Muchkund and his Sweet Tooth

Madhav Gadgil
Maya Ramaswamy
Muchkund and his Sweet Tooth

Written and English translation by Madhav Gadgil
Illustrated by Maya Ramaswamy
This is a story about Muchkund, a very bright young ghost. He belongs to the Vetal Baba gang of ghosts. As befits a munjya, he is far cleverer than the other ghosts in the gang and very helpful by nature. He stays on the giant peepal tree on the campus of Pune University. Muchkund often attends university classes in the guise of a young student. Sometimes, he turns himself into a sparrow and sits on the windowsill to watch scientific experiments in the laboratories. He is forever in the quest for knowledge. The professors sometimes wonder how a bright young student often appears and then disappears after a few classes!

One day, while listening to a professor talk about faraway lands, Muchkund wished he could go on a short vacation at least. So he was delighted when he got a letter from his Uncle Jambvan.
“Come for your Deepavali vacation to Edjar,” wrote Uncle Jambvan. “There are many beehives on the tall trees here. Your cousins Neel, Angad, and Sushen, and all the kids here, love to clamber up the trees, pull down the hives and feast on the honey. You are fond of sweets too. You will have a great time. Come down for a couple of weeks.”

A gang of ghosts

In Indian mythology, Vetal Baba is considered the king of the bhutas (ghosts) - the shadowy creatures with special powers that are all around us. He is believed to sit atop the highest hill in the city of Pune. His gang includes different kinds of ghosts called pishach, munhya, zoting, khavis and samandha, all of whom reside on ancient banyan, peepal and other sacred trees. They thoroughly enjoy accompanying Lord Shiva in his great dance performances. There are many popular stories of these beings, the best known being the twenty-five tales of Vetal and King Vikramaditya.

A munhya is a special kind of ghost who is known to be inquisitive. Munjyas take on any form they want and can also converse in the dialect of any animal and in any language spoken by human beings.
Muchkund asked for Vetal Baba's permission to go on a vacation. Then, with a giant leap that munjyas are so good at, Muchkund landed in the Edjar forest of Mendha Lekha in Gadchiroli, in Maharashtra. This is located at the very centre of the Indian subcontinent. He had assumed the form of a young sloth bear this time. Looking around the dense forest and the huge hives of rock bees hanging high up from the big branches of arjun, silk cotton, peepal and kosimb trees, he was ecstatic. He quickly became friends with Neel, Angad and Sushen, climbing with ease up fifty-foot trunks, attacking the beehives. These rock bees are the giants of the insect world. Each bee is over an inch long. They store honey in the upper portions of the honeycomb. As soon as Muchkund and company came near the hives, the whole army of honeybees would attack them, literally throwing away their lives!
Muchkund was in heaven. He flew down often for a mouth-watering feast of sweet, sweet honey. For Muchkund, the days flew by. Then one day after a honey feast, a thought struck him, ‘It is fine that we have a grand time, but what about the thousands of bees that we have killed in the process?’

**Fascination for Sweets**
The sweet taste has much significance in the living world. A sugar molecule is the first food product manufactured by plants from carbon dioxide and water with the help of the sun’s energy. Other, more complex molecules follow later. Animals can rapidly mobilize energy from sugars. That is why athletes use glucose to perk up during a game. Naturally, animals are greatly attracted to the sweet taste. Honey is a wonderful natural source of the sugar, as are fruits such as mango and jackfruit. We distil the sugar in our jilebis and gulab jamuns and surely, you love those too!
'I better discuss this with Uncle Jambvan,' Muchkund decided. On the new moon day of Deepavali, chatting with Jambvan, perched on a rock on the bank of a stream, Muchkund said thoughtfully, “I have been observing that honey is stored in only one part of the hive. Can we not spare the rest of the hive?”

Jambvan was taken aback. “Muchkund, your head is full of fancy notions! Come now! Bears and bees are born enemies. To destroy the hives is deeply ingrained in our nature.”

Muchkund stared back at Uncle Jambvan. After a while Uncle Jambvan shooed away a pesky fly and said slowly, “But I see your point. It is true that honey is becoming scarcer by the day. So, maybe we will earn merit by saving the bees, and at the same time profit by improving the supply of honey. But how can
we extract honey from just the upper hive? If we begin to take time to carefully detach that portion, the bees will sting us all over our ears, eyes, and noses!”

“Ah! But have you forgotten that I am a munjya? If you agree, I will take the form of a male bee and talk to the bees. Let us see how they respond,” suggested Muchkund.

**Death by numbers**

*Once the honeybee’s sting penetrates the enemy’s skin, the sting breaks off, and the entrails of the bee are left behind too. The bee then must die. The sting is very painful, so few animals dare to attack the hives of rock bees. Bears are more adventurous because the bees’ stings cannot penetrate the thick, long hair to reach their skin. But they have to guard their ears, eyes and the tips of their noses, of course! When the bees attack, the bears curl themselves up, protecting their faces with their long arms. So, many bees die, breaking their stings in the mat of the hair. Eventually, the swarm loses heart and quietens down. The bears then quickly clamber up, and detach the beehives with forceful swipes. Then they devour the honey and the nourishing juice of the eggs, the larvae and the pupae.*
Muchkund prayed, ‘Jay Vetal Baba! With your blessings, turn me into a rock bee drone.

And on that dark night of the new moon, he took off, landing near a teeming, prosperous hive of rock bees which was quiet today. The rock bees enjoy a long, deep sleep on the night of the new moon. They wake up refreshed in the morning after a good night’s rest. So, the bees were startled to see a strange male perched near the hive. Right away, an army of bees surrounded Muchkund. He sat quietly with folded hands. The bees too quietened down and enquired, “Who on earth are you? Why are you here?”
Muchkund replied, “I am a messenger of peace. I am here to call on your queen and give her a special gift of a basket of pollen grains of the Muchkund tree. May I meet Her Highness?” Permission was graciously granted and Muchkund began his narration, in the form of a dance, naturally!

“Madhurani Saheba, I am a lover of nature, a disciple of Vetal Baba. You are an incomparable creation of nature and I am your ardent fan. But I am worried now because the number of bees is dwindling day by day. Of course, the main culprit is the excessive use of insecticides. But the sloth bears too have played a destructive role. Jambvan, the chief of the bears sends a proposal for your consideration. May I proceed?”

*Dancing bees or chatterboxes?*
*Bees are in constant communication with their hive mates. They share information about nectar and pollen sources all the time. This is conveyed through a dance. The angle of the body of the dancers indicates the direction of the food source. The rate at which they wiggle their abdomen while dancing gives an indication of the distance and the quality of the food source!*
Madhurani, the queen, was in no mood to listen to these fancy tales. She was furious. “Do not ever mention those horrible beasts. I will have nothing to do with their ambassadors. Leave us this instant.”

“Peace,” pleaded Muchkund. “I fully realize that bears are your enemies. But what will you gain by driving me away? All said and done, your numbers are going down. Why not try a compromise so that bees are not decimated?”

“True,” Madhurani was forced to concede, “what is your proposal?”
“The bears too want to reduce destruction,” Muchkund replied, “so their proposal is that they should be permitted to enjoy the honey quietly. They will desist from destroying the eggs, larvae, and pupae. They will not bring whole hives down. In return, they would like you to agree to keep quiet when they are feeding on the honey. Not to sting their noses, ears or eyes.”

Hives of Rock bees
The hive, made up of thousands of hexagonal wax chambers, is attached to big horizontal tree branches, or rock faces. Two kinds of cells in the upper portion of the hive contain honey. The raw honey in two-thirds of these cells is for the bees, for their daily use. These cells are open and contain only one-fourth of the total store of the honey. This honey is very fluid. The other one-third of the honey bearing cells are capped and packed with denser honey, meant for use when the season of abundant availability of flowers has drawn to a close. The lower cells contain pollen in one corner, and below that are the eggs and larvae of worker bees. Right at the bottom, we find the royal eggs and larvae during the flowering seasons.
Madhurani replied, “Well, this is certainly worth considering, but it is going to be tough convincing everybody. But go and tell Jambvan not to betray our trust. Never should they attack our eggs and larvae, if we let them consume the honey in peace!”

Muchkund said, “Excellent, Rani Saheba. Trust builds on trust. Let us give this a fair trial. I will go back to Jambvan now.” And as Madhurani stared in disbelief, Muchkund shed his form of a male bee, and puffed back into the form of a young bear. And carefully without touching the hive, he quietly clambered down the tree.

Madhurani sent out a message to each and every hive of rock bees in Edjar forest. ‘An incredible proposal has been put before us. How do we respond?’

There were hot debates. Many queen bees demurred. But in the end, all of them agreed to give the idea a try.
Meanwhile, there was much discussion among the bears as well. “Why just honey? We also love the egg and larva juice. Getting stung occasionally can be quite a thrill. Sometimes, even an eye is lost. But that is part of a bear’s life. It will be so tame to approach a hive, quietly salute the bees, and withdraw after licking some honey. That would be shameful conduct for a bear.”
But ultimately Jambvan was able to carry everybody along. He convinced them that times had changed. Beehives and tall trees were all getting decimated and so it would be prudent to show some restraint. But, Vali, the troublemaker in the community, held out till the end. He said, “Do what you will. It is a bear’s duty to take swipes at beehives. I will never give that up.”
Jambvan said, “Listen, this Muchkund is no ordinary creature. If you do not come round, he will inform Vetal Baba. And then Vetal Baba will order a zoting to pursue you. Then you will be truly finished.”

Vali did not budge, “I’m not scared of any khavis or zoting. You go ahead and do what you wish.”

By now everybody was tired of Vali’s bad behaviour. They told him not to be adamant. If he did not fall in line, he would have to repent.
Muchkund transformed himself once again into a male bee and arrived at Madhurani’s hive. “What have all you honeybees decided?” he asked. “The bears are willing to arrive at an understanding.”

“Fine,” said Madhurani. “Let us see what we gain from this new treaty.”

She sent word to the whole forest. “Truce has been declared amongst bees and bears. From now on, the bears will only consume honey, not eat eggs and larvae, from any one hive. And that too just once a month. They will not destroy any hives. In return, the honeybees will not attack bears. They will not sting their eyes, noses and ears, even if these are exposed.”
So the new system was put in place. Bears climbed up to hives with an easy mind. Bees were happy not to have to indulge in suicidal attacks. They were happy that the hives were spared, even while some honey was lost. Vali too abided by it. Peace prevailed over Mendha Lekha forest. Muchkund was delighted; he felt he had had a great Diwali vacation – a vacation that was productive. He returned to Pune with a light heart.
The months rolled by and in no time, the Holi festivities were upon them. The beehives had prospered. Vali had his favourite thandai drink on Holi. But he missed the fun that the bears used to have before the treaty was signed. ‘At least on this day of Holi, one must abandon caution and enjoy life in the grand old style. One must feast on bee eggs and larvae!’ he thought.

Vali located a great big hive. It turned out to be Madhurani’s. He clambered up the tall tree. All the bees were busy looking for pollen and nectar on that lovely full moon night. No one saw Vali amidst them. With a single powerful swipe of his paw, Vali brought the whole hive crashing down. He slithered back to the ground, took a giant bite of the section with eggs and larvae. He covered his face with his arms and went into a deep slumber savoring the tasty juice.
Furious at this betrayal, Madhurani ordered her forces, “Go directly to Jambvan’s camp. Target Neel, Angad, Sushen. Sting their faces with all your might!”

The young bears were gamboling around, full of cheer on Holi night and all of a sudden, their ears and noses were on fire! They shrieked and screamed, “We have been attacked by the bees for no reason at all!”
Jambvan shouted, “If the bees want to declare war on Holi, so be it. We will not take this lying down.” They all rushed to Madhurani’s hive, only to see the scattered remains on the ground, and next to it, Vali, flopped belly down, snoring away.

Jambvan said, “So this is the problem! We must teach him a lesson he will never forget. Our agreement with bees is that they won’t sting us on our noses, ears and eyes, even if these are exposed. We will ask them to abide by the agreement, yet get their revenge on this traitor Vali! He won’t wake up easily. Let us get some red hot logs from the Holi fire, and burn off all the hair around his buttocks and hind legs. We will then tell the bees to attack the villain! He might cover his face. But then the bees can sting him on his rear and teach him a lesson he will never forget.”
They quickly brought some burning branches from the the Holi fire and singed Vali’s hind quarters. Vali was still deep in his drunken slumber.
Then Jambvan prayed, ‘O, Vetal Baba! We are in a soup. Please send Muchkund here to Edjar forest this very instant.’

Muchkund was relaxing on the Vetal plateau after having had a thoroughly good time on Holi. He was ordered to take off to Edjar forest immediately. He reached there in one giant leap. Landing in Jambvan’s camp, he saw Neel, Angad and Sushen in terrible pain, their faces all swollen. “What’s up?” he asked.

Jambvan sat him down and told him the whole story. Muchkund said, “You did fine. Let me now find Madhurani and talk to her.”

He transformed himself into a male honeybee, and looked for Madhurani. He found her perched on a tall arjun tree, surrounded by the remnants of her army, ready to start building a new hive.
Her anger boiled over as she screamed at Muchkund, “Listening to the likes of you has ruined us. Now make yourself scarce, before we tear you to pieces.”

Muchkund said, “Rani Saheba, please listen to me. Every community has a rotten apple. But we have dealt with him. Let us continue our understanding. There is nothing in the treaty about bees stinging bears on their legs and hind quarters. There is just one traitor amongst the bears, and we have singed off all the hair from his buttocks and hind legs. The moment you see him, sting him with abandon. Do not let him taste even a drop of honey.”

Madhurani said, “Ah, I will inform all other queens. But make sure that this never happens again!”
Before daybreak, every beehive was buzzing with the news of Vali, his betrayal and the punishment meted out to him. Vali woke up at the first touch of the sun. He was still savouring the flavours of the eggs and larvae on which he had feasted the previous night. ‘What a grand Holi I have had,’ he thought to himself. ‘Now, I will forever throw all restraint to the winds. Back to my old routine.’ He stretched himself and thought of some honey for breakfast, looking for a big beehive. He came upon a silk cotton tree loaded with fifteen or sixteen hives. With a cry of ‘Jai Ho!’ he clambered up and instantly caught the attention of the guard bees.
“So this is the scoundrel,” they cried and the whole army fell on Vali. Vali curled up covering his face in the standard fashion. But lo and behold, his whole hind end was suddenly on fire! As his arms drew instinctively back to protect his behind, the bees fell upon his ears, nose and eyes. Screaming with pain, Vali rushed to the nearest stream and dived in. When he felt the cold water on his buttocks, he realized that his rear and hind legs were now permanently bald.

He knew then that there was no question of savouring bee eggs and larvae; he could no longer dream of even tasting honey.
There were further rounds of negotiations amongst sloth bears and rock bees. It was resolved to continue the old agreement except for Vali, who was now barred from ever consuming honey. Muchkund stayed on for another week at Mendha Lekha. One thing puzzled him - was the remarkable increase in the bee population just a result of the truce with bears, or had human beings also learnt a lesson in prudence? He dropped in on the wise old village head, Maniram Kaka, to ask him what had happened.
Muchkund learnt that scientists at Wardha had developed a non-violent technique of honey harvesting that the villagers of Mendha Lekha had started practising! Moreover, they had taken to organic farming and the bees had little to fear from poisonous pesticides. So now the forest is abuzz with honeybees and teeming with other forms of wildlife as well!
Nonviolent Honey

The Sewagram Natural Technique, developed at the Centre of Bee Development, Wardha, Maharashtra, prescribes harvesting of honey from the sealed honey comb cells packed with dense honey by a sharp instrument, leaving intact the supporting columns on either side. This ensures that the hive is not damaged, even as 70-80 percent of the honey is harvested. Pretty soon, the bees reconstruct the cut out portions and vigorously begin to fill them up with honey. It is possible to harvest this honey too, after one or two months and this can yield even larger quantities. This avoids the death of the honeybees unlike in the traditional harvesting practices that involved the burning of hives. This method can substantially increase honey production from any forest area. Of course, the whole operation needs to be carried out on a dark night, with the help of specially fabricated clothes, masks, rope ladders and torches.
Our Honeybees

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Apis Florea</th>
<th>Apis Cerana</th>
<th>Apis Mellifera</th>
<th>Apis Dorsata</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Name</td>
<td>Dwarf bee</td>
<td>Satpuda bee</td>
<td>Italian bee</td>
<td>Rock bee</td>
</tr>
<tr>
<td>Geographical</td>
<td>Plains or low lands in tropics and subtropics upto 1500 metres altitude</td>
<td>Plains of tropical to temperate range upto 3000 metres altitude</td>
<td>In temperate Europe, America, Australia and domesticated in India</td>
<td>Forested and plain tracts of temperate and tropical regions upto 4000 metres altitude</td>
</tr>
<tr>
<td>distribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occurrence in India</td>
<td>In the plains</td>
<td>Everywhere</td>
<td>Domesticated throughout North India</td>
<td>Everywhere</td>
</tr>
<tr>
<td>Natural sites for</td>
<td>Shrub, trees, leaves and niches in walls</td>
<td>On rocks, walls, inside hollows of tree trunks</td>
<td>On rocks, walls, inside hollows of tree trunks</td>
<td>On branches of larges trees, rock faces, buildings, towers, under bridges</td>
</tr>
<tr>
<td>construction of hives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural locations for</td>
<td>In the open</td>
<td>In the dark</td>
<td>In the dark</td>
<td>In the open</td>
</tr>
<tr>
<td>constructions of hives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestication</td>
<td>Impossible</td>
<td>Possible</td>
<td>Possible</td>
<td>Impossible</td>
</tr>
</tbody>
</table>


Pratham Books was set up in 2004, as part of the Read India movement, a nation-wide campaign to promote reading among children. Pratham Books is a not-for-profit organization that publishes quality books for children in multiple Indian languages. Our mission is to see “a book in every child’s hand” and democratize the joy of reading. If you would like to contribute to our mission, please email us at info@prathambooks.org.

Madhav Gadgil is a field ecologist in love with the hills and forests of India and their denizens - animal, vegetable and human. Educated at Pune and Harvard, he spent long years at Indian Institute of Science in Bengaluru. Along with scientific papers and books, he wrote a fortnightly children’s column for The Hindu. His distinctions include the Harvard University’s Centennial Medal, Volvo Environment Prize and the Padma Bhushan.

Maya Ramaswamy brings creatures and landscapes alive in her paintings. She creates identity and movement in the pictures she illustrates. Her work can be seen in many books on wildlife, both for children and adults. A keen wildlifer, Maya has illustrated Turtle Story, Nono, the Snow Leopard, A King Cobra’s Summer and many other books.
Bears, bees and blossoms are three enchanting building blocks of our natural world. The Indian rock bee is called a giant bee because it is one of the biggest honeybees in the world. Rock bees forage by moonlight. Scientists have been working with forest dwellers to safeguard rock bees, a precious natural heritage. In this informative tale, Muchkund and his bright gang of ghosts have a clever way of dealing with the burning issue of forest offenders!