

# Face to face with big nose

Resembling the offspring of an unnatural union between elephant and pig, Baird's tapir is a mixture of the docile and deadly. **Dale Morris** discovers how this heavyweight herbivore dominates its tropical forest home.

**G**op, my Thai rainforest guide, was almost as excited as I upon discovering a three-toed footprint on the muddy riverbank.

"It's an Asian tapir," I whispered. "What else could leave a track like that?"

He wasn't sure. Even though he'd lived on the border of Khao Sok National Park for 30 years, he'd never seen a whole one.

"They taste like beef," he said, and with that we took off up the river. When we found the piebald oddity, it was stuffing foliage into its mouth using its stout, flexible trunk.

"We call them Psomm-sett," whispered Gop. "The creature made up from the leftover parts of all other animals." This seemed a fitting name for a beast that looked like a cross between a pig, a hippo and an elephant. "At the village, don't tell them what we saw," he warned. "They will send men to shoot it."

That was 10 years ago and 12,000 miles away. I now live in southern Costa Rica, in the largest tract of undisturbed lowland tropical habitat in Central America – alongside the world's largest population of Baird's tapir.

Tapirs are not actually related to any of the animals they resemble. In fact, their closest liv-

ing relatives are horses. The order Perissodactyla (which includes rhinos) means 'animals with strange toes', and with a count of 14 (eight at the front and six at the back), the tapir certainly qualifies. Scientists are not sure where Perissodactylas originated, but fossils from the Eocene, 20 million years ago, have been found in Europe, North America and Asia.

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Tapir diversity in the Eocene was at an all-time high, and the animals looked much the same as they do today. Eventually, due mainly to competition from Artiodactyls (antelopes, deer etc), most Perissodactylas died out, leaving 18 species alive today – four of which are tapirs. Three crossed the Central American land-bridge into the southern continent three million years ago, but the fourth got stuck in Asia, separated by ice ages and continental drift.

In late 2004, I found myself tracking a Baird's tapir through the humid forests of Corcovado National Park with Charlie Foerster, one of the world's leading tapir experts. "This time of year is the worst for poaching," he told me as we followed a set of tapir footprints. "It's Christmas and people need the extra cash." The radio attached to his hand-held antenna beeped steadily, indicating that our quarry, Mamasota, was nearby.

Hunting pressure seems to be a common theme among tapir researchers. But in Corcovado, things are a little different – Foerster believes his Costa Rican animals belong to one of the last remaining populations of unaffected tapirs left on Earth. "The poachers have not yet come into my study area," he asserted. "I hope that's how it stays."

When we found Mamasota ('Big Mama'), she was dozing in a mud wallow – prime tapir real estate in the heat of the day. She looked exceedingly comfortable half submerged in the sludge and, instead of bolting at our sudden appearance, the appropriately named 318kg slab of fat and muscle merely opened one eye, raised her nose to sniff at us, then went back to sleep, letting out an endearing little squeak in the process.



A tapir's short trunk is formed from its nose and upper lip. It uses this as an extra limb to pick up food, such as leaves, twigs and fruit, and carry it into its mouth.

Tapirs have an ill-fitting repertoire of vocal sounds, peeping and twittering like little birds. They are also, for the best part, fairly docile if approached quietly, and it is this lack of concern that has contributed to their drastic decline. It's easy for hunters to track tapirs. They make well-used trails and leave very big footprints; they are faithful to rivers and mud wallows and provide a lot of meat. In the northern region of Costa Rica, a single hunter shot and killed 34 tapirs in just two years.

### Submersible tank design

The Baird's tapir's apparent lack of concern stems from having little to fear from predators. Designed like a tank, with especially thick skin around the head and neck, it is well equipped to deal with jaguars and pumas. Should a predator latch on, the tapir will bolt headlong into thick vegetation, crushing the offender against a tree trunk. If this fails, the tapir will keep going until it reaches deep water. Just like a hippo, it can walk underwater on the riverbed, holding its breath for up to 10 minutes. That's a lot longer than the cat on its back can. Tapirs also have powerful jaws and sharp canines, weapons that they will not hesitate to use against those who offend them – zookeepers have lost arms and hunters have been mauled.



**A tapir, seeking relief from the irritation of parasites, submerges itself in a freshwater stream to let small fish reach the parts, such as the insides of its ears and nose, that it can't scratch with its feet.**

Fortunately, Mamasota was not in that kind of mood and she let me approach close enough to get a good look at the plague of parasites swarming over her skin. Mosquitoes buzzed, horseflies nipped and ticks the size of garden peas nestled in her folds. With such a parasite load, thick skin is undoubtedly a benefit, but tapirs will do what they can to lessen the discomfort, which usually involves wallowing in mud.

For a river-loving tapir, a cleaning service is close at hand in the form of freshwater fish. A

Baird's tapir will stand fully submerged and completely still for minutes at a time, allowing these small cleaners to pick off the offenders. In payment for this valeting, the tapir will leave a present: a large ball of dung, chock-full of wholesome fibre and nutrients. By doing so, tapirs probably play an important role in the freshwater ecology of tropical forests.

While a fully-grown adult is virtually immune to predation, babies and juveniles are not – though it's extremely rare for them to fall prey to a jaguar. Low infant mortality can be attributed to a number of adaptations, the first of which is superb camouflage. Baby tapirs are not coloured like their mothers. They are light brown, speckled and striped, which enables them to blend with the dappled forest floor.

Occasionally, a predator will attempt to snap up a young tapir – a risky endeavour. If the timing is not perfect and the youngster lets out a squeal, the mother will come running like an express battering ram, jaws snapping. But the mother cannot always be around to look after her offspring. She requires at least 40kg of vegetation every night, so is off foraging much of the time. It helps that young tapirs develop rapidly. Two days after birth, a baby takes its first tentative steps and is soon following its mother on her nightly forays, exploring the territory and learning what is good to eat and what should be avoided. By three weeks of age, it can run and swim as well as its mother. Growing at a rate of 450g a day, a developing tapir loses its infant camouflage by seven months, attaining adult bulk at about two years of age. By then, it is too big for all but the most desperate predator.

The father has little to do with rearing young. When a young male reaches maturity, the adult

### Keeping tags on tapirs

Charlie Foerster has studied the Baird's tapir in Costa Rica for the past 11 years. His field site, Corcovado National Park, is one of the few places on earth where tapirs exist unaffected by human interference.

With 28 animals already carrying radio-collars, Charlie's is the largest and longest study in the world. Initially, he focused on behavior, population, diet and territory, in an effort to gain basic knowledge on this poorly understood species.

Now, after years of intensive study, Charlie has been able to accurately plot tapir home range; an extremely useful piece of data in the quest for global population estimates. Traditional transect methodology and footprint counting can be an inaccurate way to estimate population size (as can camera-trapping, where animal numbers are estimated on how frequently they trigger an automatic camera set up in the forest. Tapirs, being rather blithe, often over-represent themselves). By correlating his precise telemetry results with traditional methods, he has been able to design a formula that will help researchers around the world, most of whom do not have access to or funding for telemetry equipment.

Because of studies like these, we are beginning to get a better picture of what is happening to the global tapir population. In his next phase of



**After tranquilizing a tapir with a dart gun, Charlie Foerster attaches a radio-collar.**

the project, Charlie intends to study the effect tapirs have on their environment by fencing off sections of forest from the animals and then studying what happens to the vegetation within.

Experts agree that tapirs need healthy forests to survive, but this experiment will hopefully show that it's a two-way deal and that forests need tapirs in order to be healthy.

● To find out more or to adopt a tapir visit [www.members.aol.com/danta005/adopt.html](http://www.members.aol.com/danta005/adopt.html)



male drives it from the natal territory. Interestingly, the mother treats her female offspring in the same manner. This ensures genetic dispersal away from the home territory.

In the Baird's case, at least in Corcovado, mature tapirs seem to practise monogamy. Pairs stay together as long as both shall live, but don't actually spend much time together because the male is busy patrolling the boundaries of his territory. He sprays trees with urine as high as he can to indicate his size and ward off other males. If, while out on demarcation exercise, he happens to meet a receptive female passing through, his fidelity is likely to slip, but

the chances of the same opportunity arising for the resident female are far slimmer. When the female is in oestrus, her mate is always nearby, and reckless is the stranger who dares approach at this time of year. Many males sport grave-looking scars upon their rumps – a parting gift from a perturbed territory holder. Should the resident male disappear, however, his female will be up for grabs and the forest will become a battle zone.

When Mamasota's mate died, vagrant males raced from all corners of the forest to stake their claim. It was a time of harassment for her, and park guards often saw her being trailed by bat-

**Mamasota wallows in mud (above) to alleviate the irritation of skin parasites. When possible, tapirs head for the beach (below) to use sea water to drive off their irksome passengers.**



### BAIRD'S TAPIR

- Latin name ***Tapirus bairdii***
- Other name **Central American tapir**
- Range **Southern Mexico to Panama**
- IUCN status **Endangered**
- Population estimate **Less than 5,000**
- Size **318kg**
- Natural enemies **Puma and jaguar**

The Baird's tapir is the largest terrestrial animal in tropical America. It is found in a variety of habitats ranging from seasonal dry forests to cold and misty cloud forests and even beaches. Most, however, live in lowland rainforests.

The species once ranged as far south as Ecuador; but the last sighting was back in 1945 and none have been reported since. There is a remote possibility that a few still survive in Colombia.

Though the majority of existing tapir habitat is conserved within national parks and biosphere reserves, the animal still suffers from unchecked poaching.

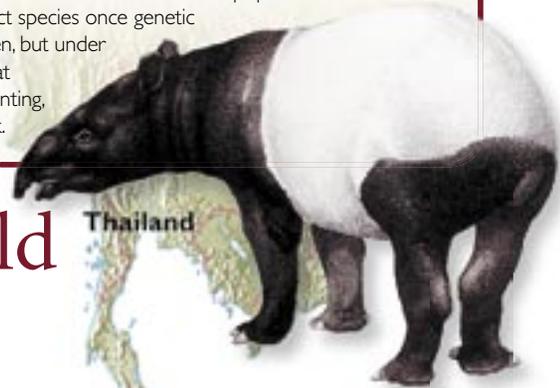


### MALAYAN TAPIR

- Latin name ***Tapirus indicus***
- Other names **Indian or Asian tapir**
- Range **Sumatra, Malaysia, Thailand and Burma**
- IUCN status **Endangered in Sumatra, vulnerable elsewhere**
- Population estimate **4,000 (probably inaccurate)**
- Size **Largest tapir, weighing up to 362kg**
- Natural enemies **Tiger**

The Malayan tapir is distinguishable by its size and striking piebald colouration – a cryptic defence that helps it blend in with nocturnal forest shadows. It prefers lowland rainforests but migrates to higher elevations in drier months.

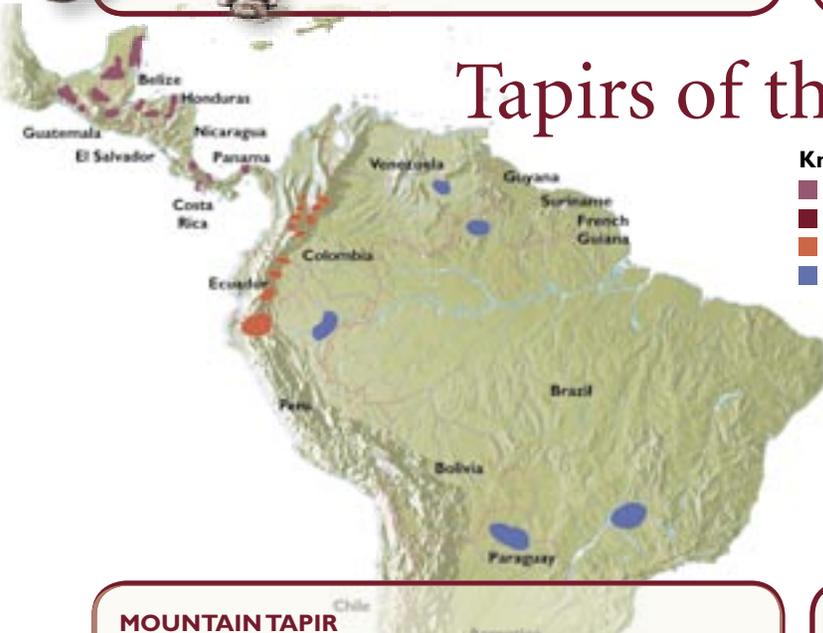
Protective laws exist, especially in Malaysia, where hunters receive stiff penalties. However, a flourishing Asian zoo trade has put an irresistible price on the tapir's head, with a single animal fetching up to \$6,000. Due to its pig-like appearance, the animal is not eaten by Malaysia's Muslims, but they still hunt it and sell the meat. The Sumatran population could be reclassified as a distinct species once genetic studies are undertaken, but under an onslaught of habitat fragmentation and hunting, the future looks bleak.



## Tapirs of the world

### Known distribution

- Baird's tapir
- Malayan tapir
- Mountain tapir
- Lowland tapir



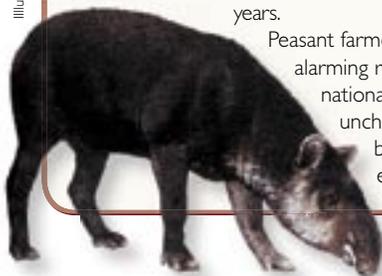
### MOUNTAIN TAPIR

- Latin name ***Tapirus pinchaque***
- Other names **Woolly or Andean tapir**
- Range **Northern Peru, Ecuador and Andean Colombia**
- IUCN Status **Endangered and likely to become extinct**
- Population estimate **Maybe less than 2,000**
- Size **Smallest tapir, weighing just 147kg**
- Natural enemies **Puma and spectacled bear**

The woolly tapir is indeed woolly. Living up in the frigid high altitudes of the Andean mountain range, it has developed a coarse black coat that acts as a thermal regulator against cold and high UV levels. Occasionally it has been sighted walking through snowdrifts and across glaciers, but it is more commonly found in cloud forest and paramo meadows.

Less is known about mountain tapir behaviour than any other large mammal on earth – except that extinction is likely within the next 10 years.

Peasant farmers are burning the paramo at an alarming rate, and despite the existence of national parks, encroachment often goes unchecked. Many people believe that tapir body parts can cure heart disease and epilepsy, a myth that has contributed

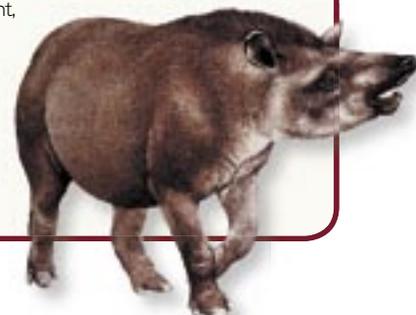


### LOWLAND TAPIR

- Latin name ***Tapirus terrestris***
- Other names **Brazilian or South American tapir**
- Range **Most of tropical S America**
- IUCN status **Varies from area to area; vulnerable to critical**
- Population estimate **Possibly more than a million**
- Weight **227kg**
- Natural enemies **Puma and jaguar**

The lowland tapir's neck crest is much more pronounced than that of the other species, lending it a stockier appearance. It is found in numerous forested habitats within their range, but prefers lowland rainforest. Millions of hectares of virgin jungle remain in South America; habitats that theoretically could support well over a million tapirs. However, the spread of livestock disease into this population poses a serious threat.

In regions where humans are present, the tapir has become scarce due to habitat loss and hunting. Conservation efforts are also hampered by guerrilla activity. Anti-drug chemicals are often used by authorities against cocaine growers, which eventually end up in the food chain, poisoning tapirs.



tling males who jostled like teenagers in the front row of a concert. Eventually, the strongest ousted the others.

Each tapir pair in Corcovado has a home range of around one and a half square kilometres; a relatively small area for such large beasts, and one that reflects the quality of the habitat (and an absence of hunting). However, in places where the forest has been degraded by human activities, the animals tend to require much more space. Riverbanks and tree falls are favoured haunts due to the increased levels

## Just as elephants shape the plains of Africa, tapirs influence the structure of their forest homes.

of under storey plants growing there, and so, unsurprisingly, are secondary growth forests (especially those in an advanced regenerative state). Nevertheless, tapirs do need primary forests, where fruit is found in abundance and cool, shady resting places abound.

Just as elephants shape the plains of Africa, tapirs influence the structure and composition of their tropical forest homes. They gulp down saplings, selectively prune plants and Hoover up kilograms of fruit and seeds every day throughout their 30-year lifespan. These eco-



Charlie Foerster

A young tapir showing the colouring that provides such excellent camouflage in forest shadows.

systems are among the most complex and poorly understood environments on the planet, places where the tiniest insect can play an important role in an interconnected web involving a million different species.

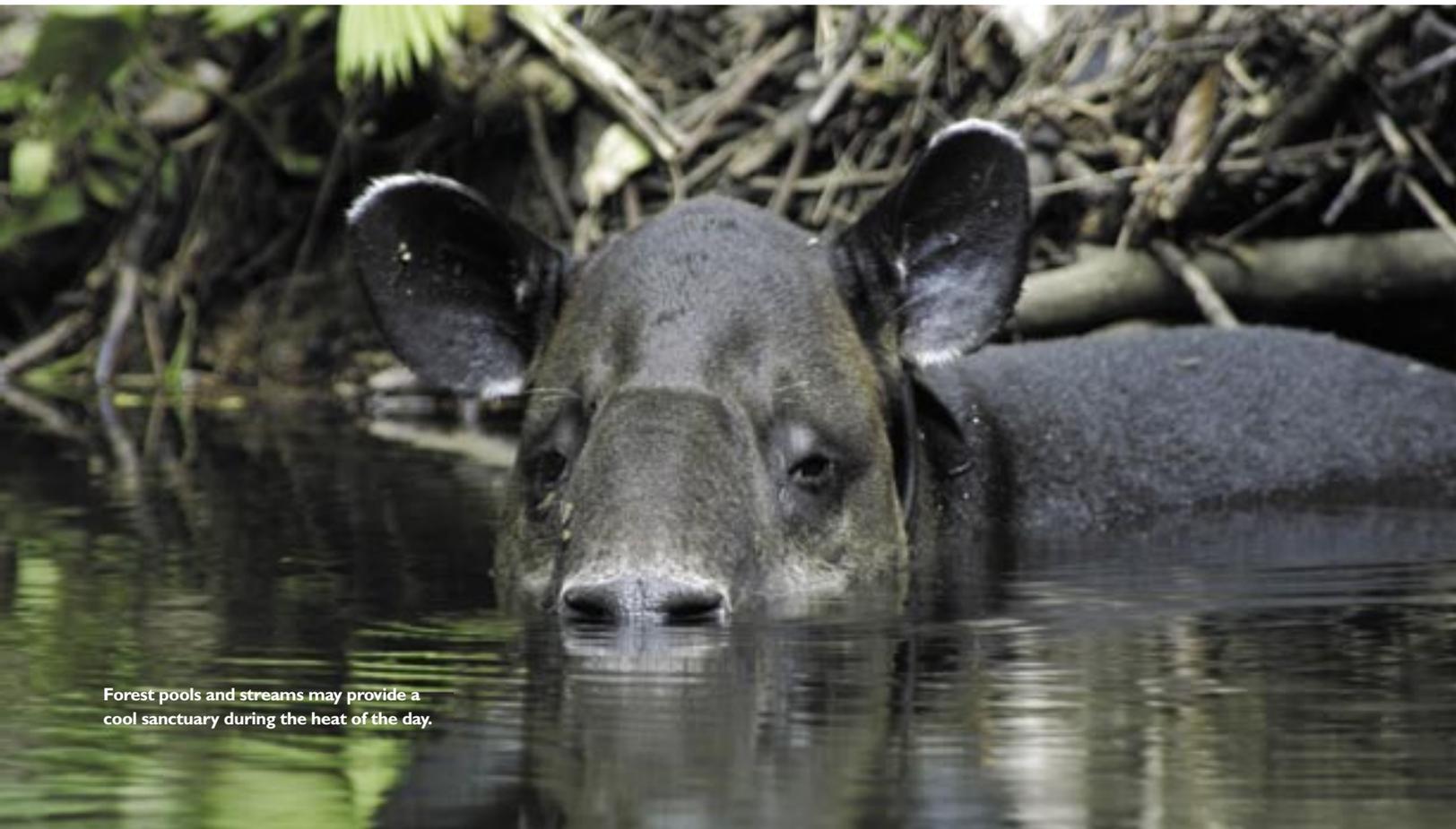
If that's what an insect means to a tropical forest, one can only begin to imagine the overall effect of a 300kg insatiable stomach on legs, especially one that has been part of the system for millions of years. If tapirs were to suddenly disappear, the forests would be likely to change dramatically. But the sad truth of the matter is that all four tapir species are likely to disappear, courtesy of habitat fragmentation, uncontrolled poaching and livestock diseases. Despite this, they remain

among the most poorly studied mammals on Earth.

If there ever was a case of a single large animal representing a habitat, not only as a charismatic resident but as a critically important factor in the continued health of that habitat, then it is the weird and wonderful tapir. Without it, the world's tropical forests are likely to change dramatically – and irreversibly.



**Dale Morris** first became acquainted with tapirs while working in a zoo. "They were so strange; I couldn't help falling in love." He now lives with his wife Sasha in Costa Rica, beside a park full of tapirs.



Forest pools and streams may provide a cool sanctuary during the heat of the day.