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DIVERSITY OF NESTS AND NEST-BUILDING IN BIRDS

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Abstract:

Birds are unique in having a coat of feathers and in resting on the hind limbs alone. Hence they are defined as the feathered bipeds. For many years nest building in birds has been considered a remarkable behavior. Perhaps just as remarkable is the public scholarly consensus that bird nests are achieved by instinct alone. As a consequence, we contend that nest building is a much under investigated behavior that holds promise both for learning in that behavior as well as a new model system for examining brain-behavior relationship.

Key Words: Breeding habit. Parental care in birds. Nest and Nest building.etc.

Introduction:

Birds are the only animals with backbones that can fly. They are the univalled experts at flight, travelling further and faster than any other living creatures. They all reproduce by laying hard shelled eggs and most of them look after their offspring's. India has about, 1200, varieties of birds. The birds are famous for sexual dimorphism, courtship, seasonal migrations, art of nest building and parental care. Their distinctive colors and call notes appeal to human eye and ear.

Their economic importance further enhances human interest in them. They share with mammals and the highest development in animal kingdom. However show marked affinity with their ancestors the reptiles and are often described as the glorified reptiles.

Breeding habits differs from one species to other species. In case of Baya breeding habits seen during rainy season. During which they form large or small breeding colonies from these flocks. The larger breeding colonies may cover an area of several hundred hectares and are estimated to contain up to Ten million nests.

In case of Red Vented bulbul they breed from June to September their vocalization are usually stereotyped and call throughout the year during breeding they produced different distinct call is from March to December during which they produce a song which is a loud cheep-cheep-cheep with repeated continuously. In case of sun birds pairs from for the whole breeding season both sexes later part in the nest building and also the feeding of the young.

Parental care behavior of birds includes the following activities. Nest construction, Incubation of egg, Care of the young. Most birds species build nests which is a structure in which the eggs are laid on section of narrow rocky ridges on patches of bare ground that have been scraped clean of vegetation and debris's is complexity from simple collection of sticks to those requiring varying degrees of care and precision in the formation of completed nest cups. The materials used in nests include grass, twigs, hair, feathers, sting moss of clay.

Incubation is the process by which the heat is necessary for embryonic development is applied to an egg after it has been laid; this is done by sitting on the egg. In many cases only the female incubates in other, the male and female share the responsibility. The incubation duration is generally related to the size of the bird. It varies from 12-14 days from smaller birds and from 40-50 days for the larger birds.

Female plays important role during parenting process this behavior and investment of parents increases the offspring's changes of survival. Usually the male collects the food materials and the female looks after the young ones. Young birds need care by the parents for some time their care includes feeding, guarding and protecting them against the sun, rain predator, either one or both the parents may perform these duties the food of young birds depending upon the species, compress worms, insects, seeds and fruits.

RESULTS AND DISCUSSION:

NESTS AND NEST BUILDING:

NESTS:

Nests come in many forms some of which are marvels of engineering and architecture. The classic nests are one that immediately springs to mind is the cup shaped structured favored by the majority of bird's species. It has the disadvantage of being vulnerable to predators but the advantage that it gives the incubating parent bird a clear view of the surrounding environment the approach of any enemy can easily be seen enabling the bird to flee swiftly at the last moment of necessity.

One step up from this is the domed nest spherical in shape and with a side entrance this provides greater protection from the sun rain and cold and it completely hides the parent from prying eyes but it also makes it impossible for the parent to know when a predator, such as two snake is closing in last minute escapes therefore more difficult.

A further advance in design is the tube nest the entrance to the domed nest being extended down wards as a long hanging panage with the nest attached to a slender twig or branch this design makes it virtually, impossible for the tree snakes or other small ones or for climbing predators to enter the nest cavity. The problem with this type of construction is that it requires a great deal of time and effort to fashion it and claw actions of a highly specialized kind.

NEST BUILDING:

The male weaves begin their painstaking task by flying to tall grasses and tearing off long strips. They do this by nipping a blade of grass and then flying sharply and powerfully upwards holding the blade firmly in their beaks making sure to take the toughest strip first, they start to wrap them around the back of a twig after a number strip have been collected the loose ends hang down in two separate trailing tassels these are then brought together to form a circle and this becomes the architectural bases for the whole nest. More and more strips are brought to this ring; the male standing on it like a caged bird on a swing as he carries out his intricate weaving stretching out as possible with each building action the bird gradually forms the dome of the nest. He uses three main types of stretching, knotting, weaving and twining. When knotting, he holds the grass with one or both feet and then pulls pushes and twists it around with his beak. When twining he uses his beak like the fingers of a tailor swing, threading a new grass strand in and out of the nest wall and adding's strength by employing a variety of loops.

Some birds have almost given up nest building and do little more than find a suitable notch on a branch or a tree trunk, where the egg is laid and incubated the tree swift cements a little patch of material to a branch with its saliva just enough to keep the single egg from rolling off.

Indian Houses Crow:

Scientific Name: Corvus Splendens

House crow also known as Colombo crow is a common bird of crow family that is of Asian origin, now found in many parts of world.

About the Bird:

Body length is 40 cm. the forehead, crown, throat and upper breast are a richly glossed black, whilst the neck and breast are a lighter grey brown in color. The wings, tail and legs are black. It feeds largely or refuses around human habitations, small, reptiles, insects, small invertebrates, eggs, nestlings, grain and fruits.

Construction of Nest:

Nests are usually hard to find and are placed 18-60 feet above ground, they are usually 12 inches wide and they are built using twigs, sticks and are lined with bark strip grass noses leaves, feathers and human hair. They built the nest in same trees and local environment seem to be necessary for its successful breeding, although they occasionally nest on telephone towers etc. They lay 3-6 eggs in a typical stick nest.

**Indian Weaver Bird**

Scientific Name: Polceus Philippinus

Baya weaver is a weaver bird found across south and Southeast Asia. Flocks of these birds are found in grasslands, cultivated areas, and shrub. They are widespread and common within their range but prone to local, seasonal movements mainly in response to resin and foods availability.

About the Bird:

They are 15cm, sparrow sized and in their non breeding plumage both males and females resemble female house sparrow. They have stout conical bill and a short square tails. Non breeding males and females look alike, dark brown streaked fulvous buff above, plain whitish fulvous below eyebrow long and buff colored, bill is horn colored and no mask. Breeding males have bright yellow crown, dark brown mask, blackish brown bill upper parts are dark brown streaked with yellow, with a yellow breast and cream buff below.

Construction of Nest:

During breeding season males begin building nests. Nests are build mainly in colonies, are often build from thorny Acacia or palm trees and hand over open water females lay about 2 to 4 white eggs and pendulous nests are retort shaped, with a central nesting chamber and a long vertical tube that leads to a side entrance to the chamber. Nests woven with long strips of paddy leaves, rough grasses and long strips to from palm fronds. Each strip can be below 20-60 cm. in length

**Red Vented Bulbul:****Scientific Name: Pycnonotus Cafer**

Red vented bulbul is a member of the bulbul family of passerine birds. It is resident breeder in tropical southern Asia from India, Srilanka, Burma and China.

About the Bird:

It is identified by its short crest giving the head a squarish appearance. Body is dark brown with a scaly pattern white head is darker or black. The rump is white the vent is red. The black tail is tipped in white. They are about 20cm. in length. It feeds mainly on fruits, petals of flowers, nectar, insects and occasionally geckos.

Construction of Nest:

It builds its nest in a bush at a height of around 2-3 meter they lay 20 to eggs is a typical clutch nests are occasionally built inside houses or in a hole in a mud bank. In one instance a nest was found on a floating mat of water hyacinth leaves, nest in tree cavities have also been noted. They breed from June to September. Eggs are pale pinkish with spots of darker red more dense at broad end. They use small twigs and metal wires for nesting. The eggs hatch after about 14 days.



Rock Pigeon:

Scientific Name: *Columba livia*

Rock pigeon or rock dove is a member of the bird family columbidae. Habitats include various open and semi open environments including agricultural and urban areas. Originally found wild in Europe, North Africa and Western Asia, feral rock pigeons have become established in cities around the world.

About the Bird:

These are pale grey with black bars on each wing. It is 32-37 cm. long has 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 bare skin around the eye is bluish Greybull is grey black with a conspicuous off white cere and feet are purplish red. They fed on food grains.

Construction of Nest:

They breed at any time of year, but peak times are spring and summer. Nesting sites are situated along coastal cliff faces as well as artificial cliff faces created by apartment buildings with accessible ledges or roof spaces. The type of nest constructed is a family platform of straw, sticks, twigs and grasses, put on ledge under cover. Two white eggs are laid with incubation that is shared by both parents lasting from 17 to 19 days and the fledging period is 30 days.



CONCLUSION:

Birds have perfectly adopted themselves to the environment where they live birds are found in almost all kinds of habitats with their beautiful nest in India and all over the world.

However human activities are causing habitat destruction, deforestation and pollution which have led many birds to become rare and endangered. A rigorous effort for conservation of birds is the need of the day.

From aesthetic view point birds are hard surpan any other group of animals. They can equal the variety and beauty of the colors of the colors of birds which is nature sue paned only by the colors of flowers, birds study has provided a never ending healthful recreation for millions of birds watchers all over the world.

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