Humans have an affinity for certain species. This is perhaps the reason stray dogs, monkeys and pigeons have always been part of Indian life. Their numbers have, however, reached unmanageable levels in urban areas in recent decades, so much so that they now pose a threat to public safety. Zoonotic diseases like rabies, caused by dog and monkey bites, and lung ailments, caused by pigeon droppings, are on the rise like never before. The behaviour of these city-bred species has also undergone changes. They now feed and breed profusely, and are fast adapting to urban settings. For peaceful coexistence, curbing the population of these species may not be enough. It requires a change in people’s etiquette so that these benign species do not become an urban menace.

A report by RAJAT GHAI, HIMANSHU N and TARAN DEOL
N THE morning of April 11, 2023, Adersh left for the market and never returned home. At night, the police recovered his body from the playground of Shastri Nagar Intermediate College in Maharajganj, Uttar Pradesh. The 11-year-old had died after being attacked by a pack of stray dogs in the middle of the day. The dogs had bitten off his right hand and mauled his face. A similar incident was reported in Hyderabad this February, when stray dogs killed a four-year-old playing in the parking area of a car service centre where his father worked as a security guard. The incident was captured on a CCTV camera, and the video has since gone viral.

India recorded 1.92 million dog-bites in 2022, or an average of 5,200 incidents a day. In 2019, before COVID-19 pandemic gripped the country, dog-bite incidents were 7.28 million. Owing to the rising menace, India made reporting of all rabies cases in humans mandatory in 2021, and the figure jumped to 47,291 from 733 in 2020 (see ‘Conservative estimates’).

Rabies is a viral disease that infects the central nervous system. “Once clinical symptoms appear, rabies is virtually 100% fatal,” says the World Health Organization (WHO). Children under 15 years account for 40 per cent of the deaths in Asia and Africa, says WHO, adding that vaccinating dogs, including puppies, is the most cost-effective strategy for preventing rabies. In India, 96 per cent of the mortality and morbidity due to rabies is associated with dog bites, as per the National Action Plan for Dog Mediated Rabies Elimination from India by 2030, released in 2021 by National Centre for Disease Control (NCDC). NCDC classifies rabies as a neglected zoonotic disease endemic in all states/Union Territories.

**Conservative estimates**

In 2019, before the COVID-19 pandemic gripped the country, India recorded nearly 20,000 dog bite cases per day.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dog Bite Cases</th>
<th>Rabies*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>6,329,110</td>
<td>113</td>
</tr>
<tr>
<td>2016</td>
<td>6,674,878</td>
<td>93</td>
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<td>2017</td>
<td>6,878,845</td>
<td>111</td>
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<tr>
<td>2018</td>
<td>7,567,811</td>
<td>116</td>
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<tr>
<td>2019</td>
<td>7,277,523</td>
<td>105</td>
</tr>
<tr>
<td>2020</td>
<td>4,633,493</td>
<td>15 deaths, 733 cases^</td>
</tr>
<tr>
<td>2021</td>
<td>1,701,133</td>
<td>55 deaths, 47,291 cases</td>
</tr>
<tr>
<td>2022</td>
<td>1,916,863**</td>
<td>NA</td>
</tr>
</tbody>
</table>

*These include rabies cases caused by all animals. Over 96 per cent of rabies cases in India are due to dog bites, as per the National Centre for Disease Control.

^Before 2021, the government did not keep separate data for rabies cases and rabies deaths. 2021 is also the year the Centre asked the states to make rabies a notifiable disease, which improved the recordkeeping, visible in a sharp increase in numbers. **Till November 2022.

Source: 19th and 20th Livestock Census, National Health Profile from 2015-2022.
CURRENT POLICIES RISK PUBLIC HEALTH

Aiding stray dog populations thrive is a case of misdirected compassion

MEGHNA UNIYAL

FREE-ROAMING dogs across the country have become a serious public health crisis, attacking millions of people annually and mauling citizens to death with disturbing frequency. They also decimate wildlife, cause traffic accidents (dogs are the second biggest reason for such incidents, according to insurance data) and make India the rabies capital of the world.

There are laws to protect people and dogs: the Prevention of Cruelty to Animals Act, 1960, and state municipal Acts. They mandate the removal of stray or unowned dogs from public places and allow for humane euthanasia. However, the Animal Birth Control (Dogs) Rules, 2001 of the Union Ministry of Culture and the revised Animal Birth Control (ABC) Rules, 2023 of the Department of Animal Husbandry violate Central and state Acts.

The number of misrepresentations in the Animal Welfare Board of India’s ABC Module is staggering. It deceptively conflates the benefits of owned dogs with unowned dogs, underplays the negative impacts of stray dogs on humans and the environment, misrepresents international research and policy regarding dogs and blames citizens for dog attacks.

Animal rights groups promote stray dogs as rodent control mechanisms even though they carry the same diseases as rats and cause greater human fatalities. Globally, the elimination of food sources is the first important step towards control of stray animals and pests. But the ABC policy has turned urban spaces into “stray dog territories” and legalised stray dog feeding in public places, effectively converting a human health and safety issue into a stray dog promotion policy, with disastrous consequences.

The animal rights lobby has created false expectations for stray animal population management and continues to create dishonest research to further an agenda of “no kill” and “animal liberation”, over any practical proposal to reduce stray animal populations or achieve genuine animal welfare.

Dogs as a species are not meant to be homeless. They’ve been bred to be owned, hence their Latin name Canis lupus familiaris, meaning dog (or wolf) of the household. Even if we were to judge the ABC Rules solely by intentions and not consequences, what comes across is not any measure of greater purpose but a crude, animal-rights inspired idealism, expressed through cruder elitism, leading to suffering, conflict and death for people, wildlife and dogs.

(Meghna Uniyal is the director of Humane Foundation for People and Animals)

except Lakshadweep and Andaman and Nicobar Islands.

While the government maintains that India saw only 55 rabies deaths in 2021, a research paper released in January 2023 says human deaths due to rabies are much higher at 20,000 a year. “India contributes approximately one-third of global rabies burden annually. The incidence is high and grossly under-reported due to lack of awareness of preventive measures, poor knowledge of post-exposure prophylaxis, irregular supplies and lack of affordability of anti-rabies vaccines and immunoglobulins and weak surveillance system,” says the paper, “Cost analysis of implementation of a population level rabies control programme for children in India”, published in the journal Clinical Epidemiology and Global Health.

In October 2022, a pan-India survey by media platform LocalCircles claimed that over 60 per cent of the residents who participated felt dog attacks were rising in their locality. To address the problem, on May 10, 2023, Bharatiya Janata Party (bjp) leader Vijay Goel organised a meeting of Resident Welfare Associations (rwas) in Delhi. The meeting, attended by over 500 people, was allegedly gatecrashed by animal lovers, and ended after two women from opposing groups started assaulting each other.

UNNATURAL ADVANTAGE

India has a tradition of feeding leftover food to stray animals. Kalidas, in his play Mrichhakatikam, says people should feed leftover food to dogs, says Anindita Bhadra, associate professor at the Dog Lab in the Indian Institute of Science, Education and Research, Kolkata. But the practice has changed she says, and in last two decades or so, animal lovers have started to treat stray dogs as homeless people. “They are now being fed, given shelter and even blankets. This trend of people going out of their way to feed stray dogs could be responsible for the aggressive traits,” Bhadra says. Dogs are territorial and if they get assured food, they become even more protective about their territory, she adds.
There is another problem. Usually, only 19 per cent puppies survive to become adults. Their survival rate goes up when humans start to take care of them. This could explain why the population of dogs in India has not gone down even 20 years after the country launched its drive to sterilise street dogs (see ‘Still out of control’ on p32).

In 2001, India released the Animal Birth Control (ABC) Rules under the Prevention of Cruelty to Animals Act, 1960. The Rules, which were updated in March 2023, broadly classify dogs into pets and stray, and hold the pet owner responsible for sterilising and vaccinating their dogs. In the case of a stray, the onus lies with the local administration. The Rules say that euthanasia can only happen if the dog is terminally ill, not for population control. Even a dog with rabies cannot be euthanised, and must be isolated for a natural death, which occurs in 10 days. The ABC Rules also say that stray dogs captured for sterilising or vaccination need to be returned to their earlier habitat.

This is the reason courts have, over the years, rejected all pleas requesting the culling or relocation of stray dogs. In September 2022, the Kerala government unsuccessfully moved Supreme Court to allow euthanasia or culling of “violent” and “vicious” stray dogs suspected of rabies. The state argued that when there is a zoonotic disease outbreak, culling of animals or birds is undertaken to prevent the spread, and the same must apply to “violent” dogs. The state had, in 2017, also requested the apex court to allow “stray dog zoos” in districts. Several states have unsuccessfully approached lower courts to find solutions. The only exception was seen in August 2020, when the Allahabad high court issued directives for the removal of stray cattle and dogs from Prayagraj city. The directives were squashed by the Supreme Court after MP leader Maneka Gandhi claimed it was against the law.

**LIKELY TO FAIL, AGAIN**

The 2023 ABC Rules now recognise community dogs and say the responsibility of vaccinating and sterilising them lies with the pet owner. Vaccination or relocation of stray dogs need to be considered the only answer to reducing the dog population, it is equally important to have unsuccessful approaches lower courts to find solutions. The onus lies with the local administration.

In 2023, the Kerala government unsuccessfully moved Supreme Court to allow euthanasia or culling of “violent” and “vicious” stray dogs suspected of rabies. The state argued that when there is a zoonotic disease outbreak, culling of animals or birds is undertaken to prevent the spread, and the same must apply to “violent” dogs. The state had, in 2017, also requested the apex court to allow “stray dog zoos” in districts. Several states have unsuccessfully approached lower courts to find solutions. The only exception was seen in August 2020, when the Allahabad high court issued directives for the removal of stray cattle and dogs from Prayagraj city. The directives were squashed by the Supreme Court after MP leader Maneka Gandhi claimed it was against the law.

**LOWER INTOLERANCE TOWARDS STRAY DOGS**

Data on the dangers of stray dogs is not completely reliable

**MANEKA GANDHI**

**IN RECENT** days, there has been a noticeable upsurge in the number of media conversations around “dog bites”. Let us understand this better. Dogs may bite only in extreme circumstances and for two reasons—biological or environmental. When a female gives birth, she naturally becomes protective of its offspring and will become hostile towards the slightest perceived threat. Dogs are no different.

If there is a female dog in heat, unsterilised male dogs compete and get aggressive because of their hormonal conditions. These reasons can be remedied by neutering the dogs.

The environmental reasons can vary. Dogs are likely to get hostile towards people when they have been ill-treated, relocated from familiar territory, kept chained for a long time, if they are sick, hungry or if they are startled while they are eating or sleeping.

Animals on the streets are an inconvenience; even to themselves. The rhetoric that human lives matter more than animal lives targets street dogs alone, often citing dog bite data from health departments. How dependable is this data? Every time a person goes to a hospital seeking post-exposure rabies vaccine, the hospital records it as a case of dog bite. The focus is on the treatment and any detail regarding the dog is irrelevant to it. People are given vaccines even when they have no wound and the animal has been vaccinated. It is almost as if the department wants to increase its numbers instead of counselling people.

Some 80 per cent of the people going for vaccines have been bitten by pet dogs, either their own or someone else’s. Our interaction with street dogs is quite limited, but we are in close proximity with pet dogs. When such bites are reported, a distinction is not made. All cases are registered as dog bites and attributed to street dogs. In fact, every subsequent dose of the vaccine to the same person is recorded as a new dog bite. It is important that the Union health ministry issues directions to all medical institutions to record each dog bite under separate heads of a pet dog, street dog or any other animal bite. Each patient must be given a unique number/card, so that subsequent vaccines are recorded under the same number and not registered as separate bites. While animal birth control is the only answer to reducing the dog population, it is equally important to reduce the growing intolerance among people for homeless animals. The media has a major responsibility not to sensationalise unfortunate accidents but to spread awareness and compassion.

(Maneka Gandhi is a Member of Parliament [Lok Sabha] and an environment and animal rights activist)
The Rules specify that feeding zones for such dogs should be kept away from children’s play area and entry and exit points. Experts feel the latest revisions are unlikely to help because the problem lies elsewhere.

In 2023, Delhi-based lawyer Shaalini Agrawal, along with Khushbu Sainani, a junior research fellow, studied the condition of 20 ABC centres under the Municipal Corporation of Delhi. These are centres where stray animals are kept for sterilisation and vaccination. They found that many centres were operating without night staff to look after the dogs. Some were overcrowded and unhygienic with no ventilation, did not follow protocols, or were cutting corners to maximise profits. The centres did not tag sterilised dogs for identification, even though the Rules mention this.

Such flouting of the Rules means sterilisation of dogs is much lower than what is being claimed. Agrawal filed a Right to Information application and found that one of the centres in Delhi procured 1,000 doses of vaccine since February 2022, but claimed to have carried out over 3,700 sterilisations between 2022 and 2023. “The policy to control stray dogs is flawed. Even after 20 years, dog population continues to rise,” says Abi T Vanak, senior fellow at non-profit Ashoka Trust for Research in Ecology & the Environment, Bengaluru.

### VARYING VOICES

While there is a consensus about the current crisis, the suggested solution differs among animal lovers and others. Ryan Lobo from Bengaluru-based non-profit True Conservation Alliance promotes culling of dogs. “Unwanted dogs are humanely euthanised the world over. In the Netherlands, unowned free-ranging dogs that are sick or aggressive are euthanised.” Ecologist Madhav Gadgil also says that culling makes ecological and economic sense. “Due to uncontrolled growth, they are becoming invasive. In states like Mizoram and Manipur and in several south Asian countries, people traditionally consume dog meat,” he adds.

Radhika Suryavanshi of non-profit People for the Ethical Treatment of Animals (PETA)-India, contests the idea of culling and says it was in practice in India before the sterilisation drive began. “Had the ABC rules been implemented in their true spirit, India’s dog population would already have been regulated,” she says. Suryavanshi warns that there are examples to suggest that culling makes people violent. Researchers from Teesside University, UK, looked at Eastern European communities with large stray dog populations, where such animals were attacked, roughly rounded up, and poisoned or killed in some other cruel ways, and found a link to domestic violence.

Vanak says India must take unpopular choices such as implementing stringent pet ownership laws and prohibitions on feeding in public places. “India should set up dog shelters and funnel the ABC budget for it,” he adds. Vineeta Srinandan, a resident of NRI Complex in Navi Mumbai, agrees. “We have a dedicated enclosure for stray dogs outside our society. They are fed and taken for a walk. Their number has dropped from 38 a few years ago to seven now.”
HABITAT OVERLAP
First humans encroached on their habitat. Now they invade ours, and are unwilling to return because of easy availability of food

GUL KHAN is a self-proclaimed monkey chaser. His clientele includes the who’s who of New Delhi. “It’s a family business,” he says. His cousins are employed by the Rashtrapati Bhavan, Prime Minister’s Office, Niti Aayog and the Union ministries of finance, commerce and external affairs to keep monkeys at bay. Khan has been in this peculiar profession for over three decades now. Earlier, he used to deploy langurs, the larger long-tailed primates, to chase away the rhesus macaques. Since 2012, when the government banned the use of the primates citing cruelty, Khan has perfected the call of a langur and now relies on his voice to scare away monkeys.

The likes of Khan are in demand in Delhi, which has seen an alarming rise in the simian population and the consequential increase in monkey bites and raiding of government buildings and residential neighbourhoods for food. The authorities, it seems, woke up to this menace only in 2007.

In October that year, Delhi’s deputy mayor S S Bajwa fell off the terrace of his house while trying to stave off monkeys rampaging his house and succumbed to head injuries. Earlier that year, while hearing a public interest petition, filed by the residents of New Friends Colony in Delhi in 2000, the Delhi high court banned feeding monkeys in public areas, allowed municipal authorities to fine those who violate the directive and directed the government to round up monkeys from human habitations and translocate them to the Asola-Bhatti Wildlife Sanctuary on Delhi-Haryana border. The court had also asked a special committee to explore the option of sterilisation of monkeys.

But the plans have not worked. Over the 15 years, the authorities have translocated some 20,000 monkeys to the sanctuary and...
provide them food. Monkeys still stray out of the overpopulated sanctuary and have become a menace for the adjacent villages and housing societies. The niche left vacant by them are filled by other troops of monkeys and the conflict continues. In January 2023, the Delhi High Court received another public interest petition that sought records on the funds spent to curb the monkey menace. The Delhi government in its submission has said the menace is getting difficult to address since surgical sterilisation was not working and not enough monkey catchers are coming forward to help.

The helplessness expressed by the Delhi government indicates not only the severity of the problem in the country but also the lack of clear strategies to mitigate the conflict. In the absence of consolidated data on people killed or injured due to monkey bites, 2015 data with Primate Research Centre in Jodhpur, shows India’s cities record about 1,000 monkey bites every day. Monkeys are also carriers of rabies and other zoonotic diseases like haemorrhagic Kyasanur Forest Disease, and cause damages to properties and crops. Yet had earlier reported that Himachal Pradesh loses crops worth ₹500 crore annually due to wild animals, including monkeys. The state has been trying to tackle the menace for two decades now. In 2006, it became the first state to initiate a macaque sterilisation programme. According to its forest department’s website, the state has sterilised 170,169 or 51.4 per cent of its macaque population by 2021. Yet, this has not helped and since 2016, the state has resorted to the culling of rhesus macaques from time to time by declaring them “vermin”.

What’s worse is that such conflicts continue even as region-specific studies indicate a decline in monkey numbers in recent years. In Himachal Pradesh, the population of monkeys has declined by 57 per cent to 136,443 between 2004 and 2020. Uttarakhand’s forest department has found a 25 per cent decline in monkey population between 2015 and 2021. Does this indicate flaws in the strategies to tackle human-monkey conflicts?

Since macaques are revered in India, they are killed rarely despite being allowed in cases where they are responsible for raiding crops, says Anindya Sinha, primatologist and

### RAID CONTROL

States are experimenting with different measures to deal with raiding monkeys:

#### RELOCATION

**Andhra Pradesh:** In December 2020, monkeys rescued from Tirupati released in forests bordering Mulugu district.

**Haryana:** In January 2021, the state announced monkeys rescued from Gurugram to be released in Firozpur Jhirka.

**Chandigarh:** In 2023, monkeys rescued from the Union territory are released in the wild.

**Delhi:** Following a 2007 high court order, the state released monkeys in Asola Bhatti Wildlife Sanctuary.

#### HABITAT CREATION

**Karnataka:** Monkey park announced in Shivamogga in 2019.

**Uttar Pradesh:** Four Vanar Van announced on the outskirts of Lucknow in 2022.

#### SCARE TACTICS

**Punjab:** In 2023, Punjab University deployed humans to scare away small simians.

#### STERILISATION

**Kerala:** In January 2023, the state decided to use contraceptive methods, including vasectomy, to check monkey menace.

**Karnataka:** Since March 2021, state has been considering a monkey sterilisation programme.

**Telangana:** In January 2022, the state decided to explore setting up sterilisation centres in every district.

#### PLANTATION DRIVE

**Odisha:** In March 2019, the state decided to plant 115,000 fruit bearing trees on a 5-km stretch between Bishwanathpur and Kadalighat to lure monkeys.

**Kerala:** Since September 2021, the state has been considering enriching forest habitats so that there is sufficient food for the monkey population.

#### CROP CHANGE

**Telangana:** In December 2020, a campus was set up to house monkeys for 10-15 days, before they are released in forests.

#### REHABILITATION

**Telangana:** In January 2022, the state provided ₹6.25 crore for rehabilitation of monkeys.

#### AID CITIZENS

**Karnataka and Haryana:** Set up telephone helplines to assist residents in monkey-affected localities.

#### DECLARED VERMIN

**Himachal Pradesh:** Since 2016, the state has from time to time declared monkeys as vermin and allowed culling of those raiding crops.
FOCUS ON CONFLICT MANAGEMENT

Translocation alone will not bring an end to human-monkey interactions

SUMANTH BINDUMADHAV

HUMAN-MACAQUE interaction in India, like in several South Asian countries, has the undercurrent of religion and reverence. However, news of conflict manifests in the media as cases of bites in urban India, crop damage in rural areas and harassment of tourists. Invariably, macaques are portrayed as a threat, haphazardly trapped in large numbers and translocated to large holding areas masquerading as sanctuaries in places like New Delhi. Or, they are made part of mass sterilisation programmes with no demonstrable effect on conflict, such as in Himachal Pradesh. In some cases, communities end up killing macaques cruelly, as seen recently in Karnataka.

Cities are a haven for macaques who thrive on feeding. When small groups of macaques are initially spotted in a residential colony, most citizens provide leftover food or fruits to them. This is supplemented by abysmal solid waste management practices due to which macaques have ready access to a high calorie diet. As days pass, the troop size of macaques burgeons until it reaches a tipping point where macaques start snatching food or breaking into homes.

Then, residents often reach out to poorly equipped and even poorly trained wildlife managers or private “monkey catchers” who trap macaques and relocate them to “forests”. While translocation may seem humane, it just shifts the conflict and leaves a vacuum for another troop to come in—the cycle continues.

The reality is that human-macaque conflict is not an issue that can be “solved”. As long as people and macaques are sharing space and resources, there is bound to be interaction. The burden of managing conflict is almost entirely on state forest departments who need greater capacity building. The need of the hour is for forest departments to work with municipal corporations, education and health departments to execute planned media campaigns that discourage people from feeding macaques. The departments should also encourage robust solid waste management practices; introduce curriculum on humane living in schools; adopt scientific, humane and non-invasive population management programmes; and have rapid redressal systems to prevent retaliatory killing or injuring of macaques.

(Sumanth Bindumadhab is director, wildlife protection, Humane Society International/India)

head of academics at the National Institute of Advanced Studies in Bengaluru. Translocation is often viewed as an easy option. But Mewa Singh, professor at University of Mysore, Mysuru, says, translocation requires keeping the animals in captivity for a long time, which may trigger behavioural changes in them and make them susceptible to diseases and parasitic infections.

Sterilisation has emerged as a promising alternative in recent years. But doing so for male macaques has little value because of the primate’s promiscuous mating system. Due to their testosterone levels, sterilisation of male macaques also runs the risk of increasing aggression. “Their social system mandates sterilisation of females even though doing so for males is simpler,” Sinha says. In March 2023, Union Minister for Environment, Forest and Climate Change, Bhupender Yadav released 14 guidelines to address human-wildlife conflict, which recommend surgical sterilisation of male macaques by thermocautery coagulative vasectomy and of female macaques by endoscopic thermal-cautery tubectomy. Even this process has its hurdles. The first issue, Sinha says, is that it requires capturing monkeys and monkey catchers are hard to come by. Secondly, people do not want to permanently sterilise monkeys because it is a complex and costly process. Third is our lack of understanding in what happens to sterilised monkeys; are they accepted back? “Such studies on long-term impacts of male sterilisation of monkeys have not been done anywhere in the world,” he says.

In December 2022, the Centre removed rhesus macaques from Schedule II of the Wildlife Protection Act. Stripped of the protection that comes with being labelled as an endangered species whose killing and hunting is illegal, rhesus macaques are now akin to stray cats and dogs. Sinha wonders whether this will trigger a resumption of exporting rhesus macaques for the purpose of medical research. “This could be disastrous for their population,” he says.

As primatologist Iqbal Malik, founder-director of non-profit Vatavaran, says, non-
human and human primates have always coexisted in a stable and calm state. Stress-
es, fears and bitterness developed between the two species only in the past 50 years or
so. And we can restore the relationship only by understanding how it eroded.

According to Sinha, the problem is two-
fold. The first, and the obvious, reason is the
loss of habitat due to the rapid increase in urbanisation, industrialisation and agriculture. But once a troop of monkeys becomes familiar with humans, they do not prefer going back to their natural habitats. “We see this in national parks as well as in places lined along the highway, where tourists feed monkeys. They then move closer to areas inhabited by humans.” Yogesh Gokhale, sen-
ior fellow, Forestry and Biodiversity Divi-
sion in The Energy and Resources Institute (TERI), says loss of habitat and a poor waste management system in urban areas gives monkeys easy access to food and is driving the troops here. Macaques in these regions have evolved to become highly skilful, hav-
ing learnt how to open packaged foods, bot-
tles and sift through garbage. The human-
rhesus macaque conflict mitigation guide-
lines describe refuse bins and waste con-
tainment as “the most important anthropo-
genic aspects of human-macaque interface zones since they are an easily accessible, high-yield, and reliable food source for ma-
caques.” In urban areas where natural food is not available, the macaques are entirely dependent on human provisioned food, garbage dumps and house raids. Hence waste management is essential to ensure a reduction in birth rates, aggression and nuis-
ance to people. However, municipal author-
ities must tread this approach carefully since interrupting the food supply of ma-
caques makes them more aggressive, the guidelines note.

Along with this, there is a need to create suitable habitat for them, says Iqbal. Some states like Odisha, Kerala and Telangana are already working towards this (see ‘Raid control’, p35). But without a mechanism in place to assess their impact, it is difficult to gauge what works and what does not.

MAKE DESIGNATED MONKEY ZONES

There is a need to create spaces conducive to monkey migration from human habitations

IQBAL MALIK

Rhesus monkeys are native to South, Central and Southeast Asia, including India. They inhabit the northern states on the south of the Brahmaputra and have a wide geographical range of distribution, from grasslands to forested areas, plains and mountain ranges.

However, in the recent past, there has been a decline in natural resources, leading to competition between humans and monkeys and decreased tolerance for coexistence. Humans began to haphazardly trap and provisioning space to monkeys instead of providing them foraging grounds. In return, monkeys raided and destroyed properties. The Rhesus monkeys’ daily activity changed. There was exponential growth in their population as the male-female ratio got skewed; not only did the number of females increase, they also attained sexual maturity much earlier than usual. The human-
monkey conflict exposed corrupt practices by administrative, forestry and law enforcement agencies, in which natural food for monkeys got replaced with human food and multilayered forests got converted to shallow forests. Attempts to manage the conflict were half hearted or misdirected. Instead of continuing with short-term, non-scientific and haphazard solutions, there is a need to understand why monkeys prefer certain habitats and acknowledge their stresses and fears. One solution is to convert all existing green patches to monkey zones, with conditions conducive to their migration from human habitations. To do this, people must first mark commensal monkey groups located in the northern states as well as the existing green patches. These spaces should be made monkey-friendly by creating waterways, preparing the soil and planting trees and shrubs for shade and fruits.

Further, there is a need for localised, need-based new monkey policies and stricter law enforcement. Rhesus monkeys should be made a Central rather than a state subject, with the Union government holding discussions with national and international experts for solutions. New laws should halt trapping, feeding and violence towards monkeys, as well as curb their excessive breeding through long-lasting female contraception.

(Iqbal Malik is founder and director of Vatavaran, a Delhi-based community non-profit)
**COVER STORY / URBAN MENACE**

**PIGEONS**

**POPULATION EXPLOSION**

Ready supply of food, adaptable nesting habits and prolific breeding have led to a huge jump in pigeon numbers across India in recent years.

**IBAKAR PAUL** begins his day with a ritual. For the past several years, every morning, Paul, a fruit and vegetable seller in Delhi’s Chittaranjan Park locality, marches to the parking space in the market and scatters a fistful of *bajra* (pearl millet) on the ground. Soon, hundreds of pigeons and crows fill the ground. “He is fond of birds and animals,” Paul’s brother, Balram, tells *Down To Earth* (dte). Across the road, Anirban Bhadra lives with his family. He is often bothered by pigeons littering his house with their droppings. “I have two small children. I always fear as to what could happen if one of them accidentally ingests the droppings,” he tells dte. “They are a big nuisance.”

But for Jigna Gopani, a resident of Mumbai’s Kandivali West locality, pigeons are the harbinger of death. “It was July 2019, when I began to feel breathless. There was a persistent cough and high fever for two days,” Gopani tells dte. A battery of blood tests, X-rays and CT scans later, doctors found that Gopani was suffering from a serious lung disease, hypersensitivity pneumonitis, which causes scarring of the lungs making it difficult to breathe. Scientific literature say the disease is an immunological reaction of lungs to repeated inhalation of an antigen or allergen, and pigeon dropping is a common antigen. Since there is no cure for it, Gopani will have to depend on steroids or immunosuppressants throughout her life. Gopani is not sure how she got the disease. She has never fed pigeons. “But there are pigeons all around our building like others and their droppings are everywhere,” she says.

Pulmonologists, however, are certain that pigeons are responsible for the rising cases of hypersensitivity pneumonitis. Namrata Jasani, a chest physician in Mumbai, says there has been a fivefold increase in the disease burden in the city in last 10-15 years, and it is linked to exploding number of pigeons. “Pigeons are known to spread zoonoses through ectoparasites in their droppings or feathers,” says Faiyaz Khudsar, scientist at the Biodiversity Parks Programme of Centre for Environment Management of Degraded Ecosystems (cemde), University of Delhi. Apart from hypersensitivity pneumonitis, pigeon droppings cause cryptococcal meningitis (a fungal infection that spreads from lungs to the brain with symptoms that include confusion or changes in behaviour) and psittacosis (a bacterial infection with pneumonia-like condition). “One can easily contract any

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**Flying menace**

**Recent orders on pigeons and birds by courts and civic authorities**

- **Pune Municipal Corporation and Thane Municipal Corporation**, in March 2023, declare a fine of ₹500 on feeding pigeons
- **Allahabad high court**, in February 2023, dismisses a petition seeking a direction to the Nagar Nigam, Lucknow, to kill trouble-causing birds and animals
- **Bombay high court**, hearing a civil suit in July 2016, rules that bird feeding from buildings should not be a nuisance to others. The same case reaches the Supreme Court, which, in March 2019, upholds the high court order.
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HUMANS, PIGEONS CAN COEXIST

Taking steps to reduce pigeon populations will disrupt the natural food chain in cities

KARTICK SATYANARAYAN

Most urban settlements today like megalopolises, cities and towns were historically wild habitats such as forests or grasslands. But today, these landscapes have hardly any natural habitat left. Some of our wild avian companions, though, have become household names. Pigeons have a widespread presence in cities and towns. Across the country, seven species of doves, four species of pigeons and 10 species of green pigeons are found. The most ubiquitous among them is the rock pigeon or rock dove (*Columba livia*). These pigeons were bred by human beings for domestication which gave rise to a subspecies (*C livia domestica*). In India, *Columba livia* has reportedly seen a 150 per cent rise in number after the 2000s. In a city like Delhi, several people feed the avian population, primarily pigeons, with grains and other food. These are signs of people’s tolerance about pigeons and the coexistence of the two species. The fact that pigeons have adjusted to human practices is commendable.

There have been reports of human beings getting infected by Bird Fancier’s Lung or bird breeder’s lung disease, likely transmitted by feeding pigeons or through exposure to their excreta and feathers. As a result, the birds are now considered a “menace”. However, high numbers do not make the species a menace. Pigeons have a place in the food chain, and there are felines and canines who feed on the birds.

(Kartick Satyanarayan is co-founder and CEO of Wildlife SOS)

Of these diseases because pigeon faecal matter is present almost everywhere—on the roads, in the soil and, of course, in the nests that pigeons make in our houses. Since faecal matter can remain suspended in the air, it easily travels into our lungs. In urban centres, the effect is compounded by poor air quality,” Khudsar says, adding that a pigeon can generate 12-15 kg of dropping in a year.

A 2019 study, published in the journal *Lung India*, analysed the data of patients with interstitial lung disease (ILD) in 19 cities from 2012 to 2015, and found that although the majority of patients with hypersensitivity pneumonitis were exposed to air-coolers, the odds of developing the disease as compared to other types of ILD was the highest in those exposed to birds.

Andrew D Blechman, author of the book, *Pigeons: The Fascinating Saga of the World’s Most. Revered and Reviled Bird*, however says, “Pigeons are not a menace. If there is an overpopulation of pigeons, it is because of humans. They overpopulate when we overfeed them purposely, or because we drop so much food on the ground.” Ashwin Viswanathan of Bird Count India, a consortium of organisations, agrees. He says pigeons have adapted to urban India largely because of three reasons. First, they have generalist diets and food available around urban settings is good for them. Second, they are ledge nesters. Pigeons seen in urban surroundings are descendents of the rock dove or rock pigeon or *Columbus livia*, and all they need is a bit of an overhang to build nest and buildings provide a nice alternative to what was once their natural habitat. Third, unlike many other birds, pigeons nest throughout the year. Viswanathan says pigeon numbers have increased by 100 per cent in last 25 years in India. This is when the population of most birds have declined. To add to the advantages, pigeons hardly have any natural predators in urban areas.

If pigeons are indeed a public health risk, what can be done to reduce that threat? The experts spoke to had several suggestions. But one underlying thread connected them all: People will have to stop feeding pigeons if they want to save themselves from diseases. A 2014 study by researchers from the University of Jammu noted that most of pigeons’ nutrition in the Jammu city came from food given voluntarily by humans. “Pigeons reflected a clear preference for foraging on food provided by the public rather than on waste food as volunteer food provided higher intake rates to pigeons accompanied by minimum expenditure of energy,” the study
noted. Khudsar says, “Pigeons need substantial food sources to support themselves and their broods. Some studies suggest that if you do not give food for three-four days, they lose 5 per cent of their body weight and their reproductive capacity also goes down.” Besides, when food supply is decreased, competition increases and reduces the probability of juveniles making it into adulthood and adding to the (breeding) population. The reproductive success also declines since there is no food to support them, Khudsar adds.

In March 2023, following an order by the High Court of Bombay, Pune Municipal Corporation has started imposing a fine of ₹500 on citizens feeding pigeons in public places and has also called the “unnatural growth” of pigeons a “health hazard” (see ‘Flying menace’, p38). But fines and bans have not deterred many.

Blechman says countries in the West usually deter pigeons from roosting or nesting in apartments, houses and high-rises by setting up nets or spikes. “These only work for a little while before the netting tears or the spikes fill with leaves and other debris. And pigeons find another ledge to nest on,” he says. “Creating nesting areas for pigeons on public rooftops that are tended by a caretaker is the only thing that works. Pigeons are invited to roost, feed and care for and their eggs are replaced regularly with wooden replicas or simply removed. This stops overpopulation,” he adds. This technique, known as “dovecot” or “loft” is in use in several countries in mainland Europe. Dasgupta says culling is also practised in many countries, but most of the evidence points to numbers reaching back to pre-cull levels within a few weeks.

“Given human densities in urban areas, killing such large numbers of pigeons will have a huge impact; it would lead to diseases,” says Viswanathan. He suggests educating people to stop feeding pigeons, so that they again become wild birds and have to fight for their existence and food. “They will then not breed at such a high rate,” he says. According to Khudsar, limiting roosting and nesting sites will also help bring down their numbers. But who is mandated to do this?

Suneesh Buxy, Chief Wildlife Warden of Delhi, says the responsibility of managing pigeons is that of urban local bodies. On the other hand, Ashish Priyadarshi, director, the Municipal Corporation of Delhi (mcd), says, pigeons do not fall under mcd’s purview. “They should be managed by the forest department,” he says. Such confusion is probably the other reason behind this growing human-animal conflicts. 

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