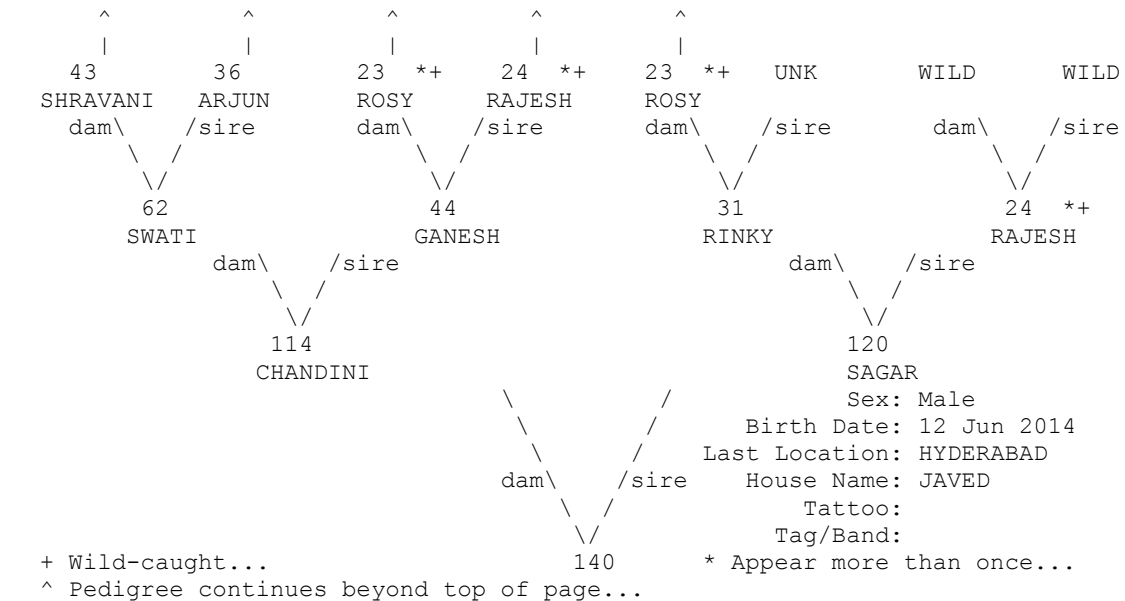
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 139
=====



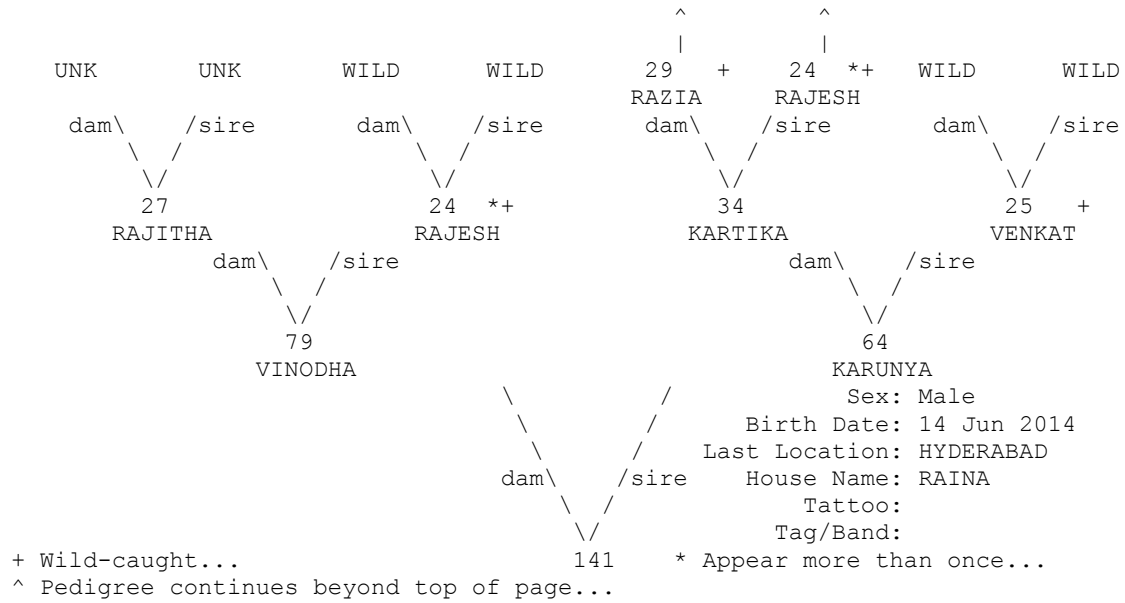
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 140
=====



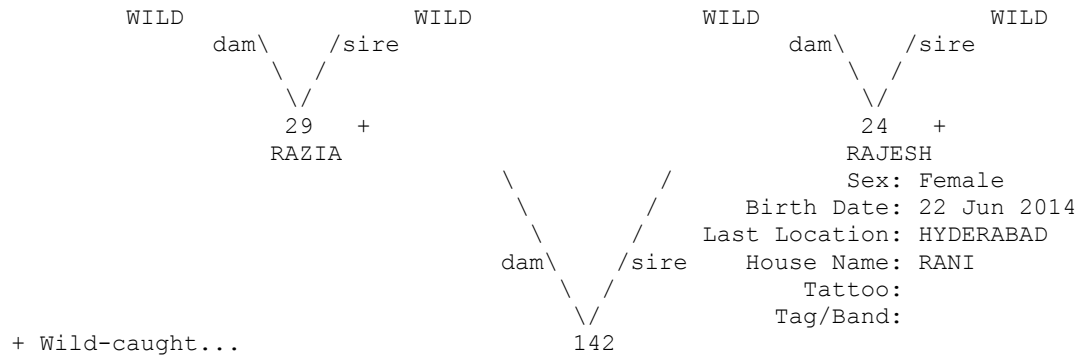
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 141
=====



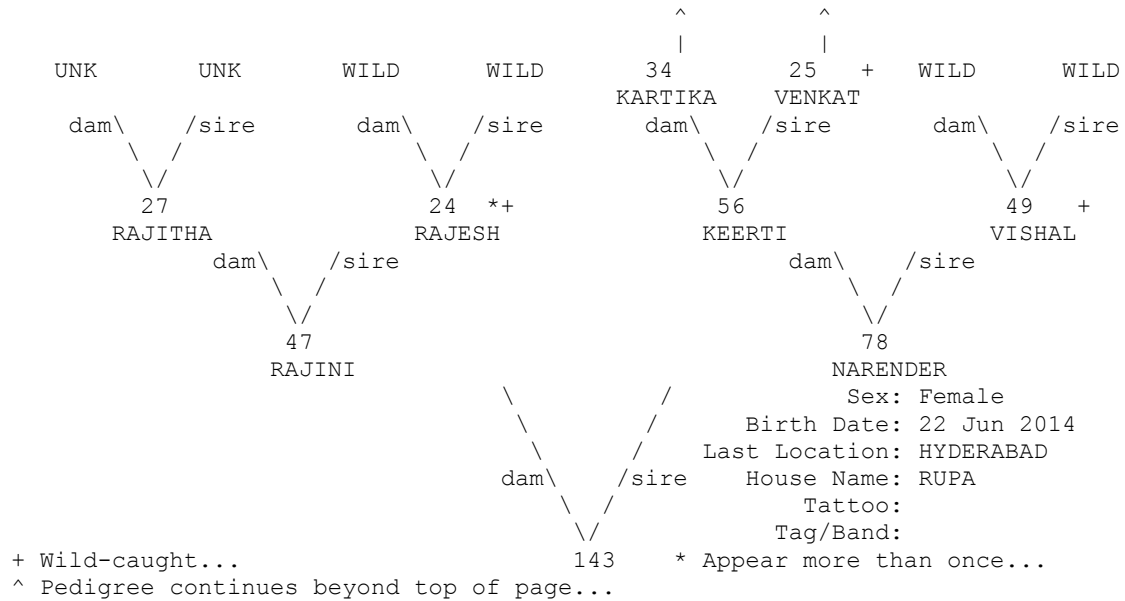
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 142
=====



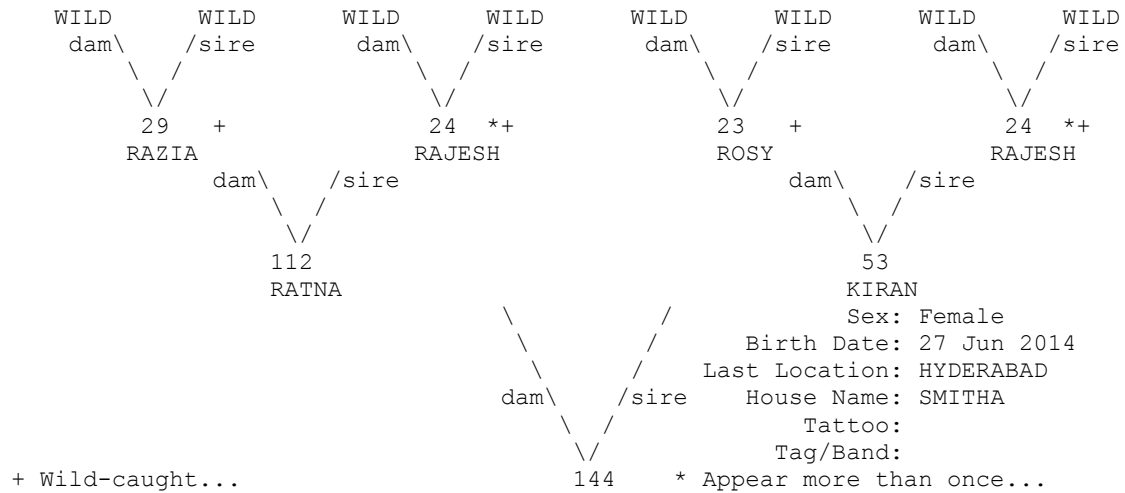
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 143
=====



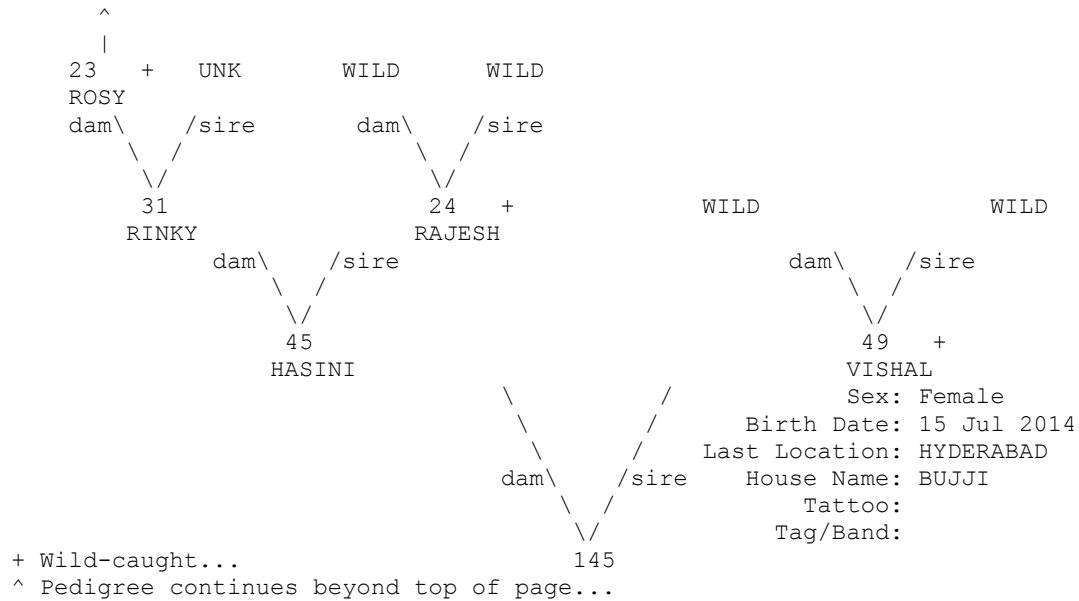
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 144
=====



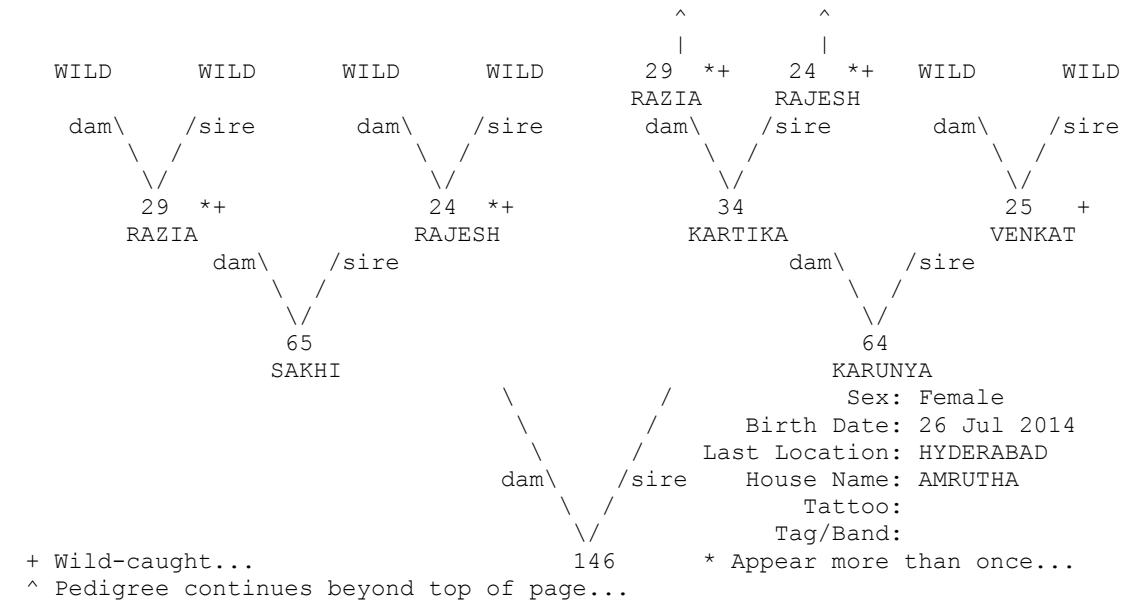
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 145
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 146
=====

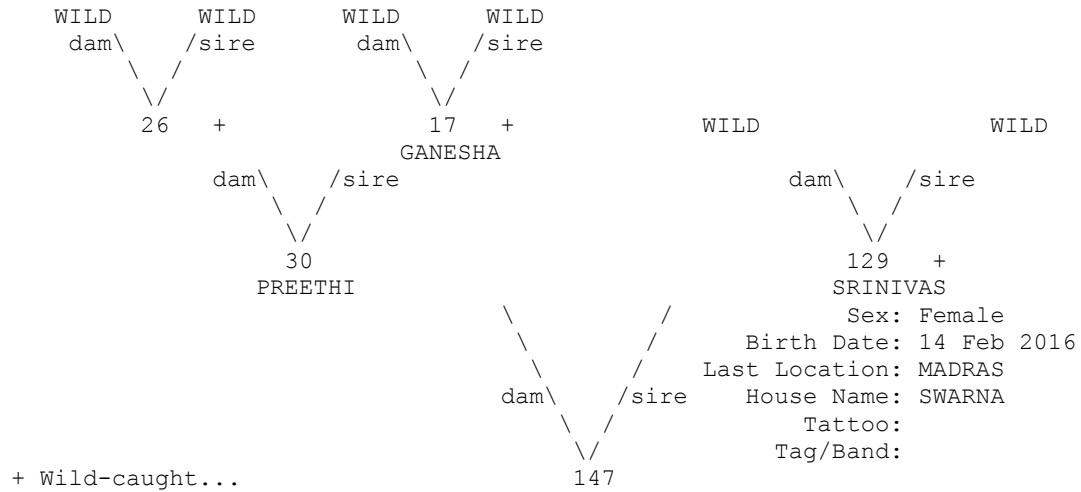


=====

Taxon Name: MOSCHIOLA INDICA

Studbook Number: 147

=====

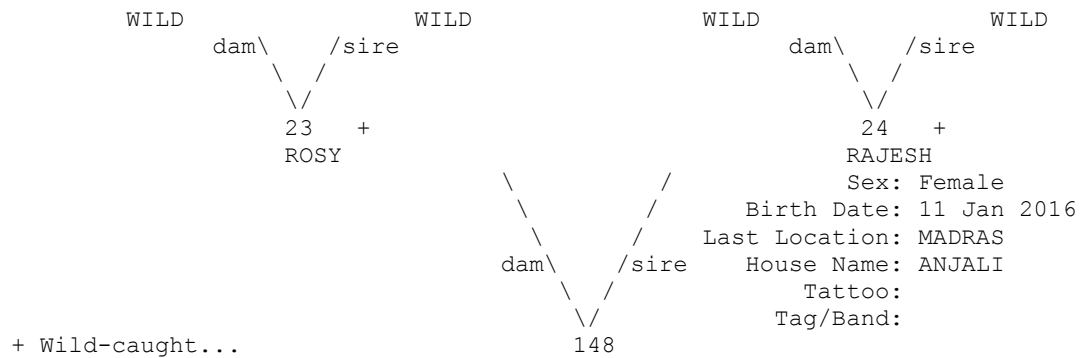


=====

Taxon Name: MOSCHIOLA INDICA

Studbook Number: 148

=====

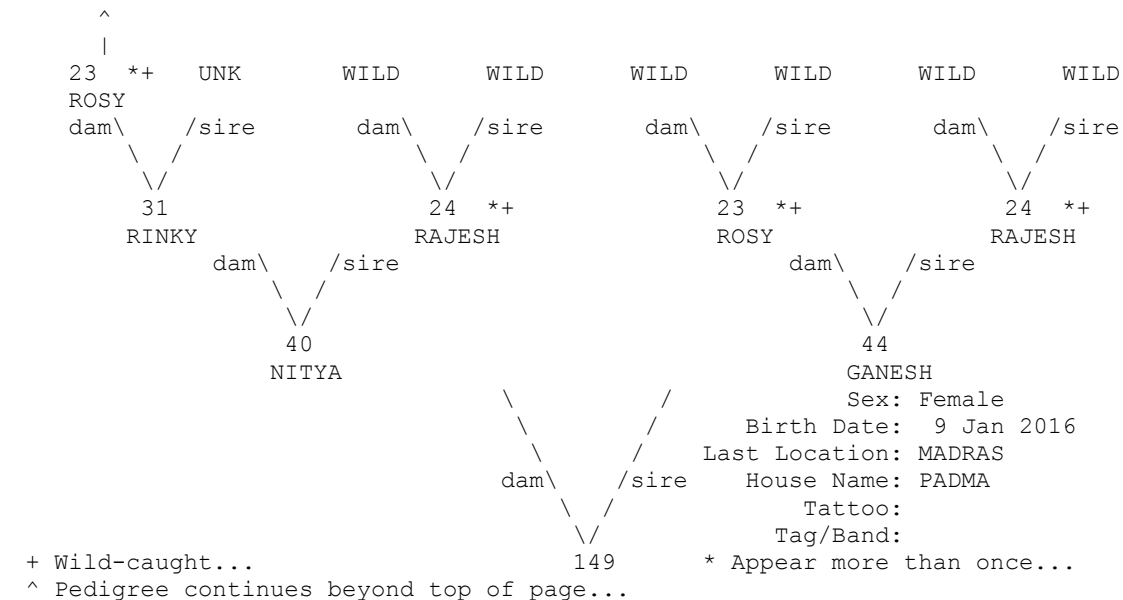


=====

Taxon Name: MOSCHIOLA INDICA

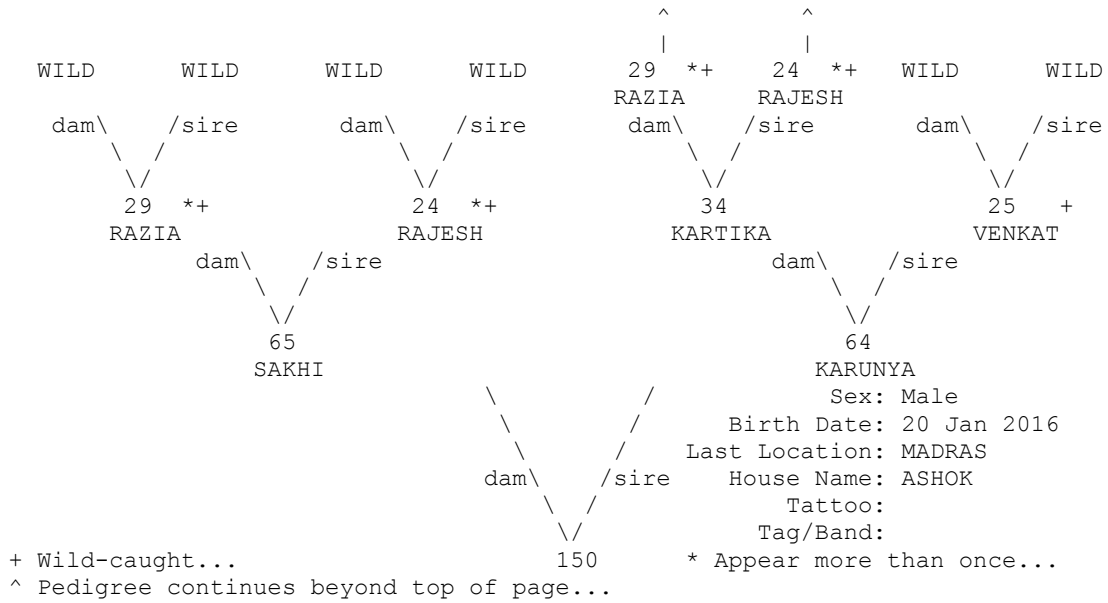
Studbook Number: 149

=====



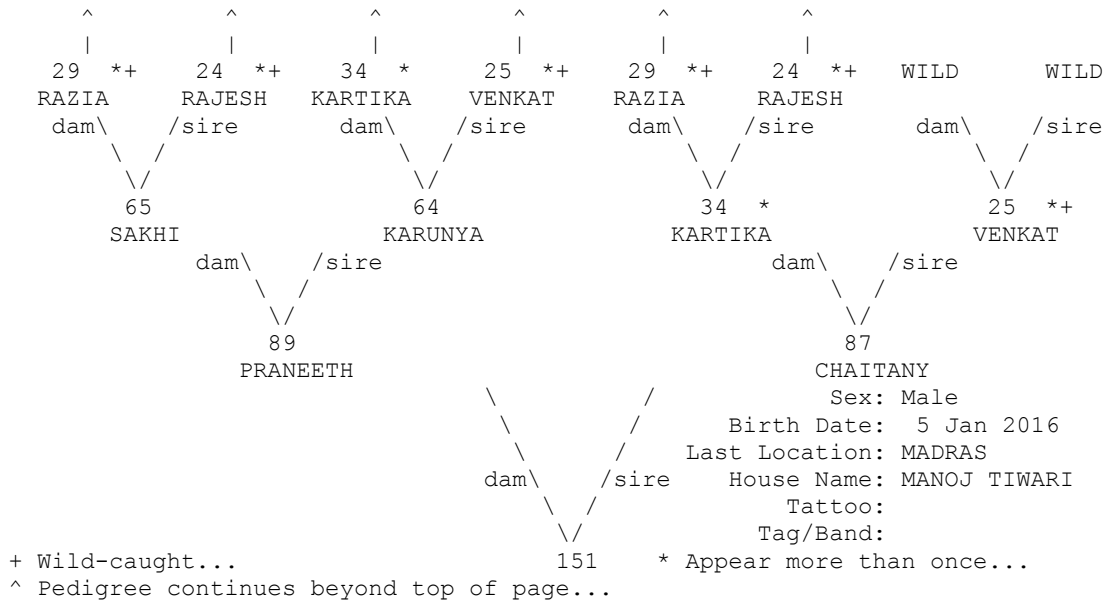
=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 150
=====



=====
Taxon Name: MOSCHIOLA INDICA

Studbook Number: 151
=====



Location Glossary - Mouse Deer (*Moschiola indica*)

| Mnemonic | Zoo Name and Location |
|-----------|---|
| INDIA | Mnemonic for animals captured from wild |
| ASSAM | Assam State Zoo Cum Botanical Garden, Guwahati |
| HYDERABAD | Nehru Zoological Park, Hyderabad |
| CHATBIR Z | Mahendra Chaudhury Zoological Park, Mohali |
| TIRUPATI | Sri Venkateswara Zoological Park, Tirupati |
| MANGALORE | Dr. K.Shivarma Karanth Pililkula Biological Park, Mangalore |
| MYSORE | Sri Chamarajendra Zoological Gardens, Mysore |
| NANDANKAN | Nandankanan Biological Park, Bhubaneswar |
| VISAKAPAT | Indira Gandhi Zoological Park, Visakhapatnam |
| BANNERGHA | Bannerghatta Biological Park, Bengaluru |
| MADRAS | Arignar Anna Zoological Park, Chennai |