



GUIDELINES

FOR THE ACQUISITION AND MANAGEMENT OF FELIDS (CAT SPECIES) IN CAPTIVITY

NATIONAL COUNCIL FOR CONSERVATION OF WILDLIFE
MINISTRY OF ENVIRONMENT
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List of Acronyms

CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CrPC	Criminal Procedure Code
EPA	Environmental Protection Act
IUCN	International Union for Conservation of Nature
NCCW	National Council for Conservation of Wildlife
PPC	Pakistan Penal Code
SAZARC	South Asian Zoo Association for Regional Cooperation
WAZA	World Association of Zoos and Aquaria
WWF	World Wide Fund for Nature



Guidelines for the Acquisition and Management of Felids (Cat Species) in Captivity

Summary

National Council for Conservation of Wildlife (NCCW) is the CITES management and scientific authority in Pakistan as per Article IX of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) signed in 1973. It is the duty of the CITES Management Authority to issue permits for import/export of the CITES listed species and strengthen legal framework for the implementation of CITES. As per article III (3-b) 'the Scientific Authority is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it' and (3-c) 'a Management Authority is satisfied that the specimen is not to be used for primarily commercial purposes'. Considering 3-b and 3-c guidelines for the acquisition and management of cat species (Felids) have been developed and finalized by a committee constituted in the NCCW meeting held on 18th May 2011.

These guidelines have been developed with the purpose to control illegal trade of big cats and unjustified acquisition of animals for zoo exhibits overlooking the higher objectives of conservation and education. These guidelines of NCCW priorities felid species because they are listed under CITES Appendix I and II and are threatened worldwide. These guidelines cover registration of all zoos, private zoos/ breeding farms inclusive/circuses/privately owned single species exhibits with the NCCW covering details of the master plan, owner/administration, exhibits and facilities. If a facility already exists and does not have these pre-requisites then it must develop in

a given time as agreed. Zoos have been encouraged to exchange/loan felids and must demonstrate that such effort has been made before any sale/purchase is allowed and any type of sale/purchase will be carried out after the approval of NCCW and will be dealt on case to case basis. Felids can only be acquired through animal exchange with registered facilities (if within Pakistan) and if outside the country then with zoos that are members of a regional zoo association. All requests for the CITES permits must be made through the head of the relevant provincial wildlife department.

Each zoo will develop their animal collection plan and will take into account the level of expertise, space and resources required for the long term maintenance of a species, will explore how a species has done in other zoos (nationally and internationally) and the conservation education message that a species will give to the visitors before deciding to add it into their collection. The guidelines also cover protocols for the wild caught felids, performing felids, disposal, management, breeding and maintaining studbooks (sample has been provided). Minimum enclosure sizes for housing Felids have been included from the standard of the World Association of Zoos and Aquaria. It also makes it mandatory for the zoos to have full time education officer, veterinarian and animal keepers.

These guidelines stress zoos to become active members of a regional zoo association that would help in coordination and sharing of knowledge.



Definitions

- Zoo:** All captive collections of wild animals that is open to public for education, recreation and research or breeding. This includes wildlife parks/safari parks, private or government owned collections and zoological gardens.
- Felids:** These include all the species belonging to the cat family whether indigenous or exotic included in Annex A.
- Wildlife Breeding Farm:** A collection of wild animal species owned by an individual or private group/company for breeding wildlife that has been established to increase the wildlife conservation value; the facility is open to schools and public; has an education programme with a dedicated education staff; and will be operated following the same standards as zoos.
- Circus:** A place where animals are kept or introduced wholly or mainly for the purpose of performing tricks or maneuvers at that place;
- Animal dealer:** An individual or company that deals in captive bred wildlife for commercial purposes.



Guidelines for the Acquisition and Management of Felids (Cat Species) in Captivity

1. Registering zoos/wildlife breeding farms/dealers¹

1.1 NCCW will issue a standard form for the registration and monitoring of zoos/wildlife breeding farms that keep Felids. This will include, but not limited to, details of objectives, facilities and lay out, species list, regular staff profile, master plan, budget, animal care, education programme etc.

1.2 Provincial wildlife departments shall notify an independent committee to ensure transparency to check the documentation provided by the applicants and inspect the facilities before registering them.

1.3 Once a facility has been registered, periodic/regular monitoring visits shall be conducted by the provincial departments. These visits will ensure that felids are managed in the manner as prescribed in the management guidelines issued by NCCW from time to time.

1.4 A database will be maintained by the respective provincial wildlife departments. The same shall be shared with NCCW.

1.5 Exchange of animals will be allowed between registered entities only. Felids can be exchanged with other species. Donations, gifts and breeding loans are also acceptable.

1.6 In case a registered zoo/wildlife breeding farm intends to acquire a Felid on payment, it will have to demonstrate that all efforts to obtain the same through 1.5 above failed. The permission to purchase/sell Felids from only registered entities shall be granted upon the complete satisfaction of NCCW and will be dealt on case to case basis.

1.7 All transactions under 1.5 and 1.6 shall be transparent and open to public in accordance with Freedom of Information Ordinance 2002.

1.8 Wild felids can be housed only at registered facilities. Individuals cannot keep wild felids as they do not contribute to education, research and conservation, and this is not in line with CITES and can be dangerous. Such an action shall be liable to punishment under Pakistan Penal Code (PPC) 1860 section 289 and Criminal Procedure Code (CrPC) 1989, Public Nuisance, Section 133.

1.9 Wildlife Breeding Farms under private ownership will have an insurance to protect human life.

¹ No zoos database is currently available, there is no information about the number of zoos in Pakistan and species they house and under what conditions.



2. Acquisition

2.1 All zoos/ wildlife breeding farms will ensure that when acquiring or disposing any Felids or their parts shall be done in accordance with all relevant National and International laws/policies and conventions that the Government of Pakistan is signatory to for example important Pakistan Environment Protection Act 1997, Capital Territory Wildlife Act, Provincial Wildlife laws, Customs Act, Trade policy (Ministry of Commerce), Pakistan Trade Control of Wild Fauna and Flora Act, CITES, CBD etc.

2.2 Animal acquisition or transfer/exchange must only be carried out from/with other registered zoos/wildlife breeding farms that are listed under regional zoo association or under the respective Government that fulfill conditions 1.5 and 1.6. Private collections not accredited by the concerned authorities, national government authority or a regional zoo association will not be eligible for any species acquisition or transfer/sale.

2.3 The provisions of Prevention of Cruelty to Animals Act 1890 must be

followed in letter and spirit. Such as in section 3. If any person;

(a) Overdrives, beats, or otherwise treats any animal so as to subject it to unnecessary pain or suffering, or

(b) binds, keeps, carries or consigns for carriage any animal in such manner or position as to subject it to unnecessary pain or suffering, or

(c) offers for sale or without reasonable cause has in his possession any live animal which is suffering pain by reason of mutilation, starvation, thirst, over-crowding or other ill-treatment, or Pregnant, sick, old and young dependent on mothers shall not be transported.

2.4 All animal transactions must be accompanied by a quarantine certificate.

2.5 No import permit shall be granted to a cross bred Felid; whether occurred accidentally or planned.

3. Wild Caught Felids

3.1 No indigenous Felid species will be caught from the wild to be housed at a zoo/wildlife breeding farm as an exhibit or for pairing an already captive animal.

3.2 Indigenous Felid species shall be caught from the wild only if it is a problem animal.

3.3 Wild caught animals will only be kept in a zoo if there is a consensus

established by conservation institutions (NCCW, Provincial department, Zoological Survey Department, IUCN and WWF – Pakistan) that this is the only solution to save the species from possible extinction.

3.4 Zoos / wildlife breeding farms will not acquire animals that cannot be maintained in their natural social groups because of various reasons such as restricted space, resources, expertise etc.



Guidelines for the Acquisition and Management of Felids (Cat Species) in Captivity

3.5 Provincial / territorial wildlife departments will develop guidelines for the capture of wild Felids if it is ascertained that

there is no other option except capture for ex situ conservation for the survival of species, under intimation to NCCW.

4. Performing Felids

4.1 Zoos/ wildlife breeding farms will not acquire/exchange a Felid species with circuses or any other facilities where animals are not likely to be housed under good welfare conditions or likely to be subjected to unethical treatment, abuse, malnutrition, unnatural social housing, experimentation, performances, poor husbandry etc.

share their data with NCCW. NCCW shall maintain the data provided by all the provinces and federating units.

4.2 No zoo or wildlife breeding facility will train cats to perform a behaviour which is not part of their normal behavior repertoire.

4.4 No circus will be allowed to keep any felid listed in Table A except circus bred African Lion.

4.3 Circuses will not use any wild caught animals. Circuses can only exchange animals with other circuses. All such facilities (circuses) that keep wild animals must register themselves with the respective provincial wildlife department that will

4.5 No wild animal will be cross bred and if this happens accidentally the offspring will be disposed off as mentioned in 5.3.

4.6 Old or pregnant Felids will not be used for performances or for training.

4.7 A circus when applying for registration must present complete details of the husbandry, transportation methods, and public safety procedures in case it houses any Felid.

5. Disposal

5.1 A captive felid when expired must be disposed off in a manner (e.g. incineration) that its body parts do not come under any trade whether national or international. None of the body part can be sold.

for educational purposes at zoos or donated to reputed educational / research institutions. The body parts should be used to enhance the awareness and highlight conservation issues relevant to the species and felids in general.

5.2 The pelt or any other part with educational or research value can be used

5.3 If a felid is terminally sick and keeping



it alive is adding to the suffering of the animal then a zoo/ wildlife breeding farm may consider euthanizing the animal humanely by the person qualified to do so.

However, photographic evidence must be maintained and the body disposed off as above.

6. Collection Plan / Management

6.1 A public zoo must demonstrate expertise, facilities and resources to house small cat species before permission is granted for the permit/license to house small cats.

6.2 Small Felids cannot be kept by privately owned entities.

6.3 Zoos/Wildlife breeding farms will keep an account of their level of expertise, space and resources required for the long term maintenance of a species and will explore how the species has done in other zoos (nationally and internationally). Zoos/ Wildlife breeding farms will not house a species which has not done well in captivity and requires special care that the zoo cannot provide.

6.4 To enhance inter-institutional collaboration, zoos/wildlife breeding farms should consider becoming active members of a regional zoo association for South Asia; South Asian Zoo Association for Regional Cooperation (SAZARC) or World Association of Zoos and Aquaria (WAZA).

6.5 The zoos/ wildlife breeding farms authorities should have clear objectives of housing a particular species and message to

communicate to the visiting public.

6.6 Felids must be maintained in social setting and if solitary then managed in a manner that it meets the natural behavioural requirements. Review of the minimum housing guidelines of felids as per the World Association of Zoos and Aquaria (WAZA) is given in Annex B.

6.7 Zoos/ wildlife breeding farms will not keep an exotic subspecies or conspecifics if it has an indigenous counterpart of that species. For example a zoo cannot keep both African and Asian leopards.

6.8 A collection plan will only include those species that can survive in weather conditions of that zoo/ wildlife breeding farm location without any stress on the Felid.

6.9 A zoo/wildlife breeding farm will not miscommunicate any mutant/melanistic form of a cat trait as a rare species or even a separate species.

6.10 No physically deformed or terminally sick animal will be put on display.

7. CITES and Felids

7.1 Issuance of consent to import a CITES listed species of Felids must be preceded by the consent to export by the

CITES management authority of the country of export.



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7.2 Issuance of CITES import permit to import a CITES listed species of Felids must be preceded by the issuance of export permit by the CITES management authority of the country of export.

7.3 The 7.1 and 7.2 above are subject to the satisfaction of the National CITES Management Authority of Pakistan i.e. NCCW.

7.4 The facilities from which the animals

are being acquired must be registered with the relevant government agency and must have a good track record.

7.5 In case of any evidence of forged documentation, or/and failure to obtain CITES import/export permits and any other breach of law, the animals will be confiscated and the zoo/ breeder/dealer will be blacklisted and proceeded against under the law.

8. Breeding Felids

8.1 Zoos/ wildlife breeding farms will not cross breed species (breeding between two different species). They shall not display any Felid that has bred that way accidentally. Such a cross-bred animal must be euthanized.

8.2 Zoos/ wildlife breeding farms will not breed two subspecies to produce genetic hybrids. They must maintain only pure breeds when exist.

8.3 Zoos will not hand rear an animal unless it is the only solution to ensure the survival of the Felid (offspring).

8.4 Each zoo will take responsibility of maintaining a studbook² of at least one Felid

species for the country and coordinating with other zoos / wildlife breeding farms to update it and recommend animals for exchange to control over-representation of a set of genes. A sample studbook developed by WWF in 2003 for *Panthera pardus* is produced as Annex C.

8.5 Zoos/ wildlife breeding farms should be encouraged to give animals on breeding loans to each other; the zoos may mutually agree on terms and conditions.

8.6 Zoos/ wildlife breeding farms must involve research institutions for genetic profiling particularly to study relatedness.

² It is easy to have individual recognition of a cat's species. It is important to maintain breeding records and exchange animals to maintain genetic vigour in a captive population.



9. Husbandry

9.1 Zoos/ wildlife breeding farms will only be issued registration if they fulfil the conditions of the adequate living space in harmony with the behavioural requirement of their natural social setting (group or solitary living) because of various reasons (restricted space, resources, expertise etc.).

9.2 No zoo/wildlife breeding farm can keep any wild felid in an enclosure that is barren, does not provide *ad libitum* clean water, lacks area with soft ground and does not maintain safe distance from the visitors (2 meters distance between a big cat and a visitor or public barrier). An enclosure must have shade and trees/trunks for scratching. (Refer to Annex B for minimum enclosure size adopted from WAZA-World Association of Zoos and Aquaria). The animal shed must not be of a material such as metal that heats up excessively during the day.

9.3 The enclosure must provide area for the animals to escape from the visitors and their unacceptable behaviours and from each other.

9.4 Enclosures must have facilities to separate females close to giving birth and for raising cubs/kittens.

9.5 No cat species can be housed by the

roadside in access of pedestrians or in areas that are common for public, where there can be a threat to the public or a Felid could be provoked to cause injury to the public.

9.6 No Felid species will be made to walk in public areas whether it is on a leash or in a cage.

9.7 Pregnant, sick, old or young dependent on their mothers will not be transported.

9.8 Enclosures will only be cleaned with chemicals that are safe for animal/human health.

9.9 Keepers must be screened for common diseases such as hepatitis, tuberculosis etc. (at least annually) to ensure the health of keepers, public and animals.

9.10 Enclosures must have proper drainage to avoid stagnation of water while cleaning or in case of outdoor areas during rains.

9.11 Felids should not be housed in close vicinity of their prey species to avoid undue stress.

10. Diet, Veterinary, Emergency and Education Plan

10.1 Felids in captivity must be provided with fresh, nutritionally balanced food (balanced mix of meat, bones, offal etc). Each species must have a diet plan that considers the needs of Felids. The animals must be dealt at an individual level on the basis of their physiological needs.

10.2 Unconsumed food must be removed from the enclosure.

10.3 Enrichment activities must be integrated in the management to keep cats healthy and active.



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10.4 Veterinary care must be provided; vaccination, deworming, tranquilisation protocols (critical in case of an animal escape) must be developed and readily available.

10.5 Each zoo/ wildlife breeding farm must have a full time qualified veterinarian and

qualified education/communication officer and keepers.

10.6 Each exhibit must have visitor information signage that carries brief yet interesting information about the species. Each zoo/wildlife breeding farm must have an education plan.



Annex A

Cats	Common Name	Scientific Name	IUCN Status	CITES Appendix	Range area / Region
Big Cats	Cheetah	<i>Acinonyx jubatus</i>	Vulnerable A2acd; C1 ver3.1	Appendix I	Sub-Saharan Africa / North America and Southwest Asia
	Jaguar	<i>Panthera onca</i>	Near Threatened ver3.1	Appendix I	The Americas
	Leopard (Panther)	<i>Panthera pardus</i>	LC 3.1 ver (2001)	Appendix I	Sub-Saharan Africa / North America and Southwest Asia / Tropical Asia
	African Lion	<i>Panthera leo</i>	VU A2abcd ver 3.1 (2001)	Appendix II	Sub-Saharan Africa
	Asiatic Lion	<i>Panthera leopersica</i>	Endangered	Appendix I	North Africa and Southwest Asia
	Puma (Cougar/ Mountain Lion)	<i>Puma concolor</i>	Least Concern ver3.1	Appendix I	The Americas
	Snow Leopard Ounce	<i>Uncia uncia</i>	Endangered C1 ver3.1	Appendix I	Eurasia Asia-sub region
	Tiger	<i>Panthera tigris</i>	Endangered A2bcd+4bcd; C1+2a(i) ver3.1	Appendix I	Tropical Asia
	Bengal Tiger	<i>Panthera tigris tigris</i>	Endangered	Appendix I	Indian subcontinent
	Sumatran Tiger	<i>Panthera tigris sumatrae</i>	Critically Endangered C2a (i)	Appendix I	Western Indonesia
	Caspian Tiger (Persian Tiger, Turanian Tiger)	<i>Panthera tigris virgata</i>	Extinct	Appendix I	Historically found in Turkey through Central and West Asia
	Amur tiger	<i>Panthera tigris altaica</i>	Endangered	Appendix I	Manchuria (Amur River)
	South Chinese tiger	<i>Panthera tigris amoyensis</i>	Endangered	Appendix I	South central China
	Indo-Chinese tiger	<i>Panthera tigris corbetti</i>	Endangered	Appendix I	Southeastern distribution in China
	Javan Tiger	<i>Panthera tigris sondaica</i>	Endangered	Appendix I	Bali and Java in Indonesia
Balinese Tiger	<i>Panthera tigris balica</i>	Extinct	Not listed	Java in Indonesia	

Small Cats	Andean mountain cat	<i>Oreailurus jacobitus</i>	Endangered C2a(i) ver 3.1	Appendix I	The Americas
	African golden cat	<i>Profelis aurata</i>	Near Threatened ver3.1	Appendix II	Sub-Saharan Africa
	Asiatic golden cat	<i>Catopuma temmincki</i>	Near Threatened ver3.1	Appendix I	Tropical Asia
	African Lion	<i>Panthera leo</i>	VU A2abcd ver 3.1 (2001)	Appendix II	Sub-Saharan Africa
	Black-footed cat	<i>Felis nigripes</i>	Vulnerable C2a(i) ver 3.1	Appendix I	Sub-Saharan Africa
	Bobcat	<i>Lynx rufus</i>	Least Concern ver3.1	Appendix II	The Americas

Annex A

Bornean bay cat	<i>Catopuma badia</i>	Endangered C1 ver 3.1	Appendix II	Tropical Asia
Caracal (Desert lynx)	<i>Caracal caracal</i>	Least Concern ver 3.1	Only the populations of Asia; all other populations are included in Appendix II)	Sub-Saharan Africa / North America and Southwest Asia
Chinese mountain cat (Chinese desert cat)	<i>Felis bieti</i>	Not Listed	Appendix II	Eurasia Asia-sub region
Clouded leopard	<i>Neofelis nebulosa</i>	Vulnerable C1+2a(I) ver 3.1	Appendix I	Tropical Asia
Fishing cat	<i>Prionailurus viverrinus</i>	Endangered A2cd+4cd ver 3.1	Appendix II	Tropical Asia
Flat-headed cat	<i>Prionailurus planiceps</i>	Endangered C1+2a(I) ver 3.1	Appendix I	Tropical Asia
Geoffroy's cat	<i>Oncifelis geoffroyi</i>	Near Threatened ver 3.1	Appendix I	The Americas
Jaguarundi (Otter cat)	<i>Herpailurus yagouaroundi</i> / <i>Puma yagouaroundi</i>	Least Concern ver 3.1	Appendix I (only the population of Central and North America; All other populations included in Appendix II)	The Americas
Jungle cat (swamp cat, reed cat)	<i>Felis chaus</i>	Least Concern ver 3.1	Appendix II	North America and Southwest Asia / Tropical Asia
Kodkod	<i>Oncifelis guigna</i>	Vulnerable A2a; C2a(I) ver 3.1	Appendix II	The Americas
Iriomote cat, (Leopard cat Bengal cat)	<i>Prionailurus bengalensis bengalensis/iriomotensis /Incertae sedis</i>	Least Concern ver 3.1	Appendix I (Only the populations of Bangladesh, India and Thailand; all other populations are included in Appendix II)	Tropical Asia
Canada lynx	<i>Lynx canadensis</i>	Least Concern ver 3.1	Appendix II	The Americas
Eurasian lynx	<i>Lynx lynx</i>	Least Concern ver 3.1	Appendix II	Eurasia Asia-sub region
Iberian Lynx	<i>Lynx pardinus</i>	Critically Endangered C2a(I) ver 3.1	Appendix I	Eurasia Europe-sub region
Manul (Pallas's Cat)	<i>Otocolobus manul</i>	Near Threatened ver 3.1	Appendix II	Eurasia Asia-sub region
Marbled cat	<i>Pardofelis marmorata</i>	Vulnerable C1+2a(I) ver 3.1	Appendix I	Tropical Asia
Margay	<i>Leopardus weidi</i>	Near Threatened ver 3.1	Appendix I	The Americas
Ocelot	<i>Leopardus pardalis</i>	Least Concern ver 3.1	Appendix I	The Americas
Oncilla (Little tiger cat, little spotted cat)	<i>Leopardus tigrinus</i>	Vulnerable A3c ver 3.1	Appendix I	The Americas
Pampas cat	<i>Oncifelis colocolo</i>	Near Threatened ver 3.1	Not listed	The Americas

Annex A

Rusty-spotted cat	<i>Prionailurus rubiginosus</i>	Vulnerable C2a(i) ver 3.1	Appendix I (only the population of India). All other populations included in Appendix II	Tropical Asia
Sand cat	<i>Felis margarita</i>	NT 3.1 ver (2001)	Appendix II	North America and Southwest Asia
Serval (chat-tigre, lynx)	<i>Leptailurus serval</i>	Least Concern ver 3.1	Appendix II	North Africa and Southwest Asia / North America and Southwest Asia
African Wildcat	<i>Felis silvestris, lybica</i> group	Least Concern ver 3.1	Appendix II	Sub Saharan Africa / North America and Southwest
European Wildcat (Forest Wildcat)	<i>Felis silvestris, silvestris</i> group	Not listed	Appendix II	Eurasia
Asiatic Wildcat (Asian steppe wildcat, Indian desert cat)	<i>Felis silvestris, ornata</i> group	Not listed	Appendix II	Eurasia

Annex B: Enclosure Standards by the World Association of Zoos and Aquaria (WAZA) for Enclosures for felids

Name of species	WAZA Recommended Area in Sq. m
Tiger/lion	500 m ² per pair, or a female with offspring if kept separate, should be provided. The enclosure should be enlarged by 50 m ² / increase in individual. Indoor 15 m ² Height =3.5 m
Leopard/Puma/ Panther	As above
Clouded Leopard	Outdoor 200 m ² /pair, 50 m ² with an additional animal, Indoor 15 m ²
Snow Leopard	500 m ² per pair, or a female with offspring if kept separate, should be provided. The enclosure should be enlarged by 50 m ² / increase in individual. Indoor 15 m ² Height =3.5 m
Cheetah	Germany 80 m ² for 1.2 adults, Switzerland 200 m ² for 1.1, and Austria 800 m ² for 1.2.
Caracal	Outdoor 50 m ² /pair Indoor 15 m ² Covered enclosure must be at least 3 m high
Small cats	30 m ² /pair outdoor, 10 m ² per pair indoor with 50X50X30 cm wooden box as a den

Annex C

Restricted to Pakistan's Common leopard Studbook
Studbook keeper: WWF – Pakistan

Taxon Name:		<i>Panthera pardus</i>			Vernacular Name:			<i>Cheetah, Guldar</i>			Last updated: December, 2003	
Stud ID	Zoo name	Sex	Age*	Birth type	Sire	Dam	Death date	Location	Transferred from	Transferred	Birth date	
W1		F	15 y	Wild			21.12.1998	Lahore Zoo				
W2			2 m	Wild			28.05.2001	Lahore Zoo				
W3			2 m	Wild			28.05.2001	Lahore Zoo				
C1		F	14 y	Captive	C5	C4	18.08.2001	Lahore Zoo	Bahawalpur zoo		24.8.2001	
C2		F	12 y	Captive	C5	C4		Lahore Zoo	Bahawalpur zoo		13.02.2002	
C3		F	13 y	Captive	C5	C4		Lahore Zoo	Bahawalpur zoo			
W4		M		Wild				Kund Park, Nowshera District	Manglot Wildlife Park			
W5	Simba	F		Wild				Kund Park, Nowshera District	Donation by an Army Colonel			
W6		F		Wild				Kund Park, Nowshera District	Galliat			
W7		M	10 m	Wild				Manshera	Manshera		March 2003	
C4		F		Captive (?)				Bahawalpur Zoo			In exchange of lion cubs from a circus 1980	
C5		M		Captive (?)							In exchange of lion cubs from a circus 1980	
C6		F		Captive	C5	C4		Bahawalpur Zoo				
C7		F		Captive	C5	C4		Bahawalpur Zoo				
W8	Raja	M	13 y	Wild				Islamabad Zoo	Kotli, AJK		1980	
W9	Rani	F	6 y	Wild				Islamabad Zoo	Azad Jammu and Kashmir (AJK)		1997	
C8		M	1.5 y	Captive	W8	W9		Islamabad Zoo			23.03.02	
C9		F	1.5 y	Captive	W8	W9		Islamabad Zoo			23.03.02	
W10	Pardus	M	7 m	Wild			13.10.02	Islamabad Zoo	Nathaigali		17.07.02	
W11	Ronak	F	9 m	Wild			Sept 2003	Islamabad Zoo	Margalla Hills National Park		24.01.03	

* based on the approximations

All the places left blank indicate the unavailability of data from zoo records



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