



GURVINEK AND YANA

by Tatiana Neklioudova

(translated to English by Nadya Neklioudova)

I've always had a variety of animals living in my home. As a child, my pets were ordinary goldfish, hamsters, guinea pigs, and canaries. As a university student, my Irish terrier Michael shared the difficulties of expedition life with me, and to my mother's horror, I started bringing home all sorts of rodents such as field-mice. Later on, my scientific supervisor contributed to the expansion of my home fauna by bringing back animals from his travels.

The news that a pair of pangolins (brought back from Vietnam by a colleague) would be coming to our home for the Christmas holidays, were greeted by my husband's approval and my daughter's delight. Of course, they asked “what is a pangolin?” I explained that these incredible animals are covered in protective scales that are arranged like roof tiles from the nose all the way to the tail, and on the outsides of their legs. This outward similarity with crocodiles and other reptiles explains their other name in the Russian language, which translates as “great lizard”. Nevertheless they are mammals – the pale skin on their bellies and undersides is covered with short hairs, which also grow inbetween their scales; they have a pair of nipples and feed their young with milk.

The aforementioned pair of pangolins were a mother and a newborn baby. It happened that on the last day of my colleague's expedition in Vietnam, he bought a pangolin from a street merchant – the Institute of Evolutionary Morphology and Ecology of Mammals had dreamed of studying this rare animal. Later that day, when he wanted to give the animal some water and opened the bag it was in, he was amazed to discover a baby pangolin, covered in soft pink scales. The mother pangolin curled into a protective ball around her baby, where the newborn was safe and secure from human eyes. The unsuspecting pangolins found themselves in Moscow the next day, and I was entrusted with their care.



At first it was a terrifying responsibility – all previous research agreed on only one thing, that pangolins did not survive in captivity due to their specialised diet. These animals have adapted once and for all to eating termites, and did not willingly change their habits. Whereas ant-eaters, armadillos and aardvarks could be successfully persuaded by zookeepers to alter their dinner menu from ants and termites to a mixture of milk, ground meat and eggs, then pangolins would rather starve than try out such a concoction. Previously, pangolin life in captivity could be extended only by feeding through an IV tube, which would be a very difficult and exhausting procedure to perform every day at home.

So, I needed to solve the problem of feeding my new pangolins. Placing the family in a carry-bag, I took a taxi home from the Institute, lost in grim thoughts. Yana, as I named the mother pangolin, protected the baby well and did not crush him in the confines of the carry-bag. I peeked inside the bag, and immediately Yana uncurled and climbed up and onto me, demonstrating the strength of pangolin claws, which are well adapted to digging apart the walls of termite mounds. Yana raised her narrow face to meet mine, sniffing me with noisy breaths of air. The face-to-face meeting lasted around three minutes, and Yana, as though satisfied with her analysis of her new keeper, calmed down and curled up on my lap. From that moment on we established complete mutual trust and understanding.

Placing the pangolins in a rabbit cage in the kitchen of our small apartment, I set about making up a pangolin dinner menu. I decided to try a mixture of milk, raw ground-up meat and egg, and offered it to Yana in a teaspoon. To my surprise, and contrary to all pangolin principles, she immediately licked up the mixture! Having eaten a few teaspoonfuls of this, she curled up into a ball again – and only then I remembered that I forgot to add a drop of formic acid, which was strongly recommended by experts and obtained with great difficulty from the neighbouring Institute of Biochemistry. Yana ate a mixture that did not smell like ants in the slightest!

15 minutes later I offered her some more, and after a couple more teaspoons of food, the exhausted pangolin curled back up around her baby. This continued over the next two hours, until I was satisfied that Yana had eaten enough to keep her strength up. When the next morning, I lowered the teaspoon into a bowl, and victoriously watched Yana lick her food from a bowl like an ordinary cat - I thought the problem of feeding the pangolins was solved. How wrong I was!

Over the next few days I heard a worrying array of bubbling noises coming from the pangolin's stomach. It was obvious that her system was not coping well with the meat. What to do? The animal could not survive for long on milk alone. Then for some reason I decided to try a mixture of cooked meat and vegetables put through a blender, the same as I had once fed to my daughter when she was 6 months old. Gradually I introduced the cooked components of this mixture by adding it into her dinners. Yana's condition improved. I also switched the boiled cow's milk to infant formula. Intuitively, I made the right choices – Yana hungrily licked up her new food, and this diet was clearly helping.

From a starving, dying animal whose body shook unsteadily during the moments of our first meeting, Yana soon became a strong, healthy, good-natured exotic creature who confidently made her home in our apartment and in our hearts. She gained weight, the hairs on her body grew in better condition.



Reassured by having solved the problem of food, I could now focus on the baby pangolin. He nursed on his mother's milk, gaining 10-15 grams every day. Having fed, the baby sweetly fell asleep, protected by his mother's warm body curled around him, where he felt safe. From birth he could accompany Yana on her explorations of our apartment, saddling her tail. He would grip with his front feet onto the scales of his mother's tail, and his back feet would tap along the floor, in tact with his mother's movements. Initially his strength did not last very long and he would fall off, but Yana felt the loss of her precious cargo. Instantly she would stop and wait for the little rider to saddle her tail again.

How difficult life must be for tiny, blind pangolin newborns – their mothers have no real ways of helping them. Adapted to eating, or rather licking up termites with their long tongues (up to 25cm), pangolins lack teeth, and therefore the ability to carry their young with them as many other mammals do. With their powerful feet, armed with claws which are designed to dig open termite mounds but are difficult to walk on (they turn their claws inward slightly when walking), the most they could do for their babies is to nudge and roll them in, and then curl around them in an armoured ball of scales. To survive, the young pangolin needs to have a firm grip on his mother's tail. This is why pangolins only give birth to one, rarely two babies, who must be well adapted to the difficulties of pangolin life in the wild.

In the easy living conditions of a Moscow apartment, however, the little pangolin grew steadily. By the sixth day he lost the last shriveled bit of umbilical cord, and on the 25th day the young creature could finally see and hear the surrounding world. His ears opened up – and attracted our attention with their relatively large size. Our little one's ears were not only large compared to the rest of his body, they stuck outward adorably, reminding us of a character of Czech children's stories, Hurvínek (pronounced Gurvinek in Russian). This is how our little pangolin got his name.



Gurvinek curiously examined his nest and surroundings with his little black eyes, full of childlike clarity and wonder. On family outings around the apartment, he began to climb off his mother's tail more often, to explore by himself for a little while. He did not wander far, but walked alongside Yana's tail, to be able to climb right back up if he was tired or startled by something. If left alone and scared by some noise or movement, he would instantly curl up into a ball – but as time went on and he grew up, this instinctive reaction would occur less and less often, and completely disappeared by 6 months of age. If he suddenly found himself in his native jungle now, this newfound fearlessness would soon cost him his life.

As it turned out, a pangolin baby is born full of instinctive reactions and behaviours, including a feeding behaviour program. By the age of three months, pangolin young begin the shift

from mother's milk to an independent diet of tasty termites. Observing our little one at this age, it was clear that he would not learn this behaviour from his mother, but acted only within the framework of the pangolin instinctive program. Sitting on Yana's back during feeding times, and sticking his nose into the mixture, the hungry Gurvinek did not even try to find out what his mother was so happily eating. It was as if he knew exactly what pangolin food should look like, and that it had nothing in common with the substance offered to him. In captivity, this blind following of instincts could lead Gurvinek to a tragic fate even in the presence of Yana. This is when the battle for his life truly began.

At first the battle really did take physical form, as I tried to feed him through a pipette. The little pangolin fiercely fought me off with all the stubbornness and strength of his species, rolling into a ball and hiding his face from the food. I needed to change my tactics and try to soothe him into eating. Speaking softly to the little animal, I gradually lowered my head toward him and soon discovered... that he absolutely loved to lick my hair. Catching this moment, I quickly lowered his head toward the food bowl, and before he knew it, the baby pangolin would have a few licks of food. Then the procedure needed to begin again.

A month passed, and Gurvinek got accustomed to this exotic method of feeding. He forgot all about termites, but my long-suffering hair became a necessary part of his dinner ritual. The little one would eat only if my head was next to him, periodically looking up and licking my hair. It took a lot of effort to eventually wean him off this behaviour, or else I would have to spend the rest of my life stuck between a pangolin and his food bowl! Once again, with a lot of patience, victory was achieved.

Gurvinek grew quickly and gained strength for all sorts of mischief. The pangolin family continued to lead a nocturnal life in captivity, so we removed the cage and relocated the pangolin den to the lower shelf of a bookcase, from where they could freely come out at night and explore our kitchen. Each pangolin chose his own corner of the kitchen to use as a toilet, where they went shortly after their evening meals. Then Yana would confidently assert her territorial rights, leaving her marks by rubbing her chin on the floor and surfaces. The little pangolin did not bother with marking any territory in Yana's presence, and devoted all of his energy to mischief instead.

When we closed the kitchen door for the night, we went through a pangolin safety checklist – have the flower-pots been moved off the window-sill? Have the cupboard and pantry doors all been tightly locked? Is the dinner table screwed to the wall securely enough? Otherwise the pangolins would have a very fun nighttime party in the kitchen, and we would wake up and witness an incredible mess. Of course, it's impossible to be angry at these roly-poly creatures – but it's also impossible to recommend them as well-mannered house-pets. However, only with such an intimate living arrangement could I make unique observations of the lives of these truly ancient and fascinating mammals.



Tatiana Neklioudova
PhD (Russian Academy of Sciences)