



## OBSERVING NEIGHBOURHOOD BIRDS: THE MEDITATING HERON

HEMAL NAIK

**Storytelling can be an effective and engaging way of teaching scientific concepts. Can we use this story of a farmer and a heron to invite students to observe birds in their neighbourhood with more attention? How do we use it to explore local connections between biodiversity and livelihoods?**

I am a farmer. I live in Bumthang Valley, in the heart of Bhutan. Bumthang valley is known for its scenic views and vast green forests. One could sit here for hours admiring the beauty of its mountains, river, birds, and endless spark of life.

I go fishing regularly. The fish I catch supports my livelihood. I choose quiet spots by the river, away from other anglers. This helps me get a good catch. I am also able to enjoy the natural surroundings in silence.

My favourite fishing spot is five kilometres from my village, south of the temple at the village square. I follow a path that leads into the forest and then opens out to the riverbed. Then I walk for about three kilometres along the riverbed.

I know this spot by the pattern of its rocks. They make comfortable perches. I choose to sit on one that lies in the shade of a giant Ficus tree: My friend and protector from the sun and rain.

I am seldom alone when I fish. I share this spot with a stranger who fishes on the other side of the river. It is a heron.

Whenever I come here, it is here as well. This may be a coincidence. We are aware of each other, but go about our own business. I never try to interact with or feed it. It has never approached me.

I have seen the heron countless times. It stands for hours by the river, without moving. Without changing its position (see Fig. 1). Waiting for fish. Perhaps conserving its energy. In my head, I call it 'The Meditating Heron.' One day, I will tell my kids about it.

I admire its fishing routine. I can tell when it spots the movement of fish in the water. It becomes very alert and moves with precision towards its prey. Sometimes, it is very quick. I wonder how it appears to the fish it is after. Imagine a pair of giant chopsticks moving towards you at full speed!



Fig. 1. Can you spot the meditating heron?  
Credits: Hemal Naik. License: Copyright owned by Hemal Naik. Used here with his permission.

At other times, I see it creeping in slow motion towards a particular spot in the river. Trying to get close enough to it without startling any fish that might be there. Once it is close enough, it moves quickly, using its beak to latch onto its thrashing prey.

But the heron is not always successful. Sometimes, it misses its mark and the fish escape. At other times, it does not spot any fish. It is not the only

one to struggle. I too am finding it hard to get a good catch. The glaciers in the mountains are melting too rapidly. The flow of the river is getting much stronger than it has ever been. The fishing upstream has increased. The areas around the riverbank are changing.

Often, we wait for hours for fish to appear. I watch how calmly and patiently the heron waits. I try to do the same.

I wonder if the heron has other fishing spots (see Box 1).

## Eight years later...

After following the same routine for some years, I move on to other things. I start a business and get married. I have two kids: Tashi and Nuba. I tell my kids about my fishing days. They are eager to see my fishing spot.

One day, I decide to revisit my favourite spot. I take Tashi and Nuba along.

My old friends—the rocks and the Ficus—are still there. Unchanged and welcoming. But something does not seem right. I do not see the heron.

We return home and I do not give it much thought.

I start visiting my spot again. Many days pass by. But I still do not see the heron. I wonder if the winter finally got to him.

One day, my kids and I walk into a bookstore in the city of Thimpu. The store has a section of books on wildlife. I am curious about my missing companion.

### Box 1. Connections to the curriculum:

This story can offer many ways of connecting what students learn about the living world in textbooks for Environmental Studies (EVS) in the preparatory stage (Grades III-V) and science in the middle stage (Grades VI-VIII) with their real worlds (see Activity Sheet I: Observe Fishing Birds, Activity Sheet II: Document Changes in Neighbourhood Birds, Teacher's Guide: Activity Sheets I & II, Activity Sheet III: Invite Birds to a Bird Bath, and Teacher's Guide: Activity Sheet III). It can also offer a gentle and non-prescriptive way of meeting what the National Education Policy (NEP) 2020 describes as the aim of school education: "*The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values*".<sup>1</sup> Teachers could use it to build what the National Curriculum Framework for School Education (NCF-SE) 2023 describes as a capacity for social engagement, including its affective aspects: "*Empathy and compassion are not only values or dispositions; these are capacities that are developed through deliberate practice*".<sup>1</sup> Specifically, activities and discussions around this story can be used to meet the following curricular goals listed in the NCF-SE 2023 for:

#### (A) The preparatory stage:

- CG-2: (The student) understands the interdependence in their environment through observation and experiences, developing the basis for appreciation of the idea of '*Vasudhaiva Kutumbakam*'. Specifically, it can help students develop the competency to: "*Connect changes in the environment and the lives of their family and community, as communicated by elders and through local stories (changes in occupation, food habits, resources, celebrations, communication)*".
- CG-4: (The student) develops sensitivity towards the social and natural environment. Specifically, it can help students develop the competency to: "*Identify needs of plants, birds, and animals, and how they can be supported (water, soil, food, care)*".<sup>1</sup>

#### (B) The middle stage: CG-3: Explores the living world in scientific terms. It can help students develop and exercise the following competencies:

- "*Describe the diversity of living things observed in the natural surroundings (insects, earthworms, snails, birds, mammals, reptiles, spiders, diverse plants, and fungi)*".
- "*Analyse patterns of relationships between living organisms and their environments in terms of dependence on and response to each other*".<sup>1</sup>



Fig. 2. The white-bellied heron (*Ardea insignis*) at Namdapha National Park, Changlang, Arunachal Pradesh, India.

Credits: Rajkumar99, Wikimedia Commons.  
URL: <https://en.wikipedia.org/wiki/File:WHITE-BELLIED-HERON.jpg>. License: CC BY-SA 4.0 International Deed.

In all these years, it has never occurred to me to read about it. I have seen it basking in the sun by the river many times. I know how it looks in summer and in winter. I remember how magnificent it looks in flight. And it's cool composure during its hours of meditation by the river.

I search for it in a book called 'Birds of Bhutan'. But I do not find it there. The book talks about the purple heron, the grey heron, egrets,

the pond heron, and the night heron, but not the one I call the meditating heron.

I wonder if the bird is in some other section. I carefully search the index. There is a reference to an entry on rare species on page 339. I turn to this page and there it is! Finally! The milk-white belly and throat with grey upper parts. I read on... the habitat description and notes on behaviour match perfectly (see Fig. 2). They call it the 'white-bellied

heron' or 'imperial heron'. Its scientific name is *Ardea insignis*.<sup>2,3</sup>

I show Tashi and Nuba the photo of the bird in the book. I tell them this is the fishing companion I have always talked about. This is the first time I have been able to show them how the bird looks.

Nuba points out the \* symbol near the entry of the bird. This leads us to a footnote:

\* Last record of species in 2000s. Possibly extinct due to habitat loss and poaching.

## Key takeaways



- This is the story of a farmer who supports his livelihood by fishing. He observes and begins to relate to a heron who shares his fishing spot. It could be used in class to invite students to think about other species in their environment and how they relate to them.
- The farmer in the story shares his observations of the features and feeding habits of the heron. Encouraging students to observe birds in their own neighbourhood can give them the opportunity to discover and appreciate the diversity of the living world for themselves.
- The farmer in the story shares how human activity impacts his and the heron's ability to catch fish. We also learn how this heron species is disappearing from our world. This can be used to draw students into a discussion on the interdependence of species and the different kinds of roles we can play in the lives of the other humans and species in our environment.

**Acknowledgements:** The editors thank Raghavendra Gadagkar, honorary professor at the Centre for Ecological Sciences, Indian Institute of Sciences (IISc), Bengaluru, for introducing us to Hemal. We thank Vijeta Raghuram from Azim Premji University, Bengaluru, for facilitating initial conversations with the author.

### Notes:

1. Credits for the image used in the background of the article title: The Meditating Heron, Hemal Naik. License: Copyright owned by Hemal Naik. Used here with his permission.
2. This story was first published on Medium: <https://hemalnaik.medium.com/the-meditating-heron-white-bellied-heron-an-emissary-from-the-past-6100aa1cb2a7>. The wording and structure of the version included in i wonder... has been modified to align with our readership of middle school science and elementary school EVS teachers. These changes have been made with the author's permission.
3. To read more of Hemal Naik's writings, visit: <https://hemalnaik.medium.com/>.
4. This article includes five detachable classroom resources: **Activity Sheet I: Observe Fishing Birds**, **Activity Sheet II: Document Changes in Neighbourhood Birds**, **Activity Sheet III: Invite Birds to a Bird Bath**, **Teacher's Guide: Activity Sheets I & II**, and **Teacher's Guide: Activity Sheet III**.

### References:

1. National Steering Committee for National Curriculum Frameworks. 'National Curriculum Framework for School Education 2023'. National Council of Educational Research and Training. URL: [https://ncert.nic.in/pdf/NCFSE-2023-August\\_2023.pdf](https://ncert.nic.in/pdf/NCFSE-2023-August_2023.pdf).
2. Dawa Gyelmo. 'World's rarest heron on the brink in its last Himalayan stronghold'. Dialogue Earth (2021). URL: <https://dialogue.earth/en/nature/white-bellied-heron-threatened-in-bhutan/>.
3. The IUCN-SCC Heron Specialist Group. 'White-bellied Heron'. Heron Conservation. URL: <https://www.heronconservation.org/herons-of-the-world/list-of-herons/white-bellied-heron/>.

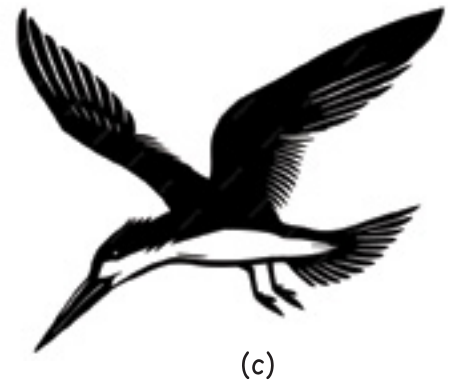
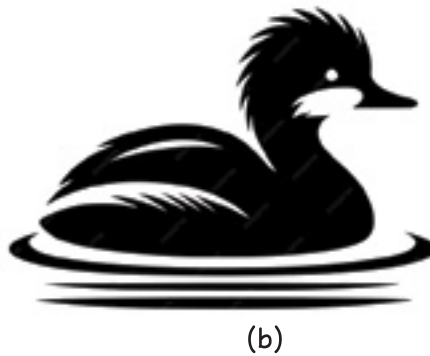


**Hemal Naik** works at the intersection of engineering, ecology, and art. He enjoys traveling, writing, and exploring wildlife, especially in the Himalayas. Hemal is currently using drones to study the mating behaviour of blackbucks in India. He can be contacted at: [hnaik@ab.mpg.de](mailto:hnaik@ab.mpg.de).

## ACTIVITY SHEET I : OBSERVE FISHING BIRDS

### Aim:

- Explore the 'diversity of life' by learning about different kinds of fishing birds and their feeding habits.
- Think about how the kind of human activities that affect one kind of heron in a different part of the world (out there) can affect other kinds of herons and fishing birds in your own neighbourhood.



**What to do:**

In 'The Meditating Heron', a farmer describes the fishing routine of his companion, a white-bellied heron. Listen to your teacher read this part of the story out to you.

**Observe:**

Page 1 of this activity has images of six of the different kinds of fishing birds seen in India. Look at these images carefully. What do the beaks of these birds look like? What do their feet look like?

**Think about:**

A. Have you seen any of these kinds of birds in your neighbourhood? What do you call them? Can you think of 1-2 things about these birds that will help your friends identify them?

Which of them are seen in your neighbourhood?	What do you call them?	Think of 1-2 things about the way they look that stand out for you?	Have you seen them fishing? (Y/N)

B. Different kinds of fishing birds use different fishing strategies. The way they look can often give us important clues about the way they fish. Columns 1 and 2 of the table below list and describe some strategies that fishing birds use. Can you guess which of these fishing strategies the birds on Page 1 are most likely to use? Fill out your guesses in Column 3.

Strategy	What you will see the bird doing	Image numbers
DIVING	Dive towards the water. Catch fish with its beaks or claws.	
SKIMMING	Fly very quickly over the water. Keep its beak open in flight and catch fish from the surface.	
SCOOPING	Wade through shallow water or mud. Scoop fish up with its beak.	
AMBUSHING	Stand still in water or close to it. Creep up to and snatch up unsuspecting prey with a quick movement of its beak.	

- C. Look at the images of the different kinds of fishing birds again. Think of what you heard about the fishing strategy of the farmer's companion. Which of the bird images on Page 1 is most like the 'meditating' heron? Why do you think so?

**Discuss:**

Watch the short 4-minute video that your teacher plays for you.

- Was your guess in Question C correct? If not, what did you miss?
- If you see any kind of heron in your real world, will you be able to identify it by the way it looks and fishes for food?
- If you see a neighbourhood bird catching fish, will you be able to tell if it is a diver, skimmer, scooper, or an ambusher?
- The farmer's 'meditating' heron is seen in India too. Here too, they are disappearing. Human activity plays an important role in its disappearance. The video shares some examples of such activities. Do you see any of these kinds of human activity in your neighbourhood? What effects do you think such activities have on the herons in your neighbourhood? Do you think they can affect other kinds of fishing birds too?



## ACTIVITY SHEET II : DOCUMENT CHANGES IN NEIGHBOURHOOD BIRDS

In 'The Meditating Heron', a farmer from Bhutan wants to introduce his children to a heron who had been his fishing companion for a long time. The bird is no longer at its usual spot. The farmer also learns that birds of its kind are disappearing from his neighbourhood. Human activity plays an important role in this disappearance. Do you know the birds in your neighbourhood well enough to notice when they start disappearing?

### Aim:

- Discover some of your neighbourhood birds from the observations you, your friends, and elders from your community have made of them.
- Find out how the numbers and kinds of birds in your neighbourhood have been changing over the years.
- Think about the relationship between birds and us (humans).

### You will need:



An observation notebook



A pen/pencil

### What to do:

1. In class: Your teacher will divide you into groups. Use **Table I** to make a list of all the different kinds of birds you see around you almost every day. Record any details that will help your classmates and teacher identify the bird. Here are some things to think of:
  - Do you know the common names of these birds? These names could be in any language. If you do not know their names, describe them. For example, tell your friends what you know about their size, colour, beaks, or the sounds they make.
  - If you can, make a note of where you often see them. For example, do they usually perch on trees, electric wires, near water, or on the ground?
  - Have you seen them eating? What do they eat?
2. At home: Talk to your parents, grandparents, and other elders in your community. Find out what they can tell you about the birds in your neighbourhood. Listen carefully to what they share and make a note of it in your notebook. Here are some questions to ask:
  - What kinds of birds did they see when they were young? Do they see them now?
  - Do they see a change in the number of birds over the years? What do they think may be the reason for this change?
  - What can they tell you about what different birds eat and where they nest?



**Table I: Describe the birds in your neighbourhood.**

Name of the bird (Common English name/Local name)	Description of the bird*	Description of the beak**	Where you see them #	What they eat

\* Size (sparrow size, crow size, smaller or bigger than sparrow or crow), colours, call of the bird, and whether they are single or in groups.

\*\* Colour, thickness (thin, thick), and length (short, long, curved, straight).

# On the ground, on a tree, on electric wires, near a water body, or on houses.

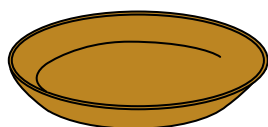
## ACTIVITY SHEET III : INVITE BIRDS TO A BIRD BATH

In the story of the 'The Meditating Heron', a farmer from Bhutan introduces us to a heron in his neighbourhood as his fishing companion. The farmer gets to know this bird so well because he sees it every time he visits his favourite fishing spot. You could meet many birds in your neighbourhood by setting up a bird bath.

### Aim:

- Set up a bird bath to invite neighbourhood birds to your school.
- Observe the neighbourhood birds that visit your bird bath.

### You will need:



A shallow mud plate/bowl or an old plastic bowl with a thick rim (for your guests to perch on)



A few stones/pebbles (again, for your guests to perch on)



A source of clean water



A scrubber (to clean the bird bath)



An observation notebook



A pen/pencil

### What to do:

1. With your teacher's help, set up at least two bird baths in school. Choose different locations for them. It may be best to have them at locations where you are able to easily observe your bird guests every time you enter and leave the school.
2. Place the bowls at the selected locations. Fill them with fresh water. If the bowls do not have a wide rim, place some stones or pebbles inside so birds have something to perch on.
3. Check each bird bath at least once a day to make sure it is filled with water. You may need to check this more often on hot dry days.
4. Take turns to clean each bird bath at least once a week. You may need to do this more frequently if the water is dirty.
5. Take 5 minutes to observe birds to the bird bath at least three times a day: When you arrive in school, at meal-time, and just before you leave for home.



### Observe and record:

- Do you know the names of any of the birds you see? If yes, write them down. These names could be in any language.
- How do the birds look? Record these details in **Table I**. Or you could draw the bird in your notebook.
- If you hear any of the birds calling or singing, describe that sound. Or try and learn to imitate their call.
- How do the birds behave? Do they take turns in using the water? Do any of the birds use the baths to bathe? Do any of them use it to drink water?
- Other animals may visit your bird bath. Record your observations of them too.
- Remember to make all your observations from a distance.

### Think about:

- Why do you think birds visit a bird bath?
- Why is it important to describe your bird guests in detail? What does it help you learn?
- Go through your observations and record the following findings:
  - a) Which birds come every day?
  - b) Which birds come only at certain times of the day?
  - c) Which birds come only at certain times of the year (you will be able to answer this question only after one year of observations)?

### Discuss:

1. Why do you think your teacher is inviting you to make all your observations of the bird bath from a distance?
2. Do you see any patterns in your observations? For example, do any of the birds visit the bath at specific times of the day? Can you think of an explanation for these patterns? Where might these birds be at other times?
3. What do you think will happen when several birds come to the bird bath at the same time? Think of a reason for your prediction. Compare this with your actual observations of how birds behave at the bird bath. Is it different from what you had predicted? Discuss possible explanations for this difference.
4. Share 1-2 of:
  - The observations that were most exciting for you.
  - The new things that you learnt from this activity.
  - The things you thought about birds that changed because of these observations.



**Table I: Describe the birds that visit your bird bath.**

Date: ..... Location (if there is more than one bird bath): .....

Time: ..... than one bird bath): .....

Name of the bird (Common English name/ Local name)		Description of the bird				Behaviour of birds**		
	Size*	Colour (feathers and wings)	Any other features that stand out	Bird call (what does it sound like)	Bathes, drinks, or does both?	Waits its turn (Y/N)	Any other observation	
Any other visitors?***								

\* How big is the bird? You could compare its size to that of a sparrow or a crow. For example, is it bigger or smaller than a sparrow?

\*\* Does the bird wait its turn in using the water? Does it bathe, drink water, or do both? Did you notice anything else about the way it behaves?

\*\*\* Describe their size, features, and colour if you do not know their name.

- 1) Activities I & II can help meet the following learning outcomes:
  - For science at the middle stage (Grades VI–VIII): The learner can identify and classify living organisms based on their observable features, can conduct simple investigations to seek answers to queries, and makes efforts to protect the environment (by spreading awareness on the need to protect plants and animals).
  - For EVS at the preparatory stage (Grades III–V): The learner can identify simple features (like movement, eating habits, and sounds) of birds in their immediate surroundings, group birds according to similarities and differences using different senses, predict patterns, and show sensitivity towards plants and animals.
- 2) One of the goals (CG–3) in the National Curriculum Framework for School Education (NCF–SE) 2023 for science in the middle stage is for students to have the opportunity to explore the living world in scientific terms. Activities I & II are designed to help meet this goal and two of its related competencies:
  - Describe the diversity of living things (including birds) observed in the natural surroundings.
  - Analyse patterns of relationships between living organisms and their environments in terms of dependence on and response to each other.
- 3) In Activity I:
  - Start the activity by narrating the story of ‘The Meditating Heron’. You may want to read the parts that describe the features of the bird and its fishing routine again if students request it.
  - The kinds of birds in **Sheet I** are: (a) Kingfishers, (b) Grebes, (c) Skimmers, (d) Herons, (e) Sea Eagles, (f) Pelicans, (g) Cormorants, and (h) Spoonbills.
  - In **part B** of the **Think about** section: Kingfishers, Grebes, Sea eagles, and Cormorants are divers. Skimmers are named for skimming. Pelicans and Spoonbills are scoopers. Herons are ambushers.
  - Encourage students to attempt the questions in the **Discuss** section after you show them a short 4-minute YouTube video (by Roundglass Sustain) on your mobile phone. Titled ‘How Namdapha’s Most Statuesque Bird is Quietly Disappearing’, this video is available in English here: <https://www.youtube.com/watch?v=s-H5zn4xCDw>. If students prefer, you could play it in Hindi instead: <https://www.youtube.com/watch?v=eTPr31KbHeE&t=0s>.
- 4) In Activity II:
  - Encourage students to listen carefully to the stories and information their elders share. Ask them to record these details in their notebooks.
  - Also, encourage them to listen carefully to presentations by the other groups in class.
- 5) Facilitate the discussion in both activities by encouraging students to think about and share the effects we (humans) have on birds in our neighbourhoods. End the session by posing these questions: Do human activities always have harmful impacts on birds? Can they think of some activities that don’t? Do they know of efforts in their locality that help protect birds or their habitats? Let students take at least a couple of days to think about these questions. If you see a lot of interest in these questions, you could invite them to share their responses in a class discussion.

1. This activity is designed as an extension of 'Activity 4: Prepare a birdbath—offer water to birds in the hot summer months' described in the Grade III EVS textbook (NCERT, 2024–2025, pg. 96–97). It can also be connected to 'Chapter 7: Water A Precious Gift' in Unit 3 of the Grade III EVS textbook (NCERT, 2024–2025).
2. It is designed to build and deepen students' affective skills of empathy and care for all living beings around us. The National Curriculum Framework (NCF–SE) 2023 suggests that: "*Empathy and compassion are not only values or dispositions; these are capacities that are developed through deliberate practice*".
3. This activity may be carried out by students as a year-long activity.
4. Start this activity by reading out the story 'The Meditating Heron' to the students. Then introduce the idea of setting up bird baths in school. Invite students to bring used or old shallow mud or plastic containers that are about 10–15 cm deep. Tell them that the containers can be of 2–3 different volumes.
5. Once you set up the baths, work with your students to set up a duty roster for maintaining them. Ensure that students take turns to clean the baths and refill the water in them. Doing these tasks collaboratively helps students build a sense of ownership and responsibility. These are important attributes in caring for others.
6. Share clear instructions for the tasks. Emphasize the instruction that students must observe non-human visitors to the bird bath without feeding or interacting with them. This will help them build skills of observing with attention and sharing space (and resources) with other living beings.
7. Clarify to the students that they should record their observations systematically and regularly in the format provided in **Table I**.
8. Encourage your students to observe visitors to the bird bath for at least 10–15 minutes, three times a day: When they enter the school, during their meal-break, and before they leave school. Encourage them to record their observations as soon as possible after each such session.
9. Plan a session for at least 30 minutes per week.
  - Depending on their class strength and the time available for discussion, divide students into pairs or small groups of 3–4. Facilitate the exercise of peer sharing and discussion. Clarify that students in each pair or group must take turns to share their observations and explanations. Encourage them to listen carefully to each other.
  - Once a month, use this session to invite students to share their responses to questions in the 'Think about' and 'Discuss' sections.
10. Make a note of any student questions that have not been addressed during these discussions. You could take these up at a later point. Or you may consider assigning it to students to explore on their own and share their findings with the class.
11. Encourage students to set up bird baths at home and maintain a journal of their observations for as many years as they can. As they do this, they will begin to recognise and infer patterns and rhythms over time. This can help your students become more aware and

sensitive to changes in their environment. This may build their capacity to respond in meaningful ways to many other changes around them.

12. Encourage students to think of the role their observations of birds play in their ability to care for these animals and be empathetic to their needs. By inviting students to observe their surroundings with attention, we can help them build care, empathy, and compassion.

Contributed by:

**Radha Gopalan**, who is an environmental scientist with a PhD from the Indian Institute of Technology Bombay (IITB), Mumbai. After an 18-year career in environmental consulting, she taught Environmental Science at the Rishi Valley Education Centre, Andhra Pradesh. She is a Visiting Faculty at the School of Development, Azim Premji University, Bengaluru, and a member of the Kudali Intergenerational Learning Centre, Telangana.