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# An Urban Park: Lodi Gardens in New Delhi, India

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A female and juvenile Small Indian Mongoose, *Herpestes javanicus*, in Lodi Gardens

#### AN URBAN PARK: LODI GARDENS IN NEW DELHI, INDIA

Lodi Gardens, one of Asia's best-known urban oases, lies just southeast of the heart of New Delhi. I visited the gardens on the morning of 13 July 2006, staying from 0745 to 0930.

Often, entering a garden in an urban setting is something of a shock to the senses. But this is not the case with the Lodi Gardens for here the neighboring streets are wide and tree-lined, shade overhangs the sidewalks, palm squirrels poke along compound walls, and sunbirds seek nectar from conspicuous flowers. Once inside the grounds, however, there is a noticeable change for the sound of traffic is shunted into the background, replaced in part by the voices of birds. Tees are tall and varied, lilies or petunias - or whatever is in season - line the walkways, and green lawns beckon. Moreover there is history here, for the garden encompasses several tombs of the Lodi and Sayyid rulers of Delhi, the monuments erected in the 1400s and 1500s.



The Shish Gumbad from the Lodi Period, 1451-1526, rests towards the center of the park

A black-and-white picture of the Lodi Garden site taken in 1912 shows a desultory looking "wasteland" [see Krishen, page 16] and an observer from that period noted that south of the "walled city" (this refers to Old Delhi, called Shahjehanbad at that time) the eye swept across "a vast, man-worn plain littered with crumbling debris of earlier, abandoned Delhis" [Krishen, p 33]. However, in 1936 authorities initiated a garden on this site and now, some seventy years later, many of the silk cottons, neems, pterospermums, figs, and others, are tall, fully mature trees. Some individuals are not immense as the garden was re-landscaped in 1968.

On the morning of 13 July, I entered the garden from north and stood by Sikandar Lodi's tomb wall, listening and looking. People moved about. At this time of the morning, many walkers are out for their constitutions and a few joggers also made the rounds. Several dogs, all on leash, sniffed along, one assemblage composed of a golden retriever, dalmation and two spaniels. At other sites, folks sat and visited. Or exercised, often using Tai Chi-like movements or yoga practices. On weekends the park is popular with picnicking families. This garden, so well maintained and much frequented, is a superb example of a multiuse green area within an urban setting.



Locals practicing yoga breathing amid green surroundings

Besides people and dogs, the other conspicuous mammal in the park is the Five-lined Palm Squirrel, a small creature that looks like a striped chipmunk. Numerous palm squirrels poked about in the grass or scampered up tree trunks.

Standing by the wall, I was immediately struck by the volume of the bird voices, especially those of the Common Myna and the Indian House Crow, the calls of the former the most



A juvenile Five-lined Palm Squirrel, *Funambulus pennantii*, a common mammal in the gardens

conspicuous bird sound in the park. In addition, I heard numbers of Rose-ringed Parakeets. These three species, along with small groups of Jungle Babblers, formed the commonest birds here. Other birds seen or heard several times included Green Barbets, Indian Magpie Robins, Jungle Crows, Common Tailorbirds, and Koel Cuckoos. One signboard with colorful paintings depicts birds of the park, and includes several species such as the Black-rumped Woodpecker, White-breasted Kingfisher, Indian Gray Hornbil, and Yellow-footed Green Pigeon that are rather unusual in an urban setting. I recorded eighteen bird species on this day, but had noted twenty-six on a visit in April 2004; a bird list for the park would total well over fifty species.

While the birds of the park are those that feed on the ground or are found in tall trees, some species, such as the Red-vented Bulbul, normally common in North India, were surprisingly scare. The park has an excellent variety of trees (some 110 species are listed) and fine ground-level plantings but, with the exception of some bougainvilleas and bamboo, does not feature bushy tangles. And as this bulbul is usually associated with bushes or fruiting trees, I suspect that the lack of bulbuls in this manicured park relates to lack of mid-level plant growth. In addition, birds that hawk insects in the air such as flycatchers, drongos and bee-eaters were also absent or scarce. Perhaps the garden's location, near the heart of New Delhi, is not open







A Jungle Babbler, *Turoides striatus*, scolding mongooses.

enough to attract this category of bird life. This reminds us that while the gardens are superb they are not a reconstituted wild land.

Wild enough, though, for the Indian Gray Hornbill. All Asian hornbills, with the exception of the Indian Gray, frequent wet forests with tall trees. The Indian Gray has adapted to relatively open terrain, feeding not only on figs and other fruit but also on a variety of insects, lizards and bird nestlings. Asian hornbills are basically arboreal, almost never descending to the ground. But, here again, the Indian Gray is an exception for this species descends to gather fruit from the ground and also to catch insects. Gray Hornbills nest here but it would be surprising if these gardens were able to provide enough food to support a population all year around. Could be that birds travel to other green areas in Delhi to search of additional food sources.



An Indian Gray Hornbill, *Tockus birostris*, immediately after taking a bath on a dusty path in the gardens.

Some open-country birds, quail for example, are well known dust bathers. These species select a spot - often a depression along a dusty road - and settle in, wriggling their bodies and fluffing their feathers as they crouch down into the dust, all the while kicking up small clouds. This behavior is thought to help with ectoparasites. Asian hornbills do not dust bathe [rather hard in wet, leafy terrain]. But, again, the Indian Gray is the exception as on this morning I saw one bathing in the dusty path along the eastern edge of the park. This behavior is little recorded and not mentioned in recent literature [see Ripley and Ali, page 130].

Beyond the plants, people, and birds the next most conspicuous element in the gardens was insects, mostly ants and bees. Butterflies flew by but were surprisingly uncommon. I mostly saw members of the Whites (Pieridae) family including a Brimstone. Could be that July is not

a good time for butterflies here. An ornamental Fire Bush [Hamelia] with long, tubular, orange to yellow flowers attracted a host of bees, of at least three different species, and a magnificent



The Giant Honey Bee, Apis dorsata, gathering pollen.

yellow-orange wasp. One the common bees at these bushes was the Giant Honey Bee, *Apis dorsata*, a species that builds exposed hives under the overhangs of tall arches found on tombs and other buildings, or on the undersides of large tree branches high above the ground. Should these nests be disturbed, Giant Honey Bees are notoriously aggressive and will stay angry for several days. Here in Lodi Gardens, bee nests hang from the high branches of a Bombax tree near the north gate. When the bees gather pollen [as from the *Hamelia* or other plants] they are not aggressive and can be closely approached. The Giant Honey Bee is a big bee and when seen closely, one notes that its abdomen is over fifty percent longer than that of the usual honeybee. The similar Himalayan Rock Bee, *Apis laboriosa*, was separated from this species in the 1980s.

I also saw winged Termites emerging from the ground in a grassy plot towards the north side of the gardens, northeast of the Bara Gombad. And I was not the only individual noticing this emergence for a family of five Small Indian Mongooses, presumably parents with three nearly grown young, were busy catching and devouring the insects. This is one of the smallest of the Herpestidae, individuals weighing in at about 800 gms/1.75lbs [see Menon, page 108].

When I first spotted the mongooses, I thought to attract the family by squeaking, using the

sound of a wounded bird. However, while the animals looked up, they did not come my way. This stands in contrast to the behavior of a pair of Large Indian Mongooses seen last year that responded immediately and repeatedly to my squeak. This would indicate that the small Indian species is primarily an insect feeder while the large mongoose preys frequently on birds and creatures of that size. Both species are known snake catchers.



A female Small Indian Mongoose, Herpestes javanicus, with juveniles. Two of the latter with heads in holes looking for termites.

Since the mongoose family would not come to me, I slowly walked over to them and stood partly shielded by the thin trunk of a small *Polyalthia* sapling. Being creatures of an urban park, the mongooses quickly grew used to me, allowing me to stay with them for almost an hour while they pounced on insects. Members of the family were at times less than three meters from my feet. Being with mongooses at this range and for this long was a first for me – and a distinct treat.

During the hour under observation the mongooses were focused entirely on termites. Occasionally a Jungle Babbler, or House Crow, or a Common Myna came by, perched on a nearby stalk and noisily raised an alarm to indicate there was a predator on the loose. But the mongoose family took no notice of the squawking birds so eventually the latter lost interest and flew away, replaced in due course by yet other birds and more alarm calls. This mongoose is listed as a bird eater [see Prater, page 100], but it could be they feed on fallen nestlings or other incapacitated individuals.

That wild mongooses near the center of New Delhi allowed me to stand near them for an hour speaks volumes for the tolerance of Indians for non-human forms of life. Locals were wonderfully considerate and gave not the slightest hint that they would like to harass the animals — or disturb me for that matter. The mongooses did keep an eye on passing humans and when walkers came too close for comfort the family scurried under protecting bougainvillea bushes. But they did not stay submerged in the vegetation for long.

The mongooses energetically hunted the termites. When an insect emerged from the ground, a mongoose might snap it up and then immediately start burrowing into the ground, hoping to catch several more. During the hour, they worked over an area of 3m/10ft by 4.5m/15ft [13.5 m²/150 ft²] and later I counted 16 recently dug holes, the deepest of which was 6.3cm/2.5in. Interesting, the presumed mother interacted with the youngsters while the father, keeping eye on the group from a distance, did not cooperate with the others while I was watching.

Frequently, a youngster would assist the mother in digging for termites, an activity that seemed related to teaching the young to hunt. In one case, the mother was activity digging when a youngster came rushing over. First the juvenile starting digging with its right paw, and then with both paws, and after an initial, half-hearted effort, it began to dig frantically. In this particular effort neither mongoose was rewarded with additional morsels.

The mongooses kept close watch on their surroundings, sometimes titling their heads to look up. Only twice did I see an individual rise up on its hind legs to get a better view over the grass. When an animal did stand it held its head at right angles to the vertical spine to make the upper neck look almost dislocated.

Ants, a large, black variety with abdomens cocked at forty-five degree angles, and a small, brown type, all likely members of the same species, swarmed over the ground, running over mongoose paws without the mammals paying heed. Ants neither seemed to bother the mongooses nor were they of culinary interest to the mammals. One time, though, a juvenile mongoose jumped as though bitten by an ant.

Members of this mongoose family scratched only twice during the hour. A remarkable condition considering all the itches that they might acquire scurrying about on the ground in the humid heat of monsoon Delhi.

After visiting Lodi Gardens, I have a deeper appreciation for urban gardens. As a naturalist with an interest in biodiversity, my focus has been on wild places, the wilder the better. Urban gardens are not wild, but they are a remarkable resource for city folk, a place where people can connect with plants and other forms of life, and places that can calm the spirit. Lodi Gardens has a wonderfully "soft" quality to it, the entire area suffused with green and many sections shaded and quiet. A sanctuary for people as well as for many other creatures that find Lodi a fine refuge amid the bustle of the capital city.

My thanks to Raj Singh and the staff of Exotic Journeys, New Delhi, for splendid hospitality in New Delhi and to Future Generations for the opportunity to travel to India.

For further reading see the following:

**Ali, S and S. D. Ripley**. 1970. Volume 4. *Handbook of the Birds of India and Pakistan*. Oxford University Press, Delhi.

Krishen, Pradip. 2006. *Trees of Delhi, a field guide*. DK Publishers, Delhi. Menon, Vivek. 2003. *A field guide to Indian Mammals*. DK Publishers, Delhi Prater, S.H. 1965. Second edition of *The Book of Indian Animals*. Bombay Natural History Society, Bombay

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Cassia fistula, native to India, is planted as an ornamental in many tropical areas of the world.