

LU 8.7. Rediscover, describe and draw birds

Materials: Notebook, pen, pencil, colours, binoculars. Camera and field guides (illustrated manuals for identifying natural objects) may be optional.

Background

Sometimes you see a colourful bird whiz past you, and you long to see it again. At other times, you wonder when the neighbourhood crow is going to stop cawing and leave you at peace. Birds are everywhere. They occupy almost all habitats and are a delight to watch! They sing, hunt, eat, fight, fly, swim, and display other behaviours that leave you perplexed. Birds always riddle you with their actions! You notice a pair of small birds screech their hearts out and take on a bird that is double their size. Why would they do that? Suddenly you notice the small birds were trying to protect their nearly invisible (camouflaged) eggs from the big bird. As you keep observing them, you will see a story unfold. Documenting their behaviour translates to honing several important skills such as: writing an accurate scientific description, maintaining logs, organising information, etc.

With increased globalisation, people are coming closer to each other more than ever. But we also seem to be severing our ties with nature. All of us seek solitude in nature. Watching and listening to birds will hopefully re-establish our fading connection to nature, which aids in physical and mental well being (Children & Nature Network and IUCN-CEC Report, 2012), and create an awareness of the diversity of living things.

So, let's do some bird-watching!

Student Handout #1

This Learning Unit invites you to keenly observe the birds in your neighbourhood birds and document their details.

Introduction to the bird-watching activity

Sometimes you see a colourful bird whiz past you, and you long to see it again. At other times, you wonder when the neighbourhood crow is going to stop cawing and leave you at peace. Birds are everywhere and occupy almost all habitats and are a delight to watch! They sing, hunt, eat, fight, fly, swim, and display other behaviours that leave you perplexed. As you keep observing them, you will see a story unfold. One can learn a lot from birds. For example, birds may serve as indicators of environmental change. Sometimes, they have served as inspirations for many human inventions and innovations. For instance, the design of the Japanese Shinkansen Bullet Train was inspired by the beak of a Kingfisher bird. And not to forget, birds also play a very important role in our ecosystem by being excellent pollinators, seed dispersers, predators to crop pests and scavenging on disease spreading animals like rats. Behavior observation is an old tool for scientists, and for all curious human beings. Animals and birds may reveal many secrets to those who are willing to observe patiently and keenly. So, let's do some bird-watching!

Basics and ethics of bird-watching

- Keep your distance from the birds when you observe them. If you think the bird is disturbed by your presence and it keeps flying away, then do not follow it.
- Do not harm the natural surroundings just to observe the bird better. For example, do not stamp over plants, or break twigs/branches to get a clear view of a bird.
- Stay on existing paths, footpath, or trails, and do not trample the fields, crops, or fragile habitats.
- Do not encroach (trespass) into private property while bird-watching. Always obtain permission from the land-owner before entering private lands.
- Do not be noisy.
- Do not feed the birds or play the calls of birds to bring them closer to you.
- Moving around may not necessarily mean you will see more birds. If you stand/sit in one place quietly and patiently, staying absolutely still, you can see many birds.
- Be extra careful about observing birds during the breeding season.
- Do not approach any nesting area or nest. Observe nests from a distance. Use a pair of binoculars or scope.
- Never handle the nest, eggs or chicks.
- It is generally considered unethical to click photographs of nests and chicks. If you intend to click photographs of nesting birds, do so from a safe distance.
- Potential predators of bird-chicks and eggs like crows, dogs and cats may follow you around while you are walking and observing birds. Please be careful so as to not lead them to nesting areas.
- If possible, wear dull coloured clothes while bird-watching. Avoid strong-odoured powders, creams, perfumes, lotions, etc.

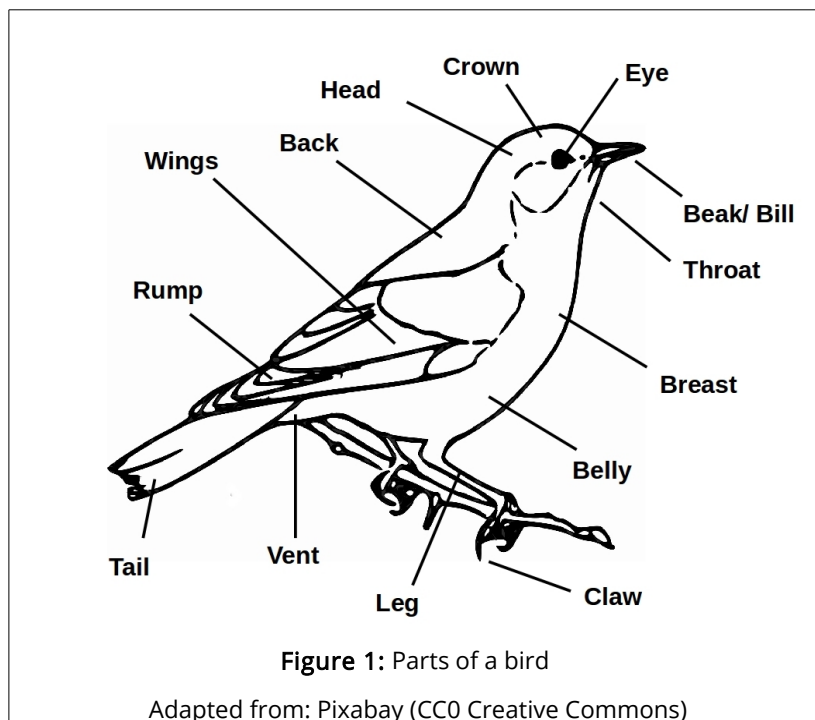
Remember, bird watchers must always act in ways that do not endanger the birds and its surroundings.

Terms used to describe bird behaviour

Here are some of the behaviours that you may observe:

- Feeding: eating food or drinking water.
- Flocking: birds grouping together, either during flying or while looking for food.
- Flying: the act of staying in the air, by flapping wings or soaring.
- Foraging: the act of looking around for food.
- Mating: the action of birds coming together to breed.
- Nesting: the act of building a nest, which is a structure to hold the eggs and chicks.
- Preening: the act of cleaning feathers by oneself or another bird.
- Bathing: birds immersing themselves in water to clean or cool themselves.
- Roosting: a behaviour where birds settle in groups (or alone), at a particular area to rest/sleep.
- Singing or Calling: communication between birds.
- Territorial display: the act of protecting a tree branch, nesting site or an area on the ground. This could also involve attacking/fighting another bird or animal.
- Walking/Hopping/wading/swimming: movement along the ground/water.
- Courtship: Various forms of communication like songs, dances, plumage, etc., in an attempt to attract a mate.

Parts of a Bird: Some terminology



When you want to describe the bird, use these terminologies mentioned above for better description. For e.g.: The *bird's throat* was black in colour. It had a yellow *belly* and red *vent*.

Student Handout #2

Task 1: What to do?

(Time: Ten minutes each, during the morning, noon & evening, for four weeks, individual activity)

- Carefully go through the “Basics and ethics of bird watching” [Student Handout #1]
- Choose a safe place in school/ near your home, where you notice bird activity.
- For ten minutes in the morning, noon and evening, spend your time observing one species of birds, from your “observation point”.
- Write the following header information in your notebook: day, date, time, weather, location and for how long did you carry out your observation activity.
- Observe the birds patiently and quietly. Write down everything the bird does.
- Refer Student Handout #1 titled “Terms used to describe bird behaviour” and “Parts of a bird”. Try to use the terms introduced in your descriptions and drawings.
- Draw the bird, as you see it and label it. You can also colour it if you would like to. It is alright if your drawing is not beautiful. Focus on drawing what you see.
- If after one week, you are unable to make observations, use the “Observation Guidelines” [Student Handout #3] to make your notes.

Tip: You are free to write the descriptions in your own words, language and can use drawings, illustrations, flowcharts etc., to make detailed descriptions. Let us say, you are observing a House crow, and after few minutes, it flies away. Make a note of it and then continue observing another crow. You are welcome to observe the birds for more than ten minutes also. Write down what you find interesting about the bird or its behaviour.

Task 2: What to do with your data?

(Time: 80-120 minutes, to be done four weeks after task 1, group work, along with the teacher)

1. Form groups with your friends who observed the same species. Discuss your observations.
2. Use “Guiding questions for task 2” listed in this handout to compile your findings. For example, for each question listed in the “guiding questions”, list the observations from all observers.
3. For each question, try to identify the similarities and dissimilarities in your observations across the group.
4. Look for aspects that you would need to make more precise observations for. For example, is the House crow only black colour? Or is it a combination of grey and black?

Tip: If you think you have less data/notes, then continue your observations for another one or two weeks. Then repeat task 2 with your friends.

Guiding questions for task 2

1. Where did you usually sight the bird (grass, shrub, ground, trees)?
2. Which time of the day did you most often sight the bird? When is it most active?
3. What kind of perch (higher branch, lower branch, ground) does the bird prefer?
4. Did the bird stay in the same spot for long or did it keep changing its location?
5. What was the diet of the bird?
6. Is the bird social (moves in a group), or usually seen alone?

7. Were the birds always sighted in pairs (male/female or male/male or female/female)?
8. Does the bird prefer to be near birds of its own kind (same species)?
9. Does the bird prefer to be near birds of different species ?
10. Is the bird very vocal (makes a lot of calls/noise) or quiet?
11. What are the biotic components (other members of the same species, other species of birds, other animals) that the bird interacted with.
12. What are the abiotic components (water body, soil) that the bird interacted with?
13. Did you see any nesting sites? How many of the birds were nesting?
14. Does the silhouette of the bird always appear the same?
15. What are the life forms (birds/animals/reptiles) that the bird seems to fear?
16. What are the life forms (birds/animals/reptiles) that the bird does not seem to fear?
17. Do the birds fly away if human beings are close by?
18. What was the most interesting observation you noted?
19. What behaviour (foraging, preening) was most often seen, when observing the bird?
20. Did you see any roosting sites? How many of the birds were roosting?

Task 3: Refining your documentation

(Time: 80 minutes, to be done one/two weeks after task 2, group work, along with the teacher)

1. Work towards refining your documentation. You can add mind maps, flowcharts, flash cards or present your observations in any visual form in addition to your original writing.
2. If you have observed any peculiar or interesting behaviour of a bird, then write a short report on it, giving exact details.

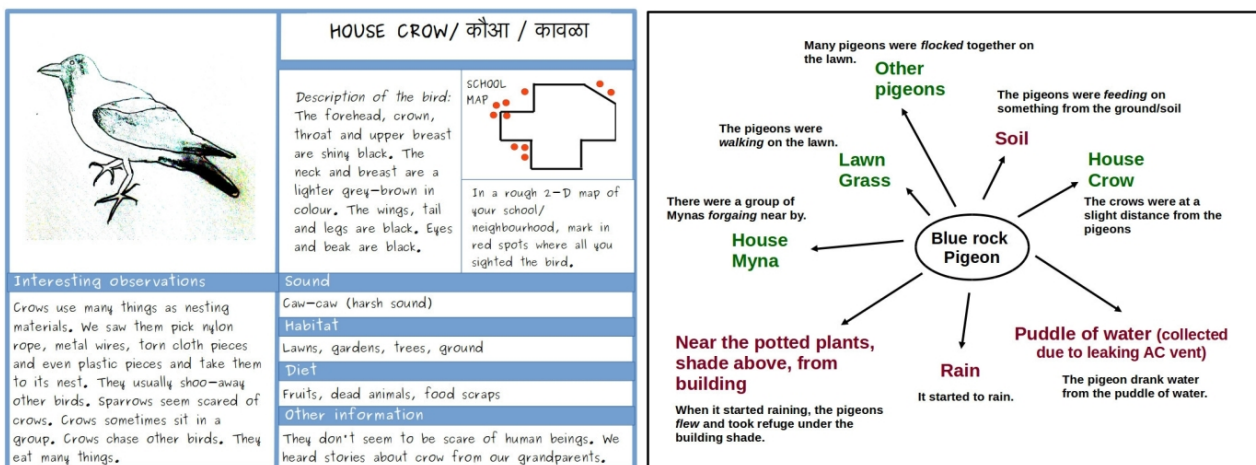


Figure 2 Templates: Example of a possible flash card (left) and an interaction map of a blue rock pigeon (right)

Important

- Your notes should be a reflection of what you observed over four weeks or more. It should not be copied from books or the Internet.
- Try to use the new terms that have been introduced in Student Handout #1 (For example, see the italicised words in the above interaction map)
- If you think that your data is not enough, continue the observations for a few more weeks.

Student Handout #3
Observation Guidelines (optional)

Write down “who, what, when and where” about the bird you observed.

What were the birds doing?	
Was the bird looking for food (foraging)? If so, where?	Was the bird perched, flying or sitting? Was the bird swimming?
Did you observe birds nesting? <i>Caution: Never approach a nesting site. Observe from a distance.</i>	Did the bird walk or hop? Do you think the bird could walk/hop backwards? Did the bird sit?
Were there any chicks (did you hear them) present?	Was the bird staring at one place for a long time? If so, where?
How was the behaviour of the bird around the nest? Were the male and female both present?	Was the bird cleaning itself (preening) or bathing?
Did the bird seem restless, nervous, calling loudly? If yes, why?	Did the bird take a dip or dive in water? How long did it stay under water?
Did you see the bird picking up things (twigs, cloth, plastic, wires, grains, worms, stones)?	Did the bird feed on anything? If so, what was it feeding on ?
Do you think the bird was collecting nesting material? If so, what materials?	Did the birds show any signs of “territorial displays”?
Did the bird drink water? If yes, from where?	Was the bird resting in one place?
Did the bird ruffle its feathers?	Did the bird stand on one leg?
Any peculiar behaviour of the bird observed?	Was the bird continuously in one place?
Did you see the birds mating? (breeding)	Was the bird sleeping?
Did you see the bird urinate/ excrete waste? Do they do this often?	Did you see the bird fighting? If yes, with whom?
How do the birds look?	
Describe how the bird looks. Try and draw how the bird looks.	How many toes did the feet of the bird have? Draw the arrangement of the bird's toes.
What is the size of the bird?	What's the most prominent feature of the bird?
Do you think it is bigger/smaller than your palm?	What is the colour of the bird? Which parts were which colour?
Can you guess the height/weight of the bird?	What colour was the eye of the bird?
Did the bird try to camouflage itself with its surroundings? If yes, how?	Do all the members of the same species look same? If no, how are they different?
Describe and draw the shape of the bird's beak. What do you think might be its food?	Could you tell apart the male and female of the same species? How?
Draw the feet of the bird. What is the shape and colour of the feet?	Did either member (male or female) of the species look more colourful than the other?
Who was the bird with?	How did the birds sound?
Was the bird alone or was it seen in group? Give group numbers/sizes.	Was the bird singing or calling? If yes, describe how it sounded.
Did the bird tend to move in groups (flocking)?	Was the bird continuously making calls?
Was the bird always seen in pairs (male and female)?	Assign a mnemonic to the bird's call. (What would it sound like if you wrote it out in English?). (<i>Che-che-che, caw-caw, houp-houp</i>)

Did the group comprise of the same species or different species?	How was the tone of the bird- melodious, sweet, harsh, loud, screechy?
Did the bird interact with or get chased by any other animals (e.g. insect, dog, reptile)?	Did the bird sing when perching or when flying, or both?
Were there other animals or birds near the bird's nest (if observed)?	Did you find instances where you thought two birds were communicating with each other?
Where are the birds seen?	When did you see the birds?
Describe or draw the immediate surroundings of the bird.	Mention day, date, time, location, and duration of observation.
Was the bird easy to see or did it stay hidden?	Are they commonly seen during the day/night?
How long did it take you to find the bird again?	Are they commonly seen throughout the day?
How long did you watch the bird for? Also mention if you observed the same specimen for the entire duration of the observation.	Describe the weather. Was it cloudy/ sunny/ warm/ hot/ dry/ humid/ shade/ cold/ windy? Any idea about the temperature?
Where was the bird sighted: tree, ground, grass, shrub, water body, etc.?	Are they more easily seen during morning, afternoon, or evening?
What other signs (evidence) of birds did you see?	
Did you find any discarded feather? Draw and colour the feather you found.	Did you see bird droppings? (body waste)? Describe it.
Can you guess which body part the feather came from?	If so, what was the colour and texture of the bird's droppings?
Did you see any bird footprints? If yes, can you guess if this was a land or water bird?	Did you see a nest? If yes, what was the location of the nest?
Can you spot any other signs that indicated that a bird was there?	Did you see any dead specimen of a bird? If so, how do you think it died?
At the end of the day, what does the bird do?	
Did you find your bird roosting?	Does it roost alone or in a group?
Does it always roost in the same place/tree? If yes, which one?	If in a group, are other birds the same species or a different ones?
Describe their roosting behaviour.	Do they make a lot of noise or are they quiet?
Is the roosting site and nesting site same for the bird?	Does the bird come to the roosting spot at the same time every day or at different times of the day?

Table 1

Note: Feel free to address any other aspects of birds as well. Direct your attention *not only* to the bird *but also* its immediate environment. The above questions are just meant to serve as pointers to initiate your bird observations.

Field Guides

- Ali, S. (2002). The book of Indian birds (13th Edition). Mumbai: BNHS.
- Grimmett, R., Inskipp, C., & Inskipp, T. (2011). Birds of the Indian subcontinent (2nd Edition). London: Oxford University Press & Christopher Helm.
- Kazmierczak, K., & Ber van Perlo (Illustrator) (2000). A field guide to the birds of the Indian subcontinent (1st Edition). London: Pica Press/Christopher Helm.
- Early Bird Pocket Guide by Nature Conservation Foundation (Multilingual).

Credits

Title: Rediscover, describe, and draw birds

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