

Brief Study of Nesting and Roosting Behaviour in Pigeon (Columba Livia)

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ABSTRACT

Human have observed birds from the earliest times and Stone Age drawings are among the oldest indication of an interest in birds. Many aspect of birds biology are difficult to study in the field, these include the study of Behavioral and physiological changes that required long duration of access to the field. Studies in the bird's behavior include the use of tamed and trained birds in captivity. Studies on bird's intelligence and song learning have been largely laboratory based. Studies of bird migration including aspect of navigation orientation and physiology are often studied using captive birds in special cages that record their activities. The Importance of the study was to analyze the nesting and brooding behavior of wild living pigeon. We found significant feathers of nesting and brooding behavior in pigeon

Keywords: Behavioral, growth development including nesting and roosting of feral pigeon

1. INTRODUCTION

All birds reproduced by laying eggs, when they have to lay eggs, they build homes called nests. Baby birds are born in the nests. Nests act as shelters for birds. this nest keeps young birds warm and protect them from enemies and various challenging weather.

The Rock Dove (*Columba livia*) is a special member of the bird family Columbidae.

The domestic pigeon was originally found in Europe, Northern Africa, and India. Early settlers introduced it into the eastern United States as a domestic bird in the 1600s. Since then, it has expanded throughout the United States to Alaska, across southern Canada, and south into South America. Pigeons originally lived in high places cliffs, ledges, and caves near the sea that provided them with safety. Over time they have adapted to roosting and nesting on windowsills, roofs,

Feral pigeons are derived from domestic pigeons that have returned to the wild. The fly Construct the breeding loft so it is dry and draft-free. Make it rodent- and cat-proof. Design the loft so both shade and sunlight are provided to the birds

throughout the day Construct a separate perch in the loft for each bird. Perches can be made from 1-inch-by-4-inch boards. Attach the 3-inch-long perches to the board across the front of each nesting box. Construct a separate perch in the loft for each bird. Perches can be made from 1-inch-by-4-inch boards. Attach the 3-inch-long perches to the board across the front of each nesting box. Attach the nest boxes to an interior wall of the loft. Provide two nest boxes for each breeding pair of pigeons. The nest boxes are 12-18 inches wide, 12 inches high and 12 inches deep with a closed back. Place a 1-inch-by-4-inch board across the front bottom of each nest box to retain the nest material and keep the eggs and squab from falling out. Extra nest boxes will prevent quarreling among the breeding pairs. Nest is design an easy-to-clean loft to avoid a buildup of feces. Cover the floor with an inch of sand and place bedding material on the bottom of each nest box. The nesting habits of these birds are little bit unique. The male chooses a site in view of the female, selecting one stick and bringing it back, lays it in front of his mate. The female who stays at the nesting site accepts the sticks the male brings to her and places them underneath her. The nest of these birds can be found along

building ledges, rafters, beams, and under bridges or inside barns. The nest is saucer-like in shape and made of stems, and leaves. The female may sit on the nest a day or two before the first egg is laid. Generally, 2 white eggs are laid. Both the male and female will incubate the eggs although the female does the incubation during the night. Incubation last for about 18 days and the young will leave the nest in 25 to 29 days after hatching. In Wendell Levi's *The Pigeon*, he describes the crowing/cooing of pigeons as mostly being associated with strutting and fighting in male birds. Hens will also coo, but this is noticeably less guttural than the cooing of the cock. Cooing is also more frequent between couples during mating and nesting. Both parents participate in the incubation of the eggs. Most small birds rear and fledge their young in 2/3 weeks with young birds sometimes leaving the nest after only 10 days of life, but pigeons are different; their young remain in the nest for up to 2 months before fledging.

2. MATERIAL AND METHODS

Study was done on pigeon at department of Zoology S.K.M.University Dumka Jharkhand India, after ethical approval from the department .the present study was design with the following objective to study and analyse how pigeon can adjust himself and what material is required for nesting and brooding behaviour in pigeon”

Pigeons like comfortable sunny places that are safe from predators and the elements with plenty of food and water available. The nests are built of twigs but quickly become so covered in droppings that they look like a big pile of waste. When the babies are born, they are the color of poop, too, and are perfectly camouflaged in the nest.

Gutters are dish-shaped and provide great nesting sites that securely hold the nests. those nests block the gutters and flood when it rains, but the pigeons don't seem to mind. Pigeons nest and roost on and in houses because it gives them a good view of nearby feeding areas or because they have gained access to the interior of the building and made your attic their home. They usually access buildings through broken

windows, missing or loose vents or soffit or any other small gap or opening. Pigeons also like high places because they are able to keep a close watch on things and spot predators. Pigeons are social birds and each flock works as a team. Someone always has an eye out for danger.

3. RESULT AND DISCUSSION

Nesting and roosting sites are protected from the elements and are situated on houses, barns, stadiums, and grain elevators, as well as bridges, wharfs, and cliffs. Nests in continual use become solid with droppings, feathers, and other debris. Pairs are monogamous, often breeding in consecutive seasons for as long as both birds of a pair live. Most will attempt to raise several broods each year. Sometimes as many as four or five broods will be raised in a single year.

The breeding season of these birds can be all year provided climate conditions allow. There seems to be some slowing down during the winter months.

1 Courtship 2 Nesting 3 Cooing 4 Food

Courtship-Courtship rituals among can be observed in urban parks at any time of the year. The male on the ground or rooftops puffs up the feathers on the neck to appear larger and thereby impress or attract attention. He approaches the hen at a rapid walking pace while emitting repetitive quiet notes, often bowing and turning as he comes closer. At first the female invariably walks or flies a short distance away and the male follows her until she stops. At this point he will continue the bowing motion and very often make full- or half-pirouettes in front of the female. The male will then proceed to feed the female by regurgitating food, as they do when feeding the young. The male then mounts the female, rearing backwards to be able to join their cloacas. The mating is

very brief with the male flapping his wings to maintain balance on top of the female.

Nesting-Nests are rudimentary, similar to other ground or cliff nesting birds such as turkey, quail, and ducks. Abandoned buildings are favourite nesting areas. Mass nesting is common as pigeons are a community flocking bird; often dozens of birds will share a building. Loose tiles and broken windows provide access, and pigeons are adept at spotting new access points, for example following property damage caused by strong winds. Nests and droppings tend to stay clustered and remain dry when out of the weather. Pigeons are particularly fond of roof spaces. These often contain water tanks. Any water tank or cistern on a roof must therefore be secured and sealed off to keep the pigeons out of them. The popularity of a nesting area does not seem to be affected by the pigeons' population density.

Cooing-In Wendell Levi's *The Pigeon*, he describes the crowing/cooing of pigeons as mostly being associated with strutting and fighting in male birds. Hens will also coo, but this is noticeably less guttural than the cooing of the cock. Cooing is also more frequent between couples during mating and nesting. Both parents participate in the incubation of the eggs.

Food-Pigeons breed when the food supply is abundant enough to support embryonic egg development, which in cities can be any time of the year. Laying of eggs can take place up to six times per year. Pigeons mate for life, and are often found in pairs during the breeding season, but usually the pigeons are gregarious preferring to exist in flocks of from 50 to 500 birds (dependent on the food supply). Feral pigeons can be seen eating grass seeds and berries in parks and gardens in the spring, but there are plentiful sources

throughout the year from scavenging (e.g., remnants left inside of dropped fast-food cartons) and they will also take insects and spiders.

Domestic pigeons don't migrate, but if removed from a nesting area, they have a good homing ability and can return from long distances. It is thought that this ability evolved to help them find their own nests on cliffs covered with large colonies of similar looking nests. Pigeons are gregarious and eat, roost, and nest in each other's company whenever possible. Usually only the immediate area around the nest site is defended against intruders.

When pigeons are not involved in courtship behavior, caring for young, or eating, their day is spent cooing, preening, and sunbathing at their loafing and roosting sites. Sunbathing is common on cool mornings. Pigeons are non-migratory, medium size birds. They have a variety of colorings but are frequently white or grey, usually with salmon collared legs and feet. They have a smooth appearance with a round body, narrow neck and relatively small head. They feed on the ground, usually in groups or flocks, but occasionally as individuals. They roost anywhere that is comfortable ledges of buildings, attics, statues. Pigeons generally are one of our most common complaints. This is because they are so numerous and so filthy. Pigeons often roost and nest on mechanical systems like air conditioning units on roofs. Their droppings deface and even damage buildings, sidewalks and statues. Even painted or metal surfaces are not safe and car paint can be stained and etched. Flocks of pigeons can interfere with air traffic. If they end up inside an attic, the house becomes worse than a chicken-coop. The smell, filth, bugs and parasites that come with pigeons also give people reason to call. Nests are made up by parents from twigs, stones, leaves, fibers etc. Nests provide safety from adverse situation and enemies, once all eggs are laid the mother sits on eggs to keep warm, parents guard the nest by enemies. Soon the eggs break open the baby pigeon comes out, they are tiny and weak. The

parents feed them and protect from enemies. Over a 10 day period the young are fed increasing amounts of solid food such as caterpillars. Nest building is very simple and often consists of a few stiff twigs. The male will pick the site. They prefer small flat areas away from the ground. Look for nests along building ledges, bridge supports, air conditioning units, window sills and the like. In crowded flocks, Pigeons will even forgo nest building and lay eggs directly on a protected ledge.

Nesting Place-pigeons often nest on building ledges. According to the Cornell food as birds can consume in five to ten minutes. Feeding should not take place regularly at the same time and place as this condition the birds to flock to the area at these times, making them dependent on this food. If moderate feeding cannot be enforced, then feeding may have to be discontinued in order to get the pigeons to move elsewhere. common problem is pigeons roosting or nesting University Lab of Ornithology, adult pigeons build nests in places that are not easily accessible to humans, such as covered crevices on building ledges, under bridges or in the nooks of building rafters and beams. Pigeons are adept at building nests in urban environments, especially in hidden or secluded areas that offer shelter similar to the sea cliffs and caves of their natural environment in Europe, northern Africa and the Middle East. The best approach to feeding is moderation. In situations where massive feeding has occurred, a gradual reduction should be introduced over several weeks. Then, people should be urged to provide only as much on building ledges, apartment balconies, rafters, roofs, eaves troughs, etc. This can be prevented by simply blocking access to these areas or by making them inhospitable.

Nesting materials-Pigeons prefer flat surfaces for nest building and perching. Pigeons usually build their nests in the shape of a saucer and construct them out of small twigs, stems fibers and leaves. In some instances, they use a minimal amount of nesting material and lay their eggs on bare ground. Most nests, however, are well-hidden and not easily accessible to humans

or predators. Pigeons prefer building a nest on a flat surface and under some form of shelter that provides them with a place to perch and protection from the elements.

Nesting habits-The process of nest building begins with the male pigeon choosing a nest site in view of the female, selecting one stick, bringing it to the female and placing it in front of her. The female stays at the nesting site, accepting the sticks brought to her by the male one piece at a time, and places them underneath her. The female usually lays two white eggs and both parents split the egg warming duties: males stay on the nest during the day and females at night. Egg incubation takes between 16 and 19 days Nests are rudimentary, similar to other ground or cliff nesting birds such as turkey, quail, and ducks. Abandoned buildings are favorite nesting areas. Mass nesting is common as pigeons are a community flocking bird; often dozens of birds will share a building. Loose tiles and broken windows provide access, and pigeons are adept at spotting new access points. Nests and droppings tend to stay clustered and remain dry when out of the weather. Pigeons are particularly fond of roof spaces. These often contain water tanks. Any water tank or cistern on a roof must therefore be secured and sealed off to keep the pigeons out of them. The popularity of a nesting area does not seem to be affected by the pigeons' population density.

4. CONCLUSION

Pigeons are considered to be one of the most intelligent birds on the planet and able to undertake tasks previously thought to be the sole preserve of humans and primates. The pigeon has also been found to pass the 'mirror test' (being able to recognize its reflection in a mirror) and is one of only 6 species, and the only non-mammal, that has this ability. The pigeon can also recognize all 26 letters of the English language as well as being able to conceptualize.

The present study significantly shows the Nesting and Roosting behavior in feral pigeons

where they can keep warm and protects them from enemies and various challenging weathers.

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