

Imaginary species

Adaptation, taxonomy, and niche are concepts taught at RHATC 23–24 as part of the course. This is as a refresher for those who may have studied the subject. Payal Molur ended the session by having us draw our own imaginary animal but with certain conditions. We had to ensure the following for our animal:

1. It had a place to live (ecology)
2. It had food to eat
3. It could defend itself from predators
4. Morphological structure and characteristics
5. Have a name

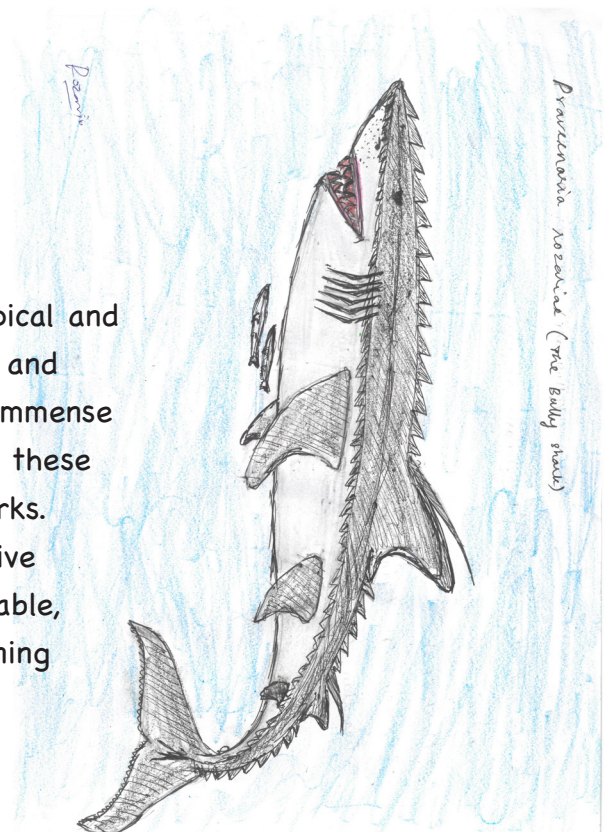
The task was interesting and really made us come up with something creative while keeping what we had learnt about in mind.

The following drawings are what we each came up.

Praveenaria rozariae **(The Bully Shark)**

The Bully shark are the 'Guardians' or the 'top-G' of the ocean, which evolved into an apex predator to compete their all-time opponents 'The Orcas'. They developed a leathery armoured outer skin covered with spines and spicules which can be a serious threat to their prey and other opponents. They are distributed all over the world in the tropical and warm temporal regions; they feed on larger fishes and marine mammals. Displaying impressive speed and immense size, surpassing even the lesser-known megalodon, these sharks boast a longer lifespan than Greenland sharks. Moreover, the most impressive adaptation is they live in schools/pods like the Orcas that makes them stable, risk free, extremely successful hunters, hence gaining popularity as bullies or guardians of the ocean.

Praveen Rozario, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.



3-striped Liana Eater

My imaginary animal is called 3-striped Liana Eater. It is a green colour bird with three yellow stripes, a little bigger than a crow, and doesn't have a beak. It's main diet is leaves and stems and is eaten by larger birds and raptors. It is a social animal and have the ability to easily camouflage with the leaves. It is generally found on the edges of forests making it easy for raptors to hunt and the camouflage ability helps it escape from predators.



M. Paridhi, RHATC Fellow
2023-24, Zoo Outreach Organisation,
Coimbatore, TN, India.

Felis amrin

A master of camouflage, *Felis amrin* is a beautiful mesocarnivore of the wetland ecosystem. With elongated pupils, the cat has excellent night vision and its small paws provide agile strength to the species. It has an additional feature of having frog legs with smooth skin which allows the cat to stand long hours in the water to search for its primary diet-fishes. It is also capable of swimming underwater with the help of its beaver tail to attain immense speed and body balance. Like most small cats, this cat is also a solitary animal that prefers camouflaging in the grasses to escape from raptors during their juvenile stage.



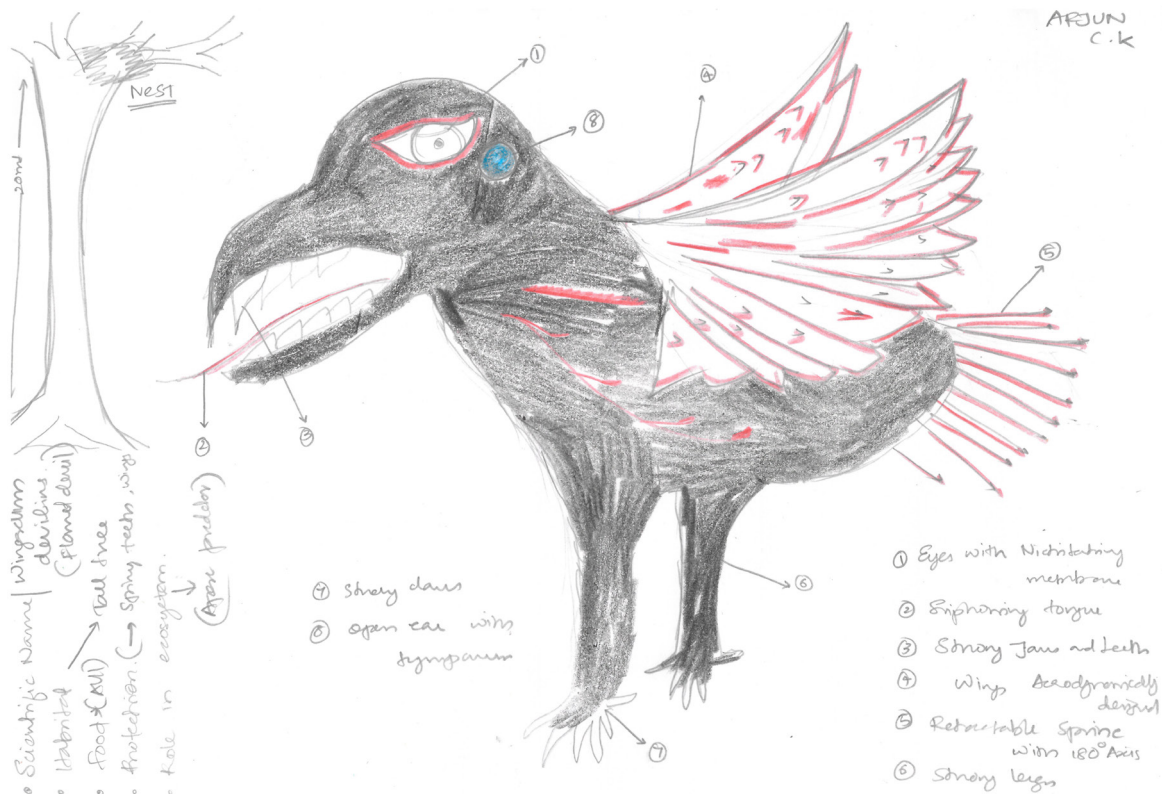
Amrin Ansari, RHATC Fellow 2023-24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Flamed devil (*Wingardium devilensis*)

The Apex predator with a sweet craving.

The animal has evolved with all features to become an apex predator of the forest and the animal has completely evolved to be a predator but the presence of a siphoning tongue makes it unique from all other behaviors. The jet-black color and the presence of bright red strands of feathers make it look like a flame flying through the forest, something more like from a fairy world. It has eight salient features which makes it a perfect apex predator of the woods.

1. Eyes with nictitating membrane for underwater predation
2. Siphoning tongue for nectar feeding
3. Strong jaw and teeth for a powerful bite
4. Perfectly aerodynamically designed wings for flight
5. Retractable spines on the tail with a 180-degree axis
6. Strong limbs for firm walk
7. Sharp and strong claws
8. Open ear with tympanum



C.K. Arjun, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Beakbrown prickianium

Imaginary drawing exercise happened in the very beginning of the course in the month of October during the end of Dr Vivek Pandi's session. It was a good exercise, the last time I drew something out of my imagination is when I was in drawing class. Here I draw a *Beakbrown prickianium* which is an aquatic bird that eats exclusively yellow-red fishes all large and small. It has blue coloured small prickles on the feathers that protect it from the predators. The etymology of *Beakbrown prickianium* – Beakbrown because the bird has a large brown coloured beak; prickianium is the species as it has small pink coloured prickles all over on the feathers. It also has a great vision, immediately the bird can see the red-yellow very quick. The bird plays an important role in the ecosystem as it controls the population of fish in the lake.



L.M. Aparna, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Aviola duckisaurs

This imaginary bird lives in the forests especially along the freshwater bodies like river. Most body is yellowish-green and wings are green in color so that it can easily camouflage in the tree canopies. This bird is as large as an eagle. It has webbed feet like a duck and sharp claws like an eagle. The claws are retractable like the claws of a cat, same flexibility is with the webs also. When swimming in water, the interdigital membranes come out and while hunting, the claws come out. It can both swim in water and fly in air. It mainly feeds on fruits, fishes, other aquatic animals, and small mammals. The biggest threat to this bird is humans along with other carnivorous animals. It is being extensively hunted for meat and beautiful feathers.



H. Maitreyi, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Piku ungulate

Piku ungulate (hoofed animal), it lives in all types of forest habitat. Herbivore species which primarily feeds on all types of leaves and grasses, mainly feeds on liana specifically tender leaves of all kinds of liana. By feeding on liana, it controls the over growth of liana and maintains balanced ecosystem also helps the trees to get rid of coiling by liana. In other terms *Piku ungulate* is the favourite animal for trees which are suffering from liana. Body has a thick fur and it protects the ungulate from harsh cold wind and also from leeches. Head consists of pairs of convertible ears, which helps in listening high and low frequency sound. For protection the ears act as long and sharp horns to pierce major carnivores like tiger and leopard. At the tip of the tail, it has a round mass of muscle, which it uses by rotating the tail for protection. *Piku ungulate* is very close to elephants and both share common ground, they feed, play and benefit each other; this is best example for mutualism. The average life span is 20–22 years in the wild. Hard to rear in captive condition. It is a social animal living in groups usually of 5–6 individuals. Multi male–female group, no hierarchy in group. There is no major predator for *Piku ungulates*. Now it is slowly adapting to climate change.



N. Suraj, RHATC Fellow 2023–24,
 Zoo Outreach Organisation, Coimbatore, TN, India.

Sholansia savioura

It is a reptile species which is about two to three feet long and is found only in shola-grasslands. It extensively feeds on insects like crickets, grasshoppers, caterpillars, and locusts which are a major threat for the growth of grasses; hence it protects the crucial habitat and maintains the stability of the ecosystem which is why it is named as such. Its main predators are birds since it is found on open grasslands the chances of getting predated are very high in-order to protect itself it has the ability to change colours hence perfect camouflage prevents it from being predated. In addition to this it has spines all over the body which synthesis a pungent chemical to safeguard itself.



V.B. Pannaga, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Sanjenbamia omnitor

The name of the species is *Sanjenbamia omnitor*, the genus name is taken out from the name of a community from Manipur and the species name is given from omnivores since it is an opportunistic species depending on both plants (fruits) and animals (rodents). Distribution:- They are only found in the northeast India and in some parts of southeastern Asia. Habitat: – Omnitor are both fresh water and terrestrial species. Rainforest is the main habitat. River bank, marshy areas and bushes are their niche.

They are more active in night then during the day.

Morphology:- Moist Skin, dull brownish color, large eyed and far sighted, long limbs and webbed feet for swimming and running in high pace, short neck, long and thin ears, small feet, and flat tail.



S. Joel, RHATC Fellow 2023–24,
Zoo Outreach Organisation, Coimbatore, TN, India.

Spinus slitherensis

The word 'Spinus' means a spiny end or a sharp pointy end and 'slitherensis' refers to movement on a surface.

Distribution: Endemic to India

Habitat: Tropical forest, land-dwelling (Terrestrial)

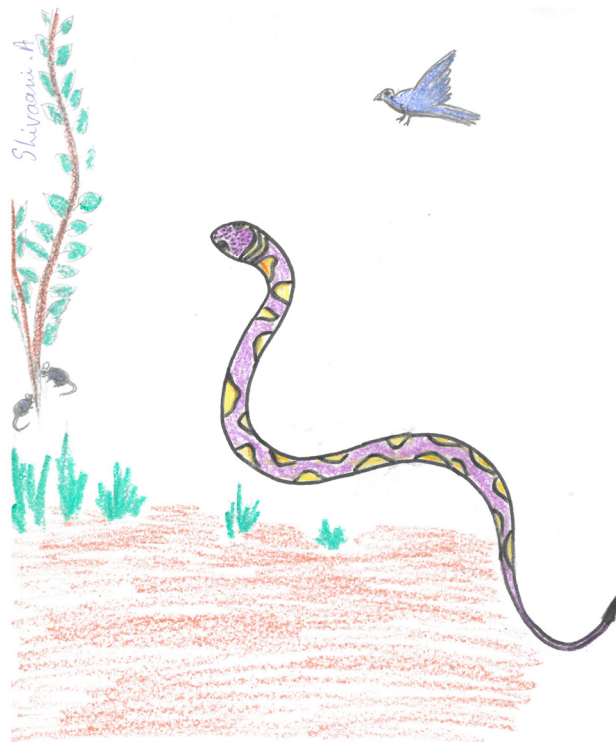
Diet: Rodents and Birds

Predators: Raptors

Description:

Spinus slitherensis is a marvellous snake, which slithers on the land surface very swiftly and has a spiny arrow tail, hence the name. It has a captivating coloration – purple body with yellow patches on the dorsal side, which portrays a warning coloration.

It lives in the tropical forests and hunts rodents and birds, as they are the major source of food. Other than the warning coloration it also defends itself from potential predators through the spiny arrow tail that is connected to the venom gland in the abdomen. As raptors are a threat to their survival, it uses this to sting and ward off the opponent, eventually leading to the death of the predator. Stinging to kill its prey during foraging is also observed. It plays a vital role in checking the population of rodents and birds as part of the food web.



A. Shivaani, RHATC Fellow 2023–24,
 Zoo Outreach Organisation, Coimbatore, TN, India.