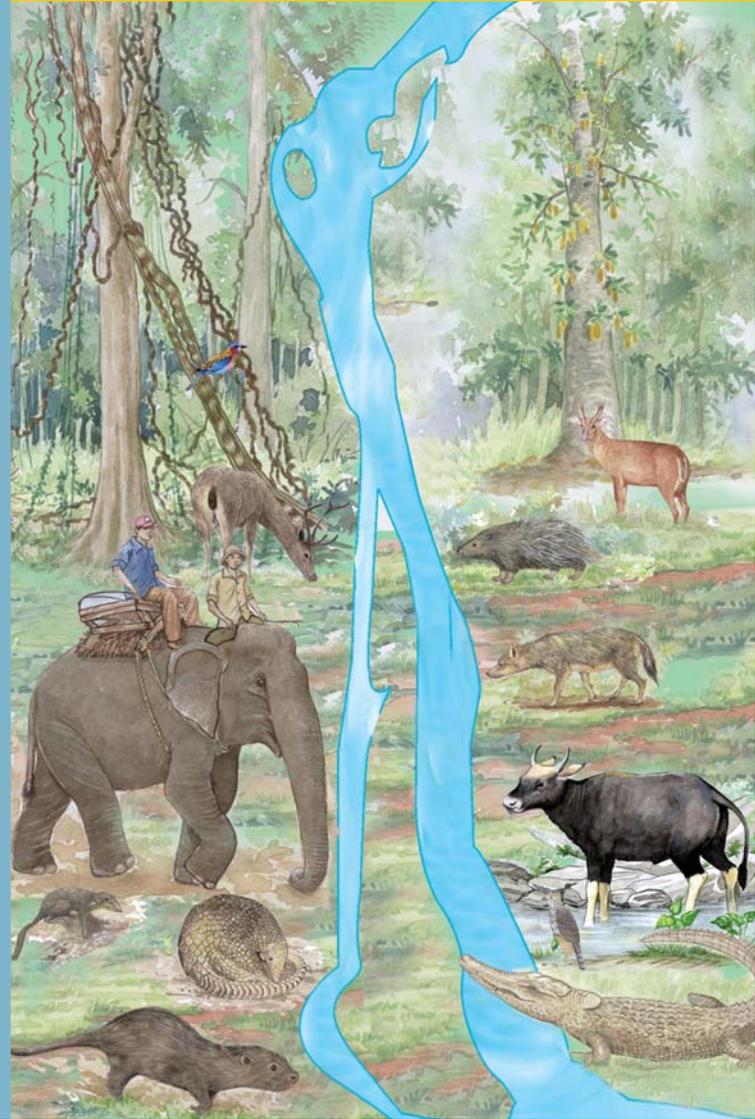




SREPOK RIVER DISCOVERY TRAIL



SREPOK RIVER | DISCOVERY TRAIL

Take the Discovery Trail and be introduced to some of the Mondulkiri Protected Forest's rich diversity. Use sharp eyes and ears to look and listen for animals and plants not easily seen. Look for animal tracks, scratchings on the ground and tree trunks, animal droppings and abandoned feathers. Listen for birdsongs, ripples on the water and rustling in the bushes.

Not only will you make discoveries about the animals and plants of the Srepok, but you will also gain an insight into the lives of the local people in these forests.

These forests have supported the Phnong (also pronounced "Bunong") people, an indigenous ethnic minority group of Cambodia, for many centuries. The Phnong practice shifting agriculture but also rely heavily on collecting forest products for their livelihoods.

The Phnong people practice animism. Part of this practice has been the establishment of Prey Areak (spirit forests) which are revered and have been protected for generations. Traditionally, no trees are cut or animals hunted within these areas for fear of angering the spirits that live there. These spirit forests are generally located near their villages – the closest of which is more than three hours from here by boat!

The walk begins on the northern edge of the camp and follows the Srepok River for roughly 1.5 km along a path. You will return via the same path. Allow one and a half hours to complete the walk. Organise a ranger to accompany you, carry a bottle of water, a bird book, a pair of binoculars, a camera – and don't forget a hat, sunscreen, insect repellent and sarong for a swim!

Numbered pegs along the track will guide you.

1 LOOK AROUND YOU!

What do you notice about the vegetation? It is dense, with a closed canopy, has less deciduous trees and you will see bamboo growing in areas of natural disturbance. This is Riparian Forest. These forests are subject to inundation and have many important functions. They help control sediment, reduce the damaging effects of flooding, provide habitat and food for wildlife and aid in stabilizing stream banks.

The vegetation away from the river is Dry Forest. It typically has an open canopy and grassy understorey and contains tree species that are deciduous (they lose leaves seasonally November - April). The loss of leaves is a strategy to cope with long dry periods. During the dry season from November until March, there is hardly any rain. Trees lose moisture through their leaves, so shedding of leaves allows trees to conserve water. However, leaves are also food factories, so many trees will start to produce new leaves during the late dry season (March), with the very first rains.

During the mid-dry season (January - March), parts of the Dry Forest are on fire. Much of this is due to human activity. These fires start in community areas and burn into the heart of the protected forest and are often fanned by early dry season winds. These fires are reported to be followed by resin collectors, searching in the now cleared land for dry resin, fallen from trees. This practice leads to herds of animals being forced into greater concentrations in forest areas which have not burnt – which makes for easier hunting.



2 | PRETTY BUT DEADLY!

This tree is known by the Phnong people as the Sleng Tree (*Strychnos nux-vomica*). The seeds, when dry, contain the poison strychnine. The seeds are collected and sold especially to Vietnam where they are exported for use in pharmaceuticals. The seeds are also known to be used in traditional medicine, but overuse can cause death. The bark of this tree also contains poisonous compounds.



Sleng tree seeds

Feathered Sightings

A commonly seen bird is the Indian Roller (*Coracias benghalensis*) identified in flight by brilliant purplish blue and light turquoise wings and outertail.



Indian Roller

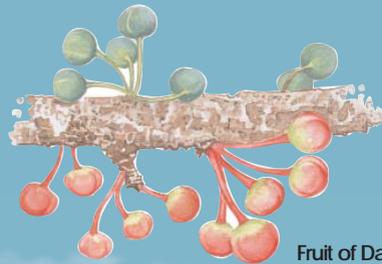


Greater Racket-tailed Drongo

The Greater Racket-tailed Drongo (*Dicrurus paradiseus*) is also easily recognized in flight by its long forked tail. It has a varied call including screeching, churring and mimicry.

3 | Deliciously Indigenous

Daem Levea Tree (*Dillenia sp.*) produces fruits that are not only eaten by animals such as the Muntjac and Gaur but also by the indigenous Phnong people. This tree is also deciduous.



Fruit of Daem Levea tree

Nearby, the Daem Cheungko Tree (*Bauhinia variegata*) also produces fruits that are eaten by people and animals alike - and the flowers are a specialty for the Phnong people when fried!

4 | When is a grass not a grass?

When the 'sbov' grass (*Imperata cylindrica*) is dry, the Phnong people use it to create roofs and walls for their traditional houses. Young leaves are also grazed by animals such as Banteng and Gaur.

Traditional Phnong house



5 | Look down!

You may see different kinds of seeds on the ground. The design of the seed provides some indication of how the seed is dispersed. For example, the Pika Tree (*Oroxylum indicum*) here has flat and broadly winged seeds that help their dispersal by wind. Try picking one up and dropping it from above your head!



Pika Tree seeds

6 | Look up!

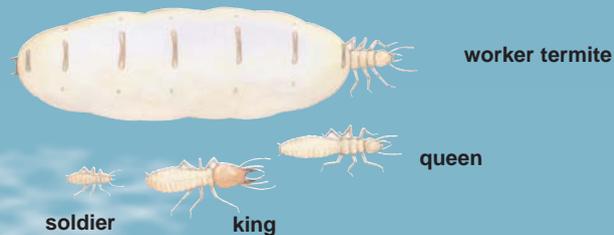


A large tree here has an eagle's nest. Large trees like this are important in providing nest sites for such large birds. The importance of preserving riparian habitat, which is oftentimes the first to be cleared for agriculture, becomes clear when walking this trail.

Changeable Hawk Eagle (*Spizaetus cirrhatus*)

7 | It's cool in here

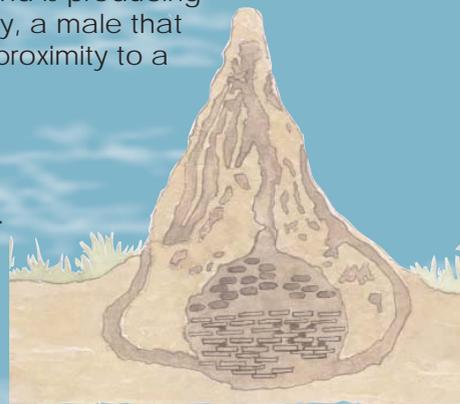
Termites are social insects and live in colonies consisting of a queen, sterile workers, soldiers, winged reproductive males, and females known as alates. Termite colonies are maintained at a high humidity to protect the thin-skinned workers from drying out. The mound is also constructed so that the temperature remains consistently between 25° - 35°C depending on the species. Inside are a series of tunnels that exit through chimneys which warm in the sun, drawing cool air and oxygen from the bottom of the mound.



Worker termites undertake the labours of foraging, food storage, brood, nest maintenance and some of the defense effort in certain species. Workers are the main caste in the colony for the digestion of cellulose in food.

A female that has flown, mated and is producing eggs, is termed a "Queen." Similarly, a male that has flown, mated and remains in proximity to a queen, is termed a "King."

The soldier caste has anatomical and behavioural specializations, primarily useful against ant attack. The proportion of soldiers within a colony varies both within and between species. Many soldiers have jaws so enlarged that they cannot feed themselves, but instead, like juveniles, are fed by workers.



Termite mound - cross sectional drawing

Termites play an important role in the environment as recyclers of wood and plant matter. They are also food for countless predators such as birds, monitor lizards and pangolins.



Sunda Pangolin

Sunda Pangolins (*Manis javanica*) have a long, sticky tongue that can extend up to 25cm to collect termites. They can eat up to 200,000 termites in one meal! Long powerful claws enable them to tear open termite mounds.

8 | A home among the trees

If you look up in the trees, you may notice a nest made of leaves. This is home to red ants. These ants are easily distinguished by their colour and their bite! Phnong people burn their nests to keep the insects away from their cows.

Look around for other types of ant nests. You may notice some built out of soil.



Red ant nest

9 | Traditional medicine

The inner bark and roots of the Daem Knor Prey Tree (*Artocarpus rigidus*) growing here is used by the Phnong people for medicine. They add the roots and bark to water and drink this for stomach aches.



Daem Knor Prey tree

10 | Birds of paradise

If the Daem Cha (*Erythrina sp.*) tree is in flower, stop and listen! It is likely that you will hear parakeets chattering away as they feed. Not just popular with the feathery kind of animals, elephants are also attracted to this tree to feed on its flowers and fruit.

This tree is also found halfway around the world on the continent of Africa where both Elephants and Black Rhinos eat the flowers and fruit.

The bark, seeds, leaves, roots and juice of this tree are also used in traditional medicine.



Alexandrine parakeet (*Psittacula eupatria*)

11 | The world over

Do you recognize this tree? It is a Fig Tree (*Ficus sp*). Figs grow in many parts of the world and there are more than 700 species. Cambodia has many types of Fig trees.

Fruits of the Fig tree are very appetizing and are eaten by turtles, fish, and birds to name a few.



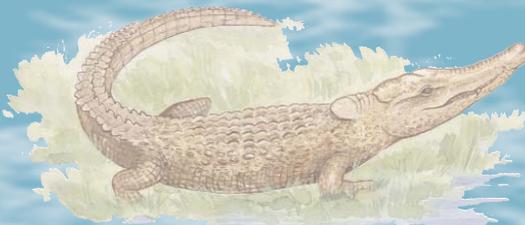
Fig tree fruit and turtle

12 | Sit and rest awhile

Spend some time sitting quietly and you might be surprised by an otter or even a troop of monkeys.

The Srepok River supports a diverse array of wildlife, including many types of fish, otters, numerous birds such as Herons, Egrets and Kingfishers and the critically endangered Siamese crocodile (*Crocodylus siamensis*). Cambodia has the most significant remaining population of this crocodile, which can grow up to

3-4 meters in length. It is threatened due to hunting and loss of habitat.



Siamese crocodile

Otters are seen quite regularly along the river. They feed on fish, crustaceans and shellfish. Their whiskers are very sensitive to water turbulence and are used to search for prey. Ears and nostrils are closed when the otter is underwater and it relies on its sense of touch in order to find food using its sensitive front paws.



Smooth-coated Otter



Stork-billed Kingfisher

Look out for birds diving into the water. There are two types of Kingfishers that are often seen along the river: the Stork-billed (*Halcyon capensis*) and Pied Kingfisher (*Ceryle rudis*).

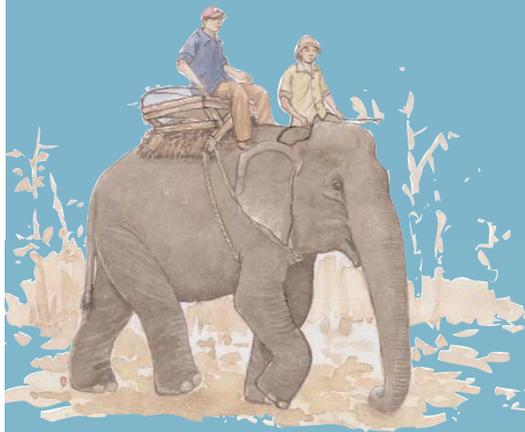


Pied Kingfisher

This river is unusual in Cambodia as it has a rocky substrate where most rivers here have sandy bottoms.

13 | Traditional Use

The bark of the Dam Kandaol Tree (*Careya arborea*) has an unusual use by the Phnong people. Have you had a ride on an elephant here? What was the basket lined with? The inner bark of this tree is used as a cushion in the basket.



Elephant basket



Dam Kandaol tree

14 | Keep a look out!

Most animals are fairly secretive and more active in the late afternoon and early morning (diurnal). So you may not see many animals during the day, but you might see where they have been from their tracks, scratchings and droppings.

There is a small tree here that is often used by Sambar Deer (*Cervus unicolor*) as a favourite back and antler scratcher.

Sambar deer



There is a hole in the ground here. Can you imagine what kind of animal uses this as their home? It is home to a porcupine that digs extensive underground burrows that may be used for many years. If porcupines are threatened, they shake their quills making them appear twice as big. If still bothered, they will

charge backwards trying to drive their long quills into the predator.



Porcupine

Animal encounters

Red Muntjacs (*Muntiacus muntjak*) are small deer with short antlers. Also called barking deer, you may get lucky enough to hear them bark as you approach, as they detect your scent before they even see you! Their diet consists mainly of leaves and twigs but they also eat fallen fruit. They are mostly active at night but sometimes can be seen during the day.



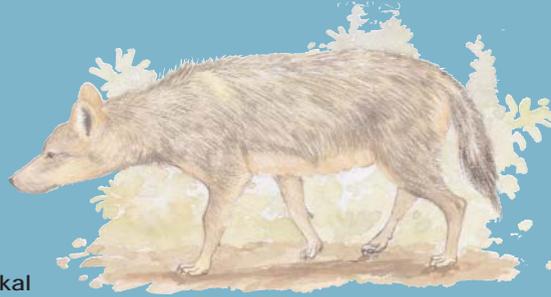
Red Muntjac



Tree shrew

Tree Shrews may be seen scurrying up a branch. They superficially resemble a squirrel, but have a sharper muzzle with many smaller teeth. They mostly feed on fruit and insects.

The Asiatic Jackal (*Canis aureus*) is mainly nocturnal, although it can be active during the day when there are few people around. It is omnivorous, eating a variety of plant and animal foods. Its prey include small mammals, birds, amphibians and reptiles.



Asiatic jackal

15 | Bamboo Grove

Bamboo is a colonizing species, which means it establishes after there has been a disturbance. This type of bamboo can grow up to 15 meters tall. The bamboo is an important building material for the roofs and floors of the homes of Phnong people. Apparently, they even use the outer part of the bamboo to write on.

Most types of bamboo die after flowering, which only happens every 20 years in some cases. This grove of bamboo may be replaced by other plants after it dies.

Look up!

You may see quite large holes in the bamboo. These are homes for squirrels.



Squirrel in a bamboo grove

16 | Monkey ladders

The vines (*Bauhinia sp.*) here are known as monkey ladders. Can you guess why?



This is the end of the trail. Take some time to sit and listen to the sounds of the bamboo grove before returning. Watch closely for otters and fish in the river on the way back.

Remember to leave no trace of your visit. Take only photos and leave only footprints.

We hope you have enjoyed your walk!

Please return for re-use. Thank you.



USAID
FROM THE AMERICAN PEOPLE