

**“Biological Diversity of Birds, Reptiles and Butterflies in
Himayat Bagh Garden region, Aurangabad,
Maharashtra, India.”**

Research Report submitted

To



BY

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“Biological Diversity of Birds, Reptiles and Butterflies in Himayat

Bagh Garden region, Aurangabad, Maharashtra, India.”

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● Abstract of the Topic –

The research report is about the Biological Diversity of Birds , Reptiles and butterflies in Himayat Bagh Garden region. The Avifauna, Butterflies, Insects & Reptiles in Himayat Bagh area are diverse with a variety of plants and various species of birds, insects etc. The Himayat Bagh Region is surrounded by hilly area which have small water bodies & different type of flowering & fruit plants on its surrounding area which provides grounds for feeding, breeding & nesting for avian fauna, insects, reptiles. During the field survey many species like 182 types of birds, 45 types of butterflies, 80 types of insects, 28 types of spiders, 13 types of snakes & other tree species were recorded, due to different habitats present at Himayat Bagh area, out of watershed catchments, from flowering tree shelters & from marshy areas. Himayat Bagh area holds a good density of diversity. Many birds prefer Banyan, Peepal, Eucalyptus, Neem etc. to build their nests. The reason behind the good diversity is, there are number of tree species found in the Himayat Bagh premises.

Himayat Bagh houses as many as 310 species of trees including the once that offer nesting to birds. Common residents like Coppersmith barbets, Black drongo's, Green bea eaters, Red vented bulbuls, laughing dove etc. were seen in good numbers. Biodiversity survey is the best method to understand different species distribution, abundance, and diversity. The present study aimed to

survey different species by different methods. Biodiversity provides vital ecosystem functions such as soil fertilization, nutrient recycling, pest and disease regulation, erosion control and crop and tree pollination. It plays a vital role in Ecological life support, biodiversity provides functioning ecosystems that supply oxygen, clean air and water and many ecosystem services.

● Introduction —

Biodiversity is the variety of living species – plants, animals and microorganisms and the ecosystems they form. An ecosystem is the name given to all living species that live together in a stable community, interacting with one another and their physical environment. Biodiversity includes the diversity within species and between different species. Ecosystems need a balanced and diverse number of species to thrive.

Biological diversity deals with the degree of nature's variety in the biosphere. This variety can be observed at three levels; the genetic variability within a species, the variety of species within a community, and the organisation of species in an area into distinctive plant and animal communities constitutes ecosystem diversity.

Himayat Bagh is unique, ecologically fragile ecosystems having rich biodiversity comprising of any one or more of the components such as; species

richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species or land races or their varieties, past pre-eminence of biological components represented by fossil beds and having cultural or aesthetic values. Biodiversity is closely linked to ecological security. Loss of biodiversity and bioresources show an increasing trend mainly due to human activities. Therefore, it is necessary to instil and nurture conservation ethics in the community.

This is a small but important step that a community can take towards protecting the environment and ensuring sustainability of bio-resources across generations conservation ethics and values practiced by these societies to the wider world.



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● Literature Review -

Biodiversity Heritage Site status tag ensures immediate recognition and attraction at the national as well as international level. It helps bringing in the much-needed finances for conservation and associated community development. (megbiodiversity.nic.in – Aug 2015).

eBird is an online database of bird observations providing scientists, researchers and amateur naturalists with real-time data about bird distribution and abundance.

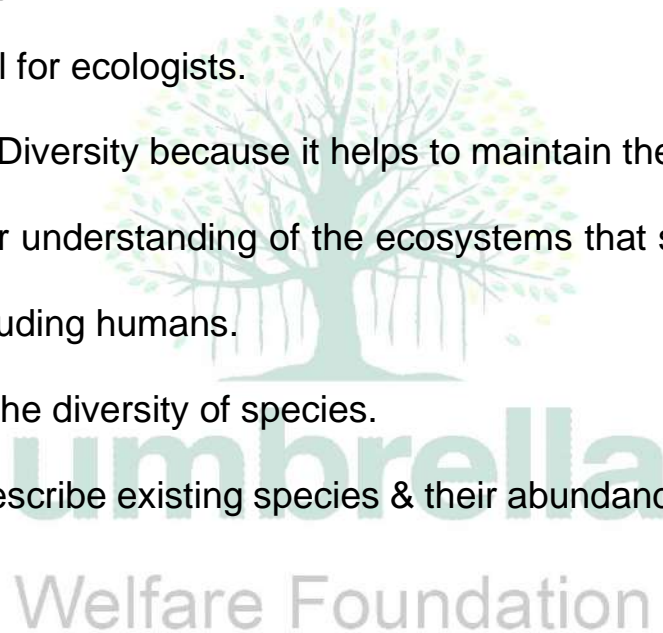
(Cornell Lab of Ornithology- from 2002)

Various aspects of the biology of Indian butterflies, encourage their observation to study their natural history and ecology, gather population and distributional data in a centralized database, and spread awareness about their conservation.

(BOI- Butterflies of India- NCBS-National Centre for Biological Sciences 2010)

● Objectives

- To identify Bird, Butterfly & Snake species that live in Himayat Bagh Garden area.
- To identify diversity in different landscapes.
- To locate areas of the Himayat Bagh that show high diversity.
- To measuring the health of environments because Diversity is the important tool for ecologists.
- To study the Diversity because it helps to maintain the Ecosystem.
- To further our understanding of the ecosystems that support all life on earth, including humans.
- To preserve the diversity of species.
- To enlist & describe existing species & their abundance in the study area.
- To compare species richness & species abundance in study sites.



● Methodology

- ✦ The Diversity of project was calculated by using on site point count method.
- ✦ The data was collected by on site observation, counting, & by identifying species according to the data. The original data was analyzed by using earlier project dissertations, research papers, references and with the help of guidance of Umbrella Welfare Foundation.
- ✦ The survey, count & identification were carried out by point count method & observations of birds, butterflies & reptiles were taken from different points/locations in Himayat Bagh area.
- ✦ Approximately 30min were spent at each observation point, the birds within the distance were included.
- ✦ Counting was carried out on a weekly basis.
- ✦ The Camera was used for the identification of species & for photographs of species & after that species were noted down in systematic way.

Study Area

Finely manicured, verdant, and extremely beautiful - Himayat Bagh is a masterpiece in Aurangabad. Sprawling across an area of 400 acres, the garden has been featuring unique flora since inception, and that is why it is home to the Fruit Research Station and Nursery. Different varieties of plants, trees, and herbs blooming around the garden are worth a watch. Do go for a long stroll on the crisis-crossed pathways to glance at the manicured garden, and rediscover the opulence of the bygone era.



1) Little grebe (*Tachybaptus ruficollis*)



The little grebe, also known as dabchick, is a member of the grebe family of water birds. It is commonly found in open bodies of water across most of its range. The little grebe is a small water bird with a pointed bill. Juvenile birds have a yellow bill with a small black tip, and black and white streaks on the cheeks and sides of the neck as seen below. The little grebe is an excellent swimmer and diver and pursues its fish and aquatic invertebrate prey underwater.

This bird breeds in small colonies in heavily vegetated areas of freshwater lakes. It uses the vegetation skilfully as a hiding place. Like all grebes, it nests at the water's edge, since its legs are set very far back and it cannot walk well. Usually four to seven eggs are laid. When the adult bird leaves the nest it usually takes care to cover the eggs with weeds. This makes it less likely to be detected by predators. The young leave the nest and can swim soon after hatching, and chicks are often carried on the backs of the swimming adults.

Fairly common but often inconspicuous small diving bird of wetlands with bordering reeds and other vegetation. Often remains out of sight; less often out on open water (mainly in winter). Seen mainly as singles and small loose

flocks, often sleeping during the day. Breeding plumage often looks dark overall in good light & dark rusty head and neck sides with yellow patch at base of bill. Nonbreeding plumage dingy pale brownish overall with dark cap.

It mainly eats Insects, larvae and small fish. This bird species has different identifying features depending on sex/age/season. They are only migratory in those parts of their range where the waters freeze. These birds breed in heavily vegetated areas. In India, the species breeds during the rainy season, that's why this bird is found in Himayat Bagh Garden area.

2) Little Cormorant (*Microcarbo niger*)



The little cormorant is a member of the cormorant family of seabirds. Slightly smaller than the Indian cormorant it lacks a peaked head and has a shorter beak. It forages small ponds, large lakes, streams and sometimes coastal estuaries. The entire body is black in the breeding season. The little cormorant is about 50 centimetres (20 in) long and only slightly smaller than the Indian cormorant. They swim underwater to capture their prey, mainly fish.

The breeding adult appears all black on the head as mentioned above, whereas a non-breeding adult has browner pouch and bill with some white on

the chin. Little Cormorants are smaller and appears stockier/more compact in built. The neck is short but the tail is proportionally the longest of the three cormorants. During the flight, the bird appears in small size but proportionately long tail and short, thick neck, and the fastest wingbeats.

If the neck is as long as, or shorter than the tail and both neck and tail are almost as long as the body, then the cormorant is likely to be a Little Cormorant. Juveniles/immatures of the Little Cormorant have brown underparts with some pale mottling. The Little Cormorant may be found in small village ponds, garden ponds as well as large freshwater bodies such as rivers and lakes and even estuaries.

Little Cormorants are generally not as gregarious as Indian and Great Cormorants. While Little Cormorants may usually be seen feeding singly or in small groups, larger congregations and loose flocks are also seen in bigger. Pakistan and lowland Nepal. They swim underwater due to availability of food, little cormorant found during the project study in Himayat Bagh Garden area.

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3) Indian cormorant or Indian shag (*Phalacrocorax fuscicollis*)



A dark ducklike waterbird with blue-green eyes, a rounded head, a sloping forehead, and a long and slender bill that is sharply hooked at the tip.

Adults are black, immatures are brownish with white underparts. Like all cormorants, frequently seen swimming with its body low in the water, head and neck pointing upward, and suddenly disappearing underwater to catch fish. Often perches upright on a rock, drying itself with outstretched wings. Seen in small groups, fishing communally in inland water bodies.

Similar to Little Cormorant, but the slightly larger size and shape of the head, flat on Little Cormorant and rounded on Indian Cormorant. Indian Cormorant is smaller and slimmer than Great Cormorant. It is a gregarious species that can be easily distinguished from the similar sized little cormorant by its blue eye. The breeding season is July to February but depends on rainfall and water conditions. The Indian Cormorant has an elongated, oval-shaped head with a long, narrow and finer bill than the other two cormorants.

The breeding adult appears glossy black with greenish-blue eyes and a white tuft on the ear-coverts. The non-breeding adult is browner with a yellowish gular pouch and white on throat. Most slender-looking of the three cormorants. Indian Cormorant is Smaller than the Great Cormorant, with slimmer and longer neck and relatively long tail. Indian Cormorant may appear as big as a Great Cormorant or as small as a Little Cormorant, but is the most slender of the two with a long, thin neck and long tail.

If the neck appears longer than the tail but the bird retains an overall slender look, then it is likely to be an Indian Cormorant. Indian Cormorant juveniles and immatures have a paler breast and lower belly. This bird is found in Himayat Bagh because of water bodies present in the areas.

4) Great cormorant (*Phalacrocorax carbo*)



Large cormorant found nearly worldwide. Large size bird, white patch on throat, and lack of crest. Breeding adults show circular white patch on flanks. Immatures typically have contrasting white belly. Dives frequently in water, feeding on fish. Found in many types of water bodies. Weight is reported to vary from 1.5 kg to 5.3 kg. Pairs will use the same nest site to breed year after year. Due to availability of food & nesting site, Great Cormorant found during the project study in Himayat Bagh Garden area.

5) Little egret (*Egretta garzetta*)



Small snow-white heron with slender dark bill, blackish legs, and yellowish feet. Breeding adult has 2 long wispy head plumes and spray of white

plumes ("aigrettes") on lower back. Fairly common in wide variety of wetlands, at lakes, along rivers, and in estuaries almost anywhere with small fish. Occurs as singles or small loose groups, nests and roosts communally. Distinctive within its range. Himayat Bagh provides a pristine habitat to many water birds like little egret.

6) Intermediate egret (*Ardea intermedia*)



A stocky egret that is larger than Cattle and Little Egrets, but smaller than the Great Egret. This bird has a yellow bill that is shorter than Great Egret but longer than Cattle Egret, a relatively rounded head, and shorter legs than Great Egret. In Asian populations the bill becomes black during the breeding season, these birds can be distinguished from Little Egret by their completely black feet and shorter bills. Like most egret species it often nests in colonies with other herons, usually on platforms of sticks in trees or shrubs that's why this bird is found in Himayat Bagh Garden area.

7) Grey Heron (*Ardea cinerea*)



Generally quite common and conspicuous in wetland habitats from marshes and tidal flats to small ponds, ditches, and wet fields. Grey Herons nests colonially in tall trees. Mainly seen as singles or in small groups, standing quietly in or at the edge of water, less often hunting in fields. Plumage mostly gray overall, with paler neck, adult has white crown, black eyebrows, and black shoulder patch. Like other herons and egrets, flies with neck pulled in to form a bulge. Grey Herons was found in Himayat Bagh area because there are many tall trees.

8) Purple Heron (*Ardea purpurea*)



Large heron with rusty head and streaky neck juvenile is extensively rusty brown on upperparts. They Favors fresh marshes with tall reeds and other vegetation. Often more retiring than Gray Heron and rarely seen in open situations. The purple heron is a wide-ranging species of wading bird in the

heron family, Ardeidae. It is similar in appearance to the more common grey heron but is slightly smaller, more slender and has darker plumage. Both of them found in Himayat Bagh area.

9) Cattle Egret (*Bubulcus ibis*)



Small, compact white heron with relatively short yellow bill. More frequently seen in dry habitats than other egrets, rarely gets its feet wet. In breeding season, look for pale salmon color on head and breast and brighter bill. Leg color varies from reddish or yellow during the breeding season to black during the nonbreeding season. Juveniles have dark bill. Cattle Egrets have relatively short, thick neck and short legs compared with other egrets. Widespread and fairly common across the globe. Frequently following cattles in fields. Availability of habitat & food they found in Himayat Bagh Garden area.

10) Indian pond heron or paddybird (*Ardeola grayii*)



A small heron that is common in most aquatic habitats across the Indian subcontinent. Adults in breeding plumage have a dark reddish brown back that contrasts with a yellowish head, neck, and breast. In nonbreeding plumage they are virtually indistinguishable from nonbreeding Pond-Heron. In flight, adults appear surprisingly white due to their strikingly white wings, underparts, and tail. Prone to seasonally local movements and vagrancy. Although typically solitary, large numbers often gather where food is plentiful. So they are found in the areas of Himayat Bagh.

11) Little Green Heron (*Butorides virescens*)



The green heron is relatively small. Adult body length is about 44 cm (17 in). The neck is often pulled in tight against the body. Adults have a glossy, greenish-black cap, a greenish back and wings that are grey-black grading into green or blue, a chestnut neck with a white line down the front, grey underparts and short yellow legs. The bill is dark with a long, sharp point. Female adults tend to be smaller than males, and have duller and lighter plumage, particularly in the breeding season. This bird observed in Himayat Bagh region during project study.

12) Night Heron (*Nycticorax nycticorax*)



The Night Herons are medium-sized herons, 58–65 cm. The genus name *Nycticorax* derives from the Greek for “night raven” and refers to the largely nocturnal feeding habits of this group of birds, and the croaking crow-like call of the best known species, the black-crowned night heron. Adults are shortnecked, short-legged, and stout herons with a primarily brown or grey plumage, and, in most, a black crown. Young birds are brown, flecked with white. Due to its nocturnal feeding habits Night Herons found in Himayat Bagh.

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13) Yellow Bittern (*Ixobrychus sinensis*)



Very small heron of marshy, well-vegetated water bodies. Adult pale orangish brown or yellow, depending on the light, with a narrow dark cap. Juvenile darker above with pale feather edges. Yellow Bittern can be inconspicuous in dense vegetation, but frequently makes short flights. When they fly dark flight feathers contrasting with pale yellowish wing coverts. This bird is typically quiet, but occasionally gives harsh grating calls when flushed. This is a small species at 36 to 38 cm (14 to 15 in) in length, with a short neck. Due to well vegetated water bodies this bird found in Himayat Bagh.

14) Painted Stork (*Mycteria leucocephala*)



The painted stork is a large wader in the stork family. Their distinctive pink tertial feathers of the adults give them their name. They forage in flocks in shallow waters. They immerse their half open beaks in water and sweep them from side to side and snap up their prey of small fish that are sensed by touch. They are not migratory and only make short distance movements in some parts of their range in response to changes in weather or food availability or for breeding. They found in Himayat Bagh cause they nest colonially in trees.

15) White-necked Stork (*Ciconia episcopus*)



The woolly-necked stork or white-necked stork is a large wading bird in the stork family Ciconiidae. It breeds singly, or in small loose colonies. It is distributed in a wide variety of habitats including marshes in forests, agricultural areas, and freshwater wetlands. The woolly-necked stork is a medium-sized stork at 75–92 cm tall. The iris is deep crimson or wine-red. The stork is glistening black overall with a black "skull cap", a downy white neck which gives it its name. The lower belly and under-tail coverts are white. Along with other wading birds this bird found in Himayat Bagh.

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16) Glossy Ibis (*Plegadis falcinellus*)



The glossy ibis is a water bird in the order Pelecaniformes and the ibis and spoonbill family Threskiornithidae. This is the most widespread ibis species, breeding in scattered sites in warm regions. Glossy ibises undertake dispersal movements after breeding and are highly nomadic. Numbers of glossy ibis in western India varied dramatically seasonally with the highest numbers being seen in the winter and summers. Due to its scattered breeding sites this bird found in Himayat Bagh.

17) Red-naped Ibis or Black Ibis (*Pseudibis papillosa*)



A medium-sized ibis with a dark body, often showing a bluish-green sheen. The crown and nape are covered in bright red warts. A white patch is usually visible near the shoulder of the wing. The bill is long and downcurved.

This species can be confused with the similar-looking Glossy Ibis, but Glossy Ibis is smaller and lacks the red warts and white shoulder patch. In flight, the legs of Red-naped Ibis don't extend beyond the tail, unlike in Glossy Ibis. Red-naped favors drier habitats that's why black ibis found in Himayat Bagh.

18) Crested/Oriental honey buzzard (*Pernis ptilorhynchus*)



A large raptor of lowland and montane broadleaf and mixed forests, this species is well-known for its tendency to congregate in large flocks of up to thousands during migration. While showing considerable plumage variation throughout its range, the combination of an unusually small and slender head, long striped tail, broad wings, and well-stripped underwings make this species fairly recognizable across a wide area. True to its name, this species is a raider of wasp and bee nests, although it prefers bee and wasp larvae over their honey.

The crested honey buzzard (*Pernis ptilorhynchus*) is a bird of prey in the family Accipitridae, which also includes many other diurnal raptors such as kites, eagles, and harriers. This species is also known as the Oriental honey buzzard. It is a specialist feeder, living mainly on the larvae of social bees and wasps, and eating bits of comb and honey it takes other small insect prey such as cicadas.

It appears long-necked with a small head (resembling that of a pigeon), and soars on flat wings. The head lacks a strong superciliary ridge, giving it a facial appearance very unlike a raptor. It has a long tail and a short head crest. The male has a blue-grey head, while the female's head is brown. She is slightly larger and darker than the male. The male has a black tail with a white band. Because of food availability Crested/Oriental honey buzzard found in Himayat Bagh.

19) Black-winged kite (*Elanus caeruleus*)



The black-winged kite, also known as the black-shouldered kite. This kite is distinctive, with long wings, white, grey and black plumage and owl-like forward-facing eyes with red irises. Although mainly seen on plains, they are sometimes seen on grassy slopes of hills. They are not migratory, but show nomadism in response to weather and food availability. The long falcon-like wings extend beyond the tail when the bird is perched & can found in Himayat Bagh.

20) Black Kite (*Milvus migrans*)



Medium-sized bird, rather nondescript raptor with overall dark plumage. Slightly forked tail, the fork disappearing when the tail is fully open. Head and neck are short. The juvenile is paler with a pale panel on upperwings and a dark mask around the eyes. Flight style buoyant, gliding and changing direction with ease. Commonly found in urban areas, rubbish dumps, aquatic habitats, grassland. May be found solitarily but also in large flocks on migration and at good feeding areas like Himayat Bagh.

21) Brahminy Kite (*Haliastur indus*)



The brahminy kite, formerly known as the red-backed sea-eagle. is a medium-sized bird of prey in the family Accipitridae. The brahminy kite is distinctive and contrastingly coloured, with chestnut plumage except for the

white head and breast and black wing tips. In some rare instances, they have been seen to nest on the ground under trees. It is primarily a scavenger, feeding mainly on dead fish and crabs, but occasionally hunts live prey such as hares and bats, because of prey availability this bird is found in Himayat Bagh.

22) Short-toed snake eagle/ Short-toed eagle (*Circaetus gallicus*)



This bird is large, slightly ungainly raptor with long and very broad wings, a shortish tail, and a conspicuously big head. Pale belly and underwings contrast with the darker head in most adults, but juveniles have pale heads. All age groups have a tendency to look a bit disheveled. Like perched birds they look for the owl-like face and unfeathered legs. Hunts over open areas, spending lots of time hovering with rowing wingbeats into the wind. They can be recognised in the field by their predominantly white underside, the upper parts being greyish brown & can be spotted in Himayat Bagh garden area.

23) Shikra (*Accipiter badius*)



A common, widespread resident across Asia and Africa. Adult males have a reddish iris, blue gray upperparts and fine brownish-orange barring on underparts. Females have a yellowish iris and brownish gray upperparts. Both have narrow dark barring on the tail. Juveniles are browner with a prominent moustachial stripe and streaked underparts. It hunts for a wide variety of prey in woodland, savannah, and even suburban gardens, dashing out from perches within vegetation to grab its prey.

The shikra is very similar in appearance to other sparrowhawk species. They have a sharp two note call and have the typical flap and glide flight. Their calls are imitated by drongos and the common hawk-cuckoo resembles it in plumage. The shikra is a small raptor (26–30 cm long) and like most other Accipiter hawks, this species has short rounded wings and a narrow and somewhat long tail. The shikra is found in a range of habitats including forests, farmland and urban areas. They are usually seen singly or in pairs.

They feed on rodents, squirrels, small birds, small reptiles (mainly lizards but sometimes small snakes) and insects. Small birds usually dive through foliage to avoid a shikra and a Small Blue Kingfisher has been observed diving into water to escape. Babblers have been observed to rally together to drive away a shikra. They will descend to the ground to feast on emerging winged termites, hunt at dusk for small bats (such as *Cynopterus sphinx* and in rare instances they may even resort to feed on carrion.

24) White-eyed Buzzard (*Butastur teesa*)



A slim brown buzzard with a distinct white iris. Adults have a white throat with a prominent dark stripe, yellow base of the bill, and rufous tail. Dark tips to wing feathers are clearly visible in flight. Often shows a white patch on its nape. Juveniles have a buffy head and brown iris. The usual habitat is dry, open country or forest, where it mainly feed on insects, rodents, and small mammals. This species is most often seen soaring alone in thermals or perched still. Groups of two or three may sometimes be seen in Himayat Bagh.

25) Bonelli's eagle (*Aquila fasciata*)



Medium-sized, athletically proportioned eagle, with a whitish body contrasting with dark wings and tail. Juveniles have a rufous rather than pale body and lack the adult's broad dark band at the tip of the tail. Found in forests or mountains, sometimes in more open habitats in winter, but usually in remote areas. Builds nests in cliffs, ledges, or caves. Distinctive in flight and narrow wing where it meets the body. The Bonelli's eagle is powerful & they mostly occur in fairly arid habitats and in quite sunny areas like Himayat Bagh.

26) Booted Eagle (*Hieraetus pennatus*)



A medium-sized buzzard-like raptor but still unmistakably eagle-shaped, with long fingered primary flight feathers, a long square-shaped tail, and feathered legs (boots) prominent when perched. This is a species of wooded, often hilly countryside with some open areas, it breeds in rocky, broken terrain

but migrants will use almost any type of habitat other than dense forest that's why they found in Himayat Bagh Garden area.

27) Common Kestrel (*Falco tinnunculus*)



Small falcon with distinctive male plumage gray head, rusty back, gray tail with broad black tip. Female is brownish above, barred on back, wings, and tail. They have rather pointed wingtips (unlike rounded wings of sparrowhawks and Shikra), and distinct dark spotting on breast. Often seen over rough grassland beside roads. Perches on wires and posts, and typically hunts by hovering, at times fairly high overhead. They found fairly common in open and lightly wooded region, farmland, area like Himayat Bagh.

28) Red-necked/headed falcon (*Falco chicquera*)



A rather small but powerful falcon with fast and direct flight. It has a rufous crown, nape, and moustachial stripe. A wide yellow eye-ring is quite distinct. Its upperparts are pale gray, and fine barring adorns its white underparts, which are sometimes suffused with gray. This bird of the open country mostly hunts birds on the wing, targeting its prey from a perch, often bringing it down quite close to the ground. This bird is found in Himayat Bagh due to its perching habit and requirement of open land.

29) Shaheen Falcon (*Falco peregrinus peregrinator*)



The shaheen falcon is a non-migratory subspecies of the peregrine falcon found mainly in the Indian subcontinent. The shaheen is a small and powerful-looking falcon with blackish upperparts, rufous underparts with fine, dark streaks, and white on the throat. The male is about the size of a house crow (*Corvus splendens*) whereas the female is larger. Complete black face mask of Shaheen falcon is sharply demarcated from the white throat. The bird is nonmigratory & hence found in Himayat Bagh.

30) Painted Francolin or Painted Partridge (*Francolinus pictus*)



Boldly patterned francolin with conspicuous white spotting on the underparts and upperparts. Endemic to peninsular India and Sri Lanka. Occurs in cultivated and open habitat with scattered trees and dense undergrowth where it remains hidden most of the year. Commonly detected in the late summer and monsoon by its repeated, grating, and high-pitched calls. Territorial males are occasionally seen calling from raised open perches including treetops of the trees which are present in the Himayat Bagh area.

31) Grey Francolin (*Ortygornis pondicerianus*)



A small gamebird with an orangish face and fine barring throughout. Males and females are similar. Occurs in open grassy areas such as dry grasslands, scrub, and agricultural land. Often found in groups. Call, sometimes given simultaneously by several birds, is a loud repetitive. Native to South Asia.

They are mainly ground-living birds and are found in open cultivated lands as well as scrub forest and their local name of teetar is based on their calls. The only similar species is the painted francolin, which has a rufous vent. The grey francolin is normally found foraging on bare or low grass covered ground in Himayat Bagh. The main breeding season is April to September.

32) Common Quail (*Coturnix coturnix*)



Small pear-shaped bird. Breeds in taller grassland and grain fields. When flushed, explodes from underfoot and flies off strongly with whirring wingbeats and short glides. Plumage cryptic and streaky brown with pale eyebrow male has black throat stripe. The female is generally slightly heavier than the male.[9] It is streaked brown with a white eyestripe, and, in the male, a white chin. This is a terrestrial species, feeding on seeds and insects on the ground & because of food and hiding places this bird found in Himayat Bagh.

33) Rain Quail or Black-breasted Quail (*Coturnix coromandelica*)



Streaky, small football-shaped bird, most often seen in flight as it flushes from almost underfoot. Male unmistakable, with natty black-and-white face pattern and triangular black splotch on the chest that resembles spilled paint. Female very similar to Common distinguished by range and by proximity to a male. Inhabits grassy, open areas such as farmland, meadows, and grasslands. Disperses after breeding, occasionally to higher elevations. The rain quail feeds on seeds of grasses and other plants, insect larvae and small invertebrates & that's why they found in Himayat Bagh.

34) Rock Bush Quail (*Perdicula argoondah*)



A squat and rotund bush-quail. Males have a dull chestnut forecrown and face, a thin white eyebrow over a dark brown eyeline that broadens behind the eye. Lightly barred brown above and boldly barred in black and white below.

Females have a similar but duller head pattern with vinaceous underparts without barring. This bird has the slaty gray bill and orange legs. Found in pairs in Himayat Bagh or family groups in dry rocky areas with scrub. IUCN has rated it as being of "least concern".

35) Indian peafowl (*Pavo cristatus*)



An unmistakable, large ground bird. The unmistakable iridescent blue male spreads out its ornamental upper tail feathers when courting females.

Females have a shorter tail, an iridescent green neck, and browner plumage. Found in forest, forest edge, and agricultural land. Often seen on paths or alertly feeding in the undergrowth. Can be fairly confident especially when found close to human habitation. Due to many trees the rain is heavier & that's the reason that Indian Peafowl is a prominent bird found in Himayat Bagh.

36) Barred Buttonquail or Common Bustard-Quail (*Turnix suscitator*)



Tiny rotund, short-tailed bird, scarcely larger than a sparrow, like a diminutive partridge or quail but only distantly related. Brown with scaly streaking above, extensive black barring on the chest (more extensive on the female), and rich tawny flanks. Extremely difficult to detect, moving about invisibly in dense weedy vegetation in fields, forest edges, and farmland. Flying birds have whirring flight, show contrast between dark flight feathers and paler coverts. Due to dense vegetation barred buttonquail found in Himayat Bagh.

37) Water Rail (*Rallus aquaticus*)



Shy but generally not uncommon, this reclusive marsh bird is more often heard than seen, listen for its varied piglike squeals and grunts coming from dense vegetation. Favors fresh marshes and ponds with taller vegetation,

especially reeds and rushes in winter and freezing weather, sometimes in tidal marshes. They found in Himayat Bagh cause these rails are vulnerable to flooding or freezing conditions, loss of habitat and predation by mammals.

38) White-breasted Waterhen (*Amaurornis phoenicurus*)



Medium-sized, fairly common chickenlike marsh bird found in meadows, ditches, riversides, marshes, as well as parks and farmlands in close proximity to humans. Often seen foraging in the open. Adults are dark slaty above and white below, with a rusty patch under the tail. Juvenile similar but duller in color. These birds are usually seen singly or in pairs as they forage slowly along the edge of a waterbody mainly on the ground but sometimes clambering up low vegetation in Himayat Bagh.

39) Brown Crake (*Amaurornis akool*)



A round, softly-colored inhabitant of rice fields, wet shrubby areas, and reedbeds. Despite its use of sheltered habitats, this is one of the bolder rails, and can be seen wandering in the open. The upperparts are brown and the face, breast, and belly are gray. Constantly cocks tail upwards and downwards as it forages. The brown crake (*Zapornia akool*), or brown bush-hen, is a waterbird in the rail and crake family (Rallidae). Yellow-based bill is also often surprisingly visible even when hidden in vegetation areas like Himayat Bagh.

40) Purple swamphen (*Porphyrio porphyrio*)



A very large bluish-purple gallinule with a red bill and forehead shield and red legs and feet with long toes. The tail is flicked up often, revealing fluffy white “underpants.” Juveniles are duller than adults and lack the red bill and shield. A common inhabitant of marshy, vegetated freshwater bodies such as swamps, rivers, and lakes; usually in small groups. Feeds, often clumsily, at muddy water edges, in reeds, and on floating vegetation. Availability of vegetation this bird found in Himayat Bagh. Makes short nasal grunts and croaking sounds.

41) Common moorhen (*Gallinula chloropus*)



The common moorhen also known as the waterhen or swamp chicken, is a bird species. It is distributed across many parts of the Old World. The common moorhen lives around well-vegetated marshes, ponds, canals and other wetlands. The word 'moor' here is an old sense meaning 'marsh' the species is not usually found in moorland. An older name, common waterhen, is more descriptive. The moorhen is a distinctive species, with dark plumage apart from the white undertail, yellow legs and a red frontal shield. The young are browner and lack the red shield.

42) Eurasian coot (*Fulica atra*)



Common on lakes, reservoirs, and slow-moving watercourses, in fresh and brackish marshes, and occasionally on saltwater. Breeding pairs aggressively territorial but nonbreeding flocks can number in hundreds. Often out on open

water and dives readily, also feeds by upending or grazing on grassy shore. Adult is distinctive slaty black overall with white bill and forehead shield. Immature has duller bill. When walking on shore, big feet with lobed toes. Due to waterbodies they are found at Himayat Bagh.

43) Pheasant-tailed Jacana (Hydrophasianus chirurgus)



An eye-catching waterbird found on lakes and ponds with extensive floating vegetation. Long-tailed breeding adults are striking, the large white wing patch and head contrast sharply with its black body and bright yellow neck patch. Short-tailed wintering adults and juveniles have a brown back, white underparts, and a toned-down version of the breeder's head pattern. Vocalizations include a variety of nasal clucking and purring calls; song, seldom heard, a repeated, ringing "ku-woo." Jacanas found in Himayat Bagh because of floating vegetation.

44) Greater painted-Snipe (*Rostratula benghalensis*)



A medium-sized, stunningly plumaged shorebird of grassy fields and marshes. Both sexes have a bright white “comma” around the eye and white underparts that extend up in an arc above the shoulder. The female has a bright reddish-brown head and greenish-tinged back and wings the more cryptically colored male has a light brown head and brown upperparts dappled with orange and tan spots, thus more similar to snipe. Displaying female gives a series of owl-like hoots. They are found in Himayat Bagh Solitary or in pairs, sometimes in groups of up to 12.

45) Little ringed Plover (*Charadrius dubius*)



Delicately built small plover with bright yellow eyerings. Note dull pinkish legs and large white forehead patch (in adults). Plumage much like bulkier Ringed Plover, but white eyebrow continues unbroken across forehead.

In flight shows narrow, indistinct whitish wing stripe. Migrants occur in wide variety of fresh and brackish wetland habitats, but rarely out on open tidal areas. Clipped “peu” call quite distinct from call of similar Common Ringed Plover. Breeds on stony substrates around lakes, gravel pits etc. so because of breeding grounds they found in Himayat Bagh region.

46) Yellow-wattled Lapwing (*Vanellus malabaricus*)



Elegantly long-winged brown lapwing. Breeding adult has clean black cap, bright yellow facial wattles, and a white belly. Non-breeding adults and juveniles are more mottled overall and lack a solid black cap. They consist of Contrasting wing and tail pattern when in flight. Prefers dry open areas, often well away from water. Gives a loud rasping tern-like call and a loud “cheeeee’it” in alarm; generally not as noisy as other lapwings. Although they do not migrate, they are known to make seasonal movements in response to rains & that’s why they found in Himayat Bagh.

47) Red-wattled Lapwing (*Vanellus indicus*)



A distinctly marked lapwing with a black breast and throat and a red bill with a black tip. It also sports red wattles in front of the eyes and a white patch that runs down the cheeks to the underparts. In flight, the black flight feathers that contrast with the white wing patch. Usually found in small groups around water bodies, agricultural fields, and dry land. They feed primarily on insects, catching them in a typical plover like manner, running a short distance and picking up food from ground. Because of feeding & breeding grounds they found in Himayat bagh.

48) Common Snipe (*Gallinago gallinago*)



Fairly common in wetland habitats from damp meadows to saltmarshes. Mostly inconspicuous, feeding in muddy ground by probing with its very long bill, usually near reeds or other grassy cover. Often not seen until flushed, when

usually rises from fairly close range with rough rasping call. Breeding birds are more conspicuous, perching on fence posts. Cryptic, stripy plumage, very long bill. The common snipe is a well camouflaged bird, it is usually shy and conceals itself close to ground vegetation that's why they found in Himayat Bagh.

49) Black-tailed Godwit (*Limosa limosa*)



Gregarious medium-sized wader with a long, slightly uptilted bill. The very long, pink-based bill. Breeding plumage has bright rusty head and breast, dark barring on belly, nonbreeding plumage has rather plain grayish head, breast, and upperparts, unlike streaked breast and back of Bar-tailed Godwit. In flight shows bold white wing stripe, white rump, and black tail. Fairly common but often local, breeds in grassy wetlands, and found year-round in fresh and brackish marshes. Feeds mainly by wading in deep water, probing with its long bill & it is found in the areas of Himayat Bagh.

50) Common Redshank (*Tringa totanus*)



Stocky brown wader with bright red legs compare with slenderer, far more gracile Spotted Redshank in juvenile and non-breeding plumage. Often rather wary, alerting other birds with its loud, fluty, whistled calls. Bobs tail when nervous, and then flies to show flashy white trailing edge to wings, white rump patch. Feeds in muddy shallows, probing and picking with its bill. Inhabits fresh and coastal wetlands also breeds on moorland, usually near water. Availability of food, shelter & breeding grounds they found in Himayat Bagh Garden area.

51) Marsh Sandpiper (*Tringa stagnatilis*)



Slender pale sandpiper with a fine, needle-like bill. The overall slim and elegant shape, with very long and slender greenish legs. In flight appears dark

above with broad white stripe up middle of back, long legs project well past tail tip. Usually found singly or mixed in with other waders in varied fresh to brackish wetland habitats, usually with open water. Repetitive mellow calls, but rather monotone and with a sharper quality. Feeds by wading in water, picking with its bill & that's why they found in Himayat Bagh area.

52) Green Sandpiper (*Tringa ochropus*)



Dark brown sandpiper with a snowy white belly in flight looks black above with boldly contrasting white rump. Bobs tail when nervous, but not habitually like Common Sandpiper. Often climbs steeply when flushed and flies quickly with deep wingbeats, swooping around a little like a swallow. Breeds in clearings and marshes in wet forest and woodland, migrants occur in fresh and brackish wetland habitats, especially on muddy shores of lakes and small ponds. Mainly found as singles or small groups, not mixed with other species.

In addition, both species nest in trees, unlike most other scolopacids. This is not a gregarious species, although sometimes small numbers congregate in

suitable feeding areas. Green sandpiper is very much a bird of freshwater, and is often found in sites too restricted for other waders, which tend to like a clear all-round view. The green sandpiper breeds across subarctic Europe and east across the Palearctic and is a migratory bird, wintering in southern Europe, the Indian Subcontinent, Southeast Asia, and tropical Africa.

Food is small invertebrate items picked off the mud as this species works steadily around the edges of its chosen pond. The green sandpiper represents an ancient lineage of the genus *Tringa* its only close living relative is the solitary sandpiper (*T. solitaria*). They both have brown wings with little light dots and a delicate but contrasting neck and chest pattern. They look out for it feeding around marshes, flooded gravel pits and rivers.

Availability of pond fulfil their food requirement. Places for feeding, nesting are there in Himayat Bagh Garden area & that's why Green Sandpipers found at the place & which was noted during the Project Study based on Diversity in Himayat Bagh region under the category of Bird Diversity.

53) Common Sandpiper (*Actitis hypoleucos*)



Small bicolored sandpiper which often bobs its tail in a distinctively wagtail-like manner. Plain brown with white underparts distinguished from

bulkier and rounder-headed Green Sandpiper by a prominent white spur at the shoulder. Found in a variety of wetland habitats breeds on stony ground along rivers and lakeshores, with migrants occurring on muddy and rocky substrates from concrete canal banks to channels in tidal mudflats. Mainly found as singles or in small groups, not in flocks or mixed with other species. Breeding grounds is the reason that they found in Himayat Bagh.

54) Little Stint (*Calidris minuta*)



Tiny shorebird with extensive range across Europe, Africa, and Asia. All ages show dark legs and a straight, fine-tipped bill. Adults in breeding plumage are variably flushed with bright rusty orange on the head, neck sides, and upperparts, usually brightest in mid- to late-summer. Juveniles are typically quite bright and neatly patterned above. Nonbreeding birds rather plain pale gray. Found in fresh and brackish wetland habitats. Occurs locally in flocks elsewhere singles travel with flocks of other waders in Himayat Bagh.

55) Temminck's stint (*Calidris temminckii*)



Breeds on wet moorland mainly in Scandinavia and Russia migrants occur in wide variety of wetland habitats across Africa and southern Asia. Found mainly as singles or small groups, locally in flocks. Often keeps apart from other shorebirds, feeding quietly at marshy and muddy edges in or adjacent to cover. Very small size, rather plain plumage (limited bright marks on back of breeding adults), greenish-yellow legs. In flight, sides of tail flash bright white, unlike grayish of Little Stint.

Temminck's stint (*Calidris temminckii*) is a small wader. These birds are very small waders, at 13.5–15 cm (5.3–5.9 in) length. They are similar in size to the little stint (*Calidris minuta*) but shorter legged and longer winged. These birds forage in soft mud with some vegetation, mainly picking up food by sight. They have a distinctive mouse-like feeding behaviour, creeping steadily along the edges of pools. They mostly eat insects and other small invertebrates. They not as gregarious as other *Calidris* waders, and rarely form large flocks.

Temminck's stint mainly eats Insects and larvae, worms, crustaceans and molluscs. This species has an extremely large range, and hence does not approach the thresholds for Vulnerable under the range size criterion (Extent of Occurrence <20,000 km² combined with a declining or fluctuating range size,

habitat extent/quality, or population size and a small number of locations or severe fragmentation). The population trend is not known, but the population is not believed to be decreasing sufficiently rapidly to approach the thresholds under the population trend criterion (>30% decline over ten years or three generations).

The population size is very large, and hence does not approach the thresholds for Vulnerable & that's why they found in Himayat Bagh.

56) Ruff (*Calidris pugnax*)



A bizarre and unique shorebird. Medium-sized with fairly short, slightly drooped bill. Leg color varies from dull greenish to bright orange bill can be entirely dark or mostly orange. Plumage highly variable, especially breeding males, which have fancy neck ruffs that can be black, white, buffy, reddishbrown, or any combination thereof. Females and nonbreeding birds can be confusing, usually plain grayish-brown overall, sometimes with blotchy markings on the neck and belly. Breeds in bogs and wet grassy meadows just like Himayat Bagh.

57) Black-winged Stilt (*Himantopus himantopus*)



Fairly common to locally common in warmer regions. Favors wetlands with open shallow water, often brackish, breeds on bare ground near water, often in noisy colonies. Striking and essentially unmistakable, with elegant shape, boldly pied plumage, long hot-pink legs, and long, very fine bill. Feeds by wading in water, picking with its bill from the water surface. In flight, long pink legs stick out far beyond tail. These birds pick up their food from sand or water. They eat mainly insects and crustaceans that's why they found in Himayat Bagh.

58) Small Pratincole (*Glareola lactea*)



Small bird that resembles a combination of a dove, a swallow, and a plover. Soft gray-brown with a tan wash on the throat and black lores. Black and white wing pattern prominent in flight. Flight agile and erratic, resembling a bat

or swallow frequently flies in flocks at dusk. Favors rocky or sandy islands in rivers, but can also be found in marshes, estuaries, and lakesides. Distinguished from other pratincoles in range by smaller size and gray plumage.

Calls are a high rolling “chirrit!”, reminiscent of terns.

This species is only 16.5-18.5 cm in length, with a 42–48 cm wingspan. Because of its small size, the small pratincole can be briefly confused in flight with swifts or swallows. The most unusual feature of the pratincoles is that although classed as waders they typically hunt their insect prey on the wing like swallows, although they can also feed on the ground. The small pratincole is a species of open country, and is often seen near water in the evening, hawking for insects.

The small pratincole, little pratincole, or small Indian pratincole (*Glareola lactea*), is a small wader in the pratincole family, Glareolidae. The small pratincole is a resident breeder in India, Western Pakistan, Bangladesh, Burma, Laos, Cambodia, Sri Lanka and Thailand. It breeds from December to March on gravel or sand banks near rivers and lakes, laying 2-4 eggs in a ground scrape.

This bird has short legs, long pointed wings and a short tail. Its short bill is an adaptation to aerial feeding. On the ground, it looks mainly pale grey (hence *lactea*, milky). The crown of the head is brown. Due to its adaptation in feeding habits the bird found in Himayat Bagh.

59) River Tern (*Sterna aurantia*)



Widespread inland tern of South and mainland Southeast Asia. Breeding adults have full black cap and pale gray wings, white belly, larger size, and heavier structure distinguishes this species from the less common Black-bellied Tern where their breeding ranges overlap. Non-breeding adult has patchy black on the head instead of a full cap, and juvenile has mottled brownish-gray back with a partial black “mask”. Favors freshwater sites, breeding on sandy islands. Due to availability of fresh water this bird found in Himayat Bagh.

60) Whiskered Tern (*Chlidonias hybrida*)



Small buoyant tern. Breeding adult has distinctive dark smoky gray body and contrasting white cheeks (can look like broad white "whiskers" in flight) underneath a black cap. Nonbreeding plumage pale silvery gray overall with a faded shadow of the cap juvenile has dark-checked back, rather stout bill

(albeit thinner than Gull-billed Tern) and square tail. Feeds by picking from surface, not splash-diving like typical terns. Common around wetlands, lakes, and rivers. This is the bird mostly found in Himayat Bagh.

61) Rock Pigeon (*Columba livia*)



Fairly large pigeon with wild and feral populations throughout the world. True wild birds nest on cliffs and in caves from western Europe to central Asia. Pale gray overall with two bold black wingbars and iridescent purple and green on neck. Feral varieties are common in cities and farmland, often in large flocks. Variable plumage some identical to wild-type birds, but can be completely black, white, or orangey-brown and any combination in between.

The rock dove, rock pigeon, or common pigeon is a member of the bird family Columbidae (doves and pigeons). In common usage, it is often simply referred to as the "pigeon". Habitats include various open and semi-open environments. Cliffs and rock ledges are used for roosting and breeding in the wild. It has a dark bluish-grey head, neck, and chest with glossy yellowish, greenish, and reddish-purple iridescence along its neck and wing feathers.

The iris is orange, red, or golden with a paler inner ring, and the bare skin round the eye is bluish-grey. Rock doves have a commensal relationship

with humans, gaining both ample access to food and nesting spots in civilized areas. Human structures provide an excellent imitation of cliff structures, making rock doves very common around human habitation. The rock dove breeds at any time of the year, but peak times are spring and summer.

Nesting sites are along coastal cliff faces, as well as the artificial cliff faces created by apartment buildings with accessible ledges or roof spaces.

Pigeon is a common bird & hence found in Himayat Bagh area.

62) Oriental Turtle Dove or Rufous Turtle Dove (*Streptopelia orientalis*)



A dove with attractive plumage rufous-scaled scapulars and wing coverts, dusky underparts, and a black-and-white striped patch on the side of its neck made of silver-tipped feathers. There is a considerable variation in plumage in different subspecies. The southernmost populations are resident while the others migrate down south during winter. Breeds in open lowland woods and

copses with rich undergrowth. Rather shy and keep well hidden in the tree canopy because of many trees & nesting sites dove found in Himayat Bagh. Call is two hoarse notes followed by two clear notes "hr-hr oo-oo."

63) Laughing Dove / Little Brown Dove (*Streptopelia senegalensis*)



Small brown bird. Tail is strikingly long with white corners and a grey center, but is all white underneath. Its body is pastel shades of brown and pink with a spotted black collar. Usually associated with human-modified landscapes, such as plantations, gardens, and urban areas as long as some trees are present. The call is a repetitious "coo- coo coo ru" replicated 5–8 times. The bird is found in Himayat Bagh vicinity cause it consist of many trees.

64) Spotted Dove (*Spilopelia chinensis*)



A common garden bird throughout much of Asia, found in open forests, fields, and parks, introduced to several regions around the world. Often tame

and approachable. Brown overall with a rosy breast and a unique white-spotted black nape patch. Plumage shows slight regional variation. Western birds have dark centers to wing feathers, lacking in eastern birds. Turtle-doves are larger, have black centers to wing feathers and stripes rather than spots on the neck. Coos loudly and often: “coo-a-roooo”.

The spotted dove (*Spilopelia chinensis*) is a small and somewhat longtailed pigeon that is a common resident breeding bird across its native range on the Indian subcontinent and in Southeast Asia. The species has been introduced to many parts of the world and feral populations have become established.

There are considerable plumage variations across populations within its wide range. The species is found in light forests and gardens as well as in urban areas.

They fly from the ground with an explosive flutter and will sometimes glide down to a perch. It is also called the mountain dove, pearl-necked dove, lace-necked dove, and spotted turtle-dove. The spotted dove in its native range in Asia is found across a range of habitats including woodland, scrub, farmland and habitation. In India it tends to be found in the moister regions, with the laughing dove (*S. senegalensis*) appearing more frequently in drier areas. These doves are mostly found on the ground where they forage for seeds and grain or on low vegetation.

Spotted doves move around in pairs or small groups as they forage on the ground for grass seeds, grains, fallen fruits and seeds in Himayat Bagh.

65) Eurasian collared dove (*Streptopelia decaocto*)



Large pale dove with a black crescent on the nape. Slightly smaller and paler than Rock Pigeon, with a proportionately longer, square-tipped tail. Favors farms and suburbs avoids areas with extensive forests. Typically seen in pairs or small loose groups forms larger flocks in winter. It is a medium-sized dove, distinctly smaller than the wood pigeon, similar in length to a rock pigeon.

Eurasian collared doves typically breed close to human habitation wherever food resources are abundant and there are trees for nesting like in Himayat Bagh.

66) Yellow-footed Green Pigeon (*Treron phoenicopterus*)



Brightly-colored pigeon with significant regional variation. They have for a gray “shoulder strap” and yellow legs. Southeast Asian birds have more extensive gray on the underparts. Sexes are similar. Found in lowland forest and

forest edge. The yellow-footed green pigeon (*Treron phoenicopterus*), also known as yellow-legged green pigeon, is a common species of green pigeon found in Himayat Bagh & the Indian subcontinent. It is the state bird of Maharashtra.

67) Rose-ringed Parakeet (*Psittacula krameri*)



Vibrantly bright green parakeet, frequently found in woodland, parks, gardens, where feeds mainly in trees. Nests in cavities, including holes in buildings. Easily overlooked if quiet, as the bright green plumage blends easily with foliage, the very long slender tail, bright red bill. Male has narrow black and red neck ring. Like other parakeets, raucous and social, often appearing in noisy groups. One of the few parrot species that have successfully adapted to living in disturbed habitats, it has withstood the onslaught of urbanisation and deforestation.

As a popular pet species, escaped birds have colonised a number of cities around the world. In the wild, rose-ringed parakeets usually feed on buds, fruits, vegetables, nuts, berries, and seeds. Wild flocks also fly several miles to forage in farmlands and orchards, causing extensive damage. Feral parakeets will regularly visit gardens and other locations near human habitation, taking food

from bird feeders. In India, they feed on cereal grains, and during winter also on pigeon peas.

In captivity, rose-ringed parakeets will take a large variety of food and can be fed on a number of fruits, vegetables, pellets, seeds etc. Both males and females have the ability to mimic human speech. First, the bird listens to its surroundings, and then it copies the voice of the human speaker. So the large tree diversity, Plenty amount of food, habitat availability, breeding & feeding grounds, healthy atmosphere in Himayat Bagh region supports parakeet population & that's why many variety of birds including Rose-ringed Parakeet found in in this diverse region in Aurangabad city.

68) Plum-headed Parakeet (*Psittacula cyanocephala*)



A brilliantly-colored parakeet males have a plum-colored head while females have grayish-blue head. Endemic to the Indian subcontinent where it can occur in any well-wooded area. The plum-headed parakeet is a parakeet in the family Psittacidae. Plum-headed parakeets are found in flocks, the males having a pinkish purple head and the females, a grey head. They fly swiftly with twists and turns accompanied by their distinctive calls. The plum-headed parakeet is a bird of forest and open woodland, even in city gardens like Himayat Bagh.

69) Greater coucal or Crow pheasant (*Centropus sinensis*)



The greater coucal is a widespread resident in the Indian Subcontinent and Southeast Asia. They are large, crow-like with a long tail and coppery brown wings and found in a wide range of habitats from jungle to cultivation and urban gardens. They forage for insects, eggs and nestlings of other birds. The eyes are ruby red. larger. The greater coucal is a large bird which takes a wide range of insects, caterpillars, snails and small vertebrates such as the Saw-scaled vipers. They are also known to eat bird eggs, nestlings, fruits and seeds in Himayat Bagh.

70) Sirkeer Malkoha or Sirkeer Cuckoo (*Taccocua leschenaultii*)



Gray-brown cuckoo with a uniquely hooked red bill. Teardrop-shaped dark patch around each eye gives it a distinctly fashionable, elegant appearance. Forages on or close to the ground in the dense undergrowth of dry forests and scrubby areas. Scurries or flaps laboriously away when disturbed. They forage singly or in pairs mainly on or close to the ground creeping between grasses and bushes, often on rocky habitats where they feed on small lizards, insects, and sometimes berries and seeds in Himayat Bagh.

71) Asian koel (*Eudynamys scolopaceus*)



The Asian koel is a member of the cuckoo order of birds, the Cuculiformes. It is found in the Indian Subcontinent. The Asian koel is a large and long-tailed cuckoo measuring 39–46 cm and weighing 190–327 g. The male of

the nominate race is glossy bluish-black, with a pale greenish grey bill, the iris is crimson, and it has grey legs and feet. The female of the nominate race is brownish on the crown and has rufous streaks on the head. Due to food, nesting & breeding availability they found in Himayat Bagh.

72) Grey-bellied Cuckoo (*Cacomantis passerinus*)



Rather small cuckoo of open forests and forest edge. Typical adult is gray all over with a white lower belly and undertail . Some females are “hepatic” and are ginger-orangish with black barring on the back and on the undersides. Song is a high, fading “ki-keeeer...” often given either very early or very late in the day. Breeds in foothill and montane forests, but migratory individuals typically winter in lowlands.

The grey-bellied cuckoo or the Indian plaintive cuckoo (*Cacomantis passerinus*) is a cuckoo with widespread occurrence throughout Asia. The greybellied cuckoo is one of the smaller cuckoos, at a total length of about 23 cm. The juvenile resembles the female but is of a duller grey. It is a short-

distance migrant, since birds at more northerly latitudes and on higher ground are summer visitors, leaving for warmer areas in winter. The species prefers light woodland and cultivated areas.

The grey-bellied cuckoo is a brood parasite and uses warblers as hosts. It lays a single egg. Its diet consists of a variety of insects and caterpillars. Cuckoo birds of these cuckoo families are brood parasites. The chicks are raised by other birds' nests, where they lay their eggs. There are similarities in the size of the two cuckoo birds, as well as their juvenile appearances. According to the IUCN Red List of Endangered Species, the grey-bellied cuckoo (*Cacomantis passerinus*) is a Least Concern species. Due to food, nesting & availability they found in Himayat Bagh.

73) Common hawk-cuckoo (*Hierococcyx varius*)



A medium-sized bird that resembles a Shikra in plumage. Males have ashy-gray upperparts, white underparts with rufous streaking and barring, a broadly barred tail, and a distinct yellow eye rim. Females and juveniles are

browner with bolder streaking below. During their breeding season males produce a loud, repetitive three note call. Common Hawk-Cuckoos feed mainly on insects and are specialised feeders that can handle hairy caterpillars. The species is arboreal and rarely descends to the ground. Mainly a brood parasite of babblers. Found in gardens, groves, and deciduous and semi-evergreen forests.

Popularly known as the brainfever bird, is a medium-sized cuckoo resident in the Indian subcontinent. The resemblance to hawks gives this group the generic name of hawk-cuckoo and like many other cuckoos these are brood parasites, laying their eggs in nests of babblers. The common hawk-cuckoo is a medium- to large-sized cuckoo, about the size of a pigeon (34 cm). They have a distinctive yellow eye ring. Many small birds and squirrels raise the alarm just as they would in the presence of a hawk. Common hawk-cuckoos feed mainly on insects and are specialised feeders that can handle hairy caterpillars. Common hawk-cuckoos feed mainly on insects and are specialised feeders that can handle hairy caterpillars, presence of insects in Himayat Bagh common hawk cuckoos present over there.

74) Indian cuckoo (*Cuculus micropterus*)



Sleek and slender gray-and-white cuckoo. Adult is similar in size and coloration to Oriental, Himalayan, and Common Cuckoos, but dark eyes and darker back and wings. Juvenile patchy-looking, often showing a whitish crown and collar and white edging to the wing feathers. Favors forests, forest edges, and parklands. Lays its eggs in the nests of a wide range of birds, including magpies, shrikes, and drongos. So all these birds are there in Himayat Bagh that's why Indian cuckoo found over there.

75) Jacobin cuckoo (*Clamator jacobinus*)



Black-and-white cuckoo with a spiffy crest (also known as the “Jacobin Cuckoo” for its smartly attired appearance). Some southern African birds exhibit a dark morph all black with a white wing patch. Found in lowland and foothill open forests and plains, often in thorny growth. Lays its eggs in the nests of babblers, bulbuls, and shrikes. These cuckoos feed on insects including hairy caterpillars that are picked up from near or on the ground. Caterpillars are pressed from end to end to remove the guts before they are swallowed. They sometimes feed on fruits in Himayat Bagh area.

76) Common Barn-owl (*Tyto alba*)



The barn owl is the most widely distributed species of owl in the world and one of the most widespread of all species of birds, being found almost everywhere in the world. Barn owls specialise in hunting animals on the ground and nearly all of their food consists of small mammals, which they locate by sound, their hearing being very acute. Breeding takes place at varying times of the year, according to the locality, with a clutch of eggs, averaging about four in number, being laid in a nest in a hollow tree, old building, or fissure in a cliff.

The barn owl is a medium-sized, pale-coloured owl with long wings and a short, squarish tail. There is considerable size variation across the subspecies, with a typical specimen measuring about 33 to 39 cm in overall length, the length ranging from 29 to 44 cm. Barn owls have a typical wingspan of some 80 to 95 cm, with an extreme range of from 68 to 105 cm.

The barn owl is the most widespread landbird species in the world, except Antarctica. In general, it is considered to be sedentary and, indeed, many individuals, having taken up residence in a particular location, remain there even when better nearby foraging areas are available. Like most owls, the barn owl is nocturnal, relying on its acute sense of hearing when hunting in complete darkness. Rodents and other small mammals may constitute over ninety percent of the prey caught. Birds are also taken, as well as lizards, amphibians, and insects. Even when they are plentiful, and other prey scarce, earthworms do not seem to be consumed. Because of plentiful of food this bird found in Himayat Bagh.

77) Eurasian eagle-owl (*Bubo bubo*)



Eurasian eagle-owls are found in many habitats, but are mostly birds of mountainous regions often those near varied woodland edge and shrubby areas with openings or wetlands to hunt a majority of their prey. This eagle-owl is a mostly nocturnal predator, Predominantly, their diet is composed of small mammals such as rodents and rabbits, but they also prey on larger mammals and birds of varying sizes. Other secondary prey can include reptiles,

amphibians, fish, large insects and other assorted invertebrates. So because of food availability & other factors this bird found in Himayat Bagh.

78) Mottled Wood Owl (*Strix ocellata*)



Medium-sized patchy-looking owl with dark eyes. Densely-marked orange-and-gray coloration is unique. Typically gives single hoots, but also gives an odd, mellow tremolo vocalization in the breeding season. A lowland species, favoring groves and clusters of trees in open plains and on the edges of cultivated areas. The species is found in the plains in gardens and lightly wooded habitats. They roost in trees during the day choosing a branch with dense foliage.

79) Spotted Owlet (*Athene brama*)



A small uncrested owl with a round head and a short tail. It is grayishbrown overall with white spots above while its underparts are white with

brown bars. The distinctive white eyebrows and neck-band. Often active at dawn and dusk when it utters a loud “chirurr-chirurr-chirurr” laugh in addition to a variety of high-pitched squeals and whistles. Inhabits all kinds of open habitats but avoids dense forest and wetter regions that’s why Spotted Owlet found in Himayat Bagh.

80) Indian nightjar (*Caprimulgus asiaticus*)



Cryptically-colored nightbird. White “moustache” streak, golden-brown collar, and pointed buff-and-black feathers above the wing. Much more intricately marked than Large-tailed Nightjar also lacks white throat of that species. Male shows bright white patches near the wingtips and on the tail-tips in flight. Found in a range of wooded habitats, from hilly dry forest to garden edges. That’s why Indian Nightjar is visible & found in Himayat Bagh. Listen for its distinctive song, an accelerating knocking akin to a ping-pong ball dropping and bouncing rapidly on the floor.

81) Indian Swiftlet (*Aerodramus unicolor*)



A small, brown, nondescript swift with a shallow tail fork. Upperparts are darker brown than the underparts, while the rump is marginally paler. Very similar otherwise to the more widespread Asian Palm-Swift, except that Indian Swiftlet lacks the latter's longer, deeply forked tail. Mostly seen in the hills, where it breeds in caves, but can disperse to the plains during monsoons or immediately after summer showers, hawking insects in mixed flocks of swifts.

The Indian swiftlet, or Indian edible-nest swiftlet, (*Aerodramus unicolor*) is a small swift. It is a common resident colonial breeder in the hills. The half-cup nest is built on a vertical surface, often in a cave. The male swift uses thick saliva to construct the white, shiny nest into which two eggs are laid. It has swept-back wings that resemble a crescent or a boomerang. The body is slender, and the tail is short and only slightly indented.

Both sexes and young birds are similar. Indian swiftlet has very short legs which it uses only for clinging to vertical surfaces, since swifts never settle voluntarily on the ground. The common swift from Apodidae family is a common species of bird found in India, similar to the barn swallow and house martin.

Swifts are different from the swallows, martin and spend their most of lives in the air including feed and sleep. Just like swallos, swifts found in Himayat Bagh.

82) House Swift (*Apus affinis*)



Small swift with a square-tipped tail, broad outer wings and sharply demarcated white rump resembling Common House-Martin. White on the rump extends to the sides and is visible from below, contrasting white throat. Breeds both in natural cliff settings and in urban area where it nests on buildings. The house swift is a species of swift in the family Apodidae. It is found in Japan, Nepal, and Southeast Asia. It is capable of flying long distances by alternately shutting off hemispheres of their brain in-flight. They breeds in various environments that's why they found in Himayat Bagh.

83) Common kingfisher (*Alcedo atthis*)



Also known as the Eurasian kingfisher and river kingfisher, is a bird has the typical short-tailed, large-headed kingfisher profile, it has blue upperparts, orange underparts and a long bill. It feeds mainly on fish, caught by diving, and has special visual adaptations to enable it to see prey under water. The glossy white eggs are laid in a nest at the end of a burrow in a riverbank. The genus *Alcedo* comprises seven small kingfishers that all eat fish as part of their diet. Food availability in Himayat Bagh they found over there.

84) White-throated kingfisher or White-breasted kingfisher (*Halcyon smyrnensis*)



This kingfisher is a resident over much of its range, although some populations may make short distance movements. It can often be found well away from water where it feeds on a wide range of prey that includes small reptiles, amphibians, crabs, small rodents and even birds. During the breeding season they call loudly in the mornings from prominent perches including the tops of buildings in urban areas or on wires. This is a large kingfisher, 27–28 cm in length.

The adult has a bright blue back, wings and tail. Its head, shoulders, flanks and lower belly are chestnut, and the throat and breast are white. The large bill and legs are bright red. The flight of the white-throated kingfisher is rapid and direct, the short rounded wings whirring. In flight, large white patches are visible on the blue and black wings. Sexes are similar, but juveniles are a duller version of the adult. Common both near and away from water frequently seen perched on fence posts and telephone lines near wetlands, lakes, agricultural fields, and clearings. Gives jarring, raptor-like descending trills and cackles, often in flight.

In captivity, it has been noted that it rarely drinks water although bathing regularly. With a powerful bill and rapid flight, these kingfishers have few predators when healthy and rare cases of predation by a black kite and a jungle crow may be of sick or injured birds. Because of its habits & habitats they found in Himayat Bagh.

85) Lesser pied kingfisher (*Ceryle rudis*)



Boldly marked black-and-white kingfisher with short, bushy crest and glossy all-dark bill. Superficially similar to Crested Kingfisher, but smaller, with much more distinctly patterned head and breast and less erect crest. Frequently seen perched in pairs or small groups. Inhabits a wide range of waterside

habitats, from lakes to estuaries to mangroves. This kingfisher feeds mainly on fish, although it will take crustaceans and large aquatic insects such as dragonfly larvae. It usually hunts by hovering over the water to detect prey and diving vertically bill-first to capture fish. Due to food & place to live they found in Himayat Bagh.

86) Asian Green Bee-eater/ Little Green Bee-eater (*Meropsorientalis*)



The Asian green bee-eater, also known as little green bee-eater, is a near passerine bird in the bee-eater family. It is resident but prone to seasonal movements and is found widely distributed across Asia. Under the name Green Bee-eater are now considered distinct species. Like other bee-eaters, this species is a richly coloured, slender bird. They found in Himayat Bagh.

87) Indian roller (*Coracias benghalensis*)



A brightly colored bird with various shades of blue on the wings, tails, and belly that are often more prominent in flight. The longitudinal white streaks on the throat and breast. Generally silent, but more vocal in breeding season with harsh calls. Prefers open areas, including agricultural landscapes, sitting on exposed perches including electric wires in Himayat Bagh region, due to their requirements they found over there occasionally pumping its tail slowly.

88) Eurasian/Common Hoopoe (*Upupa epops*)



Utterly unmistakable orange bird with a zebra-striped wings, a Chinese fan of a crest (usually held closed, but often raised just after landing), and a rapier of a bill. Favors semiopen habitats such as heathland, farmland, orchards, grassy lawns, where it feeds on the ground, probing with its long bill for insects. Flight fast and fairly direct, with rather deep wingbeats. Unlikely to be confused, but flight pattern and round wings may loosely resemble that of woodpeckers. They have far longer and thinner bill. Feeding habitats present in Himayat Bagh that's why they found over there.

89) Grey Hornbill (*Ocyceros birostris*)



The Indian grey hornbill (*Ocyceros birostris*) is a common hornbill found on the Indian subcontinent. It is mostly arboreal and is commonly sighted in pairs. It has grey feathers all over the body with a light grey or dull white belly. The horn is black or dark grey with a casque extending to the point of curvature of the horn. It is one of the few hornbill species found in urban areas in many cities where they are able to make use of large trees in avenues.

The Indian grey hornbill is a medium-sized hornbill, measuring around 61 cm (24 in) in length. The upper parts are greyish brown and there is a slight trace of a pale supercilium. The ear coverts are darker. The flight feathers of the wing are dark brown with a whitish tip. The tail has a white tip and a dark subterminal band. They have a red iris and the eyelids have eyelashes. The casque is short and pointed.

The male has a larger casque on a dark bill, and the culmen and lower mandible are yellowish. The bare skin around the eye is dark in the male, but sometimes pale reddish in females. The female has a more yellowish bill with

black on the basal half and on the casque. The juveniles lack the casque, and the bare skin around the eye is dull orange. The call is a squealing call somewhat like that of a black kite. The flight is heavy and involves flapping interspersed with glides. They are found in pairs or small groups. They are also known to take molluscs, scorpions, insects, small birds & fruits that's why they found in Himayat Bagh.

90) Coppersmith barbet (*Psilopogon haemacephalus*)



The coppersmith barbet, also called crimson-breasted barbet and coppersmith, is an Asian barbet with crimson forehead and throat, known for its metronomic call that sounds similar to a coppersmith striking metal with a hammer. It carves out holes inside a tree to build its nest. The coppersmith barbet lives solitary or in small groups larger parties have occasionally been sighted in abundantly fruiting Ficus trees. It appears to be fond of sunning in the morning on bare top branches of tall trees, often flitting about to sit next to each other in Himayat Bagh.

91) Eurasian Wryneck or Northern Wryneck (*Jynx torquilla*)



Bizarre and unmistakable small gray woodpecker. Broad black stripe down middle of crown and back. Cryptic plumage and sluggish habits make it easily overlooked. Favors open country with scattered trees, orchards, farmland nests in tree cavities. Feeds mostly on the ground, probing with its long tongue for ants hops with deliberate, rather jerky motions, often twitching its tail and turning its head. Song is a rising series of high, piercing notes, similar to that of a falcon.

92) Yellow-Crowned/Fronted Woodpecker (*Leiopicus mahrattensis*)



Medium-sized woodpecker with a densely-spotted black-and-white back and blotchy brown-and-white underparts. Female has an all-golden crown & male has a red forecrown. Where it overlaps with Brown-fronted

Woodpecker, note blotchier brown striping on the underparts, pale vent, and duller crown. Gives sharp notes and a high descending rattle. Favors dry arid areas with relatively open foliage just like Himayat Bagh.

93) black-rumped flameback (*Dinopium benghalense*)



A common, “small-billed” golden-backed woodpecker with four toes. Endemic to the Indian subcontinent and Sri Lanka. Associated with every lowland wooded habitat except dense tropical forest, it often follows degradation into higher elevations. Separated from Red-backed by golden back and black shoulder. They feed on insects mainly beetle larvae from under the bark, visit termite mounds and sometimes feed on nectar.

94) Brown-capped Pygmy Woodpecker (*Dendrocopos nanus*)



Small woodpecker of open forest and forest edge. Small size, pale eyes, and broad-striped head pattern. Darkness of the crown varies palest in northern and peninsular India and darkest in Sri Lanka. Where it overlaps with Graycapped Woodpecker, the more “blocky” head pattern, pale eyes, and whitespotted tail of Brown-capped. Gives a short chittering trill that rises and falls quickly. This very small woodpecker found in India.

95) Indian pitta (*Pitta brachyura*)



A colorful stubby-tailed bird, also known as “Navrang,” translated as “nine colors.” Colors are most striking when the bird is in flight. This bird has long, strong legs and a stout bill, a buffy crown with a black stripe in the middle, a black eye-stripe, and buffy underparts with bright red on the vent.

Upperparts are green, with a blue shoulder patch. It is usually seen foraging on forest floors with thick undergrowth, catching insects in leaf litter. This bird is vocal, giving its characteristic two-noted whistle call at dusk and dawn.

96) Singing Bush lark (*Mirafra cantillans*)



A small, stocky, pale brown bird with a heavy conical bill. Unlike other bushlarks, breast streaking is minimal and often only restricted to the sides, while the wings are not as rust-colored. The pale eyebrow is well marked and extends neatly down around the cheeks. Most similar to Indian Bushlark, but Singing Bushlark has a white outermost tail feather, appears more drab overall, and looks chunkier. It is found in dry, open plains and grasslands. The song is complex and includes whistles, trills, buzzes, metallic notes, and some imitations.

97) Indian bush lark (*Mirafra erythroptera*)



A relatively lean-looking, pale brown bushlark with streaking on the upperparts and spots on the breast. The white eyebrow goes all the way around the ears and encloses the cheeks. Similar to other bushlarks, but it appears more slender and has a longer tail, longer legs, and a smaller bill. Some birds show a distinctive reddish tinge to the wings. It inhabits dry, open areas with rocks, scrub, and grassland that's why found in Himayat Bagh. Calls include a pleasant mix of rising and descending whistles and series of trills.

98) Ashy-Crowned Sparrow/Finch-Lark (*Eremopterix griseus*)



A small, stocky bird with a heavy, finch-like bill. Males have a gray head that contrasts with a black eye-stripe, and black on the collar, throat, and underparts. Females are pale brown with weak streaks on the head, back, and underparts. Similar to Black-crowned Sparrow-Lark, but Ashy-crowned males are told apart by the gray on the head. Females are difficult to distinguish. Inhabits dry scrub, fields, and rocky country. The song is often given in display flight, and consists of monotone whistles interspersed with buzzy notes.

99) Rufous-tailed Lark (*Ammomanes phoenicura*)



A plain, relatively well-proportioned lark which is brownish above and rufous below, with streaks on the breast. The bill is conical and heavy, and the long wings impart a slender appearance. Inhabits open areas with scrub and rocky landscapes. Often solitary or in pairs, foraging busily on the ground and often perching on high mounds or on wires. The pleasant song consists of short whistles and liquid trilling notes. Due to its foraging habit they found in Himayat Bagh.

100) Sykes's lark (*Galerida deva*)



A pale yellowish-brown lark with a long, spiky crest and a thick, short bill. The heavy streaking on the upperparts contrasts strongly with the rest of the plumage. Similar to the Malabar and Crested Larks, but Tawny is smaller, with

minimal streaking on the breast, paler cheeks, and a different bill shape. Sings in flight with relaxed wingbeats. The song is extraordinarily rich, long, and continuous, including complex and effortless imitations of other species. It is found in dry, stony fields and grassland that's why found in Himayat Bagh.

101) Dusky Crag Martin (*Ptyonoprogne concolor*)



An overall dark brown swallow with paler underparts. It has a square tail with a white spot on each tail feather, making a white speckled band of sorts. Young birds have paler underparts. Mostly seen flying in pairs or small flocks along cliffs, but sometimes also near tall buildings. Flight action generally slower than Barn Swallow's, but can wheel and loop at quick speed. The dusky crag martin feeds mainly on insects caught in flight in Himayat Bagh.

102) Barn Swallow (*Hirundo rustica*)



A fairly large, colorful swallow. Usually easy to identify with its long, forked tail and dark rump. Iridescent navy-blue above with a rich orange throat and forehead. Underparts vary across range, from bright buffy-orange to whitish. Occurs in any open habitat, especially large fields and wetlands. Often seen foraging in flocks, sometimes mixed with other species of swallow. Typically nests close to human habitation; builds a muddy cup nest in a barn or under a dock. Listen for dry, scratchy “svit svit” calls.

103) Wire-tailed Swallow (*Hirundo smithii*)



A very distinctive swallow with two long, thin feathers on its outer tail from which it gets its name. It has brilliant glossy blue upperparts and a chestnut forehead and crown that contrasts with clean white underparts. Females and

juveniles have shorter tails. Found in grasslands, wetlands, open scrublands, cultivated areas and near water. Typically seen in singles, pairs, or sometimes small flocks. Wire-tailed swallows are fast flyers and they generally feed on insects, especially flies, while airborne in Himayat Bagh.

104) Red-rumped Swallow (*Cecropis daurica*)



Easily recognized by pale reddish rump, pale finely streaked throat and breast, and black squared-off undertail coverts. Varies significantly across range, with European and African birds being fairly unstreaked below, while Asian populations have well-streaked underparts. Juveniles paler, lack reddish tones may resemble house-martins but deeply forked tail. Typically glides on stiff, flat wings, flight quite languid with shallow wingbeats. Builds mud nests in mountains, sea cliffs and on buildings and other structures. Forages over open areas. Because of forage area present in Himayat Bagh this bird found during project study.

105) White Wagtail (*Motacilla alba*)



Distinctive but variable: all plumages are some bold combination of black, white, and gray. Shows considerable variation in plumage across the world. Occurs in varied open habitats, from wild grassy areas and wetlands to paved car parks and grassy lawns. Usually seen as singles, pairs, or small groups walking and running around, pumping the long, white-sided tail up and down. Identified easily in flight by its loud, thick and distinctive “tsee-tsee’ call.

106) White-browed Wagtail (*Motacilla maderaspatensis*)



A rather largish wagtail and the only resident amongst this group. It has black head, back, and upper tail, and white underparts. The broad white eyebrow that extends from the base of the bill to the back of its head is a characteristic. A broad white bar on the wing is visible when sitting and in flight. Female is usually duller black than the male, while immatures have a shorter

eyebrow with black areas replaced by grayish-brown and have dirty white underparts. Very vocal; gives a loud 3–4 noted whistle and a “psi-sit” flight call. Found in Himayat Bagh running around wagging its tail and flying with a characteristic undulating flight.

107) Western yellow Wagtail (*Motacilla flava*)



Widespread wagtail, favoring wet meadows, marshland, grassy and muddy lakeshores. Occurs in fields and often near livestock during migration. Like other wagtails, walks on ground and pumps its long, white-sided tail up and down. Plumage highly variable, but breeding male wholly bright yellow below, with greenish back. has greenish head with yellow eyebrow. Individuals of several subspecies may winter together. Female and nonbreeding plumages drabber and paler, with ghosting of male patterns.

108. Grey Wagtail (*Motacilla cinerea*) –



umbrella

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Walks quietly along shorelines or in nearby open areas, pumping its very long, white-sided tail up and down. All plumages have gray head and back, with whitish eyebrow, bright yellow belly and vent. Breeding male has black throat, mostly yellow underparts. Breeding female often has some dark on throat, paler yellow underparts. Song is a repetitive series of high-pitched notes; calls include short, high “pseet” and buzzy flight calls.

These birds feed on a variety of aquatic invertebrates including adult flies, mayflies, beetles, crustacea and molluscs. Because of presence of these flies Grey Wagtail is observed in Himayat Bagh.

109. Richard's Pipit (*Anthus richardi*) –



Richard's pipit breeds in southern Siberia, Mongolia, parts of Central Asia and in northern, central and eastern China. It migrates south to winter in the Indian subcontinent. Large, robust, almost thrushlike pipit given the big bill, long and pale eyebrow, and long tail. If perched off the ground the very large hind claws and long legs are obvious. Flight is strong, heavy, and bounding. Utters "pshee" call when flushed. Found in open grasslands, stubble fields, farmland, dunes, and salt marshes. Separation from other large pipits can be difficult; pay attention to call and wing pattern.

It is a bird of open country, particularly flat lowland areas. It inhabits grassland, steppe and cultivated land, preferring more fertile, moist habitats.

That's why Richard's Pipit observed in Himayat Bagh.

110. Paddyfield Pipit (*Anthus rufulus*) –



Paddyfield Pipit is a resident (non-migratory) breeder. A sparrow-sized, resident pipit with brown plumage that varies in tones in different parts of its range. All birds have a bi-colored bill with a curve to the tip of the upper bill. The breast is streaked and the upperparts have variable amounts of streaking. Juveniles show distinct and dark mottling on the upperparts. Very similar to Blyth's and Richard's Pipits, but relatively compact and has a more distinct eyebrow, fainter or no streaking on the back of the neck, a larger head, and a shorter tail than either Blyth's or Richard's. Calls include short "tsip" and "tissip" notes.

It feeds principally on small insects but consumes larger beetles, tiny snails, worms etc. while walking on the ground, and may pursue insects like

mosquitoes or termites in the air. It is common in open habitats such as wetlands, farms, fields, and even large parks. Because of this habitats Paddyfield Pipit observed in Himayat Bagh.

111. Tree Pipit (*Anthus trivialis*) –



Slender and streaked pipit. Feeds on the ground like other pipits, but perches readily in trees or bushes when singing, or alights in tree at end of parachuting song flight. As the name suggests, usually associated with trees (on breeding grounds), but also found in agricultural areas and grassy scrub in winter. All pipits look rather similar and are best identified to species by combination of habitat and voice: Tree Pipit call a high, shrill, buzzy "tzzz"; song more melodic and varied than Meadow Pipit song. The tree pipit (*Anthus trivialis*) is a small passerine bird which breeds across most of Europe and the Palearctic as far East as the East Siberian Mountains. It is a longdistance migrant moving in winter to Africa and southern Asia.

The breeding habitat is open woodland and scrub. This species is insectivorous, like its relatives, but will also take seeds. So, it is observed in Himayat Bagh.

112. Olive-backed Pipit (*Anthus hodgsoni*) –

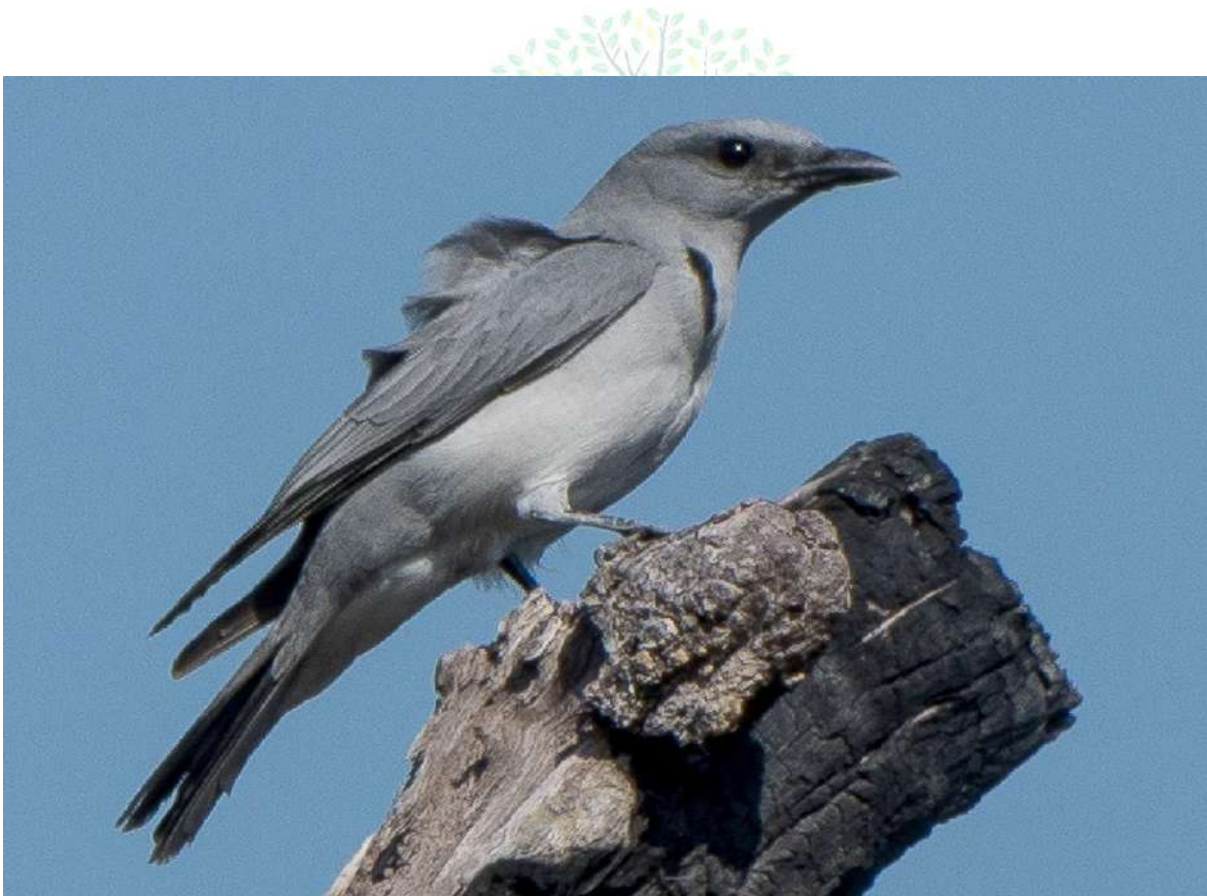


Small pipit with a greenish-brown back and heavily streaked breast and belly that is often seen in loose flocks or in pairs. Note the distinctive facial pattern: broad pale lines surrounding the eye and a dark ear patch. Prefers more forested areas than other pipits, though will also forage in fields and scrubby edges. Can be tolerant of human activity and is not uncommon in rural areas and city parks in parts of their range. Calls are high-pitched “tseep’s,” often with a buzzy quality. Song is a beautiful series of warbling trills, whistles, and rattles.

The olive-backed pipit (*Anthus hodgsoni*) is a small passerine bird of the pipit (*Anthus*) genus, which breeds across southern, north central and eastern Asia, as well as in the north-eastern European Russia.

Runs about on the ground in search of food and flies up into trees when disturbed. Flight jerky and undulating. Food: Insects, grass and weed seeds. So, in winter season it is found in Himayat Bagh.

113. Large Cuckooshrike (*Coracina macei*) –



The large cuckooshrike (*Coracina macei*) is a species of cuckooshrike found in the Indian Subcontinent and depending on the taxonomic treatment used, Southeast Asia. A large gray cuckooshrike with a strong, hooked bill. Upperparts are mostly gray with black primaries; male darker than female.

Rump and upper tail are paler than back, which is apparent in flight. Male has gray throat and upper breast becoming white in the belly with some gray bars. Female has white underparts with dark gray bars except from the lower belly to the tail. Both sexes have a dark patch from the bill to slightly behind the eye, giving a masked impression. Juvenile is brownish, heavily scaled with whitishbuff, and mottled on the underparts. Immature has broader white edges to wing feathers. Vocal. Call is a two-noted, rather nasal “gii-yaak,” uttered in flight as well as from a perch. Inhabits lightly wooded country, avoiding wet forests.

They are mostly insectivorous but also feed on figs and forest fruits and usually fly in small groups with a bounding flight just above the forest canopy. So, they are observed in Himayat Bagh.

114. Black-headed Cuckooshrike (*Lalage melanoptera*) -



The black-headed cuckooshrike (*Lalage melanoptera*) is a species of cuckooshrike found in the Indian Subcontinent and Southeast Asia. Male has dark slaty-gray head, neck, and upper breast; rest of the body is pale gray, with white on the belly. Wings darker than mantle. Female lacks the black hood, and has a whitish supercilium, brownish-gray upperparts with lightly barred back and rump, and buff-white underparts with wide brown bars. Juvenile is similar to female, but upperparts barred white. Immature similar to female. Song is a series of clear, loud whistles: “pee-pe-pe-pe-pe-twe-twee.”

The Black-faced Cuckoo-shrike is found in almost any wooded habitat, it feed on insects and other invertebrates. These may be caught in the air, taken from foliage or caught on the ground. In addition to insects, some fruits and seeds are also eaten. So, it is found in Himayat Bagh.

115. Small Minivet (*Pericrocotus cinnamomeus*) –



The smallest of the minivets. Males have slaty gray crown, cheeks, and back. Throat and wings black, tail black with pale yellow edges. Breast orange, gradually fading into yellowish-white underparts. Black wings show a patch of orange. Female is duller than male, with light gray upperparts, cheeks and crown; dark gray wings; white throat; and light yellow underparts. Both males and females show an orange rump. Usually seen in small flocks, frequently uttering high-pitched “swee swee” call as they continuously move around feeding on insects, sometimes catching them mid-air like flycatchers. Inhabits various forested habitats, especially thorny jungles, scrub patches, and open dry forest. This minivet is found in tropical southern Asia from the Indian subcontinent east to Indonesia. The small minivet is a widespread and common resident breeding bird in thorn jungle and scrub. This minivet catches insects in trees by flycatching or while perched. That’s why it is observed in Himayat Bagh.

116. Common Woodshrike (*Tephrodornis pondicerianus*) –

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The common woodshrike (*Tephrodornis pondicerianus*) is a species of bird found in Asia. A medium-sized woodshrike with grayish-brown upperparts, black facial mask, white rump, and gray tail with white outer tail feathers. Bill strongly hooked, dark grayish-brown in color. Underparts white. Similar to Malabar Woodshrike and Large Woodshrike, but generally found in drier forests; also note prominent white supercilium. Usually found in dry forested areas and shrublands. Bright, fast-paced song starts out with two strident “wheet” notes, followed by a descending series of shorter notes. Calls vary, but usually sound like isolated fragments of song.

They feed on mainly on insects and sometimes berries by gleaning mostly along branches and leaves within trees but sometimes also make aerial sallies or descend to the ground. So, they are observed in Himayat Bagh.

117. Asian paradise-flycatcher (*Terpsiphone paradisi*) –



Asian Paradise Flycatchers (*Terpsiphone paradisi*) are migratory birds native to the Oriental Region. Their range spans from the southernmost areas of Kazakhstan to the southernmost tip of India and the southeast Asian islands. Asian paradise flycatchers have differing appearances based on their sex and level of maturity. Males reach sizes slightly larger than females. They have ten primary feathers and twelve tail feathers. Their legs are feeble and therefore they are almost exclusively arboreal. This species tends to be smaller than other

closely-related flycatchers and males are distinguishable by their long tail feathers. They are most frequently found in deciduous, evergreen, and bamboo forests with thick shrubbery on the ground. So, it is observed in Himayat Bagh.

118. Black-naped Monarch (*Hypothymis azurea*) –



Beautiful azure-blue male exhibits a black nape patch and a thin black gorget. Female lacks the black nape patch and gorget markings, with gray-brown wings and bright blue only on the head. Both male and female show black feathers on top of the bill and grayish-white underparts. Inhabits both dry and wet forested areas from sea level up into foothills. Like flycatchers, hawks in mid-air to catch its prey. Often joins mixed flocks. Song is a bland, unremarkable

“wi-wi-wi-wi-wi-wi-wi.” Calls include harsh nasal “wheh” and an explosive “whicheh!” The breeding season in India is March to August.

It is insectivorous, often hunting by flycatching. This species is usually found in thick forests and other well-wooded habitats. So, it is observed in Himayat Bagh.

119. White-throated Fantail (Rhipidura albicollis) –



A distinctive fantail, all dark except for a white throat and a short white eyebrow. The tail, often fanned, is a shade darker with white tips to all tail feathers except the central pair. Juvenile is like adult, but with reduced white on face and brownish edges to the dark body feathers. Gives very harsh contact calls. Song is a musical phrase of 6-7 notes that ascends first and then descends.

Found in a wide range of wooded habitats, from dense forest to forest edge and gardens, from lowlands up into the mountains. It is found in forest, scrub and cultivation across tropical southern Asia from the Himalayas, India and Bangladesh east to Indonesia.

It is insectivorous and Himayat Bagh is rich in biodiversity, So, this bird is observed in Himayat Bagh.

120. Red-vented Bulbul (Pycnonotus cafer) –



A dark, sleek, medium-sized bird with a black crest and a white rump. The red colour under the tail is often difficult to see. Eats fruit, flower buds, and insects. Conspicuous and sometimes gregarious, often seen high in trees or perched on wires in urban and rural areas; generally, prefers scrubby edge habitat instead of dense forest. Calls include a variety of chirps and whistles. Native to South and Southeast Asia. Introduced to several Polynesian Islands, Kuwait, Qatar,

United Arab Emirates, Oman, and Polynesian Islands, including Hawaii. It is a resident breeder across the Indian subcontinent, including Sudan extending east to Jordan and parts of Algeria.

Their diet comprises of juicy fruits, nectar, insects, caterpillar, ants etc. and it is observed in Himayat Bagh.

121. White-browed Bulbul (*Pycnonotus luteolus*) –



A plain brownish bulbul that is endemic to the bottom half of peninsular India and Sri Lanka. Ubiquitous inhabitant of scrubby habitat across its range and sometimes overlaps with Yellow-throated Bulbul in rocky scrub. Although both species have a yellow vent and can sound similar, White-browed can be distinguished by its brown face and white eyebrow. Usually occurs in pairs and tends to skulk in undergrowth. Rather noisy but uncommonly seen, listen for

regular, short bursts of distinctive raucous babbling. It is a resident breeder in Sri Lanka and peninsular India.

It is found in dry open scrub country mainly on the plains and also occurs in gardens and woodlands with dense shrubbery. They forage within bushes for fruit, nectar and insects. So, it is observed in Himayat Bagh.

122. Isabelline Shrike (*Lanius isabellinus*) –



Small pale sandy-colored shrike. Male is gray-brown above with a black mask and unmarked pale underparts that contrast with a bright cinnamon tail. Female is similar, but with a paler mask, grayer upperparts, and faint barring on the sides. Both sexes have pale underparts. Red-tailed Shrike looks similar, but male Red-tailed Shrikes have a contrasting warm brownish crown and females

average whiter on the underparts. Female Red-backed Shrikes also have a warmer brown back and more prominent scaling patterns on a white breast and belly than Isabelline Shrikes. Typically found in dry brushy areas. It is found in an extensive area between the Caspian Sea and north and central China southeast to the Qaidam Basin. Overwinters in Africa and Arabia. This migratory medium-sized passerine eats large insects, small birds, rodents and lizards. Like other shrikes it hunts from prominent perches, and impales corpses on thorns or barbed wire as a larder. It breeds in open cultivated country, preferably with thorn bushes and it is observed in Himayat Bagh.

123. Bay-backed

Shrike

(Lanius

vittatus)

–



Brightly-colored small shrike, reminiscent of Long-tailed Shrike in overall coloration. Black mask, rufous flanks and back, clean white throat, and small size make it distinctive within its range. Prefers open areas, often in dry regions, with scattered vegetation. Often perches up on exposed snags, fenceposts, or telephone lines. Song is a messy jumble of musical warbles, harsh churrs, and sharp twanging notes. Calls include a harsh “jhiir.” The bay-backed shrike (Lanius

vittatus) is a member of the bird family Laniidae, the shrikes, resident in South Asia.

The bay-backed shrike has a characteristic upright "shrike" attitude perched on a bush, from which it sallies after lizards, large insects, small birds and rodents. Habitat: Open country, light forests, scrub. So, it is observed in Himayat Bagh.

124. Long-tailed Shrike (*Lanius schach*) –



A large, noisy shrike typical of open habitats across Asia. Adults have a dark mask and a light gray upper back with a variable amount of orange on lower back and flanks. Eastern subspecies has complete black cap; melanistic form has more extensive dark mask and is darker overall. Smaller Bay-backed Shrike has

thicker black mask. Juveniles difficult to separate from other juvenile shrikes. Gives loud, screeching calls, also mimics other birds. They are found widely distributed across Asia and there are variations in plumage across the range.

Long-tailed shrikes take a wide variety of animal prey. On occasion, they have been noted capturing fish from a stream. They also take small snakes. It sometimes indulges in kleptoparasitism and takes prey from other birds. It also captures flying insects in the air. They sometimes impale prey on a thorny bush after feeding just on the head or brain. They have been reported to feed on the fruits of the neem in Kerala, even attempting to impale them on a twig. That's why they are found in Himayat Bagh.

125. Blue Rock Thrush (*Monticola solitarius*) –



Dr.kishor pathak.



Wildlife Welfare Foundation

Medium-sized thrush-like bird, often seen on mountainsides, sea cliffs, quarries, ruins, and even towns. Males usually unmistakable: western birds are dark blue all over, but may appear all dark at a distance; eastern birds are blue with orange underparts. Females dark brown above, finely barred below. Long bill, wings, and tail make for a distinctive and very different shape than Rufoustailed Rock-Thrush. Song is melodic and blackbird-like. It breeds in southern Europe, northwest Africa, and from Central Asia to northern China and Malaysia.

Blue rock thrush breeds in open mountainous areas. It nests in rock cavities and walls, and usually lays 3-5 eggs. An omnivore, the blue rock thrush eats a wide variety of insects and small reptiles in addition to berries and seeds. So, it is observed in Himayat Bagh.

126. Bluethroat (*Luscinia svecica*) –



Dr. Kishor Pathak

Beautiful thrush-like bird that tends to stay hidden. Dull gray above, but a head-on view reveals a stunning pattern of electric blue and orange on the throat (some variation in pattern across range). Females show fainter colors than males, sometimes lacking blue entirely, but are still very boldly patterned.

On the dullest young females, look for bold white eyebrow and throat, necklace of dark streaks, and rufous on the base of the tail. Variable song includes imitations of other species among a jumble of trills, whistles, and chirps.

Typically found in scrubby, brushy habitat, often in edge areas: reedbeds, overgrown fields, and thickets. Usually skulky but singing males can perch conspicuously atop a bush. Breeds across Europe and Asia into Alaska; winters from northern Africa to southeast Asia. It is a migratory insectivorous species breeding in wet birch wood or bushy swamp. In winter it is observed in Himayat Bagh.

127. Oriental Magpie-Robin (Copsychus saularis) –



A medium-sized robin with a broad white wingbar running from the shoulder to the tip of the wing. Note white outertail feathers, particularly when in flight. Males sport black-and-white plumage while the females are grayish

brown and white. Juveniles resemble females, but have a scaly head and upperparts. They have a good repertoire of melodious calls and are known to imitate other bird calls. The most commonly heard call is a whistle given at dawn. Most often seen singing from a high exposed perch. These birds are often seen in cultivated areas, open woodlands, and gardens. Occurring across most of the Indian subcontinent and parts of Southeast Asia, they are common birds in urban gardens as well as forests.

The diet of magpie-robins includes mainly insects and other invertebrates. Although mainly insectivorous, they are known to occasionally take flower nectar, geckos, leeches, centipedes and even fish. So, they are found in Himayat Bagh.

128. Indian Robin (*Copsychus fulicatus*) –



A nondescript robin; males are primarily black with chestnut bottom feathers, although males in the northern population have brownish upperparts. Males also have a white shoulder patch and a relatively long tail. They are generally seen in pairs, foraging on the ground with the tail cocked up. Found in open country, at forest edges, around human habitation, and in scrub lands. It is widespread in the Indian subcontinent and ranges across Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka.

They feed mostly on insects but are known to take frogs and lizards especially when feeding young at the nest. Individuals may forage late in the evening to capture insects attracted to lights. This bird is found in open stony, grassy and scrub forest habitats. They are mainly found in dry habitats and are mostly absent from the thicker forest regions and high rainfall areas. All populations are resident and non-migratory. The species is often found close to human habitation and will frequently perch on rooftops. So, it is observed in Himayat Bagh.

129. Black Redstart (*Phoenicurus ochruros*) –



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Distinctive orange tail, best seen when flashed open or in flight. Varies considerably within range. Western birds are darker overall; male is slaty blackish, female smoky grayish overall. Eastern males have extensive orange on the underparts, and females are warm brown. Occupies varied open habitats, often but not always with a rocky component. Feeds mainly on or near the ground, perching rather upright; sings from prominent perches.

The species originally inhabited stony ground in mountains, particularly cliffs. It will catch passing insects in flight, and migrants often hunt in coastal tide-wrack for flies or tiny crustaceans. So, they are found in Himayat Bagh.

130. European Stonechat (Saxicola rubicola) –



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Fairly common, perky little bird of open country, especially heathland with gorse, moorland, rough grassland with scattered low bushes. Perches atop bushes and on fences, dropping to the ground to feed, before flying back up to a perch. Male distinctive, with blackish head set off by big white patch on sides of neck, orangey breast. Female brownish overall with paler eyebrow (only behind eye, unlike Whinchat), dull orangey breast; shows paler rump in flight, contrasting with solidly blackish tail.

The stonechat is increasingly confined to softer coastal regions, which are milder and relatively safe from development and reclamation. This bird is an

habitant of heathland, both inland and above coastal cliffs. So, it is observed in Himayat Bagh.

131. Brown Rock Chat (Indian Chat) (*Oenanthe fusca*) –



Plain chocolate-brown chat, often seen standing tall and proud on ridges, cliff edges, and buildings. Female Indian Robin can be somewhat similar; note Brown Rock Chat's proportionally shorter tail and lack of a rufous vent. Lovely song is composed of warbles and trills. Most common call is a slightly descending "chee." It is found mainly in northern and central India.

It feeds on insects, captured mainly on the ground and it is observed in Himayat Bagh.

132. Asian Brown Flycatcher (*Muscicapa dauurica*) –



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Plain brown flycatcher with a large-eyed appearance. Note bright white eyering and unmarked throat and underparts. Appears shorter- and plainerwinged than other similar brownish flycatchers. Favors broadleaf forests; also found in more open habitats on migration and wintering grounds. Sallies from exposed perches; cocks tail and flicks wings when perched. Song comprises high buzzy trilling and whistles. Calls include dry rattling and chittering. This is an insectivorous species which breeds in Japan, eastern Siberia and the Himalayas. It is migratory and winters in tropical southern Asia from southern India and Sri Lanka east to Indonesia.

Asian brown flycatcher is a common bird found in open woodland and cultivated areas. It nests in a hole in a tree, laying four eggs which are incubated by the female and they are found in Himayat Bagh.

133. Brown-breasted Flycatcher (*Muscicapa muttui*) –



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Dull but rather cute flycatcher, with large white-framed eyes. Dark brown above and white below with a gray head, brown flanks, and two distinct dark “moustache” lines. Similar in general structure and patterning to Asian Brown Flycatcher, but Asian Brown’s migratory form is much grayer and lightercolored, with weaker “moustache” stripes and less of a brown wash on the flanks, as well as weaker contrast between the head and back. Brown-breasted breeds in mid- to high-elevation broadleaf forests and winters in lowlands and foothills. Exhibits typical flycatching behavior, swooping out from a perch in the middle to lower levels of forest. Song is quiet and simple, a phrase

of brief whistles. The species breeds in north eastern India, central and Southern China and northern Burma and Thailand, and migrates to southern India and Sri Lanka. It forages for insects below the forest canopy, often close to the forest floor and it is observed in Himayat Bagh.

134. Red-breasted Flycatcher (Ficedula parva) –



Distinctive, small flycatcher. Males have a rusty-orange throat that continues onto the breast. All plumages have a distinctive tail pattern with black

terminal bar and white sides. Wings relatively plain and white eyering noticeable. When perched, tail often held cocked with wingtips drooping. Breeds in mature deciduous mixed forest, winters in forest, woodland and parks. Often detected by a rattling "zrrrt" call which is slower than call of the similar looking Taiga Flycatcher.

135. Ultramarine Flycatcher (Ficedula superciliaris) –



Incandescently beautiful male is resplendent in electric blue and snowy white. Female is dull gray-brown with paler underparts. Slight regional variation: “Western” males have a short white eyebrow and “Eastern” females have a faint rusty patch on the forehead. Male may be confused with Himalayan Bluetail, but lacks orange. Female is similar to females of Slaty-blue and Little Pied

Flycatchers, but lacks any rufous tones on the tail. Breeds in hill and montane broadleaf and pine forests; descends into lower foothills in winter. Rarely heard song a complex series of whistles and chatters; more commonly heard is the call, a dry trilling chatter, sometimes preceded by a short whistle. It breeds in the foothills of the Himalayas and winters in southern India. In winter season it is found in Himayat Bagh.

136. Verditer Flycatcher (Eumyias thalassinus) –



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Beautifully vivid turquoise-blue flycatcher. Adult male has dark lores. Juvenile is duller, with noticeably grayer underparts. Sits upright on exposed perches. Found in lowland and hill forests and forest edges. Song is high and undulating phrase of burry or trilled notes. Most common call is a strident “wheet!” It is found from the Himalayas through Southeast Asia to Sumatra. Habitat: Forests, parkland, and other wooded areas and found in Himayat Bagh region.

137. Tickell's Blue Flycatcher (Cyornis tickelliae) –



Welfare Foundation

Attractive medium-sized flycatcher with blue upperparts and orange and white underparts, with the most orange on the chest and the throat. Male is more intensely-colored overall than the female. Smaller-billed profile, less extensive orange, and paler face distinguish this species from male Hill Blue Flycatcher. Extensive orange on the throat separates Tickell's from Bluethroated Flycatcher. Favors open hill forests as well as forest edge, particularly in drier, scrubby areas, often close to water. Both sexes give a pleasant high-pitched tinkling song. Calls include dry rattles and metallic clinks. This is an insectivorous species which breeds in tropical Asia, from the Indian Subcontinent eastwards

to Bangladesh and western Myanmar. Tickell's blue flycatcher breeds in dry forest, scrub, bamboo and gardens. So it is found in Himayat Bagh area.

138. Grey-headed Canary-Flycatcher (*Culicicapa ceylonensis*) –



An unmistakable, dainty woodland flycatcher with a slightly peaked head shape. It has a gray head and upper breast with a narrow white eyering. Upperparts are olive-green; breast and belly are bright yellow. An active member of mixed-species foraging flocks, but also seen singly or in pairs. Quite vocal, with a loud, squeaky whistled song delivered throughout the year: “wi-tuwi-tu-wee!” or “wi-wuh-wuh-wee!!”. Frequently gives a rapid-fire series of high bouncy notes that rises quickly, then trails off. Other calls include sharp

“chilup,” “kitwik,” or “chit” notes repeated a few times. And found in Himayat Bagh region.

139. Yellow-eyed Babbler (Chrysomma sinense) –



An odd-looking babbler which looks and behaves like a prinia on steroids. Brown above and white below with rufous wingtips. Red eyering is unique. Scrambles about in reedbeds, scrub, field edges, and grassy meadows in small flocks and pairs. Scales stems like a parrotbill and hangs acrobatically like a tit or leaf warbler. Strident, melodic song has a somewhat hoarse, nasal quality. Calls include repeated descending whistles, energetic chattering, and dry chittering. It is a passerine bird native to South and Southeast Asia. It inhabits shrubland, grassland and wetland habitats.

The usual habitat is grassy or thorny scrub both in dry and wet regions as well as farmland. It occurs mainly on the plains but also in the lower hills 1200 m. It is absent in the dense forest region of the Western Ghats and occurs only on the eastern edges or in gaps such as at Palghat. They feed mainly on insects but take berries (Lantana and Salvadora) as well as nectar. So, they are found in Himayat Bagh region.

140. Common Babbler (*Argya caudata*) –



Faintly streaked warm buffy-brown babbler. Dark eyes and pale throat separate this species from the similar Striated Babbler. A common and familiar city and town bird throughout much of its range; A bird of scrubby plains, open forests, forest edges, and overgrown cultivation. Whickers, trills,

squeaks, and chirps loudly as flocks hop about on the ground and in low undergrowth. They are found in dry open scrub country mainly in India.

They feed on insects, berries and grains. Favourite berries include those of the Lantana and Capparis. Because of this habitat they found more in number Himayat Bagh area.

141. Large Grey Babbler (*Argya malcolmi*) –



Large grey-brown babbler with piercing yellow eyes. Can be confused with Jungle Babbler, with which it sometimes associates; look for strong dark lores and a darker bill. Favors scrubby areas, forest edge, and open dry forests.

Like many other related babblers, typically hops around on the ground in flocks. Chatters persistently; the most common call is a loud, nasal “kaaa-kaaa-kaaa”. They found across India and far western Nepal. They are locally common in the scrub, open forest and gardenland.

It is found mainly in open dry scrub forest and cultivated areas. They are mostly seen in open scrub country where they forage on or close to the ground. They hop and leap on the ground in search of prey. Individuals in a group may indulge in play behaviour. They feed mainly on insects but also feed on small lizards, molluscs and arachnids. They also feed on seeds, grains and berries. They are found in gardens and observed in Himayat Bagh.

142. Jungle Babbler (*Argya striata*) –



This familiar ash-brown colored babbler has a yellow bill and a dark brow in front of the eye that contrasts with its pale eye giving it a perpetual “angry” look. It has vague streaking on the upperparts, diffuse mottling on its throat, and barring on its tail. The multiple races vary slightly in color and strength of markings except the race *somervillei* of the NW peninsula which has dark brown outer wing feathers that contrast with the rest of the wing. They are often seen in noisy flocks hopping on the ground and flicking litter in search of food. The jungle babbler is a common resident breeding bird in most parts of the Indian subcontinent and is often seen in gardens within large cities as well as in forested areas.

They feed mainly on insects, but also eats grains, nectar and berries. They are more in number in Himayat Bagh area.



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143. Zitting Cisticola (*Cisticola juncidis*) –



Very small, with distinctive short, rounded tail with conspicuous terminal spots. Body sandy-colored below, streaky above. Breeding males have a dark bill and crown. Found in open grasslands, meadows, and agricultural areas. Most often seen high in the sky uttering its monotonous and repetitive "tchip...tchip....tchip..." song in undulating song flight. Whose breeding range includes southern Europe, Africa (outside the deserts and rainforest), and southern Asia down to northern Australia.

This species is found mainly in grassland habitats, often near water. Zitting cisticolas are very small insectivorous birds. And observed in Himayat Bagh.

144. Ashy Prinia (Prinia socialis) –



A common prinia that is likely to occur in all habitats except for woodlands with a thick canopy. All birds have a black bill, pale cinnamon underparts, a gray head, and a grayish-brown back. Nonbreeding birds acquire a short eyebrow and a longer tail. There is a marked variation in plumage tones in various parts of its range. It usually sticks to the undergrowth and shrubbery, though individuals often sing from a higher perch such as wires. Usually occurring in ones and twos, and it can be quite bold and fearless. It has a loud ringing song that is given year-round and a plain nasal call. This prinia is a resident breeder in the Indian Subcontinent, ranging across most of India, Nepal, Bangladesh, eastern Pakistan, Bhutan, Sri Lanka and western Myanmar.

This passerine bird is found in dry open grassland, open woodland, scrub and in home gardens in many cities. And found in Himayat Bagh area.

145. Plain Prinia (Prinia inornate) –



A common prinia with drab grey-brown plumage that varies in tone across its range. Note the pale, wide eyebrow and the long tail that appears as if it is loosely attached to the body. Breeding birds have a black bill and a shorter tail. Common in various habitats, especially farms and wetlands, but avoids woodlands with a canopy. A somewhat bold species, it often skulks in the undergrowth but sings from exposed perches. The song is a repeated series of insect like trills. Calls include various buzzing and clinking notes. Also produces

snapping sounds with its wings. It is a resident breeder from Pakistan and India to south China and southeast Asia.

This skulking passerine bird is typically found in wet lowland grassland, open woodland, scrub and sometimes gardens. Like most warblers, the plain prinia is insectivorous. So, they are observed in Himayat Bagh.

146. Common Tailorbird (Orthotomus sutorius) –



A common warblerlike bird with a green back, a reddish crown, and a long bill. It gets its name from the way in which it builds its nest by stitching

leaves together. A ubiquitous inhabitant of parks, gardens, and wooded areas across South and Southeast Asia. Its loud “tuui-tuui...” and “whee-whee...” calls are often part of the sound of daily life in human habitation. Co-occurs with the very similar Dark-necked Tailorbird in NE India and SE Asia, but is separable by call, and by the lack of a rufous hind-crown, and yellow vent. Found across tropical Asia, it is a common resident in urban gardens.

They forage for insects and have been known to feed on a range of beetles and bugs. They are attracted to insects at flowers and are known to favour the inflorescences of mango. They also visit flowers such as those of Bombax, Salmalia for nectar and are sometimes covered in pollen, giving them a golden-headed appearance and observed in Himayat Bagh.

147. Paddyfield Warbler (Acrocephalus Agricola) –



Warm brown above and pale below; strong dark eyestripe contrasts with white eyebrow. Smallish reed warbler with long and strongly rounded tail, short bill with dark tip, and short primary projection. Difficult to separate visually from other small *Acrocephalus* warblers, especially Blunt-winged Warbler; note Paddyfield's more prominent pale eyebrow which strengthens behind the eye, as well as longer-winged appearance. Also compare with Iduna warblers. Breeds in extensive reed beds; in nonbreeding season found in marshes, but also more scrubby areas. Distinctive, melodious song. It is migratory, wintering in Bangladesh, India and Pakistan. This passerine bird is a species found in low vegetation such as long grass, reeds and rice. And it is observed in Himayat Bagh area.

148. Blyth's Reed Warbler (*Acrocephalus dumetorum*) –



Field identification challenging. Pay attention to short wings (short primary projection), gray-brown tones to upperparts and long, dark-tipped bill with a flat forehead. Song is varied with many repetitions and lots of mimicry; call is a high-pitched and loud "tek." Found in forest edges, bushes, marsh edges, and parks, but not particularly associated with water. Usually sings from bushes and trees, not in reeds or herbage. It is migratory, wintering in Bangladesh, India and Sri Lanka.

Blyth's reed warbler is insectivorous, but will take other small food items, including berries. And it is observed in winter season in Himayat Bagh region.

149. Clamorous Reed Warbler (Indian Great Reed Warbler) (Acrocephalus stentoreus) –



Large brown reed warbler with a long, powerful-looking bill. Birds in the Middle East and north eastern Africa average warmer brown than in southern Asia. Most readily confused with other large reed warblers. Oriental Reed Warbler has a “rough-looking,” vaguely streaked throat unlike the clean throat of the Clamorous Reed Warbler. Worn birds may not be identifiable to species level, especially if seen poorly. Great Reed Warbler is similar, but has pink instead of gray legs. Song is loud and jumbled series of harsh grating sounds. Calls include loud, forceful, and hard-sounding chuck’s and churrs. It breeds from Egypt eastwards through Pakistan, Afghanistan and northernmost India to south China, southeast Asia and south to Australia. This passerine bird is a species found in large reed beds and observed in Himayat Bagh area.

150. Booted Warbler (*Iduna caligata*) –



Small, recalling a beige chiffchaff or other Phylloscopus warbler. Rather nondescript: gray, brown above, paler below, with a short, dark-tipped bill and conspicuous pale eyebrow. Pot-bellied with short wings and a square-tipped tail. Can be extremely difficult to identify; compare carefully with small Acrocephalus warblers and other Iduna warblers, especially Sykes's Warbler. Found in low bushes in steppes and meadows, also bushy areas in migration and in winter. Usually forages low down, and occasionally on the ground. Song starts out with a few dry chitters, then launches into a rapid-fire burst of high-pitched chattering that almost stumbles over itself. Also gives dry "tchak" and rattle calls.

Booted warbler itself breeds from central Russia to western China and migrates to winter in the Indian subcontinent as far south as Sri Lanka. It is a small passerine bird, found in open country with bushes and other tall vegetation. So, it is observed in Himayat Bagh.

151. Common Chiffchaff (Phylloscopus collybita) –



A very plain leaf warbler found in a variety of wooded and scrubby habitats, often near water. Best identified by voice: song is a slightly jerky double-noted chiff-chaff, chiff-chaff..., very different from song of the similar Willow Warbler. Relative to Willow Warbler, Chiffchaff is often duller, more brownish overall with weaker pale eyebrow, dark legs, and tends to habitually dip its tail. Also similar to Booted and Sykes's Warbler, but these are browner toned with darkish legs and bill. Like most Old World warblers, this small species is insectivorous, moving restlessly through foliage or briefly hovering. It has been recorded as taking insects, mainly flies, from more than 50 families, along with other small and medium-sized invertebrates. It will take the eggs and larvae of butterflies and moths, particularly those of the winter moth.[10] The chiffchaff has been estimated to require about one-third of its weight in insects daily, and it feeds almost continuously in the autumn to put on extra fat as fuel for the long migration flight.

152. Tickell's Leaf Warbler (*Phylloscopus affinis*) –



Brown-and-yellow leaf warbler without a wingbar. Breeds in stony shrubbery, primarily in the high Himalayas and the Trans-Himalaya. Winters throughout the Indian Subcontinent south of the Himalayas, but is most abundant in shrubbery in the northeast Indian plains and in the high Western Ghats. Resembles Sulphur-bellied Warbler, but has a yellower cheek and underparts, and shows little contrast between the eyebrow and the throat. Tickell's spends less time on or near the ground than Sulphur-bellied, tends to flock, and often participates in mixed-species foraging flocks. found in Asia in the countries of Bangladesh, Bhutan, China, India, Myanmar, Nepal, Pakistan and Thailand. Like other leaf warblers it feeds mostly on insects by gleaning and short sallies. So, they are found in Himayat Bagh.

153. Sulphur-bellied Warbler (*Phylloscopus griseolus*) –



Brown-and-yellow leaf warbler without a wingbar. Breeds in stony, bushy, semi-arid slopes in mountain ranges flanking the Tibetan Plateau. Winters primarily in rocky scrub almost throughout the Indian peninsula. Resembles Tickell's Leaf Warbler, but has a browner cheek and dirtier underparts, and often has a bright yellow eyebrow that contrasts with a dull brownish-yellow throat. Very partial to the ground, unlike Tickell's, and often seen creeping on rocks, walls, or tree trunks like a nuthatch.

Like other leaf-warblers it gleans insects from small branches and leaves. They are found on rocky hill and scrub forest habitats. So, they are observed in Himayat Bagh area.

154. Lesser Whitethroat (Curruca curruca) –



Fairly common summer migrant from winter grounds in Africa. Found in scrubby habitats, especially dense hedges with thorny bushes and trees. Skulking and difficult to see well; often located by scratchy chortling song that ends with distinctive loud rattle. Plumage brownish grey overall with greyer head and broad dark mask that sets off white throat. Lacks bright rusty wing patch of Greater Whitethroat. This small passerine bird is strongly migratory, wintering in Africa just south of the Sahara, Arabia and India.

Like most "warblers", it is insectivorous, but will also take berries and other soft fruit. This is a bird of fairly open country and cultivation, with large bushes for nesting and some trees. And found in Himayat Bagh during winter season.

155. Cinereous Tit (Great Tit) (Parus cinereus) –



An uncrested Gray, black, and off-white tit of light woodlands. Males and females have a white cheek patch, a gray back, and a white wingbar. A broad black central line, that is widest on throat, runs from the throat to the lower belly. The female has a narrower central line on its underparts and is slightly duller overall. Sings variations of a three noted “swee-che-ti” or a “sewe-pewe” repeated 4-5 times at length. Calls include small chatters. Very active; feeds at the middle and upper-strata of forests and woodlands and in gardens and cultivated areas, but avoids dense forests. In southern India and Sri Lanka the breeding season is February to May (mainly before the Monsoons) but nests have also been seen from September to November.

They forage mainly by gleaning, capturing insects (mainly caterpillars, bugs and beetles) that are disturbed and will also feeding on buds and fruits. So, they are found in Himayat Bagh.

156. Thick-billed Flowerpecker (Dicaeum agile) –



Dull gray-brown flowerpecker with streaked white underparts. Unremarkable; bill isn't all that noticeably thick, but combination of pale vent, striped throat, and (in some subspecies) strongly streaked underparts serve to identify this wide-ranging and variable species. Like many other flowerpeckers, often associated with mistletoe, but can be found in a variety of forest types and elevations. Often heard giving a hard, slightly wet "tsip!" It is a resident bird with a wide distribution across tropical southern Asia from India east to Indonesia.

Like other flowerpeckers they feed mainly on berries, nectar but sometimes take insects. Many of the subspecies are found in dense lowland forests with the exception of the nominate race which is found mainly in cultivated areas or open forest. So, they are found in Himayat Bagh area.

157. Pale-billed Flowerpecker (*Dicaeum erythrorhynchos*) –



A tiny nondescript bird with a pale and bulky curved bill. Endemic to the Indian subcontinent where it can occur in any habitat that is not too dry, too wet, or too high. Shows a particular fondness for Singapore Cherry berries. Often only seen in flight making a fast “thik-thik” call that recalls Nilgiri or Plain Flowerpecker. Songs include a unique high-pitched trill. When not singing, a view of the bill is essential to identify the species in any region where either of Nilgiri or Plain flowerpecker is also present. It is a tiny bird that feeds on nectar and berries, found in India, Sri Lanka, Bangladesh and western Myanmar.

It has been considered one of the early flowerpeckers, originating in the Malay Peninsula, to colonize the Indian Subcontinent. And it is observed in Himayat Bagh.

158. Purple Sunbird *Cinnyris asiaticus*



The breeding male is a metallic blue and purple overall with maroon feathers on the breast. The female is olive above and yellow below. The nonbreeding male of this species is primarily olive-brown with blackish upperparts and yellow underparts with blue-black band running down the throat and chest. Females can be distinguished from female Purple-rumped Sunbirds by its yellow (not grayish) throat. Seen in pairs, feeding chiefly on nectar, but they also take insects. Breeding males display by fluttering their wings in front of females while singing. They are found in gardens, cultivated areas, and forests. Found mainly in South and Southeast Asia but extending west into parts of the Arabian peninsula. They are resident birds in most parts of their range and do not move large distances. They are found in thin forest and garden land, including those in dense urban areas. Like other sunbirds they feed mainly on nectar, although they will also take insects, especially when feeding young. They have a fast and direct flight and can take nectar by hovering like a hummingbird but often perch at the base of flowers.

159. Purple-rumped Sunbird (*Leptocoma zeylonica*) –



160. [Dr. Kishor Pathak](#)

A colourful sunbird; the male has a green metallic crown and shoulder patch, a dark brown body with purple a rump, a purple throat, lemon-yellow underparts, and whitish flanks. The female is light greyish-brown above and pale yellow below. The female can be separated from female Purple Sunbirds by their greyish-white (not yellow) throat. Often seen hopping and hovering around flowers, picking up insects, and probing flowers for nectar. The song is a twittering “tityou, tityou, trritt, tityou.” The purple-rumped sunbird is a common resident breeder in southern India, Sri Lanka and Bangladesh.

This species is found in a variety of habitats with trees, including scrub and cultivation and is usually absent from dense forest. Feeding mainly on nectar but sometimes take insects, particularly when feeding young. So, it is observed in Himayat Bagh region.

161. Indian White-eye (Oriental White-eye) (Zosterops palpebrosus) –



Hyperactive little yellow bird with an off-white belly and white “spectacles.” Found in a wide range of habitats, from mangroves to gardens to forest edge; generally favors more open forested areas, not dense tangles. Travels in flocks, sometimes mixed in with other species. Note light bouncing flight. Gives bright but faint “zwee!” calls both while foraging and in flight. It is a resident breeder in open woodland on the Indian subcontinent. They forage in small groups, feeding on nectar and small insects. So, it is found in Himayat Bagh.

162. Grey-necked Bunting (Grey-hooded Bunting) (Emberiza buchanani)

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Medium-sized slender bunting with a relatively long bill. Distinctive; grey head, pale eye-ring, yellow “moustache” and warm underparts that range in colour from buffy to rusty-red. Found in dry, rocky habitats such as mountainsides and arid plains. Song is a brief series of high ascending notes, typically ending with a final buzzy burst. It breeds along a wide distribution range from the Caspian Sea to the Altai Mountains in Central Asia and winters in parts of Southern Asia. Like other buntings it is found in small flocks.

This bunting is found mainly in dry and open habitats, often stony, scrubby hillsides covered with low thorn scrub. Birds that breed in the Baluchistan region winter in India moving through Gujarat in September and returning in March to their breeding grounds. And it is observed in Himayat Bagh during winter season.

163. Common Rosefinch (Carpodacus erythrinus) –



Medium-sized, dumpy finch with a stubby bill. Male are distinctive with a red head, breast, and rump, brown eye-mask, and white belly. The amount of red varies with age. Females and juveniles are a rather unprepossessing, uniform brown inviting confusion with female House Sparrows; note the two pale wingbars. Breeds at both low and high elevations in deciduous scrub, meadows, and marsh edges as well as clearings in forest. Far-carrying, whistled, typically 3note song is memorable.

164. Red Avadavat (Amandava amandava) –



Strikingly pretty small finch. Males are largely red and covered in white spots with dark wings and tail. Females are gray with a rufous rump. Both sexes have a red beak. Gives a very musical song a high "teei" call. Found in grassy areas close to water and often near human habitation, particularly areas with wet rice paddies. It breeds in the Indian Subcontinent in the monsoon season.

Red avadavats are found mainly on flat plains, in places with tall grasses or crops, often near water. They feed mainly on grass seeds but will also take insects such as termites when they are available. So, they are observed in Himayat Bagh area.

165. Indian Silverbill (White-throated Munia) (Euodice malabarica) –



Small, long-tailed finch with a chunky body and short, stout bill. Graybrown above and pale below with a whitish rump and black-pointed tail. Highly sociable throughout the year. Found in semidesert, scrub, and dry woodland but also proliferates in urban areas. Distribution is centered on the Indian subcontinent, but it is a popular cage bird and feral populations are widespread. It is a small passerine bird found in the Indian Subcontinent.

It feeds mainly on seeds, but also takes insects and has been known to visit nectar bearing flowers, such as those of Erythrina trees. It frequents dry open scrub, fallow land and cultivation, sometimes near water. Although mainly found on the plains, they can be found up to about 1200 m in some subHimalayan regions. So, it is observed in Himayat Bagh area.

166. Scaly-breasted Munia (Spotted Munia) (Lonchura punctulate) –



Attractive small songbird of grasslands, gardens, fields, and agricultural areas. Native to India and Southeast Asia, with introduced populations scattered elsewhere around the world. Typical adults dark chestnut-brown above, white

below, with fine dark scaly pattern on belly; some populations duller brown. Juveniles plain brown all over with slightly paler underparts. Typically found in small flocks, sometimes mixed with other species of munia.

The species is endemic to Asia and occurs from India and Sri Lanka east to Indonesia and the Philippines. The scaly-breasted munia feeds mainly on grass seeds, small berries such as those of Lantana and insects. Although the bill is suited for crushing small grains, they do not show lateral movements of the lower mandible which help European greenfinches in dehusking seeds. Like some other munias, they may also feed on algae, a rich protein source, prior to the breeding season. And it is observed in Himayat Bagh.

167. House Sparrow (*Passer domesticus*) –



Widespread and abundant in cities, neighbourhoods and farms. Avoids dense woods. Flocks cluster in dense bushes, bustling around and chattering to one another. Males have smart black bibs, bright rufous napes, and stunningly patterned wings with brilliant buffs and browns. Underparts are pale pearlygray.

Females are plain brown with cute face and lighter eyebrow. Native to Eurasia; introduced to much of the rest of the world. Found in most parts of the world.

It feeds mostly on the seeds of grains and weeds, but it is an opportunistic eater and commonly eats insects and many other foods. So, it is observed in Himayat Bagh area.

168. Baya Weaver (*Ploceus philippinus*) –



A widespread weaver that is known for its nest—a long hanging nest with a bulbous chamber and a narrow tubular entrance. Breeding males have yellow forehead and crown, a dark throat that contrasts with yellow underparts. Nonbreeding males and females are similar except they have buffy colors where breeding males are yellow; also note the dark streaks on the back and the broad buffy eyebrow on females. Juvenile resembles female, but lack the female's

obvious eyebrow. Baya Weavers lack the strongly streaked appearance of Streaked Weavers. Regional variation in plumage exist mainly in the amount of yellow and black in breeding plumage. Occur as flocks, particularly in breeding season. Advertising calls of males are an easy way to detect the species as several males in the flock call together creating a cacophony of a series of rasping chatters followed by a buzzing whistle interspersed with long chatters.

169. Brahminy Starling (*Sturnia pagodarum*) –



A small fawn-colored starling with a long wispy crest that usually lies limp over the back of its head, but the feathers on its cheek and upper breast stand up and away from its cheek. Its upperparts are gray and the dark tail is tipped in white. Note the yellow bill with a blue base. Often seen in small family groups, feeding on fruits and nectar as well as insects on the ground or in the trees. They

have a wide repertoire of calls and are also given to mimicking other species. It is in open habitats on the plains of the Indian subcontinent.

Like most starlings, the brahminy starling is omnivorous, eating fruit and insects. They have been known to feed on the fruits of *Thevetia peruviana* which are toxic to many vertebrates. And it is observed in Himayat Bagh.

170. Rosy Starling (*Pastor roseus*) –



Adult is unique, a vision in glossy black and pale pink. Juvenile is brown with an orange bill. Breeds in colonies on steppes and winters in open and wooded habitats. Gathers in huge numbers to roost, often mixing with other

species at roost sites. Flocking birds keep up a constant cacophony of dry chattering calls.

The rosy starling is a bird of steppe and open agricultural land. In years when grasshoppers and other insects are abundant. It is observed in Himayat Bagh area during winter season.

171. Common Myna (Acridotheres tristis) –



A large, black-and-brown myna with white wing patches, yellow bill, and yellow legs. Gregarious and often found in noisy flocks. Aggressive, often driving away other birds. Can be found just about anywhere but the densest forests. Native to southern Asia, where it is among the most common species. Widely

introduced elsewhere in the world, including Australia, New Zealand, and Hawaii.

Like most starlings, the common myna is omnivorous. It feeds on insects, arachnids, crustaceans, reptiles, small mammals, seeds, grain and fruits and discarded waste from human habitation. It forages on the ground among grass for insects, and especially for grasshoppers, from which it gets the generic name *Acridotheres*, "grasshopper hunter". It, however, feeds on a wide range of insects, mostly picked from the ground. It is a cross-pollinator of flowers such as *Salmalia* and *Erythrina*.

172. Indian Golden Oriole (*Oriolus kundoo*) –



Males are bright yellow overall save for the black wings and inner tail feathers. Note the yellow patch on the wings, the yellow outer tail feathers, the black stripe through the eye that gives it a masked appearance, and the fleshy pink bill. The female is dull greenish-yellow overall with dirty brown/green wings

and a completely yellowish tail. Both males and females have red iris. Most often found feeding in tree canopies either singly or in pairs. They generally give a harsh “krrrrrrrrrrr” call while feeding. In flight, note its characteristic dipping flight style.

They feed on insects and fruit, using their bills to pick insects out of crevices. They prefer open broadleaf forests and plantations, copses, riverine forest, orchards, large gardens. And observed in Himayat Bagh.

173. Black-hooded Oriole (*Oriolus xanthornus*) –



A distinctive medium-sized yellow bird with a black head and breast, black flight feathers, and a red bill. In flight, the black band towards the tail tip is visible. Juvenile is duller overall with a white streaked throat and a darker bill. Often feeds on fruiting trees with a preference for figs in wooded gardens,

groves, and open forests. The song is rich, fluty, and mellow. Calls include raspy, nasal notes that can sound like a croak.

It is a resident breeder in tropical southern Asia from India and Sri Lanka east to Indonesia. It is a bird of open woodland and cultivation. The nest is built in a tree, and contains two eggs. Its food is insects and fruit, especially figs, found in the tree canopies where they spend much of their time. So they are observed in Himayat Bagh area.



174. Black Drongo (Dicrurus macrocercus) –



An adaptable songbird of open areas such as farmland, forest edge, meadows, wetlands, and fields and a common sight as a familiar dark silhouette perched on wires, fences, or snags. Black plumage flashes blue and green iridescence in favorable light, though much less so than in Hair-crested or Bronzed Drongo. A pugnacious species, frequently chasing away larger birds with repeated dives and harsh chattering calls. A skilled mimic of other species, and a strong songster in general, delivering a wide range of pleasant fluty calls, harsh chattering, nasal notes, and high sharp whistles. It is a common resident breeder in much of tropical southern Asia from southwest Iran through India, Bangladesh and Sri Lanka east to southern China and Indonesia and accidental visitor of Japan.

175. Ashy Drongo (Dicrurus leucophaeus) -



A slim, medium-sized drongo with bright red eyes and gray plumage that is almost black in the western parts of its range and quite pale in the eastern parts of its range; eastern birds also often have an oval-shaped pale facial patch. It has a long slim tail with a deep fork. Common in wooded habitats where it sallies for insects and aggressively chases other birds that may compete for food or nectar. Most birds migrate south every winter. Similar to Black Drongo, but slimmer and usually in different habitats. Calls include harsh and sweet notes, and can mimic some bird species poorly. It is found widely distributed across South and Southeast Asia.

It is found in more tall forest habitat, has dark grey underside lacking the sheen of black drongo. It is insectivorous and observed in Himayat Bagh during winter season.

176. White-bellied Drongo (*Dicrurus caerulescens*) –



A small drongo with a dull-black back and a relatively short, distinctively forked tail. The “white-bellied” form has an extensively white belly diffusely demarcated from the dark gray throat and breast. The “white-vented” form is restricted to Sri Lanka and is darker overall, with dark gray underparts and a white vent. The species is similar to juvenile Black and Ashy Drogos, which are larger and have smaller amounts of white, diffused with a dusky color or scaling, on the belly and vent. White-bellied is found in dry and open forests across the Indian subcontinent. is a species of drongo found across the Indian Subcontinent.

Although primarily insectivorous they are opportunistic and are known to prey on small birds.[21] Like other droongs, they use their feet while handling their prey.[22] They have been known to take insects attracted to artificial lights

late at dusk.[23] They also visit large flowers for nectar, particularly Bombax, Erythrina and may pollinate species such as Helicteres isora.

177. Rufous Treepie (Dendrocitta vagabunda) –



A long- and stiff-tailed bird with primarily rusty-brown upperparts and dull orangish underparts. The head, mantle, and neck region are a dull, sooty black. The long graduated tail is pale gray with a wide black terminal band. Note the conspicuous silvery-gray, white, and black patterns on the wings. The blackish-gray bill is stout with a hooked tip. Found in a wide range of habitats from woodlands to scrubby patches, singly or in pairs feeding in the treetops. The call is a loud metallic “krowiiii kroo.” It is a treepie, native to the Indian Subcontinent and adjoining parts of Southeast Asia.

It is found commonly in open scrub, agricultural areas, forests as well as urban gardens. Like other corvids it is very adaptable, omnivorous and opportunistic in feeding. So it is observed in Himayat Bagh area.

178. House Crow (Corvus splendens) –



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A slender, blackish medium-sized crow with a long bill. The grayish nape and sides form a paler collar that contrasts with the glossy black body. Primarily a scavenger, feeding on leftover rubbish from humans. Found in a wide range of habitats mostly around human habitation. Their call is a loud and harsh “kaa kaa kaa.” It has a widespread distribution in southern Asia, being native to Nepal, Bangladesh, India, Pakistan, Sri Lanka, Maldives and Laccadive Islands, South West Thailand and coastal southern Iran.

House crows feed largely on refuse around human habitations, small reptiles and mammals, and other animals such as insects and other small

invertebrates, eggs, nestlings, grain and fruits. House crows have also been observed swooping down from the air and snatching baby squirrels. Most food is taken from the ground, but also from trees as opportunity arises. They are highly opportunistic birds and given their omnivorous diet, they can survive on nearly anything that is edible. These birds can be seen near marketplaces and garbage dumps, foraging for scraps. They have also been observed to eat sand after feeding on carcasses.

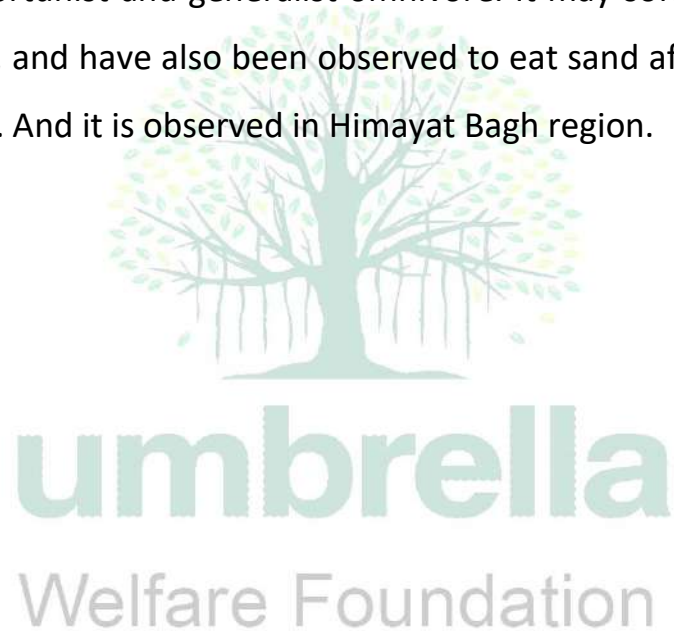
179. Jungle crow (Corvus culminatus) –



The Indian jungle crow (*Corvus culminatus*) is a species of crow found across the Indian Subcontinent south of the Himalayas. This glossy all-black crow has a heavy black bill but without an arching culmen (upper edge of the

mandible) and has a fine tip. The feathers have a purple gloss throughout. The tail of the Indian jungle crow is rounded and the legs and feet are stout. The base of the nape feathers is dusky. The Himalayan japonensis (in this sense including western intermedius and eastern tibetosinensis) has a slightly wedge-shaped tail and a voice is a guttural and grating graak (intermedius) or a hoarse kyarrh (tibetosinensis). The calls of the Indian jungle crow are not unlike that of the house crow, but are harsher.

It is an opportunist and generalist omnivore. It may soften its food by dropping it in water, and have also been observed to eat sand after feeding on meat from a carcass. And it is observed in Himayat Bagh region.



Snakes

1. King Cobra (Ophiophagus Hannah) –



It is a venomous snake species of elapids endemic to jungles in Southern and Southeast Asia. Cobras live in hot, tropical areas. They also live in savannahs, grasslands, forests and farming areas in Africa and Southern Asia. They mostly prefer to stay underground, like under rocks and some stay in trees.

Cobras are hunters. They quietly follow their prey and attack when ready. They are agile and fast. Cobras are cannibals. It means that they eat other snakes. Kraits feed almost exclusively on other snakes. The other species eat birds, bird eggs, small mammals and rodents.

They are observed in Himayat Bagh because of the area of Himayat Bagh is relevant to their habitats.

2. Rat Snake (Ptyas mucosa) –



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It is a common non-venomous species of colubrid snake found in parts of South and Southeast Asia. Found in Afghanistan, Andaman and Nicobar Islands, Bangladesh, Myanmar, Cambodia, China (Zhejiang, Hubei, Jiangxi, Fujian, Guangdong, Hainan, Guangxi, Yunnan, Tibet, Hong Kong), Taiwan, India, Sri Lanka, Indonesia (Sumatra, Java, Bali), Iran, Laos, West Malaysia, Nepal, Myanmar, Pakistan (Sindh area), Thailand, Turkmenistan and Vietnam.

Rat snakes, though harmless to humans, are fast-moving, excitable snakes. In captivity, they are territorial and may defend their turf aggressively, attempting to startle or strike at passing objects. Rat snakes are diurnal and semi-arboreal.

They inhabit forest floors, wetlands, rice paddies, farmland, and suburban areas where they prey upon small reptiles, amphibians, birds, and mammals. Adults, unusually for a colubrid, prefer to subdue their prey by sitting on it rather than by constricting, using body weight to weaken prey.

3. Russell's viper (*Daboia russelii*) –



Russell's viper (*Daboia russelii*) is a venomous snake in the family Viperidae native to the Indian subcontinent. Russell's viper is not restricted to any particular habitat, but does tend to avoid dense forests.

The snake is mostly found in open, grassy or bushy areas, but may also be found in second growth forests (scrub jungles), on forested plantations and

farmland. It is most common in plains, coastal lowlands, and hills of suitable habitat. Generally, it is not found at altitude, Humid environments, such as marshes, swamps, and rain forests, are avoided. And it is observed in Himayat Bagh area.

4. Banded racer (*Argyrogena fasciolata*) –



The Banded Racer is a species of colubrid snake found in India, the Nonvenomous snake of small to medium-sized found in the plains of North Bengal and Kashmir. Banded Racer is one of the 20 species of Non-venomous Indian snakes.

5. Trinket snake (Coelognathus helena) –



The trinket snake (*Coelognathus helena*) is a nonvenomous constrictor species of colubrid snake native to south Central Asia. A terrestrial snake, It lives in termite mounds, but also prefers low heights, old trees, wood piles, around old houses, dense vegetation, etc. The trinket snake feeds on rodents, other small mammals, and lizards.

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6. Checkered Keellback (*Xenochrophis piscator*) –



The Checkered keelback is a medium-sized nonvenomous snake native to Asia. Its coloration is very variable; it consists of dark spots arranged quincuncially and often separated by a whitish network, or of black longitudinal bands on a pale ground, or of dark crossbands, with or without whitish spots. Two oblique black streaks, one below and the other behind the eye, are nearly constant. The lower parts are white, with or without black margins to the shields.

7. Bronze back Tree Snake (Dendrelaphis tristis) –



It is a species of tree-snake found in Sri Lanka, India (incl. Tamil Nadu, Kerala, Madhya Pradesh, Maharashtra). *Dendrelaphis tristis* is a long, slender snake with a pointed head and a bronze coloured line running right down its back. Its diet includes geckos, birds and occasionally frogs. This harmless snake prefers the tree tops to life on the ground. It is camouflaged (made invisible by means of protective colouring) among the leaves because of its uniform ruddy brown skin. This active snake is restless and quick, both on the ground as well as in the trees.

8. Green Keelback (Macropisthodon plumbicolor) –



Green Keelback is a yellowish-green colored snake found in peninsular India except above Gangetic plains and most of the Eastern India. This can be identified by checking rich green or yellowish-green body marked with more or less irregular black bands or patches. In most of its life it bears yellow color V shaped marking guarded by black on nape. Sometimes it can be confused with Cobra due to its habit of showing narrow fake hood above the ground as a nervous response.

9. Indian Wolf Snake (*Lycodon aulicus*) –



Lycodon aulicus, commonly known as the Indian wolf snake, is a species of nonvenomous snake found in South Asia and Southeast Asia. The Indian wolf snake is nocturnal and is inactive in the day. It is of fierce habits and defends itself vigorously, however it is nonvenomous. It is known to defend itself when barred of escape, and can cause severe lacerations with its fine sharp "fangs". It may also feign death to lure in potential prey and to avoid being chased by

predators. *Lycodon aulicus* feeds on lizards and frogs. It is one of the most formidable enemies of the skinks, which form almost its sole food, the "fangs" in the front of its jaws being adapted for piercing and making good its hold on the hard smooth scales with which those lizards are coated.

10. Kukri (*Oligodon bitorquatus*) –



Oligodon are also known as kukri snakes. They are egg eaters and are usually under 90 cm (35 in) in length; different species display widely variable patterns and colorations. They subsist mostly by scavenging the eggs of birds and reptiles. Besides eggs, species of this genus also feeds on lizards, frogs, and small rodents.

11. Sand Boa (Eryx johnii) –



The Indian sand boa is a nonvenomous snake native to Western and South Asia. Adapted to burrowing, the head of this snake is wedge-shaped with narrow nostrils and very small eyes. The body is cylindrical in shape with small polished dorsal scales. The tail, which is blunt, rounded, and not distinct from the body, appears truncated. Coloration varies from reddish-brown to dull yellow-tan.

12. Checkered keelback Water Snake (Fowlea piscator) –



The checkered keelback (*Fowlea piscator*), also known commonly as the Asiatic water snake, is a common species in the subfamily Natricinae of the family Colubridae. The species is endemic to Asia. Most of the time this snake tries to raise its head as much as possible and expand its neck skin mimicking a cobra hood and intimidate the threat. Though it is non-venomous for human.

The preferred habitat of *F. piscator* is in or near freshwater lakes or rivers. *F. piscator* feeds mainly on small fish and water frogs.

13. Common krait (*Bungarus caeruleus*) –



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This common krait is distributed from Sindh to West Bengal, throughout South India, and Sri Lanka. It lives in a wide variety of habitats, from fields and low scrub jungle to settled areas. It rests in termite mounds, brick piles, rat holes, and even inside houses. It is frequently encountered in water or in proximity to a water source.

The common krait feeds primarily on other snakes, including: "blind worms" (snakes of the genus *Typhlops*), and cannibalizes on other kraits, including the young. It also feeds on small mammals (such as rats, and mice), lizards, and frogs. The young are known to eat arthropods.

Often during the rainy season, the snakes come out of their hiding places and find refuge inside dry houses. Kraits are nocturnal and observed in Himayat Bagh area.



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Butterflies

1. Common Rose (*Pachliopta aristolochiae*) –



It is a common butterfly which is extensively distributed across south and southeast Asia. It is very common almost all over the plains of India, and is not threatened as a species. During and after the monsoon it is extremely abundant. The butterfly is a common visitor to Indian gardens and can even be found in crowded urban areas. The common rose frequently visits flowers such as Lantana, Cosmos, Zinnia, Jatropha and Clerodendron. The butterfly occasionally also visits wet patches. In parts of Sri Lanka, the males are known to congregate and form a beautiful sight while mud-puddling.

The common rose is active much earlier in the morning than most butterflies and remains so throughout the day until dusk. It flies just as readily in the shade as in the sun, and frequently visits flowers. In drier regions, around noon, the butterfly rests in thickets to avoid the mid-day heat. Here, it will rest and venture forth only in the late afternoon once again.

2. Striped Tiger (*Danaus genutia*) –



It is found all around the Indian Subcontinent extending to South-East Asia and Australia. It is fairly common in the Southeast area. It can be easily found in scrub jungles and dry and moist deciduous forests. It prefers areas of

moderate to heavy rainfall. It can be found occasionally on degraded hill slopes and ridges.

Striped Tiger caterpillars generally feed on plants like *Aedenium obesum* and *Allamanda cathartica* (Golden Trumpet Vine) from the Apocynaceae family even though the eggs are laid on plants from Asclepiadaceae family.

3. Lemon Pansy (*Junonia lemonias*) –



It is a common nymphalid butterfly found in Cambodia and South Asia. It is found in gardens, fallow land, and open wooded areas. The lemon pansy is a very active butterfly and can be seen basking with its wings open facing the sun. It sits very low to the ground and can be approached easily. It feeds with its wings half open. It is a fairly strong flier and flies close to the ground with rapid wingbeats and often returns to settle back in the same spots. Caterpillars feed on plants from the families Acanthaceae, Amaranthaceae, Malvaceae, Rubiaceae, Tiliaceae and Verbenaceae.

4. Blue Pansy (*Junonia orithya*) –



Junonia orithya is a nymphalid butterfly with many subspecies occurring from Africa, through southern and south-eastern Asia, Cambodia and in Australia. In India, its common English name is the blue pansy.

They prefer open habitats, like grasslands, wastelands, woodlands, open forest areas, and farmlands. They found at elevations between sea level and about 300 to 500 meters.

They also found in parks and gardens. They tend to visit tiny flowers growing in grassy areas, and sunbathe with wings fully open. The flight is rapid and typically done in a gliding fashion. Both sexes nectar at a wide variety of wild or cultivated flowers. Blue pansy is a sun-loving species, which can usually be found on grassy patches in open areas. Males can sometimes be found in numbers.

The greenish eggs are laid singly on the young leaves or shoots of the host plant or other plants. And they are observed in Himayat Bagh area.

5. Chocolate Pansy (*Junonia iphita*) –



Junonia iphita, the chocolate pansy or chocolate soldier, is a butterfly found in Asia. The eggs are often laid on the ground or on dry twigs near the host

plants rather than on them. On hatching the larvae find their way to the host plants.

6. Yellow Pansy (*Junonia hierta*) –



This species can be found in Africa and Southeast Asia. It is usually seen in open scrub and grassland habitats.

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7. Crimson Tip (*Colotis danae*) –



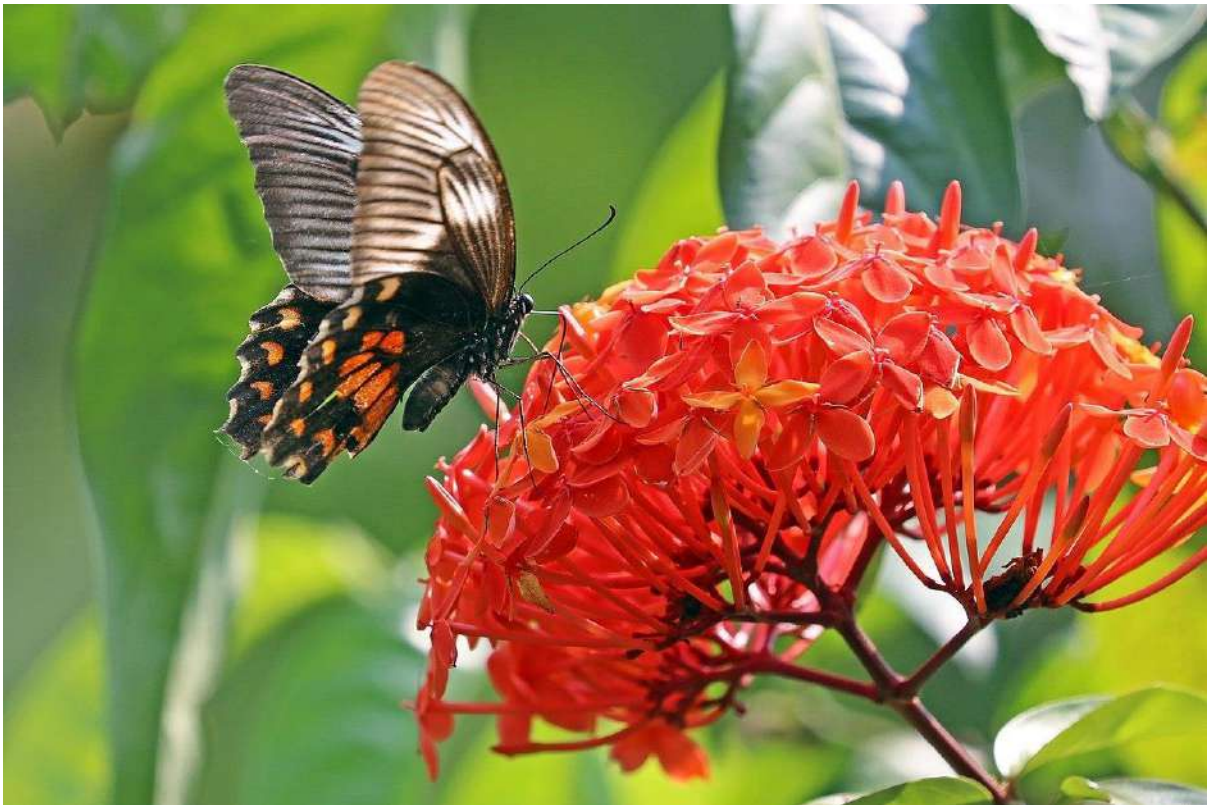
It is found in Asia and Africa, Baluchistan, western and southern India. The larval food plants include the genera *Cadaba*, *Capparis* and *Maerua* (all in the family *Capparaceae*).

8. Grass Yellow Pioneer (*Eurema hecabe*) –



It is found in Asia, Africa and Australia. They are found flying close to the ground and are found in open grass and scrub habitats.

9. Common Mormon (*Papilio polytes*) –



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Papilio polytes, the common Mormon, is a common species of swallowtail butterfly widely distributed across Asia. This butterfly is known for the mimicry displayed by the numerous forms of its females which mimic inedible red-bodied swallowtails, such as the common rose and the crimson rose.

Very common. Not threatened. This species has considerable genetic variability and is known to produce gynandromorphs, genetic aberrations which are part male and part female. The common Mormon is fond of visiting flowers and its long proboscis permits it to feed from flowers having long corollar tubes.

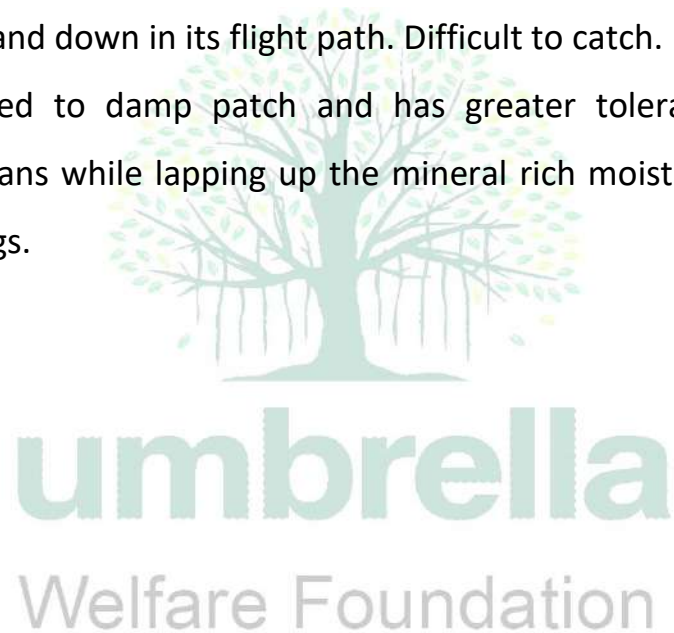
It is particularly fond of Lantana, Jatropha, Ixora, and Mussaenda in city gardens. In the forests, the common Mormon remains low keeping within ten feet off the floor and its prefer to visit Asystasia, Peristrophe, and Jasminum for nectar. The male common Mormon is a very common visitor to gardens where he will be seen hovering over flowers when the sun is shining. It is a restless insect, zigzagging fast and straight close to the ground, settling down only when it halts to feed.

10. Blue Mormon (*Papilio polymnestor*) –



Papilio polymnestor, the blue Mormon, is a large swallowtail butterfly found in south India and Sri Lanka. It is the "**state butterfly**" of the Indian state of Maharashtra. With a wingspan of 120–150 mm, it is the fourth largest butterfly of India. It is common and not thought to be threatened. It occurs throughout the year but more common in the monsoon and immediately after

it. The butterfly is most common in heavy rainfall areas, such as evergreen forests. It is also common in deciduous forests and wooded urban areas, primarily due to the cultivation of its host plants, i.e. the Citrus species. This butterfly frequents forest paths and streams. The male is fond of sun and avoids the shade. It frequents flowers especially of *Mussaenda frondosa*, *Ixora coccinea*, *Jasminum* species and *Asystasia gangetica*. Periodically raids thicker forest patches, especially where *Atalantia* species are to be found in search of females to mate with. Has a rapid unidirectional flight and frequently changes course, hopping up and down in its flight path. Difficult to catch. Known to bask in the sun. Attracted to damp patch and has greater tolerance to other butterflies and humans while lapping up the mineral rich moisture. Known to visit animal droppings.



11. Common Crow (*Euploea core*) –



Euploea core, the common crow, is a common butterfly found in South Asia to Australia. In India it is also sometimes referred to as the common Indian crow. It can be observed in all layers of vegetation and in all types of regions from arid land to forested areas. It can as commonly be seen gliding over the treetops as flitting about a foot off the ground searching for nectar flowers. In thick forests it is often seen moving along open tracks or following the course of a river.

E. core is a nectar lover and visits flowers unhurriedly. It seems to prefer bunches to individual flowers. When feeding the butterfly is unhurried and is not easily disturbed. It can be approached closely at this time.

12. Lime (*Papilio demoleus*) –



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The butterfly is a pest and invasive species, found from Asia to Australia. In India, it is mostly found in the plains, but can be found on the hills of peninsular India. It is common in urban gardens and may also be encountered in wooded country. The butterfly is also a very successful invader, its spread appearing to be due to its strong flight, increase in urbanisation and agricultural land use that opens up new areas for dispersal, and greater availability of food plants.

This butterfly is an avid mud-puddler and visitor of flowers. It basks with its wings held wide open on tufts of grass and herbs, and generally keeps within a metre of the ground, even on cloudy days. It relies on its quick flight for escape. And it is observed in Himayat Bagh area.

13. Peacock Pansy (*Junonia almana*) –



It is a species of nymphalid butterfly found in Cambodia and South Asia. *J. almana* is found in India, Sri Lanka and South East Asia, and eastwards to China

and Japan. They are known to live in groups of up to ten individuals, which can be very dangerous.

Their habitat consists of temperate regions across Europe and Asia. They primarily live in woods, fields, pastures, meadows, and gardens, but they can be found in lowlands and mountains reaching heights of approximately 8,200 feet.

14. Common Five Ring (*Ypthima baldus*) –



Ypthima baldus, the common five-ring, is a species of Satyrinae butterfly found in Asia. It is a species of Satyrinae butterfly found in Asia.

Ypthima baldus, the common five-ring, is a species of Satyrinae butterfly found in Asia. For a key to the terms used, see Glossary of entomology terms. Male: Upper side brown, both forewing and hindwing with terminal

margins much darker, and generally with more or less distinct sub basal and discal dark bands. Found in central India and the hills of southern India and the Western Ghats, Assam).

15. Common Leopard (*Phalanta phalantha*) –



The butterfly is found in Africa and southern Asia (including India, Bangladesh, Sri Lanka, and Myanmar) in a number of subspecies. It is widely distributed and abundant; from the tops of hills in Sri Lanka and southern India and up to 3000 m in the Himalayas, as well as the whole of Africa.

Sun loving and avoids shade. Seen in the plains, gardens, and edges of clearings. Has active and sharp flight movements. Visits flowers regularly especially Lantana, Duranta, Meyenia laxiflora, Gymnosporia montana, and

thistles. Often seen mudpuddling from damp patches in the ground, either alone or in groups. A regular basker with wings spread wide open. It is commonest in dry areas and dry weather and absent from the wetter parts of India during the monsoon. It often perches on edges of clearing with wings half open and has the habit of chasing away other butterflies and guarding its territory. Food plants are species of family Bixaceae. It has been recorded breeding on *Flacourtia indica*, *Flacourtia montana*, *Smilax*, *Xylosma longifolium*, and *Salix*.



Conclusion :-

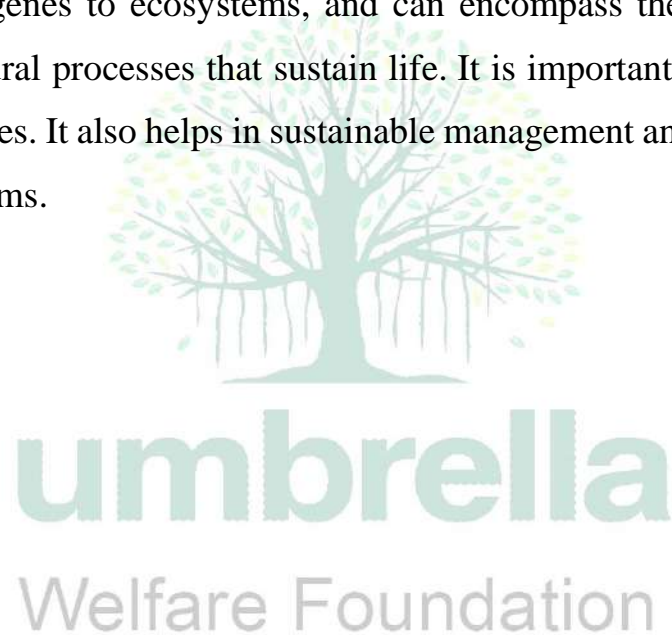
Himayat Bagh area is believed as a surviving historical site from the 17th century. Visually impressive and has about many tree species. Large and old trees. Ecologically fragile ecosystem – terrestrial, inland waters and having rich biodiversity comprising of any one or more of the components like richness of wild as well as domesticated species, high endemism and presence of rare and threatened species.

An assortment of plants and flowers of Himayat Bagh attracting a variety of birds. Birds are part of the food chain, and they keep a check on the overpopulation of rodents, insects and even snakes and birds are the key to seed propagation. Himayat Bagh is geologically unique and diverse. Has large number of plants and herbs that attract the prey of snakes would attract snakes. Snakes helps to form a key link in the food chain. They help a maintain healthy ecosystem and environment. Some plant species, sunny open spaces and fresh water of Himayat Bagh attracts the butterflies. Butterflies are more in number in Himayat Bagh indicate that an ecosystem is thriving.

Presence of tree species richness and functional diversity in an area of Himayat Bagh which attracts wide variety of Birds, Reptiles, Insects and other living organisms. Biodiversity plays an important role in the ecosystem which result in tangible benefits to people. In addition, birds, reptiles, butterflies are important to humans in many ways. Good diversity keeps the climate stable, oxygenate air and transform pollutants into nutrients & plays an important role in the effective functioning of these systems. As birds are high up in the food chain, they are also good indicators of the general state of our biodiversity.

The study indicates these areas had high species richness of birds, reptiles, butterflies & eco-touristic potential. These are very important areas for conservation of species & bird watching study. Land use changes have the

positive correlation with affecting the biodiversity. Biodiversity is an integral part of our ecosystem to maintain balance between the factors which are present in the environment. Need of conservation in the areas of Himayat Bagh leads to increase diversity of many species in the future & to maintain the healthy ecosystem. Species richness and evenness is good as per the observed data. There are many healthy trees which can be full of beetles, worms, caterpillars and other insect larvae. These serve as nutrition for birds and small organisms. The term biodiversity (from “biological diversity”) refers to the variety of life on Earth at all its levels, from genes to ecosystems, and can encompass the evolutionary, ecological, and cultural processes that sustain life. It is important for preserving the diversity of species. It also helps in sustainable management and utilization of species and ecosystems.



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