

# Pimpri Chinchwad Municipal Corporation



# <u>Nisargakavi Bahinabai</u> Chaudhary <u>Pranisangralaya Sambhaji Nagar, Pimpri, pune</u>

Sambhaji Nagar, Chinchwad, Pune - 411 019

# Annual report 2023-24



Sr No	Section	Page No
1	Report of Officer In-charge	3
2	History of the zoo	
3	Vision	5
4	Mission	5
5	Objective	5
6	About us	5
7	Organizational chart	9
8	Human resources	10
9	Capacity building ofzoo personnel	10
10	Zoo advisory committee	13
11	Health advisory committee	15
12	Statement of income and expenditure of the zoo	16
13	Practicesfollowed to regulate health of animals	16
14	Daily feed schedule of animals	17
15	Vaccination schedule of animals	20
16	Deworming schedule of animals	21
17	Disinfection schedule	22
18	Health checkup of employees for zoonotic diseases	22
19	Development works carried out in the zoo during the year	22

20	20 Education and awareness programme during the year	
21	Important events and happenings in the zoo	30

22	Research work carried out and publications	30
23	Conservation and breeding programme of zoo	30
24	Seasonal Species arrangements for upkeep of animals	31
25	Animal acquisition / transfer / exchange during the year	31
26	Rescue and rehabilitation of wild animals carried out by the zoo	33
27	Annual inventory of animals	33
28	Mortality of animals	35
29	Status of the compliance with conditions stipulated by the Central Zoo Authority	36
30	List of free living wild animals within the zoo premises	42

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### 1.Report of Officer In-charge

Pimpri Chinchwad is renowned as an automobile and industrial hub. With a growing population and emergence as an IT hub, the city has undertaken several development projects in education, research, culture, and entertainment. One such project is the transformation of the city's zoo, Nisargakavi Bahinabai Chaudhari Prani Sangrahalay (PCMC Zoo), which has been operational since 1989. In response to modern demands, the zoo is being revamped to meet the needs of the contemporary era.

The PCMC Zoo has devised a comprehensive all-of-zoo operation plan, with a strong emphasis on creating and conserving urban green spaces. Despite its limited area of 7.05 acres, the zoo strives to meet the recent guidelines set by the Central Zoo Authority, encompassing housing requirements for diverse animal collections. Finding the perfect balance between the geographical area, guidelines, and visitor attraction, the theme of "REPTILES AND AVIARY" has been aptly chosen. The proposed facility will accommodate an impressive array of wildlife, including 31 species of snakes, 2 species of monitor lizards, 13 species of turtles and tortoises, 2 varieties of crocodiles, and 14 species of wetland birds.

The vision for this zoo is to become one of the world's finest small zoos, setting the standard for animal care, conservation efforts, community and school education programs, and environmental management. Pimpri Chinchwad Municipal Corporation is deeply committed to wildlife conservation and raising awareness about the importance of preserving our natural heritage.

### 2. History of the zoo

Pimpri Chinchwad is mainly known for its status as an automobile and industrial hub. However, due to recent population growth and its emergence as an IT hub, the city has seen a need to develop additional projects in fields such as education, research, culture, and entertainment. In response to these changing needs, the city's zoo, which has operated since 1989, is currently undergoing modifications to meet modern requirements. The project, known as Nisargakavi Bahinabai Choudhary Pranisangrahalay, or previously named the 'Snake Park and Aviary,' is one such development.

To ensure they offer a comprehensive zoo experience, the PCMC zoo has developed an all-encompassing zoo operation plan focusing on all aspects of zoo operations. The creation and conservation of urban green spaces have been prioritized in its planning. However, the PCMC Zoo occupies just 7.05 acres, categorizing it as a small zoo, and the recent Central Zoo Authority guidelines have provided clear instructions on required housing areas for various animal collections. The challenge has been to accommodate a theme that considers geographical area, guidelines, and visitor attraction, leading to the selection of the "REPTILES AND AVIARY" theme. The proposed facility is targeted to accommodate a total of 31 snake species, 2 monitor lizard species, 13 tortoise and turtle species, 2 crocodile varieties, and 14 wetland bird species.

The zoo's vision is to become one of the world's leading small zoos that prioritize animal care, conservation work, community and school education programs, and environmental management. The Pimpri Chinchwad Municipal Corporation is committed to wildlife conservation and awareness.

### **3.MISSION**

To become a premier center for the conservation of indigenous reptiles and avifauna found in the area.

### 4. VISION

Our vision is to provide an exceptional experience to visitors by developing a theme-based zoo focused on educating people on the importance of Western Ghats' endemic reptiles.

### 5.OBJECTIVE

The zoo's proposed development aligns with the theme 'Reptiles of Ghats and Aviary.' Our objective is to collect rare and native species of reptiles found in the Western Ghats while offering a diverse range of wetland birds. To achieve this objective, we have set the following goals:

- Educate students and visitors on the significance of wildlife and the importance of preserving nature and natural resources.

- Rescue and release snakes, birds, and other animals that enter human habitation. We receive permission from the Forest Office and obtain transit passes before conducting release activities. - Implement conservative breeding programs for several endangered snake species and release their offspring into declining population areas.

- Organize guided tours featuring essential information, lectures, demonstrations, slide shows, and printed materials with audio-visual media for school children.

- Disseminate up-to-date biodiversity information to the general public.

- Create suitable enrichment in all enclosures, considering species requirements and environmental changes.

### 6.About us

The Nisargakavi Bahinabai Chaudhari Prani Sangrahalaya, also known as the PCMC Zoo, is an important urban zoo located in Pimpri Chinchwad, Pune, Maharashtra. The zoo's mission is to serve as a center of excellence in animal care, conservation, and education, while providing visitors with an immersive and educational experience. The zoo is dedicated to preserving wildlife and habitats, promoting responsible stewardship of natural resources, and inspiring future generations to engage with nature and take action to protect it.

Over the past year, the zoo has made significant strides in service delivery, infrastructure development, and conservation efforts. This annual report provides an overview of the accomplishments, challenges, and future plans of the zoo. Through this report, we hope to demonstrate our commitment to preserving and protecting the natural world while providing a unique and educational experience to our visitors.

Zoos play a crucial role in urban cities as they provide a unique opportunity for people to experience and learn about animals that they may not otherwise have access to. Zoos also serve as a platform to raise awareness about endangered species, conservation efforts, and the importance of protecting wildlife and their habitats.

Educational programs and exhibits offered by zoos can inspire visitors to become more environmentally conscious and engage in conservation efforts. Children, in particular, can benefit from the interactive and educational experiences offered by zoos, which can instill a sense of responsibility for the environment at a young age.

S.No.	asic Information about the Z Particulars	Information	
1	Name of the Zoo	Nisargakavi Bahinabai Chaudhari Prani Sangrahalay, Sambhaji Nagar, Chinchwad, Pune -411019	
2	Year of Establishment	1 <sup>st</sup> January 1990	
3	Address of the Zoo	Nisargakavi Bahinabai Chaudhari Prani Sangrahalay, Sambhaji Nagar, Chinchwad, Pune -411019	
4	State	Maharashtra	
5	Telephone Number	020-27371036	
6	Fax Number		
7	E-mail address	zoo@pcmcindia.gov.in	
8	Website	www.pcmcindia.gov.in	
9	Distance from nearest	Airport: Pune Airport - 18 km	
		Railway Station: Chinchwad Railway Station – 5 km	
		Bus Stand: Sambhaji Nagar Bus Stand – 300 mtrs	
10	Recognition Valid up to (Date)	19-08-2022	
11	Category of zoo	Small Zoo	
12	Area (in Hectares)	2.85 Ha	
13	Number of Visitors (Financial Year)	Currently the Zoo is closed for renovation.	
14	Visitors' Facilities Available in Zoo	Currently the Zoo is closed for renovation. Visitor Facilities include resting shades, drinking water, wheel chair, first aid, etc.	

#### **Basic Information about the Zoo**

7

15	Weekly Closure Day of the Zoo	Currently the Zoo is closed for renovation.	
Management Personnel of the zoo			
16	Name with designation of the Officer in-charge/ Director	Dr. Arun Dagde	
	Name of the Curator	Dr. Shailaja Hanmantrao Kolekar	

Name of the VeterinaryOfficer	Dr. Savita Ramdas Jinkalwad		
Name of the Biologist/Education Officer	-		
Name of the EducationOfficer	-		
Name of the Compounder/ Lab Assistant	-		
Owner / Operator of the Zoo			

17	*Name of the Operator	The Municipal Commissioner, Pimpri Chinchwad Municipal Corporation, Pimpri, Pune - 411018		
18	Address of the Operator	The Municipal Commissioner, Pimpri Chinchwad Municipal Corporation, OldMumbai-Pune Highway Pimpri, Pune - 411018		
19	Contact details/Phone number of Operator	020 - 39 33 11 17		
20	E-mail address of Operator	commissioner@pcmcindia.gov.in		

It gives us great pleasure to bring forth the annual report for the year 2023-24. Our dedicated colleagues in Pimpri Chinchwad Municipal Corporation have been working hard to develop this facility for the benefit of the public and animals as well. We are

8

indebted to all of them. We express our gratitude to the following officials and dignitaries of the Pimpri- Chinchwad Municipal Corporation, without the help of whom this zoo would never have taken shape.

Mr. Shekhar Singh, I.A.S., Commissioner Mr.Vijay Khorate, Additional Commissioner Mr.sandip khot, Deputy Commissioner(Veterinary Dept) Mr. Manoj Sethiya , City Engineer(Civil Dept.) Dr. Arun Dagade, Veterinary Officer

We are also thankful to the Central Zoo Authority, Maharashtra State Zoo Authority, Zoological Survey of India, Zoo Outreach Organization, Department of Animal Husbandry (Govt. of Maharashtra) and the State Forest Department, for regular co-operation, help, guidance, assistance and encouragement rendered by them.

### 7.Organizational chart

Zoo Director ↓ Curator ↓ Veterinary Doctor ↓ Animal Keeper ↓ Cleaners/helpers

### 8. Human resource

1] Director/ Chief Animal Husbandry Officer- Dr. Arun Dagade

2] Curator- Dr. Shailaja Hanmantrao Kolekar

3] Veterinary Doctor - Dr.Savita Ramdas Jinkalwad

4] Animal Keeper- Mr. Rajesh kamble,

Mr.Abhijit Pawar,

Mr. Yogesh kanjawane

5]Assistant animal keeper/helpers-

Mr. Anil Raut,

Smt. Jayshree Madane

### 9.Capacity building of the zoo personnel

#### **Capacity building**

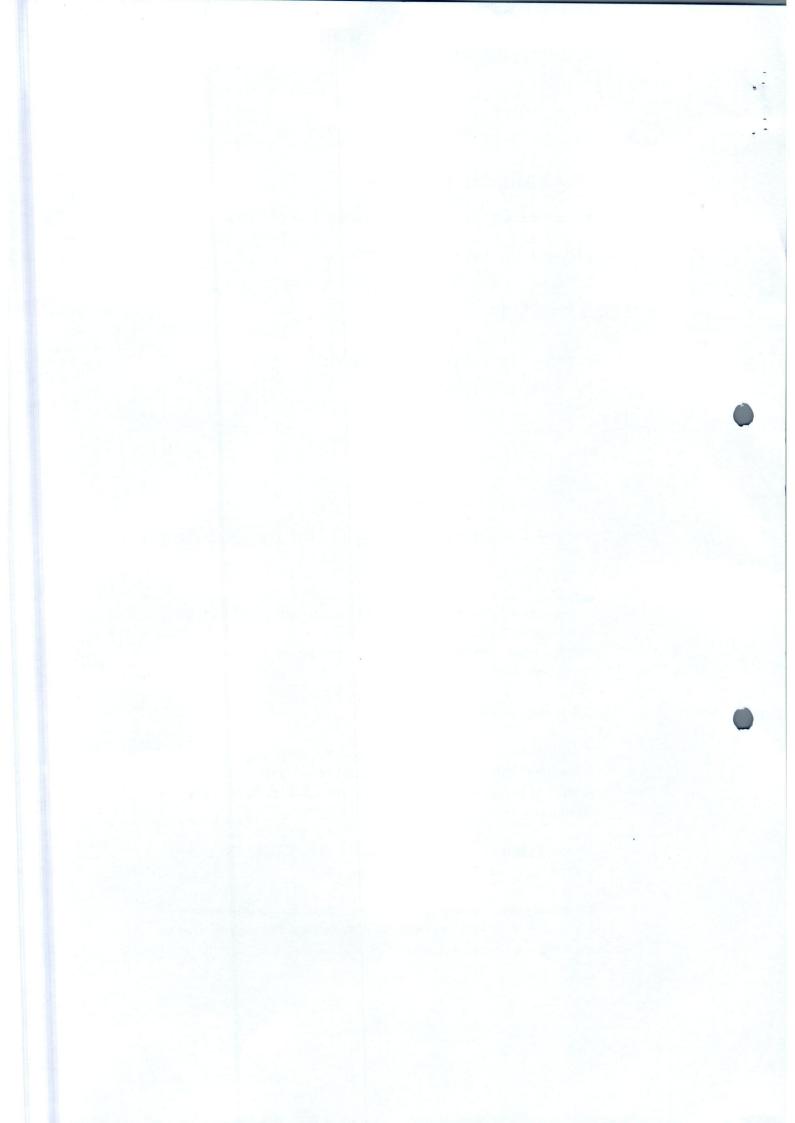
It is essential for maintaining the health and welfare of the animals in zoos. It involves providing training and resources to enable zoo personnel to carry out their roles effectively. Here are some ways that capacity building can be done for zoo personnel:

1. Training on animal care

2. Continuing education: Continuing education is essential for zoo personnel to stay up-to-date with emerging issues and advancements in the field. This involves attending seminars, workshops, and conferences, or enrolling in online courses.

3. Safety training: This involves training on how to handle dangerous animals, evacuation procedures, and emergency response.

4. Environmental conservation training: Zoos are often involved in environmental conservation efforts, and it's essential that zoo personnel are knowledgeable about the issues and able to contribute to conservation



5. Leadership and management training: For zoo personnel in leadership positions, it's essential to have training in management skills, including communication, decision making, and team building.

- 2

Zoo staff attends the capacity building organized by CZA, Delhi throughout the year.

1)All India zoo directors held by Greens Zoological, Rescue and Rehabilitation Center, Jamnagar, Gujarat was attended by Dr. Shailaja Hanmantrao Kolekar.



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2) Capacity building programme for animal keepers of western region, sakkarbaug zoo, Gujrat was attended by Rajesh Kamble, Abhijit Pawar.





### 10.Zoo advisory committee

An advisory committee plays a significant role in the management of a zoo. Here are some of the key roles of an advisory committee in zoo management:

1. Developing policies and strategies: The advisory committee is responsible for developing policies and strategies that govern the management of the zoo. They help in the formulation of plans and policies that guide the zoo's daily operations.

2. Overseeing the zoo's budget: An advisory committee serves as a financial advisor to the zoo. They help in the development of the budget, allocate resources, and ensure that funds are spent wisely.

3. Ensuring compliance: The advisory committee ensures that the zoo adheres to relevant laws and regulations. They review policies and procedures and recommend changes where necessary to ensure compliance.

4. Providing expert advice: The committee members have expertise in different fields, including wildlife management, law, finance, marketing, and communications. They provide expert advice and guidance to the zoo management on various issues affecting the zoo.

5. Enhancing the zoo's image: The committee members work with the zoo management to build strong relationships with the community, sponsors, and donors. They assist the zoo management in adopting effective marketing strategies to increase visitor numbers and revenue.

6. Promoting animal welfare: An advisory committee ensures that animal welfare is a top priority in the zoo. They help in developing and implementing protocols to ensure that animals are safe, healthy, and well-cared for.

#### ZOO ADVISORY COMMITTEE

Zoo advisory committee has been reformed to observe the ongoing developmental activities in the Zoo.

Date of constitution: 20th March, 2017

Members: The committee consists of the following members.

#### **Zoo Advisory Committee Members**

1 Mr. Santosh Patil Additional Commissioner Chairman

2 Mr. Sunil Waghunde Executive Engineer Member Secretary

3 Dr. Arun Dagade Municipal Veterinary Officer Coordinator

4 Mr. Dattatray Gaikwad Chief Garden Superintendent Member

5 Mr. Pankaj Jain Zoo Architect Member

6Mr. Anuj Khare State Wildlife Advisory Board Member

7Dr. Rahul Marathe Renowned Entomologist Member

8Dr. Rajkumar Jadhav Director, RGZP Member

9 Dr. Mayuri Panse Educationalist Member

10 Miss. Sri Laxmi Annabathula DCF, Pune Member

11 Mr. Umesh Vaghela NGO, Representative Member

Zoo advisory committee meetings are regularly held for discussions on Zoo Development related issues. Addl. Commissioner is the chairman of this committee. Under his committed leadership the development is acclaimed. The committee is represented by higher authorities in Municipal Corporation, representatives of local electoral members, eminent wildlife experts and a member from State Wildlife Board.

15

#### Zoo advisory committee meeting

The committee has been formulated considering the role of Zoos in conservation. Due to varied expertise and holistic development approach the committee is of the opinion that the Zoo shall focus on conservation and display of lesser known small fauna. The committee is also considering conservation breeding of native fishes and amphibians as a priority.

### 11. Health advisory committee

Health advisory committee for PCMC Zoo was proposed in January 2018 Zoo Advisory Meeting. The committee has accepted the proposal to constitute the same. The constitution of this committee is under process.

# 12.Statement of income and expenditure of the zoo

The zoo remains closed for visitors from 25<sup>th</sup> December 2017 to till date.

Budget Year	Budget allotted	Expenditure		
2016-2017	2 Crore	1.92 Crore		
2017-2018 7.50 Crore 7.20 Crore				

#### **BUDGET AND FINANCES**

2018-2019	5 Crore	4.90 Crore
2019-2020	1.25 Crore	1.17 Crore
2020-2021	3.5 Crore	2.90 Crore
2021-2022	2.1 Crore	1.8 Crore
2022-2023	10 Lakh	-
2023-2024	2.5Crore	

### 13. Practices followed in zoo to regulate

### health of animals

Following are the routine practices for monitoring health of animals and safety of staff and visitors undertaken in the Zoo:

- De-worming and vaccination is scheduled periodically.
- Debeaking and nail clipping of birds is a periodic practice.
- Perches are repaired or replaced with new ones regularly. In new enclosures emphasize has been given to produce natural perching on live plants.
- Animal waste, food wastage, leaf litter and other biodegradable wastes are recycled to produce compost. No chemical fertilizers or pesticides are used in Zoo campus.
- Exhibit substrates /furnishings are modified or changed totally whenever necessary. Hiding places and escape refuges are maintained to reduce stress levels.
- Heat convectors, air coolers, humidifiers and are used during climatic extremities.
- Volunteers and staff control the vandalism.
- Food and drinking water is regularly examined.
- Plastic Carry bags are banned in the zoo. Necessary signages are displayed to prevent vandalism.

## 14.Feeding Schedule

### HERBIVORE

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Sr. No.	Name	Feed Item	Approx. Quantity	Day of
			(Peranimal)	fasting
			(Gms)	
1	Indian	Mixed Vegetables- Leafy	100-100-150	
	Peafowl	Vegetables-Mixed Grains		
2	Budgeriga r	Coriander-Millets-Sprouts	10-20-10	
3	Cockatiel	Coriander-Millets-Sprouts	20-40-20	
4	Alexand	Mixed Fruits-Coriander	20-10-10-50	
	rine Parakee	Sprouts-Oilseeds		
	t			
5	Rose-ringed	Mixed Fruits-Coriander	20-10-10-50	
	Parakeet	Sprouts-Oilseeds		
6	Plum-hea	Mixed Fruits-Coriander	20-10-10-50	
	ded Parakeet	Sprouts-Oilseeds		
7	Spot-bille	Mixed Vegetables- Leafy	50-50-100	
	d Duck	Vegetables-Mixed Grains		
8	Starred	Mixed Vegetables-Mixed	150-50-10	
	Tortoise	Fruits-Dry Prawns		





### CARNIVORE

			(Per animal)	
			(Gms/Units)	
1	Common Cobra	Mice	2	Once a week
2	Russell's Viper	Mice	2	Once a week
4	Dhaman	Mice	2	Once a week
5	Checkered Keelback	Mice/Live Fish	1/2	Once a week
6	Trinket	Mice	1	Once a week
7	Sand Boa	Mice	1	Once a week
8	Earth Boa	Mice	1	Once a week
9	Banded Racer	Mice	1	Once a week
10	Wolf Snake	Mice	1	Once a week
11	Grass Snake	Mice/ Live Fish	1/1	Once a week
12	Common Krait	Mice	2	Once a week
13	Wall's Sind Krait	Mice	2	Once a week
14	Bamboo Pit Viper	Mice	1	Once a week
15	Marsh Crocodile*	Chicken	1500-2000	Twice a week (Summer
16	(Adult) Flap-shelled Turtle	Beef/Chicken	40	Once a week (Winter)
10	riap-sileneu futtie	-	40	Daily (Except Sunday)
		Dry Prawns	10	
17	Indian Black Turtle	Coriander	20	
1/	Indian black furtie	Beef/Chicken Dry Prawns	40	Daily (Except Sunday)
		Coriander	10	
10	Dad saw d Town	D. Claire	20	
19	Red-eared Terrapin	Beef/Chicken Dry Prawns	30	Daily (Except Sunday)
		Coriander	10	
			20	
20	Pariah Kite	Beef/Chicken	150	Daily (Except Sunday)

### Food health hygiene safety measures followed in zoo

When providing food to animals in a zoo, it is essential to follow food health hygiene safety measures. Here are some measures we follow:

1. Food Preparation: We keep food preparation areas clean and separate from other areas. Use sanitized equipment and follow appropriate food handling procedures. Use gloves and hair nets when handling food.

2. Storage: Store food in a cool, dry place, and keep it separate from other items like cleaning supplies. Check expiration dates regularly.

3. Feeding: Make sure feeding conditions are clean and no contaminated food is available to the animals. Remember not to serve leftover food to the animals. Animals also have specific dietary needs, so make sure to feed them according to their particular dietary requirements.

4. Staff Training: Properly train the staff in maintaining food safety and hygiene measures. Staff must know how to detect if food is contaminated and how to handle such a situation.

5. Clean-up: Regular cleaning of the animal feeding areas with approved disinfectants and disposal of waste properly.

6. Disease Control: In case of a disease outbreak, instructions should be given to the staff on how to handle infected animals and food to prevent the spread of the disease.

### 15.Vaccination schedule of animals

The vaccination is performed SOS on warnings from State Animal Husbandry and Central Zoo Authority.

### 16. Deworming schedule of animals

#### **Deworming schedule**

A regular deworming and disinfection schedule is important for maintaining the health and well-being of animals in the zoo.

#### Deworming:

We rotate dewormers to prevent the development of resistance to a specific drug.De-worming is carried out in every quarter for birds.

Sr. No.	Species	Drug used	Month
1	Indian Peafowl	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
2	Budgerigar	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
3	Cockatiel	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
4	Alexandrine Parakeet	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
5	Rose-ringed Parakeet	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
6	Plum-headed Parakeet	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
7	Black kite	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
8	Spot-billed Duck	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb
9	Starred Tortoise	Albendazole/Fenb endazole/Piperazi ne	May, Aug, Nov, Feb

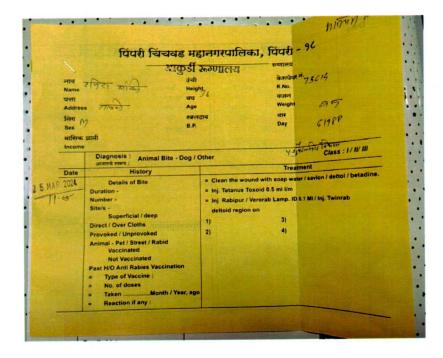
### 17. Disinfection schedule

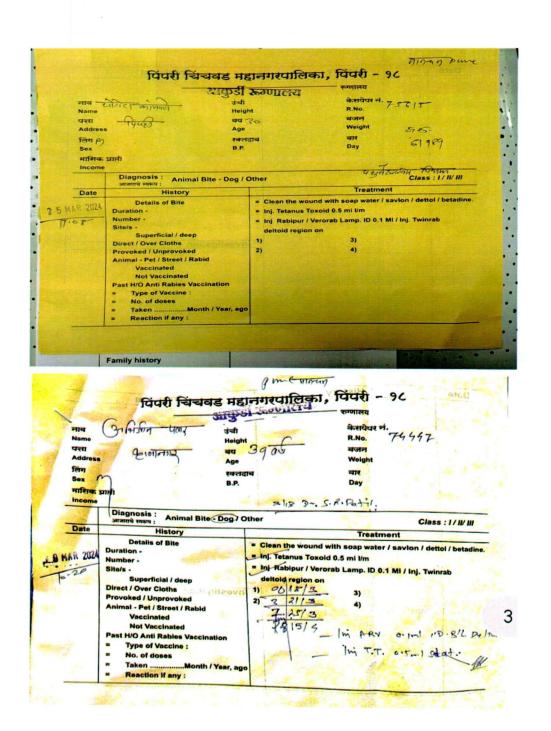
#### Disinfection:

Since the zoo is under renovation, enclosure locations and surface soil has been changed recently. Otherwise, the surface soil and perches are disinfected periodically using suitable media. Cage resting and solar exposure is performed routinely to avoid chances of infection. All disinfection processes are carried out on advice of the veterinary doctor.

### 18.Health checkup of employees for zoonotic diseases

Every year in the month of June employees undergo health check-up for zoonotic diseases. No suspect was found in the current year. At the time of inspection employees were vaccinated with **Anti-Rabies and Tetanus**.





### 19.Development work carried out in zoo during the year

As zoo remains closed for last 5 years for renovation, listed points are proposed in phases for renovation to restart the zoo

A small zoo focusing on Reptiles and Bird collection was envisioned in 1989 to enlighten city dwellers about the biological heritage of the region. It was the only 3 rd Reptile specialized zoo in the country at that time. Though the facility was attracting a large number of visitors, the need of upgrading the facility to latest trends in the field was imperative. Accordingly, the Master Development Plan for Nisargakavi Bahinabai Chaudhari Prani Sangrahalay was prepared and approved by the Central Zoo Authority.

The zoo is spread over 7.05 acres and is surrounded by residential zones. The theme selected in the approved master plan is 'Reptiles andAviary'. The proposed facility is expected to house 31 species of snakes, 2 species of monitor lizard, 13 species of turtles and tortoises, 2 varieties of crocodiles and 14 species of wetland birds. The Zoo Master Development Plan has been approved by the Central Authority In the year 2014-15.

The development is focused on creating naturalistic environments for inmates. The zoo landscape is also planned to complement the natural environment and emphasis is given to promote native plants. Technical posts recommended by CZA in the Master Plan have been included in PCMC's proposed Restructure. The civil works proposed in the development are under progress.

Phase I of the development was completed in 2017. In First phase construction of Compound wall, peripheral underground water and drainage line, new toilet block and peripheral pathway, civil construction of reptile, bird aviary, chelonian section and mugger section were completed.

Phase II including quarantine section, enrichment works of various enclosures are undertaken simultaneously to conclude the developments in stipulated time.

#### Current phase of work

#### Chelonia

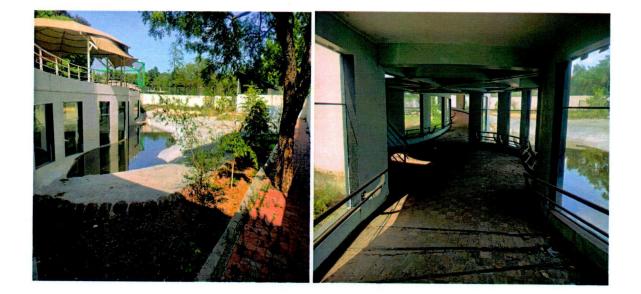
A chelonia enclosure in a zoo is a habitat designed specifically for turtles and tortoises. These enclosures aim to replicate the natural environment of these reptiles, providing them with the space, temperature, and humidity they need to thrive.

Chelonia enclosures typically feature a mix of land and water areas, with plenty of places for the animals to bask in the sun or seek shade as needed. The water area may be large or small, depending on the species of turtle or tortoise, but it is usually deep enough for the animals to swim in and may have rocks, logs, or other structures to provide additional hiding places or climbing opportunities. The enclosure is landscaped to incorporate natural plants and rocks.

Chelonia enclosures in zoos are designed with the needs of visitors in mind, with viewing areas or interpretive displays providing insight into the habits, lifestyle, and conservation challenges facing these fascinating animals.

**CHELONIA SECTION** 





#### Wetland Bird aviary

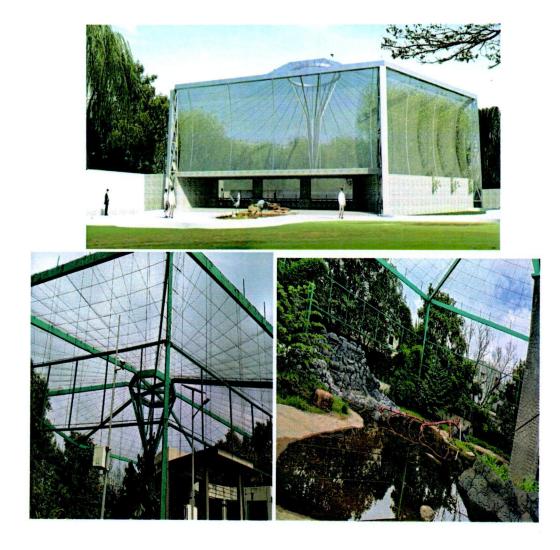
A wetland bird aviary section in a zoo is a specially designed enclosure that mimics the natural habitat of wetland birds, such as ducks, geese, swans, and cranes. Typically, this section has a large body of water in the center of the enclosure, surrounded by plants and trees that are typically found in wetlands. The water would be filtered and cleaned regularly to ensure it is safe for the birds to swim in and drink from.

In addition, the wetland bird aviary has an inbuilt waterfall which would create a natural and tranquil environment for the birds. This waterfall could be designed to mimic the sound and flow of a natural waterfall in the wild, which would help to create a calming atmosphere for both the birds and visitors.

The wetland bird aviary also has shaded areas where the birds can rest and hide from the sun, as well as feeding stations where they can find food during the day. These feeding stations would be designed with special dispensers that can release food automatically, which will help to reduce the stress on the birds and ensure that they are well-fed throughout the day.

Visitors to the wetland bird aviary would be able to observe the birds in their natural habitat and learn about their behaviors, diets, and habitats. Interpretive displays will also be incorporated into the enclosure to provide visitors with information and education about the importance of wetlands, the birds that live in them, and the threats they face in the wild.

#### WETLAND AVIARY



#### **Crocodiles and gharial**

A crocodile and gharial enclosure in a zoo is a specially designed habitat that mimics the natural environment of these aquatic predators. The enclosure consists of a large pool of water with an adjoining sandy or rocky shore area where the crocodiles and gharials can bask in the sun.

The size of the enclosure depends on the number of crocodiles and gharials living within the space. The pool is divided into separate areas to allow for different types of habitats or to separate smaller or younger crocodiles and gharials from larger, more aggressive adults.

The enclosure is typically designed with high walls and glass to ensure the safety of both the animals and the visitors. The water in the pool would be filtered and cleaned regularly to maintain its quality and to meet the health needs of the animals.

The sandy or rocky shore area of the enclosure is designed to provide a drying area for the crocodiles and gharials. It is large enough to accommodate all the animals and allow them to move about freely while also keeping a safe distance from the visitors.

The enclosure also includes hiding spaces for crocodiles and gharials to retreat to when they need privacy or seek protection from the sun. These spaces could include structures like caves, rocks, or logs.

### **MUGGAR AND GHARIAL SECTION**





#### Snake ghat (Reptiles of ghat)

The Snake Ghat enclosure in a zoo is designed to house large snakes such as pythons and anacondas. The enclosure is typically a long and narrow space that mimics the natural environment of these snakes, which is usually a dense jungle-like habitat.

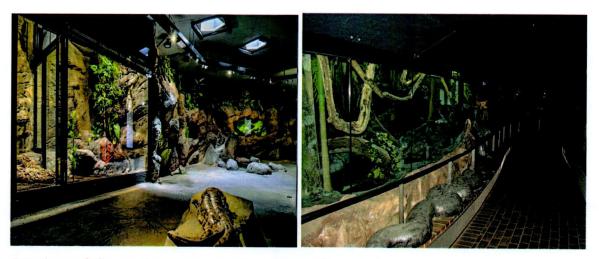
The Snake Ghat enclosure is designed to include hiding areas such as rock or log structures, to allow the snakes to feel secure and sheltered while also providing a naturalistic environment. The enclosure have different levels of elevation and varying textures to provide an environment that stimulates the snake's natural behavior.

The enclosure has a water source such as a shallow pool for the snakes to soak in or swim in, as these animals are semi-aquatic. The temperature and humidity within the enclosure would be controlled to match the natural conditions of their habitat.

The Snake Ghat enclosure has a glass wall or viewing area to allow visitors to safely observe the snakes. Additionally, informational signs and displays would be placed around the enclosure to educate visitors about different species of large snakes, their habitats, and conservation status.

Overall, the Snake Ghat enclosure in a zoo is designed to provide a safe, natural, and educational habitat for large snakes while also allowing visitors to learn more about these fascinating creatures.

### **REPTILES OF GHATS SECTION**



3D view of thematic representation of reptiles of ghat





Current entrance of reptiles of ghat

current status of snake enclosures

#### Quarantine and rescue

Zoo has all the quarantine facilities for animals .The new animal came to be kept under observation.

### 20. Education and Awareness programmes during the year

Zoo authority always tries to reach out to the people for the awareness and educational enrichment. Our staff/ Reptile experts, veterinarian, curator visited many schools for mass awareness regarding the snake species and measures to be carried out after snake bite, etc.





### 21.Important events and happenings in the zoo

As the zoo is closed for visitors for renovation purposes there were no programmes held inside the zoo but we celebrated the wildlife week by visiting schools where we held drawing competitions, lectures on identification of reptiles and amphibians, precautionary measures to be taken, etc.

### 22. Research work carried out and publications

There were no research papers published during this year

# 23. Conservation and breeding programme of zoo

Currently no breeding programmes ran in the zoo

### 24. Seasonal special arrangements for upkeep of animals



Snake boxes with incandescent light bulb

### 25.Animal acquisition/ transfer / exchange during the year Proposed animal collection

#### [A] REPTILES

Sr. No.		SCIENTIFIC NAME	Proposed Collection			
			м	F	U	Т
1	Common Kukri snake	Oligodon arnensis	2	2	0	4
2	Python Indian	Python molurus	2	2	0	4
3	Python Reticulated	Python reticulatus	2	2	0	4
4	Anaconda	Eunectes murinus	2	2	0	4
5	Yellow Monitor	Varanus salvater	2	2	0	4

6	Monitor Lizard	Varanus bengalensis	2	2	0	4
7	Green Iguana	Iguana iguana	2	2	0	4
8	Indian Chameleon	Chameleon zeylonicus	3	3	0	6
9	Whitaker's Boa	Gongylophis whitekarii	2	2	0	4
10	Montane Trinket	Coelognathus helena monticollaris	3	3	0	6
11	Ornamental Snake	Chrysopelia ornata	2	2	0	4
12	Bronze-back Tree Snake	Dendrolephis tristis	2	2	0	4
13	Royal Snake	Spalerosophis atriceps	2	2	0	4
14	Banded Krait	Bungarus fasciatus	2	2	0	4
15	Cat Snake Common	Boiga trigonata	3	3	0	6
16	Cat Snake Forsten's	Boiga forstenii	2	2	0	4
17	Cobra Monocled	Naja kaouthia	2	2	0	4
18	Saw-scaled Viper	Echis carinatus	2	2	0	4
19	Sand Boa	Gongylophis conicus	2	2	0	4
20	Earth Boa	Eryx johnii	2	2	0	4
21	Wolf snake	Lycodon aulicus	2	2	0	4
22	Yellow spotted wolf snake	Lycodon flavomaculatus	2	2	0	4
23	Cobra common	Naja naja	5	5	0	10
24	Dhaman	Ptyas mucosa	5	5	0	10
25	Banded racer	Argyrogena fasciolatusz	3	3	0	6
26	Grass snake	Macropisthodun plumbicolor	3	3	0	6
27	Trinket	Coelognathus helena	5	5	0	10
28	Bamboo pit viper	Trimerasurus graminius	3	3	0	6
29	Checkered keelback	Xenochrophis piscator	10	20	0	30
30	Russell's Viper	Daboia russelli	5	5	0	10
31	Wall's sind krait	Bungarus s.walli	2	2	0	4
32	Striped keelback	Amphiesma stolatum	1	2	0	3
33	Krait common	Bungarus ceruleus	2	2	0	4
34	Elongated Tortoise	Indotestudo elongata	2	4	0	6
35	Travancore Tortoise	Indotestudo travancorica	2	4	0	6
36	Spotted Terrapin	Geoclamys hamiltonii	4	8	0	12
37	Eastern Hill Terrapin	Melanochelys tricarinata	4	8	0	12
38	Indian Terrapin	Melanochelys trijuga	3	6	0	9
39	Deccan Flapshell Turtle	Nilsonia leithii	2	4	0	6

40	Tent Terrapin	Pangushura tecta	6	12	0	18
41	Narrow-mouthed Softshell Turtle	Chitra indica	4	4	0	8
42	Indian Roofed Turtle	Pangushura tenctoria	6	12	0	18
43	Assam Roofed Turtle	Pangshura sylhetensis	5	5	0	10
44	Red eared turtle	Trachemys scripta	6	12	0	18
45	Flapshell turtle	Lessymis punctata	3	6	0	9
46	Starred tortoise	Geochelone elegans	8	12	0	20
47	Marsh crocodile	Crocodylus palustris	2	4	0	6
48	Gharial	Gavialis gangeticus	2	4	0	6

## [B] BIRDS

Sr. No.	COMMON NAME	SCIENTIFIC NAME		Proposed Collection			
			м	F	U	Т	
1	Pelican	Pelecanus onocrotalus	3	3	0	6	
2	White Ibis	Threskiornis melanocephalus	3	3	0	6	
3	Grey Heron	Ardea cineraria	2 2		0	4	
4	Painted Stork	Mycteria leucocephala	3	3	0	6	
5	Spoonbill	Platalea leucorodia 3		3	0	6	
6	Comb Duck	Sarkidiornis melanotos	5	5	0	10	
7	White-breasted Water hen	Amaurornis phoenicurus	3	3	0	6	
8	Dabchick	Tachybaptus ruficollis	5	5	0	10	
9	Black-necked Stork	Ephippiorhynchus asiaticus	2	2	0	4	
10	Night Heron	Nycticorax nicticorax	5	5	0	10	
11	Large Egret	Ardea alba	2	2	0	4	
12	Common Teal	Anas crecca	5	5	0	10	
13	Shoveller	Anas clypeata	5 5 0		10		
14	Ruddy Shelduck	Tadorna ferruginea	rruginea 5 5		0	10	

# 26.Rescue and rehabilitation of wild animals carried out by the zoo

According to the received letter from the central zoo authority, India zoo does not have any rescue facility. If any animal is rescued it is immediately transferred to the Rescue center maintained by Maharashtra Forest Department.

## 27. Annual inventory of animals

[A] REPTILES						
Sr. No.		SCIENTIFIC NAME	М	F	U	TOTAL
	Common Cobra	Naja n. naja	2	6	0	8
2	Russell's Viper	Vipera russelli	2	2	0	4
3	Indian Rat snake/Dhaman	Ptyas mucosa	2	6	0	8
4	Checkered Keelback	Xenochrophis piscator	3	3	0	6
5	Marsh Crocodile	Crocodylus palustris	1	0	1	2
6	Flap-shelled Turtle	Lissemys punctata	0	2	10	12
7	Trinket	Coelognathus helena	1	3	0	4
8	Sand Boa	Eryx conicus	1	2	0	3
9	Earth Boa	Eryx johnii	1	2	2	5
10	Banded Racer	Argerogena fasciolatus	1	1	0	2
11	Wolf Snake	Lycodon aulicus	1	1	0	2
12	Grass Snake	Macropisthodon plumbicolor	0	0	2	2
13	Starred Tortoise	Geochelone elegans	4	4	6	14
14	Common Krait	Bungarus caeruleus	2	2	0	4
15	Wall's Sind Krait	Bungarus sindanus walli	0	2	0	2
16	Indian Black Turtle	Melanochelys trijuga	0	1	2	3
17	Bamboo Pit Viper	Trimersurus gramenus	0	0	2	2

18	Red-eared Terrapin	Trachemys scripta	7	11	0	18
		Total	28	48	25	101

	[B] BIRDS							
Sr. No.	COMMON NAME	SCIENTIFIC NAME	М	F	U	TOTA L		
1	Indian Peafowl	Pavo cristatus	1	1	0	2		
2	Budgerigar	Melopsittacus undulates	15	11	10	36		
3	Cockatiel	Nimphicus hollandicus	11	8	8	27		
4	Alexandrine Parakeet	Psittacula eupatria	4	0	1	5		
5	Rose ringed Parakeet	Psittacula krameri	3	5	0	8		
6	Plum-Headed Parakeet	Psitticula cynocephala	1	0	0	1		
7	Spotbill Duck	Anas poecilorhyncha	02	1	0	3		
8	Pariah Kite	Milvus migrans	0	0	4	4		
		Total	38	25	23	86		

# 28. Mortality of animals

During the year 2023-2024 there is no mortality of any animal

### Current status of the animal stock

Cat	tegory	Closing stock of previous year (2022-23)	Births	Acquisition	Death (April 2023- March 2024)	Disposal (April 2023- March 2024)	Closing stock of this year (2023-2024)
E	Birds	84	-	02	00	00	86

Reptiles	101	-	-	00	00	101
Total	185	-	-	00	00	187

Acquisition of **rescued 2 male spot billed ducks** were done after informing to central zoo authority via email

#### 29.Status of compliance with conditions stipulated by the Central Zoo Authority

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(Ref: Letter No. 19-127/93-CZA(180)(Vol. III)(NS) dated 03.01.2019 subjected as Renewal of recognition to Nisargakavi Bahinabai Chaudhari Prani Sangrahalaya, Pimpri Chinchwad, Maharashtra under Section 38H of the Wildlife (Protection) Act, 1972 beyond the period 28.09.2019)

Sr		. Condition Stipulated	Time period to Comply	Present Status	Remark
	1. Gener	al Requirements			
1.	10.1(2)	The zoo should plant native trees and bushes as screening and buffer all around the boundary wall especially at the entrance of the zoo area towards the adjacent temple.		Native tree plantation i done.	s
2.		It has been observed that one residential house has been existing inside the zoo campus, which is not separated by the boundary wall of two meters height. The entry and exit of the house is also from the zoo campus only. As per the approved master (layout) plan it was proposed to demolish the structure to construct a butterfly park. However, the same has not been complied so far.		To be carried out in future during renovation process	
	2. Admir	nistrative & staffing pattern			
3.	10.2(1)	The zoo should appoint a whole time well qualified Officer-in-charge having appropriate knowledge of Wildlife management. At present, it has been observed that Officer-in-charge and other important staff like Veterinarian and Biologist are appointed only for short term duration with up to six month duration. The Officer-in-charge should have delegated adequate financial and administrative powers for taking immediate		Direct recruitment is not done. All posts (Officer-in-charge, Veterinarian and Biologist) are on honorarium basis.	Direct recruitment should be done.

		decisions concerning the health and welfare of the captive wild animals.			
	3. Develo	pment and planning			
4.	10.3(5)	The construction work of the zoo is going on. The zoo should take care of the natural landscapes of the zoo and animal enclosures should not be masked and the cleanliness and hygiene of the zoo should not be affected.		Under renovation	Phase-II enrichment work is in progress.
	4. Animal	housing, display of animals and animal enclose	sures		
5.	10.4(1)	The new enclosure being constructed should be nature immersing since the zoo is housing reptiles, so to take care of sufficient sunlight, the temperature controlling devices and equipment should be placed for the safety of animals.		Under renovation	
6.	10.4(2)	The construction work of the zoo is going on since long. The animals of the zoo are temporarily housed in small enclosures which do not meet the design and dimension prescribed by the CZA for housing these animals. The work of the new enclosure should be done on pace and should complete at the earliest. In the mean time zoo should take care of the animal housed and ensure that they do not get stressed due to housing in small enclosures.		Under renovation	

7.	1	On the left side of the entrance of the zoo, Immediately	Under renovation	T
		there is an old abandoned enclosure. As per		
		the master (layout) plan peacock enclosure is		
		approved on this location. The old enclosure		
		is not in bad shape; hence it is suggested to		
		modify the enclosure in place of demolishing		
		the same after approval of the design from		
		CZA. The design should be submitted to the		
		CZA for approval.		
8.	10.4(6)	The zoo should provide species specific Immediately enrichment artifacts to meet the behavioral needs of the animals in the enclosures.	Under renovation	Current enclosures are provided with species specific enrichment for temporary period
9.		The live hedge should be developed between immediately the viewing area and standoff barrier in the newly constructed enclosures.	Under renovation	
10.		The zoo should place appropriate bilingualimmediately signage's (Hindi as primary language) displaying adequate detailed scientific information about species.	Under renovation	
:	5. Upkeep	and health care of animals		
11.		The provision of footbaths should be made atlmmediately the entry and exit point of each enclosure which is being constructed. Further, the footbath should have provision of proper disinfectant.	Under renovation	
12.		The food and water samples should be tested immediately a periodically for microbiological, toxicological ot done in th and any other contaminants at a recognized past. laboratory.		9

13.	10.5(8)	The vaccination and deworming is being Immediately done, however, the schedule for the same should be prepared and displayed at the enclosure and strictly be followed.	After completion of enrichment, the schedules will be strictly displayed at the enclosures.	
14.	10.5(9)	The zoo staff handling the animals should be Immediately screened against zoonotic diseases at least once in a year and the record should be maintained.	Zoo staff will be screened periodically against zoonotic diseases.	
15.	10.5(10)	The keeper's diary, daily reports, animal Immediately history cards and treatment cards should be prepared as per the specified standards / format of the CZA.	All reports are maintained.	
	6. Veterin	ary and infrastructure facilities		
16.	10.6 (1)	The zoo should take up the modification/Six months construction of the zoo hospital unit as per approval of the CZA.	Under renovation	
17.	10.6 (5)	A zoo should depute a Veterinary supportImmediately staff as a whole time employee.	Whole time veterinary support staff deputed.	

18.	10.7 (2)	The finding of the post-mortem examination Immediately should be recorded in the CZA prescribed format and records should be maintained for at least six years.	All records are maintained	-
19.	10.7 (2)	The zoo should also install an incinerator for Six months disposal of animal carcasses in a manner that does not have any adverse impact on the hygiene and cleanliness of the zoo.	Incinerator is available at PCMC Veterinary department.	
10	). Research	activities		
20.	10.10 (1)	There are a number of education institutesSix months in Pune city. The zoo should encourage local students of these educational institutions to take up research studies.	Under renovation	
11. E	ducation a	nd outreach activities		
21.	10.11 (1)	The zoo should develop an annual calendar immediately to take up educational activities for the awareness and conservation of wildlife to the general public and students etc. the objective can be achieved through by involving local educational institutions or with the help of educated volunteers. The various environment and wildlife days should be celebrated at the zoo by inviting the school students.		

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22.	Visitor Fac 10.12 (1)	Clu <b>ties</b> The zoo should have the facility of cloak rooms and kiosks for the visitors.	One year U	Inder renovation	
23.	10.12 (3)	The zoo should also make provision of the wheelchair and ramps for providing the access of better viewing of the animals by the 'Divyangjan'.	, a v	Wheel-chair is available. Ramps were constructed at the entrance of reterinary hospital office,and all enclosures	

# 30.List of free living wild animals within the zoo premises

#### LIST OF MAMMALS

Sr. No.	English Name	Marathi Name	Scientific name
1	Common Mongoose	Mungus	Herpestes edwardsii
2	Palm Squirrel	Khar	Funambulus palmarum
3	Flying Fox	Vatvaghul	Pteropus giganteus
4	Rat	Undir	Rattus rattus

#### LIST OF BIRDS

No.	Vernacular Name	Common English Name	Scientific Name
	(Marathi)		
1	Ghar	Pariah Kite	Milvus migrans
2	Shikra	Shikra	accipiter badius
3	Titvi	Red-wattled Lapwing	Vanellus indicus
4	Parva	Blue Rock Pigeon	Columba livia
5	Hola	Little Brown Dove	Streptopelia senegalensis
6	Popat	Rose-ringed Parakeet	Psittacula krameri
7	Kokila	Koel	Eudynamys colopacea
8	Bharadwaj	Crow Pheasant	Centropus sinensis
9	Gavhane Ghubad	Barn Owl	Tyto alba
10	Pingalya	Spotted Owlet	Athene burma
11	Pakoli	House swift	Apus affinis
12	Khandya	White-breasted kingfisher	Halcyon smyrnensis
13	Bandya	Small Blue kingfisher	Alcedo atthis
14	Veda Raghu	Green Bee-eater	Merops orientalis
15	Shin Chocha	Grey Hornbill	Tocus birostris
16	Tambat	Coppersmith Barbet	Megalaima haemacephalo
17	Pakoli	Dusky Crag Martin	Hirunda concolor
18	Bhingari	Red-rumped Swallow	Hirundo rustica
19	Tarvali Bhingari	Wire-tailed Swallow	Hirundo smithii
20	Haladya	Golden Oriole	Oriolus oriolus
21	Khatik	Rufous-backed Shrike	Lanus schach
22	Kotwal	Black Drongo	Dicrurus adsimilis
23	Salunkhi	Common Myna	Acridotherus tristis
24	Bhoradi	Brahmini Myna	Sturnus pagodarum
25	Kawla	House Crow	Corvus splendens
26	Dom Kavala	Jungle Crow	Corvus macrorhynchos
27	Subhag	lora	Aegithina tiphia
28	Bulbul	Red-vented Bulbul	Pynonotus cafer
29	Satbhai	Large Grey Babbler	Turdoides malcolmi

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30	Nachara	White-browed Fantail	Rhipidura aureola
31	Vatvatya	Ashy Prinia	Prinia socialis
32	Vatvatya	Plain Warbler	Plain subflava
33	Shimpi	Tailor Bird	Orthotomus sutorius
34	Dayal	Magpie Robin	Copsychus saularis
35	Chirak	Indian Robin	Saxicoloides fulicata
36	Thirthira	Black Redstart	Phaenicurus ochruros
37	Fultochya	Tickel'lsFlowerpecker	Dicaeum erythrorhynchos
38	Gangara	Great Tit	Parus major
39	Karada Dhobi	Grey Wagtail	Motacilla cinerea
40	Pandhara Dhobi	White Wagtail	Motacilla alba
41	Shinjiru	Purple Sunbird	Nectarinia asiatica
42	Shinjiru	Purple-rumped Sunbird	Nectarinia zeylonica
43	Chimani	House Sparrow	Passer domesticus
44	Chashmewala	White-eye	Zosterops palpebrosa
45	Sugran	Baya Weaver Bird	Ploceus phillippinus
46	Munia	Spotted Munia	Lonchura punctulata
47	ChanderiMunia	Silverbill	Lonchura malabarica

## LIST OF REPTILES AND AMPHIBIANS

Sr. No.	English Name	Marathi Name	Scientific name
1	Indian Rat Snake	Dhaman	Ptyas mucosa
2	Trinket Snake	Taskar	Coelognathus helena
3	Wolf Snake	Kavdya	Lycodon aulicus
4	Common Kukri Snake	Kukri	Oligodon arnensis
5	Striped Keelback	Naneti	Amphiesma stolatum
6	Worm Snake	Wala	Indotyphlops braminus
7	House Gecko	Pal	Hemidactylus flaviviridis
8	Brook's Gecko	Pal	Hemidactylus brookii
9	Bark Gecko	Pal	Hemidactylus leschenaultii
10	Common Skink	Sapsurali	Eutropis carinata
11	Common Toad	Bhek	Duttaphrynus melanostictus
12	Cricket Frog	Beduk	Fejervarya sp.
13	Ornate Frog	Beduk	Microhyla ornata
14	Common Tree Frog	Beduk	Polypedates maculatus
15	Indian Skittering Frog	Beduk	Euphlyctis cyanophlyctis

#### LIST OF TREES

Sr. No.	English Name	Marathi Name	Scientific name
1	Indian lilac/ Neem	Neem	Azadirachta indica
2	Sisam	Sisam	Dalbergia sisoo
3	Soapnut	Ritha	Sapindus laurifolia

4	Spathodia	Pichkari	Spathodia campanulata
5	Eucalyptus	Nilgiri	Eucalyptus sp.
6	Plumeria	Chapha	Plumeria alba
7	Silk Cotton Tree	Kate Sawar	Bombax ceiba
В	Night-Flowering Jasmine	Parijat	Nyctanthes arbor-tristis
9	Tikoma	Songhanti	Tecoma stans
10	Banyan	Vad	Ficus benghalensis
11	Variegated Banyan	Variegated Vad	Ficus benghalensis var.
12	Curry leaf	Kadipatta	Murraya koenigii
13	Acacia	Hivar	Acacia leucophloea
14	Peepal	Pimpal	Ficus religiosa
15	Silver Oak	Suru	Grevillea robusta
16	Bottle Palm	Bottle Palm	Roystonea regia
17	Areca Palm	Supari	Areca sp.
18	Coconut	Naral	Cocos nucifera
19	Mast Tree	Ashok	Polyalthia longifolia
20	Weeping Fig	Pimparni	Ficus benjamina
21	Indian laurel	Nandrukh	Ficus microcarpa
22	Rubber tree	Rubber tree	Ficus elastica
23	Golden Bamboo	Pivla Bamboo	Bambusa aurnatiana
24	Green Bamboo	Kalak	Bambusa vulgaris
25	Coral tree	Pangara	Erythrina indica
26	Variegated Pangara	Pangara	Erythrina variegate
27	Gulmohar	Gulmohor	Delonix regia
28	Rain Tree	Vilayati Shirish	Samanea saman
29	Indian Cork	Buch	Millingtonia hortensis
30	Casuarina	Suru	Casuarina equisetifolia
31	Indian Tulip Tree	Bhend	Thespesia populnea
32	Bottle Brush	Bottle Brush	Callistemon lanceolatus
33	Copper Pod	Tambra-Shingi	Peltophorum ferrugineum
34	Camel's Foot Tree	Kanchan	Bauhinia sp.
35	Christmas Tree	Silver Oak	Araucaria sp.
36	Sandalwood	Chandan	Santalum album
37	Black Acacia	Khair	Acacia catechu
38	Jamun	Jambul	Syzygium cuminii
39	Singapore Cherry	Cherry	Muntingia calabura
40	Guava	Peru	Psidium guajava
41	Mango	Amba	Mangifera indica
42	Custard Apple	Sitafal	Annona squamosa
43	Рарауа	Papai	Carica papaya
44	Bel Tree	Bel	Aegle marmelos

#### LIST OF BUSHES

Sr. No.	English Name	Marathi Name	Scientific name
1	China Rose	Jaswand	Hibiscus sp.
2	Nerium	Kaner	Nerium odorum
3	Jasmanum	Mogra	Jasminum sp.
4	Cana	Kardal	Canna sp,
5	Vinca	Sadafuli	Vincarosea
6	Thuja	Morpankhi	Thujaoccidentalis
7	Holy Basil	Tulas	Ocimum sanctum
8	Cycas palm	Cycas	Cycas sp.

# Photos





Curator, NBCP

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Veterinary officer, PCMC

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Deputy commissioner

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Additional Commissioner,



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Commissioner, PCMC