AUGUST 1981 60p



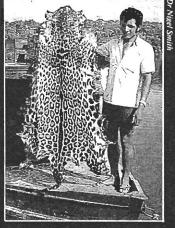
HUNTERS
OF THE
AMAZON
PLUS:
WOLVES
AND
WILDCATS

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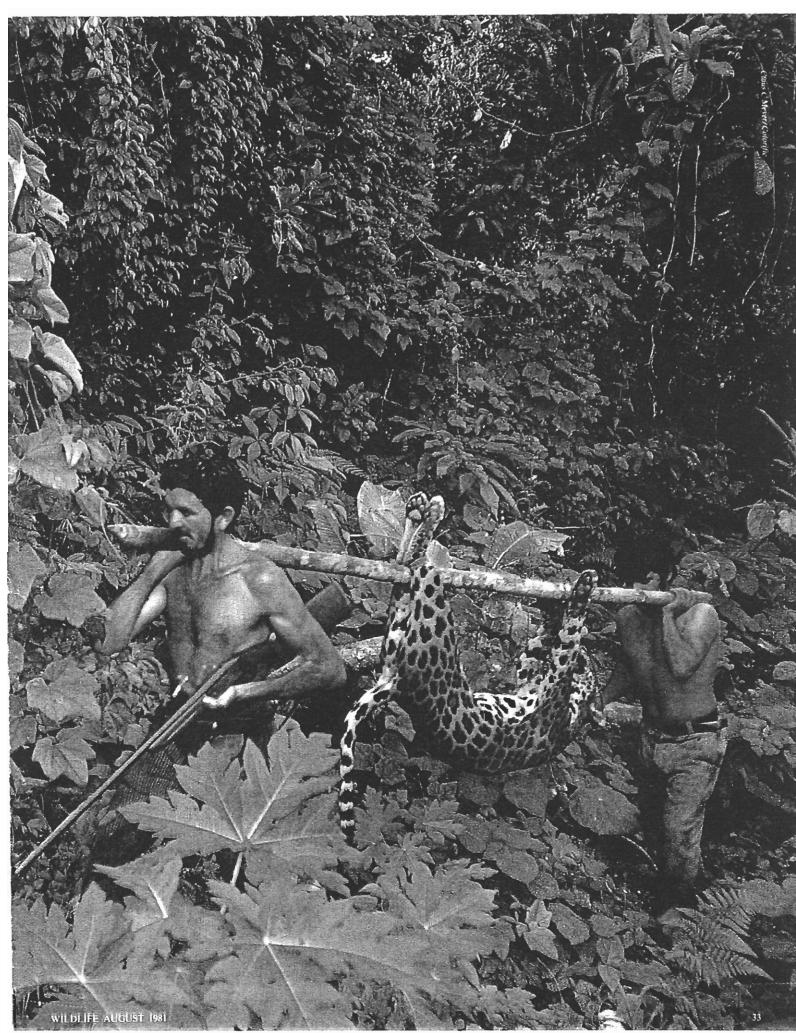




Do you eat meat? If so, do you regard hunting as a sport or as a despicable form of entertainment? *Dr Nigel Smith* looks at hunting through the eyes of Amazonian people who depend on the wildlife for their livelihood.

Top left: Hunter with paca. Top right: Indian returning from the hunt with blowpipe and dead macaw. Bottom left: Hunter with nine-banded armadillo. Bottom right: Jaguar skin. Full page: Returning from the hunt with a jaguar





One evening in Belem, Brazil, in 1970, I sat in a restaurant and stared blankly at the menu. Since my Portuguese at that time was virtually non-existent, I pointed to an item called cotia, and the waiter duly recorded my request. I felt a bit adventurous and wanted to steer away from steaks which I can cat anywhere in the world. My cotia dish, dark savoury meat in a rich sauce, was delicious. It was only sometime later I realized I had eaten agouti, a large, tail-less rat. It struck me then how cultural prejudice can block you off from a whole gamut of unusual foods, and I decided to look into the use of wild animals for food in the Amazon basin.

The Amazon jungle is the world's largest tropical rainforest. It blankets an area equivalent to half the continental United States, and teems with an astonishing variety of wildlife. This bewildering assortment of plants and animals, probably the most complex ecosystem on earth, is of great interest to scientists, as we search for new drugs and possible cures for cancer, as well as new animals to describe and domesticate for food. But for most of the people living in the Amazon river basin, the animals are avidly hunted for food. Peasants do not have the money or the means to shop in a supermarket; they must grow, capture or collect what they eat. Their perception of nature is quite different from that of a well, and often over-fed, conservationist or outdoors enthusiast who has the leisure time to make bird checklists. The Amazonian peasant is much more interested in putting food on the

I had the opportunity to study hunters while I was researching colonization along the pioneer Transamazon highway in Brazil. During my 18 months study I lived in three different government-built communities containing from 48 to 66 families strung along the highway.

I soon got to know the main hunters in each of the communities who were at first very wary of me, thinking I had come to check up on them. But by cracking jokes, and asking many questions about their hunting methods and successes, resistance broke down and I was lucky enough to be invited along.

### On the hunt

In order not to miss the hunters, I had to get out of my hammock by 5 am. Francisco, one of the best hunters I met along the Transamazon, often chided me for my early morning slothfulness since he usually rises at 4 am to clean his 20 gauge shotgun. Typically, we would gulp some thick, heavily-sugared black coffee, eat a few bananas and set out at about 5.30 am.

Francisco looks almost casual in his tattered short-sleeve shirt, patched trousers and rubber sandals. His hardened feet are accustomed to the numerous stinging ants of the jungle as well as thorns. Snake bites fortunately, are rare. I admire Francisco's con-



Brazilian tapir, Tapirus terrestris, in the rainforest of South America

fidence and lack of material possessions. He does not carry a compass, cooking implements, radio or food; a far cry from a well-mounted tourist safari in Kenya or a weekend deer hunt in California.

Francisco's three dogs bark for joy as we walk down the narrow path from the village to the forest edge. Parrots and macaws screech overhead as we slip into the dewdrenched cool interior of the forest. While I am soon lost, Francisco knows where he is going by paying attention to the angle of the sun. We wander around, looking for tracks, and watch the canopy for monkeys. Francisco does not welcome questions at this time; he is listening for the tell-tale snap of a twig or the distant call of a game animal. The dogs have fanned out and are sniffing out game. He periodically calls his dogs in a loud voice to keep track of them while they try and pick up a scent. Sometimes the dogs scare away an animal before we can catch up, but Francisco's disciplined dogs once chased a fully-grown 100 pound brocket deer to us and he shot it at almost point-blank range.

Dogs are rarely able to bring down an adult deer by themselves since it can defend itself effectively by striking out with its frout legs. The sharp, pointed hooves can seriously gash a dog, or man. Sometimes, a deer outruns the dogs, since it can leap over logs and has no large antiers to get tangled in the numerous vines of the Amazon jungle. After Francisco shot the deer, he rubbed the rank stomach contents into the fur of his dogs which immediately made them growl and roll and bulldoze the forest floor. 'It makes them hate deer and become keen trackers', Francisco explained to me. We returned to the village in the late afternoon, tired and hungry. The only food we had eaten in the last 10 hours was a snack of pulpy frutao, a sweet-smelling fruit the size of a football, from one of the forest giants.

White-lipped peccaries are the most dangerous of the Amazonian game animals. The pig-like creatures, which can weigh up to 70 lbs, roam the jungle in bands of up to 100 individuals in search of fallen fruits and mud hollows. When they come to a major river, no problem; they jump in and swim across, for up to 10 miles in water some 300 feet deep, creating a broad, V-shaped wake. I saw villagers, from Carvoeiro on the Rio Negro, club 28 peccaries to death as they swam across that dark river one afternoon. In the forest, hunters are often tipped off to the presence of white-lipped peccaries by the disturbed leaves and soil they leave behind. If a hunter suspects that peccaries are near, he strikes a match to check which way the wind is blowing. He then walks stealthily downwind. When male white-lipped peccaries elamp their jaws it sounds like two stones being clacked together, a sure sign that the quarry is close. Crouched behind a tree, the hunter fires into the mass of dark bodies and pandemonium breaks loose.

Piercing squeals, snapping twigs and the rustling of leaves announce the stampede. In the confusion, a cool-headed hunter can dispatch three or four peccaries, and if there are two hunters, up to eight may be killed. If the band swerves in the direction of the hunters, 'There is only one thing left to do', explained Francisco, 'Climb a tree, quickly'.

Sometimes the dogs chase the peccaries before the hunter arrives, but the band may turn to fight, especially if it runs up against a thick tangle of vines and shrubs. Dogs are occasionally killed by the slashing tusks of the older males. While the peccaries ward off the dogs from females and young, the hunter may be able to shoot several before the band is scared off. The carcasses are cut open to remove the stomachs and intestines, the feet

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Hunters with white-lipped peccaries, Transamazon

are tied together, and the body is lifted up and carried as a backpack on the way home. The dogs dispute the discarded innards.

# Tapir tracking

The smooth-skinned tapir, is the largest land animal native to the jungles of the Amazon basin, and can weigh up to 450 pounds. Hunters watch for tell-tale signs of the muchappreciated game animal, such as the deep tracks to be found along moist streambanks, or the occasional, unmistakably large faeces pile. I had learned that tapirs only defecate in the water, but a hunter showed

me a dung-pile, similar to that of a horse, on the forest floor one day. I realized that these uneducated peasant hunters often know more about wild animals in Amazonia than scientists do.

One hunter I joined sat still by a stream and called a tapir by imitating its shrill, high-pitched whistle by placing two fingers in either side of his mouth and blowing hard. I have also seen tapir toenails, with a hole bored through the top surface, used to call tapirs. A hunter may also shake his leg in a stream to imitate the sloshing sound of a tapir. The semi-aquatic creature is then shot

when it comes trotting into view. Tapirs have poor eyesight but a superb sense of hearing and smell, so long as you keep still, you have a good chance of dispatching one.

If a tapir is pursued by dogs, it bolts for water. If there is a nearby river, the tapir usually escapes since it is an excellent swimmer. In a stream, it can ably defend itself against dogs, often tearing open gaping wounds with its large front teeth. While the tapir is busy fending off the dogs, the hunter manocuvers for a close shot so that the lead penetrates the thick hide, designed to protect the creature from deadly jaguar claws and



irritating horse fly bites. Several shotgun shells may be necessary to bring the quarry down. If it is an adult specimen, the head, hide, stomach and intestines are removed and a companion is fetched to help remove the meat. In the meantime, the carcass is carefully covered with branches and leaves to discourage scavengers, especially white king vultures which have a very keen sense of smell.

Smaller game may also be taken on hunts, such as the five-pound rodent agouti, the nine-banded armadillo, even anteaters or sloths, particularly if the hunter has not



White-lipped peccary, Tayassu pecari

come across more desirable game such as tapir or peccary. Macaws, which sell for over a thousand dollars apiece in pet shops in the United States and Europe are shot for food by Amazonian peasants. Indians use brilliant red and blue macaw feathers for ornamental wear.

### Skins for cash

Since Brazil has outlawed the killing of wildlife for commercial purposes, there is little market for hides of peccary, tapir or deer. Most pelts are simply thrown onto the forest floor to rot. Peccary skins used to be exported in large numbers to the developed countries to make gloves, while deer hides were used extensively in the piano industry.

The illegal trade in spotted cat skins, however, is still profitable enough to attract hunters. A recent advertisement in a German fashion magazine shows a handsome hooded parka-jacket made from ocelot skins. It retails for \$1,700, and although a hunter receives only about \$75 for an ocelot pelt in prime condition, the lure is great. One ocelot hide can fetch the equivalent of a month's back-breaking labour as a cattle hand or a forest clearer.

Cat hunters prefer monkeys to bait traps, particularly woolly and spider monkeys. The monkeys are shot out of the canopy from below, then their carcasses are dragged across the jungle floor to leave a blood trail. If jaguar is the target, the monkey is tied to the base of a tree and the hunter waits at night on a nearby platform with flashlight and shotgun ready. Ocelots are caught in specially-constructed traps. When the forest cat tugs on the bait, a sliding wooden door, or in some models, the entire roof, comes crashing down and traps the prey in a rectangular box. The spitting and growling cat is then dispatched at close range with a pistol, or is strangled with a cord so that the pelt is not damaged.

As grim and sad as it is to see a magnificent wild cat destroyed for purposes other than food, the Amazonian hunter can hardly be blamed. He is poor, and makes money where he can. Forty-five year old Francisco explained 'The soils on my lot produce poor yields and I have a family of seven to feed'. The importing countries must stop the sale of wild cat skins, at least until we know how well the cats are doing in the wild.

At night

Night-time hunting methods are quite different from those used during the day. A settler scouts the jungle floor near his home for trees with falling fruit, such as gamileira a giant fig tree, or flowers such as those of the Brazil nut tree, that are much appreciated by game. He scans the ground for tracks and nibbled fruit and then returns before nightfall to erect a small platform, or to sling a hammock, ahout eight feet off the ground. He then clears away some of the brush in his line of fire and then either sits or lies patiently for the sun to set and for game to appear. I was instructed not to slap the whining mosquitoes or stinging ants, otherwise I might scare away nearby prey. Once a colony of ants decided to use our platform as a bridge. We had to evacuate our post immediately and set up again close by.

Without smoking or talking, we waited and listened. My companion, a colonist born in the North eastern state of Maranhao, paid special attention to the shuffle of leaves and the snapping of twigs. Bento has lived most of his life in Amazonia, working variously as a cat hunter, rubber tapper and Brazil nut gatherer and knows the forest ways intimately. He can usually tell what animal is below him even before he clicks on his flashlight. If it is a rat, he ignores it to avoid turning on the light too much, thus scaring away game in the vicinity. When he is sure that game is feeding, he switches on his flashlight held alongside the shotgun barrel and momentarily mesmerizes the animal, usually a brocket deer, tapir or the succulent spotted paca, an 18 pound tail-less rodent. On a good night, a hunter may bag a deer and two pacas. Bento shot two pacas that night in the space of three hours. When we came down from the platform to pick them up, they were swarming with red ants. Moonless nights in the dry season are best for the waiting method of hunting, since it is pitch dark inside the jungle and the ground is dry and therefore noisy. There is also less chance of being soaked in a tropical downpour.

Hunting by canoe

I joined a couple of hunters on a nocturnal hunt along a forested stream that flows into the Rio Negro to examine another night hunting method. We paddled up the clear water stream in the afternoon in a single canoe and shot a tinamou on the way. At nightfall, we roasted the tinamou, the size of a chicken, over an open fire and relished the tender white breast meat. After some coffee, we lay down on the soft carpet of leaves for a nap and to wait for the moon to go down. Around 11pm we cast off and slowly paddled downstream. From time to time, the hunter in the front of the canoe shone his flashlight along the banks, while his companion steered in the rear. I sat in the middle, Silence is again essential. Suddenly, the flashlight beam picked up the bold eyes of a paca. The companion in the rear had also spotted the

red glow and gently directed the canoe to the bank. At almost point-blank range, the hunter fired into the face of the mesmerized rodent. The still quivering body was pulled on board and the journey continued downstream. Large, bloated ticks began abandoning the cooling paca and we had to periodically pick them off as they crawled up our legs and clothes.

The hunter in the front of the canoc enticed one of the rodents out of its burrow by scraping the side of the wooden canoe with his fingernails. 'I'm imitating a paca feeding', he whispered. Sure enough, a 10 pound paca came running to the bank and became the eighth and final victim of the night's hunt. Our companion in the rear of the canoe was shivering. 'Are you cold?', I asked. 'No, I am having an attack of malaria', he replied. I admired his resistance and stamina while continuing to paddle. When I had malaria, I was flat on my back in a hospital for a week. It came home to me how far apart our worlds were. I had access to expensive medical care. My companion would never see a doctor; the nearest one lived 300 miles away in Manaus. A three day boat ride. 'I don't have the money to pay the travel expenses', he lamented.

Cat hunters employ several tricks to lure their prev within shooting range at night. While paddling quietly down a stream, one of the men groans into a hollow gourd to attract a jaguar. Another device used to attract the largest of the South American cats is a hollow bamboo section with a hide tied tightly across one end. A strong piece of hair, such as from a horse tail, is pulled through a small hole pierced through the skin and one end is tied into a knot. The other end extends through the tube and hangs loose. One of the hunters then wets his fingers and tugs on the hair. The strange grunting sound beckons jaguar. I don't know whether the sounds are supposed to imitate mating calls or are territorial challenges. But they work. Ocelots arc fooled using whistles made from the metal casings of flashlight batteries which are designed to imitate the frantic, piercing screams of an agouti, one of the ocelot's favourite meals.

# Supernatural gamewardens

Amazonian peasants, many of them descendants of Indians, believe in a host of fearful monsters, ghouls and forest ghosts. City dwellers, especially in the industrialized world, are often far removed from nature and feel relatively secure in their comfortable, air-conditioned homes with the familiar sounds of traffic, television or stereo. But the jungle inhabitant lives intimately with the forest on a daily basis and has acquired a great deal of respect for its awesome size and mystery.

One of the most feared supernatural creatures lurking the jungle is mapimguary. The hairy, ape-like beast has only one eye in the middle of its forehead, and no feet. Its

scream is so loud it can blast you over at close range. It secures its victim in a vice-like grip with one of its powerful arms and sucks the brains out of a hole it bites out of the top of the head. The limp body is then discarded. The mapinguary is particularly active on Sundays.

I was told the story of a young man who wanted to go hunting one Sunday. His family and friends in the village insisted that there really was no need to, since there was plenty of food at home. Besides, they argued, it was improper to hunt on the day of rest. Still, the young lad had made up his mind. He took up his gun and disappeared into the jungle. A short while later, villagers heard blood-curdling screams coming from the forest. Some well-armed adults hurried to investigate. They stumbled on the horrifying scene of the young man being dropped, brainless, from the clutches of a mapinguary. The creature ambled off, mumbling 'Sunday also eats'. The villagers were powerless to kill the beast since it can only be stopped if a bullet penetrates its eye.

Another terrifying supernatural forest creature is curupira, a small, dark, boy-like figure with his feet turned backwards. He likes to ride the back of the leading male peccary in a band. He is the keeper of jungle game and takes care of his animals. He helps heal stricken animals and punishes hunters who kill too many. For example, one hunter told me that he would never kill more than five peccaries in one day for fear of irritating curupira. This supernatural gamewarden beats up hunters' dogs as a warning. Transgressors are punished by being called deeper and deeper into the forest. The hunter thinks it is a friend calling him, but after tramping for hours he becomes lost. Curupira can also steal a person's shadow and turn him into a zombie. Shadow loss, derived from Indian mythology, is roughly equivalent to losing one's soul, and often leads to delirious fever and death.

Such beliefs may appear ludicrous to the educated, but they are important in helping to reduce excessive hunting. In a region where wildlife legislation is poorly understood, and enforcement is lax, legendary creatures help to preserve a renewable supply of meat. When progress and development arrive, many of the beliefs and traditions crumble and unrestricted destruction results. Formerly, there used to be little interest in cat hunting on a wide scale. But with the opening up of western markets and improved tanning techniques, the fear of forest spirits withers with the lure of quick money.

### The real dangers

The most serious threat to game populations in Amazonia is cattle raising. With government incentives, large companies have cut down thousands of square miles of jungle to plant pasture and raise beef. The loss of forest means the disappearance of virtually all the game animals. Peasants

rarely benefit from cattle operations since most of the beef is exported, and is too costly anyway. Furthermore, the ranches offer few jobs, but occupy extensive areas. Thus, many peasant families are forced to pull up and move into still remoter jungles in search of land to clear for their fields, and game to hunt.

None of the forest game animals appear to be in any immediate danger of extinction. There is still a lot of relatively undisturbed forest left in the three and a half million square mile Amazon basin. But pioneer highways are being bulldozed into the region, bringing a flood of land-hungry colonists in their wake. Mining companies are also carving up substantial slices of forest. World demand for timber is growing rapidly, and suppliers are increasingly looking at tropical forests to meet needs.

## Game farming

Game yields are modest in Amazonia. Although the rainforest teems with animal life, the population level of any one species is usually low, especially in mainmals, and is very unevenly distributed. During the course of one year, settlers in one of the Transamazon villages, with 204 inhabitants, killed around 7,000 pounds of game. Another village of 179 residents, 60 miles away along the same pioneer road, captured about 7,500 pounds of game during the same period. White-lipped peccarics, tapir and brocket deer accounted for 83 per cent of the total game take by weight. Although game is not very plentiful, compared with the savannas of Africa, it is nevertheless important nutritionally and psychologically. Game provides protein where fish are scarce in the interior forests, and a meal is considered incomplete unless there is meat.

In order to minimize loss of game species in the future, it is time to think about raising at least some of them on farms, perhaps in mixed agricultural schemes using trees with fruits. Brocket deer and tapir are particularly promising candidates for game farming in plantations. Paca and agouti could be raised in small enclosures and fed waste, even in urban areas.

Setting aside forests to preserve wildlife is being done in the Amazon, but it is not enough. Wildlife must also be integrated into the regional economy, so that the inhabitants benefit from the resource and have a vested interest in maintaining it. Finally, the tourist would also benefit since he could order tasty tapir steaks in restaurants or eat paca stew. Most Amazonian game animals are delicious but they no longer can be legally served in restaurants.

Dr Nigel Smith is a Senior Researcher for the Worldwatch Institute in Washington DC. He is a writer and a specialist in cultural ecology and the conservation of natural resources, particularly of South America.