Photograph by J. and S. Brownlie (Bruce Coleman Inc.)

The "most affectionate of all marsupials," wombats take to man in captivity, but are ferocious in the wild

80-POUND MOLE

BY EMILY AND OLA D'AULAIRE

"WHAT IS A WOMBAT?" we asked Peter Foster as he maneuvered through early-morning Sydney traffic.

His reply was cryptic: "It's sort of an 80-pound mole that digs tunnels large enough for people. It looks partly like a bear and partly like a beaver, a curious combination with the teeth of a rodent and a marsupial pouch. There's no other animal quite like it on earth."

We crossed the Sydney Harbor Bridge, into the suburbs. Peter, who is fauna management officer at the New South Wales Park and Wildlife Service, pulled the jeep to a halt in front of one of the small houses. "This is my place," he explained. He was back in a minute and before we knew what was happening, a strange-looking bundle of brown fur was thrust toward us.

After months of curiosity, we were at last face-to-face with an almost tail-less, barrel-shaped animal with a large head, wide, crusty nose, black button eyes, round ears and very prominent front teeth. "This," Peter announced, "is a wombat."

We took the wombat and stroked her coarse fur. She was just a youngster, less than a year old, and at 20 pounds, only a quarter of her mature weight. Settling back like a fat Buddha, she seemed surprisingly docile – yet tough. Under the fur, her broad lower back was as hard as a rock.

Peter set the wombat on the ground and walked toward the house. The creature followed, staying close to Peter's heels, making peculiar huffing and snorting sounds like a small steam engine.

"Wombats are the most affectionate of all marsupials," he said. "They seem to take naturally to man."

Wombats belong to that ancient order called marsupials. In Australia, isolated by expanses of oceans, marsupials occupy the ecological niches they have for millenia, and habitats that in other lands are occupied by placental mammals.

The characteristic feature of the marsupial is, of course, the female's pouch on the abdomen. The marsupial embryo has no life-sustaining placental connection – no navel cord – and must therefore be born soon after conception when, like a baby chick, it has exhausted the nutrients of the egg's yolk sac. Still lacking limbs, eyes and ears, and looking to all the world like nothing more than a worm, the marsupial embryo crawls from the mother's birth canal and makes for the pouch, a hazardous journey that, once completed, affords a dark, safe haven. Teats inside the pouch provide nourishment and the youngster remains there until developed enough to emerge.

Wombats, like koala bears, have long claws, but they are blunt since they are used for digging, not climbing. By scratching out dirt with its hands and pushing it backward with its feet, a wombat can bore straight through brick-hard earth at more than six feet per hour. The tunnels it creates, arched above to conform to the body, are often very large from repeated comings and goings. More than one bushwalker has sought shelter in these miniature caves during an unexpected rainfall.

The tunnels average 40 feet in length, with a record of almost three times that. One lad who liked to explore the animals' warrens crawled 100 feet before reaching the bark-lined, hollowed-out sleeping chamber that marked the end. Fortunately the occupant was not home. "When it comes to tunnels, wombats have a one-track mind," reported Peter. "Once they decide to go in or out, that's it. I'd hate to have one return while I was in there exploring."

It was hard to believe that the short, stubby legs we'd seen on Peter's wombat could take the animal very far very fast. But wombats are capable of brief bursts of speed of up to 30 miles per hour, crashing through the underbrush like small bulldozers. Peter told of chasing one on horseback. He soon overtook it, but by the time he had dismounted, the wily wombat had doubled back, made a fast 50-yard dash, and disappeared into its burrow.

The animals are nearsighted, however, and can be approached – quietly and from downwind. But holding onto one of these powerfully built, torpedo-shaped beasts is a problem. Many a naturalist has been unceremoniously dragged along on his belly before being forced to let go. And there are those teeth to consider. Amiable when tame, wombats in the wild have been known to take large chunks from would-be captors' legs.

From an evolutionary standpoint, the wombat's rodentlike teeth are perhaps its most extraordinary feature. It possesses long, chisel-like upper and lower incisors that are rootless and grow continuously to prevent their being worn away by chewing. The beaverlike dentition, which no other marsupial has, is not the result of any direct relationship with rodents, but an independent development due to selection by the environment through similar feeding habits. In both rodents and wombats, the common need to cope with grasses, barks and roots has produced similar teeth.

Largely because of these specialized teeth, wombats need to be classified in their own zoological family, the Vombatidae. This family is today represented

After six months in the pouch, the young wombat emerges, living under the watchful eye of its mother for two more years.

Illustrations by Andrea Sorensen

by only two genera: the naked-nosed wombat *(Vombatus)* and the hairy-nosed wombat *(Lasiorhinus)*. The wombat Peter introduced us to was of the naked-nosed variety, found mainly in the forested coastal region of New South Wales. As its name implies, it sports a broad, bald nose. The hairy-nosed member of the family is grayer in color, has longer, silkier fur, more pointed ears and, of course, a hairy nose. It inhabits the waterless inland regions of South Australia, including the Nullarbor Plain, a vast desolate stretch where the railroad tracks make not a single bend in 300 miles. The land is hard and rocky, often laced with a labyrinth of limestone caves.

Lasiorhinus subsists mainly on moisture licked from cave walls, on metabolic water from the food it eats, and nourishment from the brittle scrub grass above its burrow. "You wouldn't think any creature could live where the hairy-nosed lives," Peter marveled, "but this creature does."

Some weeks later, after saying goodbye to Peter and his naked-nosed wombat, and after several thousand miles of driving through the eerily empty Outback, we found ourselves in hairy-nosed country. The land was cracked and brown, the monotony broken only by occasional tufts of spinifex and bent, shrunken stands of corkwood and mulga – a hard, dark wood favored by the Aborigines for boomerangs.

Tell-tale piles. At Blanchetown, a few hours' drive from Adelaide, the ground was in turmoil; enormous piles of earth and rock pockmarked the countryside. They looked like the mounds of rubble thrown up by workers in Australia's opal-mining towns. But here there were no people. Then we understood; these were wombat warrens. We stared in amazement, now sharing Peter's astonishment that any animal could live in such desolate country.

We did know that, unlike its nocturnal cousin, the hairy-nosed wombat likes an occasional sunbath, so we parked the car, now so dusty it had its own natural camouflage, near one of the mounds and waited. Presently two bright eyes and a pair of velvety nostrils appeared at one of the tunnel openings. A low grayish body followed. The wombat stood near the entrance of its warren, peering around myopically and testing the air. Then, assured, it shuffled off, stopping to nibble at some stubbles of dry grass.

Beside a fallen log, a small indentation had been worn into the hard earth. Here the wombat settled, seemingly to enjoy the sun. We waited half an hour, but *Lasiorhinus* showed no inclination to move. When we started the car, however, those short squat legs got it back to its burrow and out of sight with surprising speed.

While the habits of the two wombats are largely the same, there are some differences. The naked-nosed wombat, for instance, is a solitary animal (except during the April-June breeding season). Its southern relative is a bit more social, living communally in underground colonies which remind one of oversized prairie dog towns.

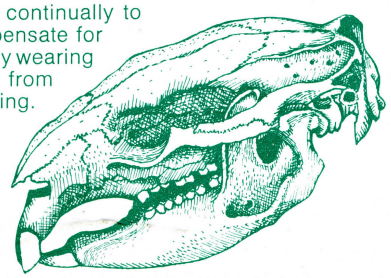
Peanut-size young. In both varieties, the female produces a single young each year. Born after a brief gestation period, the youngster, no larger than an unshelled peanut, travels to the circular pouch where it clamps onto one of two teats. Not for six months will it release its grip and leave the pouch (unless through an accident), and another two and one-half years will pass before it is fully mature. Wombats' longevity is a matter of conjecture, but one naturalist claims he knew one that lived to be 37.

In Adelaide we became better acquainted with hairy-nosed wombats at the home of Mr. and Mrs. John Conquest, naturalists who have raised orphaned or injured wombats for the past 17 years. "Hundreds of wombats are killed or wounded by automobiles each year," Mr. Conquest explained. "We care for the injured until they're well enough to be on their own again. If we find a dead female with a live young in her pouch, we raise the youngster to maturity, then release it."

Until recently, wombats were slaughtered at a wholesale rate by weekend hunters and by graziers who objected to the holes the animals dug under their rabbit fences. The hunting, combined with the shrinkage in range caused by clearing of bush, plus the fact that females produce but one young a year, has brought the hairy-nosed wombat to the brink of extinction. Today, the animal is stringently protected in South Australia and people like the Conquests are working hard to give it every chance for a comeback. But in the states of Queensland and Victoria, once prime wombat country, the animals are virtually gone. And in New South Wales, the naked-nosed wombat is still legally hunted, the only marsupial there not officially protected. "The human spirit is against them," Mr. Conquest protested. "There's no need to shoot them." Indeed, when swinging gates are installed under graziers' fences, wombats quickly learn to use them and the damaging digging stops. "Wombats are bright," emphasized Mr. Conquest. "Ernest, our big male, mastered the sliding door into the kitchen in two days. It took our terrier two weeks to do the same trick."

We looked at Ernest as he bumbled about outside the kitchen door like an overgrown, overstuffed hamster. Alongside him was Becky, one of the females. Mrs. Conquest insisted they remain outdoors. "Ernest likes to graze on the carpet," she explained. "And Becky is greatly distressed whenever I rearrange the furniture. She leads me, huffing and snorting, to the changed piece. Wombats probably don't like things moved because they must memorize every detail in their warrens."

We could see what she meant about the living room judging from the lawn. It was a disaster area. Piles of dirt and cavernous holes replaced most of the grass. "It was a choice between a nice backyard and helping the wombats," Mr. Conquest confessed. "We made the choice long ago. In fact, we're selling this house to move to another with a bigger yard where our recuperating wombats can have more space to dig."



A view of a wombat's skull reveals its rootless, rodentlike teeth which grow continually to compensate for steady wearing down from chewing.

The wombat's proclivity for digging and its intelligence make it a challenge both to wombat fanciers and to zoo keepers. At one animal park, a wombat learned to operate a locking swing gate. He would wait until a visitor opened it to pass through, then shuffle over in time to get it on the rebound before it banged shut on its catch. Intercepting the gate with his nose, he'd push into the kangaroo section. From there he was able to burrow under a fence and escape, to roam the neighbors' gardens. When the keepers began filling up his tunnels, they were interrupted by the wombat himself, rooting up the repairs. They finally decided to let him be. He always returned at feeding time anyway.

The amiable wombat may be one of the lesser known Australian marsupials, but none the less "original" for that. As Peter Foster first put it to us: "There's no other animal quite like it on earth." □